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FE Dkt. NO. 10-111-LNG

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September 7, 2010

Mr. John Anderson  
Office of Fuels Programs, Fossil Energy  
U.S. Department of Energy  
Docket Room 3F-056, FE-50  
Forrestal Building  
1000 Independence Avenue, S.W.  
Washington, D.C. 20585



**Re: In the Matter of Sabine Pass Liquefaction, LLC**  
**FE Docket No. 10-111LNG**  
**Application For Long-Term Authorization To Export**  
**Liquefied Natural Gas**

Dear Mr. Anderson:

Enclosed for filing on behalf of Sabine Pass Liquefaction, LLC ("Sabine Pass"), please find an original and fifteen (15) copies of Sabine Pass's application for long-term, multi-contract authorization to engage in exports of up to 16 million metric tons per annum ("mtpa") of liquefied natural gas ("LNG"), for a 20-year period, commencing the earlier of the date of first export or five years from the date of issuance of the authorization requested herein.<sup>1</sup>

This application is for the second part of the two-phased export authorization sought by Sabine Pass in conjunction with the development of the Sabine Pass Liquefaction Project.<sup>2</sup> Through this application, Sabine Pass seeks to export LNG to applicable countries not otherwise authorized pursuant to DOE/FE Order No. 2833.<sup>3</sup> Those countries are categorized, for purposes of this application, as countries that hold membership in the World Trade Organization ("WTO Countries") and those countries that do not hold membership in the WTO ("non-WTO Countries").

<sup>1</sup> A check in the amount of \$50.00 is enclosed as the filing fee stipulated by 10 C.F.R. § 590.207 (2010).

<sup>2</sup> Sabine Pass filed an application for the first part of the two-phased export authorization on August 11, 2010 in Docket No. 10-85-LNG. In that application, Sabine Pass sought long-term, multi-contract authorization to engage in exports of up to 16 mtpa of LNG to any nation that currently has, or develops, the capacity to import LNG and with which the United States currently has, or in the future enters into, a free trade agreement requiring the national treatment for trade in natural gas and LNG ("FTA Countries"). On September 7, 2010, FE granted Sabine Pass authorization to export domestically produced LNG to FTA Countries.

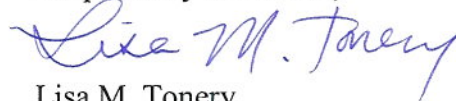
<sup>3</sup> *Sabine Pass Liquefaction, LLC*, FE Docket No. 10-85-LNG, Order No. 2833 (Sept. 7, 2010).

Sabine Pass respectfully requests that the Office of Fossil Energy ("FE") review its request for authorization to export LNG to WTO Countries under the same standard of review applicable to exports to FTA Countries found in the Energy Policy Act of 1992.<sup>4</sup> In this regard, Sabine Pass asks that FE grant its request for export authorization to WTO Countries without modification or delay, rather than awaiting completion of the more detailed public interest analysis required for the grant of export authorization to non-WTO Countries.

Sabine Pass specifically requests that FE issue (i) an order pursuant to the Energy Policy Act of 1992's standard by no later than September 22, 2010 for authorization to export LNG to WTO Countries; and (ii) an order pursuant to the NGA's Section 3 public interest standard on an expedited basis by no later than December 2010 for authorization to export LNG to non-WTO Countries.

Should you have any questions about the foregoing, please feel free to contact the undersigned at (212) 318-3009.

Respectfully submitted,



Lisa M. Tonery

Tania S. Perez

*Attorneys for*

*Sabine Pass Liquefaction, LLC*

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<sup>4</sup> Pub. L. No. 102-486, §201, 106 Stat. 2776, 2866 (1992) (codified as amended at 15 U.S.C. § 717b(c)). Pursuant to that Act, which amended Section 3 of the Natural Gas Act ("NGA"), applications to export LNG from or to nations with which the United States has an FTA are deemed to be in the public interest and must be granted without modification or delay.

UNITED STATES OF AMERICA  
DEPARTMENT OF ENERGY  
OFFICE OF FOSSIL ENERGY



In The Matter Of:

SABINE PASS LIQUEFACTION, LLC

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)  
) Docket No. 10 - \_\_\_\_ - LNG  
)

APPLICATION OF SABINE PASS LIQUEFACTION, LLC  
FOR LONG-TERM AUTHORIZATION  
TO EXPORT LIQUEFIED NATURAL GAS

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**UNITED STATES OF AMERICA  
DEPARTMENT OF ENERGY  
OFFICE OF FOSSIL ENERGY**

**In The Matter Of:**

**SABINE PASS LIQUEFACTION, LLC**

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**Docket No. 10 - \_\_\_\_ - LNG**

**APPLICATION OF SABINE PASS LIQUEFACTION, LLC  
FOR LONG-TERM AUTHORIZATION  
TO EXPORT LIQUEFIED NATURAL GAS**

Pursuant to Section 3 of the Natural Gas Act (“NGA”)<sup>1</sup> and Part 590 of the Department of Energy’s (“DOE”) regulations,<sup>2</sup> Sabine Pass Liquefaction, LLC (“Sabine Pass”) hereby requests that DOE, Office of Fossil Energy (“FE”), grant long-term, multi-contract authorization for Sabine Pass to engage in exports of up to 16 million metric tons per annum (“mtpa”) of liquefied natural gas (“LNG”)<sup>3</sup> for a 20-year period, commencing the earlier of the date of first export or five years from the date of issuance of the authorization requested herein. Sabine Pass is seeking authorization to export LNG from the Sabine Pass LNG Terminal<sup>4</sup> to any country with which the United States does not have a free trade agreement (“FTA”) requiring the national treatment for trade in natural gas and LNG that has, or in the future develops, the capacity to import LNG and with which trade is not prohibited by U.S. law or policy.

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<sup>1</sup> Natural Gas Act, 15 U.S.C. § 717b (2010).

<sup>2</sup> 10 C.F.R. Part 590 (2010).

<sup>3</sup> Sixteen mtpa of LNG is the equivalent of approximately 2.2 billion cubic feet per day (“Bcf/d”) on average over a one year period or approximately 2,310,000 decatherms per day of energy equivalent. Actual annual export will vary due to ambient temperatures, equipment availability and performance, as well as commercial drivers.

<sup>4</sup> The Sabine Pass LNG Terminal is an existing LNG import facility located in Cameron Parish, Louisiana that is owned by Sabine Pass’s affiliate, Sabine Pass LNG, L.P. (“Sabine Pass LNG”).

This Application is for the second part of the two-phased export authorization sought by Sabine Pass in conjunction with the development of the Sabine Pass Liquefaction Project.<sup>5</sup> Sabine Pass filed an application for the first part of the two-phased export authorization on August 11, 2010 in Docket No. 10-85-LNG. In that application, Sabine Pass sought long-term, multi-contract authorization to engage in exports of up to 16 mtpa of LNG to any nation that currently has, or develops, the capacity to import LNG and with which the United States currently has, or in the future enters into, an FTA requiring the national treatment for trade in natural gas and LNG (“FTA Countries”). On September 7, 2010, FE granted Sabine Pass authorization to export domestically produced LNG to FTA Countries. Through this Application, Sabine Pass seeks long-term, multi-contract approval to export LNG to applicable countries not otherwise authorized pursuant to DOE/FE Order No. 2833.<sup>6</sup> Those countries are categorized, for purposes of this Application, as countries that hold membership in the World Trade Organization (“WTO Countries”)<sup>7</sup> and those countries that do not hold membership in the WTO (“non-WTO Countries”).

Sabine Pass respectfully requests that FE review its request for authorization to export LNG to WTO Countries under the same standard of review applicable to exports to FTA Countries found in the Energy Policy Act of 1992.<sup>8</sup> Pursuant to that Act, which amended Section 3 of the NGA, applications to export LNG from or to nations with which the United

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<sup>5</sup> The Liquefaction Project is being developed to liquefy domestic supplies of natural gas delivered to the Sabine Pass LNG Terminal for export to foreign markets.

<sup>6</sup> *Sabine Pass Liquefaction, LLC*, FE Docket No. 10-85-LNG, Order No. 2833 (Sept. 7, 2010).

<sup>7</sup> As discussed further herein, the WTO is the only international organization dealing with the global rules of trade between nations. Its main function is to ensure that trade flows as smoothly, predictably, and freely as possible. At the center of the WTO is its multilateral trading system that functions by seeking consensus between member nations. The majority of the world’s trading nations, including the United States, are WTO Countries. A list of WTO Countries is included in Exhibit B.

<sup>8</sup> Pub. L. No. 102-486, §201, 106 Stat. 2776, 2866 (1992) (codified as amended at 15 U.S.C. § 717b(c)).



States has an FTA are deemed to be in the public interest and must be granted without modification or delay.<sup>9</sup> Current U.S. trade policy, as well as international obligations under the WTO, require that FE authorize the export of LNG to WTO Countries and prohibit FE from restricting exports through discretionary or non-automatic authorization requirements, such as the public interest standard of Section 3 of the NGA.

Sabine Pass also is seeking export authorization to all non-WTO Countries that have, or in the future develop, the capacity to import LNG and with which trade is not prohibited by U.S. law or policy. Under applicable law and precedent, this aspect of Sabine Pass's Application must be reviewed pursuant to the public interest standard of Section 3 of the NGA, which creates a statutory presumption in favor of approval of exports.<sup>10</sup>

Sabine Pass respectfully requests that the DOE/FE issue (i) an order pursuant to the Energy Policy Act of 1992's standard by no later than September 22, 2010 for authorization to export LNG to WTO Countries; and (ii) an order pursuant to the NGA's Section 3 public interest standard on an expedited basis by no later than December 2010 for authorization to export LNG to non-WTO Countries.

In support of its Application, Sabine Pass states as follows:

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<sup>9</sup> See *id.* See also *Sabine Pass Liquefaction, LLC*, FE Docket No. 10-85-LNG, Order No. 2833 (Sept. 7, 2010); *Phibro LLC*, FE Docket No. 10-60-NG, Order No. 2803, at 2 (June 16, 2010); *Applied LNG Technologies USA, L.L.C.*, FE Docket No. 10-03-LNG, Order No. 2747, at 2 (Jan. 29, 2010).

<sup>10</sup> See 15 U.S.C. §717b(a). In *Panhandle Producers and Royalty Owners Ass'n v. ERA*, 822 F.2d 1105, 1111 (D.C. Cir. 1987) [hereinafter *PPROA v. ERA*], the D.C. Circuit Court of Appeals found that Section 3 of the NGA "requires an affirmative showing of inconsistency with the public interest to deny an application" and that a "presumption favoring ... authorization ... is completely consistent with, if not mandated by, the statutory directive." See also *Indep. Petroleum Ass'n v. ERA*, 870 F.2d 168, 172 (5th Cir. 1989) (confirming that the burden of proof falls on the party challenging a Section 3 application as inconsistent with the public interest); *Panhandle and Royalty Owners Ass'n v. ERA*, 847 F.2d 1168, 1176 (5th Cir. 1988) (agreeing with the D.C. Circuit holding in *PPROA v. ERA*).



## **I. DESCRIPTION OF THE APPLICANT**

The exact legal name of Sabine Pass is Sabine Pass Liquefaction, LLC. Sabine Pass, which has its principal place of business in Houston, Texas, is an indirect subsidiary of Cheniere Energy, Inc. ("Cheniere Energy"). Cheniere Energy is a Delaware corporation with its primary place of business in Houston, Texas. Cheniere Energy is a developer of LNG terminals and natural gas pipelines on the Gulf Coast, including the Sabine Pass LNG Terminal. Sabine Pass is authorized to do business in the States of Texas and Louisiana.

## **II. COMMUNICATIONS AND CORRESPONDENCE**

All correspondence and communications concerning this Application, including all service of pleadings and notices, should be directed to the following persons:<sup>11</sup>

Patricia Outtrim  
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Pursuant to Section 590.103(b) of the DOE regulations,<sup>12</sup> Sabine Pass hereby certifies that the persons listed above and the undersigned are the duly authorized representatives of Sabine Pass.

## **III. EXECUTIVE SUMMARY**

Sabine Pass is herein seeking multi-contract, long-term authorization to export domestic natural gas supplies as LNG to those countries which both have, or in the future develop, the

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<sup>11</sup> Sabine Pass requests waiver of Section 590.202(a) of DOE's regulations, 10 C.F.R. § 590.202(a), to the extent necessary to include outside counsel on the official service list in this proceeding.

<sup>12</sup> 10 C.F.R. § 590.103(b).

capacity to import LNG and with which trade is not prohibited by U.S. law or policy. Those countries for which export authorization is requested herein fall into two categories: (i) WTO Countries (which must be reviewed pursuant to the standard articulated in the Energy Policy Act of 1992, *i.e.*, without modification or delay); and (ii) non-WTO Countries (which must be reviewed pursuant to the public interest standard articulated in Section 3 of the NGA).

It would be inconsistent with U.S. obligations under WTO Agreements<sup>13</sup> to restrict exports of natural gas or LNG to other WTO Countries except in certain narrow circumstances because the U.S. has undertaken commitments not to restrict such exports to other WTO Countries, whether directly or indirectly, through quantitative measures or other administrative measures. It would be a further violation of the most-favored-nation (“MFN”) obligations under WTO Agreements for the U.S. to grant applications for exports to countries with which the U.S. has FTAs while denying applications for exports to other WTO Countries with which the United States does not have separate FTAs. Like existing FTAs to which the United States is a party and that provide for the national treatment for trade in natural gas and LNG, the WTO Agreements provide all WTO Countries MFN status as well as national treatment of each others’ goods and services. The U.S. has committed in its schedule of commitments to afford MFN treatment to all WTO Countries with respect to imports and exports of all products not

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<sup>13</sup> The WTO oversees about 60 different agreements which have the status of international legal texts (collectively, “WTO Agreements”). Foremost is the Agreement Establishing the WTO (“WTO Agreement”), which serves as an umbrella agreement. Annexed to the WTO Agreement are the agreements on goods, services and intellectual property, dispute resolution, trade policy review mechanism and the plurilateral agreements. Of relevance to the export contemplated in this Application is Annex 1A to the WTO Agreement, which consists of the Multilateral Agreements on Trade in Goods, which includes the General Agreement on Tariffs and Trade (“GATT”). GATT follows a three part outline: (i) broad principles (such as trade liberalization and the permitted exceptions); (ii) extra agreements and annexes dealing with the special requirements of specific sectors or issues; and (iii) detailed and lengthy schedules of commitments made by individual countries allowing specific foreign products access to their markets (these take the form of binding commitments on tariffs for goods in general). See <http://www.wto.int/>. See also Exhibit B, Stewart and Stewart, *A Review of Int’l Trade-Related Legal Obligations and Policy Considerations Governing U.S. Export Licenses for Liquefied Natural Gas* (Aug. 23, 2010) [hereinafter *A Review of Int’l Trade-Related Legal Obligations*].

specifically exempted from such commitments, and LNG is not exempted.<sup>14</sup> Thus, it is a logical corollary that for purposes of evaluating the export of LNG to WTO Countries, those countries must be treated in the same manner as FTA Countries. For this reason, Sabine Pass asks that FE grant its request for export authorization to WTO Countries without modification or delay, rather than awaiting completion of the more detailed public interest analysis required for the grant of export authorization to non-WTO Countries.

Notwithstanding the foregoing, Sabine Pass submits that the export authorization sought herein (both for WTO Countries and non-WTO Countries) is not inconsistent with the public interest. U.S. international trade law and general U.S. trade policy strongly support exportation of domestic natural gas. Moreover, DOE has a longstanding policy that the public interest is best served by the principles of free trade and limited government involvement, which supports exportation consistent with market demands. The Sabine Pass Liquefaction Project will make the Sabine Pass LNG Terminal the first LNG facility in the world designed to be bi-directional (*i.e.*, can both liquefy for export, and import to regasify, simultaneously). In this regard, operation of the Sabine Pass LNG Terminal and Liquefaction Project will be strictly driven by market forces.

The current supply/demand balance of natural gas in the United States clearly evidences that Sabine Pass's request for authorization to export domestic natural gas production is in the public interest. Natural gas production in the United States has been steadily increasing in recent years while domestic demand since 2008 has experienced a significant decrease. In many instances, low market prices have resulted in producers laying down rigs, deferring completion of drilled wells, and shelving plans for future investment in natural gas producing basins.

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<sup>14</sup> See Marrakesh Protocol to the General Agreement on Tariffs and Trade 1994, Schedule XX - United States of America, Part I, Section II, 54 at HTS 2711.11.00 "Liquefied Natural Gas".



Market price volatility also has forced the periodic shut-in of actively producing wells in marginal gas-producing fields. It stands to reason that the ability to export domestic gas as LNG will greatly expand the market scope and access for domestic natural gas producers and, thus, serve to encourage domestic production at times when U.S. market prices might not otherwise do so. The flexibility offered to capacity holders in the Liquefaction Project will allow them to reduce their export nominations if market prices indicate that the natural gas is needed in the United States, and to fully reverse the capacity into import mode to supply gas during times of domestic need. Such reduced export quantities and/or import quantities would become available to supply domestic markets and thereby serve to moderate U.S. gas price volatility and keep prices to U.S. natural gas consumers at reasonable levels both during periods of weak domestic demand (*i.e.*, when the Terminal would operate in export mode) and during periods of high domestic demand (*i.e.*, when the Terminal would operate in import mode).

Furthermore, the current Administration's National Export Initiative ("NEI") demonstrates an international trade policy objective toward increasing exports and promoting U.S. products overseas to benefit the domestic economy.<sup>15</sup> The Sabine Pass Liquefaction Project has received significant support from the Louisiana federal and state delegations, as well as local government, because of its quantifiable benefits to both the U.S. and Louisiana economies.<sup>16</sup>

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<sup>15</sup> The NEI is designed to reduce barriers to trade and promote U.S. exports. The goal is to double U.S. exports over the next five years to create jobs and boost the economy. See Exec. Order No. 13,534, 75 Fed. Reg. 12,433 (Mar. 16, 2010), *available at* <http://www.whitehouse.gov/the-press-office/executive-order-national-export-initiative> ("A critical component of stimulating economic growth in the United States is ensuring that U.S. businesses can actively participate in international markets by increasing their exports of goods, services, and agricultural products. Improved export performance will, in turn, create good high-paying jobs.").

<sup>16</sup> U.S. Senators Mary Landrieu and David Vitter, as well as U.S. Representatives Rodney Alexander, Charles Boustany Jr., MD, Charlie Melancon, Steve Scalise, Bill Cassidy, MD, John Fleming, MD and Anh Cao have expressed their support for the Liquefaction Project citing both the NEI and the significant new employment and investment opportunities for the Northern Louisiana region to be provided by the Liquefaction Project. Similarly, Lieutenant Governor Scott Angelle, Louisiana State Senators Willie Mount and Dan Morrish, Louisiana State Representatives Mike Danahay, A.B. Franklin, Brett Geymann, John Guinn, Chuck Kleckley and Jonathan Perry have expressed support for the Liquefaction Project. At the local level, the Cameron Parish



Approximately 3,000 jobs will be created directly through the design, engineering and construction of the Liquefaction Project, which translates into approximately \$1 billion in wages to U.S. workers. Moreover, the national economy will benefit from the Project's role in supporting the exploration and production ("E&P") chain for natural gas extraction. This indirect stimulus will have far reaching economic impacts due to the wages, taxes and lease payments involved in the natural gas supply chain. This economic activity, in turn, will ripple through the U.S. economy, causing additional economic activity and benefits.

Finally, the Sabine Pass Liquefaction Project is uniquely positioned to advance the security interests of the U.S. and its allies through a more proactive role in the international natural gas market. The exportation of LNG not only will have a direct beneficial impact on the U.S. trade deficit, but also will enhance the diversity of global natural gas supply, reduce the reliance of the U.S. on international petroleum markets, promote economic development in emerging economies, deepen ties with longstanding allies, and advance on a global level the principles of liberalized markets.

More specifically, the Sabine Pass Liquefaction Project will have two beneficial impacts on the U.S. trade deficit. The direct value of the exported LNG product at current prices is estimated to be \$5 billion on an annual basis.<sup>17</sup> Furthermore, the expansion of U.S. natural gas productive capacity through LNG exports will spur additional production of hydrocarbon liquids such as ethane, propane and condensate derived from field lease separators and natural gas processing plants in association with natural gas field development. Export authorization will enable an estimated 46.7 million barrels per year, or 128,000 barrels per day ("b/d"), of

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Police Jury and the West Cameron Port Harbor & Terminal District support the Liquefaction Project as it will result in significant new employment and investment opportunities for the Cameron Parish community. *See* Exhibit C, Letters of Support.

<sup>17</sup> Calculation assumes average exports of 2 Bcf/d at gas price of approximately \$5.50, plus liquefaction costs.

additional natural gas liquids (“NGLs”) to be produced from liquids-rich gas formations in the Gulf Coast region.<sup>18</sup> These additional NGLs will be available either for export or to reduce current U.S. oil product imports, yielding an estimated \$1.7 billion improvement to the U.S. balance of trade.<sup>19</sup>

The export of approximately 16 mtpa of LNG in tandem with increased U.S. petroleum product production therefore will yield an estimated \$6.7 billion net improvement to the U.S. balance of trade. According to the United States Department of Commerce, Bureau of Economic Analysis, in 2009, the total U.S. trade deficit was \$380.7 billion, more than half of which was the direct result of a negative balance of trade in petroleum products.<sup>20</sup> Given the substantial impact the United States’s negative trade balance in petroleum products has on its overall trade deficit and balance of payments, approving Sabine Pass’s request to export LNG will have a significant positive impact on reducing that deficit. Moreover, LNG exports will directly support initiatives underway by the current Administration to advance investment in energy infrastructure in Caribbean and Central/South American nations in an effort to promote energy efficiency, renewable energy, cleaner fossil fuels, and modernized energy infrastructure.

In sum, the export of domestic natural gas supplies as LNG, as proposed herein by Sabine Pass, will result in tangible benefits for the State of Louisiana, the Gulf Coast region and the broader interest of the U.S., including but not limited to:

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<sup>18</sup> See Exhibit E, Advanced Resources International, Inc. (“ARI”), *Domestic Hydrocarbon Liquids Production from Gas Shales and Other Unconventional Gas Resources*, Aug. 27, 2010, at 6 [hereinafter *ARI Liquids Report*].

<sup>19</sup> This figure is based on estimates of feed gas composition of 1,092 Btu/Scf and 2.31 Gal/Mcf as representative of 2 Bcf/d of additional gas produced in Texas, Oklahoma and Louisiana. NGL composition is assumed to be equal to 1.67 Gal/Mcf, and condensate equal to 0.42 Gal/Mcf. Valuations are based on forward propane, ethane, butane and natural gasoline product pricing in January 2011 through December 2011 at Mt. Belvieu as of August 18, 2010.

<sup>20</sup> See Bureau of Economic Analysis (“BEA”), *2009 Trade Gap is \$380.7 Billion*, Feb. 10, 2010, [http://www.bea.gov/newsreleases/international/trade/2010/pdf/trad1209annual\\_fax.pdf](http://www.bea.gov/newsreleases/international/trade/2010/pdf/trad1209annual_fax.pdf).

- Stimulate the Louisiana state, regional and national economies through job creation, increased economic activity and tax revenues, including the direct creation or continuation of approximately 3,000 engineering and construction jobs during the design and construction of the Liquefaction Project and, indirectly, 30,000-50,000 permanent jobs in the E&P sector;
- Promote domestic production of petroleum and reduced reliance on foreign sources of oil;
- Further the President's NEI, by improving U.S. balance of payments through the exportation of approximately 2 Bcf/d of natural gas valued at approximately \$5 billion and the displacement of \$1.7 billion in NGL imports;
- Raise domestic natural gas productive capacity and promote stability in domestic natural gas pricing;
- Promote the liberalization of global natural gas trade through the fostering of a global, liquid, natural gas market;
- Advance national security and the security of U.S. allies through diversification of global natural gas supplies; and
- Increase economic trade and ties with foreign nations, including neighboring trade partners in the Americas, and displace environmentally damaging fuels in those countries.

#### IV. BACKGROUND

Through this Application, Sabine Pass seeks the second part of the two-phased export authorization sought in conjunction with the development of the Sabine Pass Liquefaction Project. Sabine Pass currently holds long-term, multi-contract authorization to export up to 16 mtpa of domestically produced LNG volumes to FTA Countries.<sup>21</sup> The term of the authorization granted in Order No. 2833 is for 30 years, commencing on the date of first export, with such first export to occur no later than ten years following issuance of such authorization.

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<sup>21</sup> See *supra* note 6. At the time that Order No. 2833 was issued, and as of the date of this Application, the countries with an existing FTA in place requiring the national treatment for trade in natural gas and LNG include: Australia, Bahrain, Costa Rica, Dominican Republic, El Salvador, Guatemala, Honduras, Nicaragua, Chile, Morocco, Canada, Mexico, Oman, Peru, Singapore, Israel and Jordan.



As indicated above, the Liquefaction Project is being developed to liquefy domestic supplies of natural gas for export to foreign markets. The Liquefaction Project will be located at the existing Sabine Pass LNG Terminal in Cameron Parish, Louisiana, which is owned by Sabine Pass LNG. The Federal Energy Regulatory Commission (“FERC”) authorized Sabine Pass LNG to site, construct and operate the Sabine Pass LNG Terminal as an LNG import, storage and vaporization terminal with total send-out capacity of 4 Bcf/d in Docket Nos. CP04-47-000 and CP05-396-000.<sup>22</sup> Phase I of the Sabine Pass LNG Terminal, consisting of 2.6 Bcf/d of send-out capacity, was placed in commercial operation in 2008. Phase II, consisting of an additional 1.4 Bcf/d of capacity, was placed in commercial operation in 2009. In addition, FERC authorized Sabine Pass LNG to operate the Sabine Pass LNG Terminal for the additional purpose of exporting foreign-sourced LNG in Docket Nos. CP04-47-001 and CP05-396-001.<sup>23</sup>

The Sabine Pass LNG Terminal, via its direct pipeline interconnections, including an interconnect with the Creole Trail Pipeline system, is able to deliver natural gas to ten interstate pipelines and one intrastate pipeline system.<sup>24</sup> The Creole Trail Pipeline system is owned by Sabine Pass’s affiliate, Cheniere Creole Trail Pipeline, L.P. (“Creole Trail Pipeline”). Creole Trail Pipeline was issued a certificate of public convenience and necessity by FERC for the Creole Trail Pipeline system on June 15, 2006 in Docket No. CP05-357-000, as amended.<sup>25</sup> As

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<sup>22</sup> See *Sabine Pass LNG, L.P., Order Granting Authority Under Section 3 of the Natural Gas Act and Issuing Certificates*, 109 FERC ¶ 61,324 (2004) (Phase I); and *Sabine Pass LNG, L.P., Order Granting Authority Under Section 3 of the Natural Gas Act*, 115 FERC ¶ 61,330 (2006) (Phase II).

<sup>23</sup> See *Sabine Pass LNG, L.P., Order Amending Section 3 Authorizations*, 127 FERC ¶ 61,200 (2009).

<sup>24</sup> Downstream interstate pipeline systems connected to the Sabine Pass LNG Terminal include the following: Florida Gas Transmission Company, LLC (“Florida Gas”), Tennessee Gas Pipeline Company (“Tennessee Gas”), Trunkline Gas Company (“Trunkline”), Texas Gas Transmission, LLC (“Texas Gas”), Texas Eastern Transmission, LP (“Texas Eastern”), ANR Pipeline Company (“ANR”), Natural Gas Pipeline Company of America (“Natural”), Columbia Gulf Transmission Company (“Columbia Gulf”), Sabine Pipe Line, LLC and Transcontinental Gas Pipe Line Company, LLC (“Transco”). Intrastate pipeline systems connected to the Sabine Pass LNG Terminal include Bridgeline Holdings, LP.

<sup>25</sup> *Creole Trail LNG, L.P. and Cheniere Creole Trail Pipeline, L.P.*, 115 FERC ¶ 61,331 (2006).



constructed, the Creole Trail Pipeline system consists of approximately 94 miles of 42-inch-diameter pipeline. It currently terminates in Gillis, Louisiana.<sup>26</sup>

Sabine Pass and Sabine Pass LNG currently are undergoing the FERC's mandatory National Environmental Policy Act ("NEPA")<sup>27</sup> pre-filing review process for the Sabine Pass Liquefaction Project in Docket No. PF10-24-000.<sup>28</sup> Sabine Pass and Sabine Pass LNG anticipate filing a formal application pursuant to Section 3 of the NGA no later than February 2011 and will respectfully request that FERC issue an Order authorizing the siting, construction and operation of the Liquefaction Project no later than December 2011. Sabine Pass and Sabine Pass LNG anticipate filing with FERC a request for authorization to commence construction of the Liquefaction Project by January 2012, for an in-service date in 2015.

#### **V. AUTHORIZATION REQUESTED**

Sabine Pass requests long-term, multi-contract authorization to export up to 16 mtpa of domestically produced LNG from the Sabine Pass LNG Terminal to any country with which the United States does not have an FTA requiring the national treatment for trade in natural gas and LNG that has, or in the future develops, the capacity to import LNG and with which trade is not prohibited by U.S. law or policy.<sup>29</sup> Sabine Pass requests this authorization for a 20-year term commencing the earlier of the date of first export or five years from the date of issuance of the authorization requested herein.

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<sup>26</sup> The remaining portions of the Creole Trail Pipeline system (Segments 3B and 3C), which will extend to Eunice, Louisiana, and the proposed Creole Trail LNG Terminal facilities (authorized by FERC in Docket No. CP05-360-000) have not yet been constructed.

<sup>27</sup> 42 U.S.C. § 4321 (1970).

<sup>28</sup> FERC initiated the NEPA pre-filing review process on August 4, 2010.

<sup>29</sup> In any given year, Sabine Pass expects to export a maximum of 16 mtpa (or the equivalent of 2.2 Bcf/d over a year) of domestically produced LNG from the Sabine Pass LNG Terminal. Such export may be to FTA Countries pursuant to the authorization granted in Order No. 2833 or to WTO/non-WTO Countries with which trade is not prohibited by U.S. law or policy pursuant to the authorization sought herein. In this regard, 16 mtpa is the cumulative volume that will be exported from the Sabine Pass LNG Terminal annually.

Those countries for which export authorization is requested herein fall into two categories: (i) WTO Countries (which must be reviewed pursuant to the standard articulated in the Energy Policy Act of 1992, *i.e.*, without modification or delay); and (ii) non-WTO Countries (which must be reviewed pursuant to the public interest standard articulated in Section 3 of the NGA). Sabine Pass respectfully asks that FE grant its request for export authorization to WTO Countries without modification or delay, rather than awaiting completion of the more detailed public interest analysis required for the grant of export authorization to non-WTO Countries.

Sabine Pass requests authorization to export LNG acting on its own behalf or as agent for others. In this regard, Sabine Pass envisions that in most instances, when engaging in liquefaction and export transactions, it will take title to the gas at a point upstream of the Sabine Pass LNG Terminal.<sup>30</sup> Once the gas has been processed, title to the gas will be transferred back to the customer at the outlet of the Liquefaction Project at the flange of the LNG vessel as the LNG is loaded for export. In certain other instances, a customer may prefer to retain title to its gas as the gas is processed and exported, and make other arrangements to satisfy its fuel gas requirements. In this instance, since Sabine Pass will not hold title to the gas at the time of export, it will act as agent for the owner of the gas in the export transaction.

Sabine Pass does not contemplate entering into any long-term gas supply or long-term export contracts in conjunction with the LNG export authorization requested herein. Rather, Sabine Pass will enter into LNG Processing Service agreements, as discussed in Section VIII below. These LNG Processing Service agreements will grant to each customer, on a monthly

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<sup>30</sup> Title will pass to Sabine Pass to help facilitate satisfaction of customer fuel gas requirements for processing operations and to provide Sabine Pass the commercial flexibility to buy and sell gas to accommodate production variances under processing agreements during the month. Moreover, to the extent Sabine Pass must obtain gas supplies in the market for a customer's account, under the FERC's "shipper must have title" policy, the entity that holds title to the gas also must be the capacity holder on the interstate pipeline at the time the gas is transported. Accordingly, to facilitate delivery of such gas supplies to the Project, Sabine Pass will hold title to the gas and will enter into transportation arrangements as required.

basis, the right to make nominations to (i) liquefy and load cargoes for export; (ii) nominate the delivery of cargoes to Sabine Pass for import and regasification, or (iii) elect not to load any cargoes. The LNG Processing Service agreements essentially will serve a similar function to that traditionally served by long-term supply agreements in demonstrating the security of the supply underlying a request for long-term export authorization. Accordingly, Sabine Pass will file these agreements in lieu of traditional supply contracts following execution of such agreements.<sup>31</sup>

In this regard, Sabine Pass is seeking waiver of certain elements of Section 590.202(b) of the DOE regulations to the extent these regulations require information concerning the source and security of the natural gas supply to be exported and other transaction-specific information. As discussed in Section VII herein, the market for natural gas supplies in the United States is vast and liquid. It has evolved to a point where buyers and sellers no longer enter into the types of long-term gas purchase and sales arrangements that were common at the time the DOE regulations requiring the filing of transaction-specific information were promulgated. Accordingly, granting waiver of the requirement to identify the source and security of the particular gas supply underlying these transactions is appropriate in light of current market circumstances and practices.

Finally, Sabine Pass requests that, pursuant to Section 590.402 of the DOE regulations,<sup>32</sup> the Assistant Secretary issue a conditional order authorizing the export of domestically produced LNG as requested herein, conditioned on completion of the environmental review of the

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<sup>31</sup> See, e.g., *Yukon Pac. Corp.*, ERA Docket No. 87-68-LNG, Order No. 350 (Nov. 16, 1989); *Distrigas Corp.*, FE Docket No. 95-100-LNG, Order No. 1115, at 3 (Nov. 7, 1995) (allowing contracts to be subsequently filed following grant of DOE export authorization).

<sup>32</sup> 10 C.F.R. § 590.402.



Liquefaction Project by FERC.<sup>33</sup> DOE routinely issues conditional orders subject to satisfactory environmental review in similar circumstances.<sup>34</sup>

## **VI. DESCRIPTION OF LIQUEFACTION PROJECT**

The Liquefaction Project, to be located at the existing Sabine Pass LNG Terminal in Cameron Parish, Louisiana, is being developed to liquefy domestic supplies of natural gas for export to foreign markets. The Liquefaction Project will include four ConocoPhillips Optimized Cascade<sup>SM</sup> LNG Trains, each with a nominal liquefaction capacity of approximately 4.00 mtpa. The Liquefaction Project will be developed in two stages, with two LNG Trains constructed in each stage. Natural gas will be liquefied and stored in the LNG storage tanks at the Sabine Pass LNG Terminal.<sup>35</sup> LNG will be exported from the Sabine Pass LNG Terminal via LNG carriers that will arrive at the site by marine transit through the Sabine Pass Channel. This enhanced facility will be operated as a bi-directional terminal and will have the capability both to liquefy for export, and to import and regasify, simultaneously. This dual capability will not result in an increase in the number of ship transits presently authorized for the Sabine Pass LNG Terminal,<sup>36</sup> since the total amount of LNG processed either by liquefying natural gas or vaporizing LNG will not exceed an average of 4.0 Bcf/d.

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<sup>33</sup> In promulgating its regulations setting forth the administrative procedures for the import and export of natural gas, DOE indicated that issuance of a conditional decision is appropriate when the application at issue involves, for example, the importation of LNG into new terminal facilities. In such a case, DOE reviews the application to determine if the proposed importation is in the public interest based on the considerations within DOE's jurisdiction, while, concurrently, FERC must review other aspects of the proposed importation such as siting, construction and operation of the LNG receiving terminal facilities. *See Import and Export of Natural Gas*, 46 Fed. Reg. 44,696, at 44,700 (Sept. 4, 1981).

<sup>34</sup> *See, e.g., Rochester Gas and Electric Corp.*, FE Docket No. 90-05-NG, Order No. 503 (May 16, 1991).

<sup>35</sup> Additionally, in conjunction with the Liquefaction Project, a sixth LNG storage tank, which already has been authorized by FERC, will be constructed to handle the additional storage requirements that could arise. The new LNG storage tank, as previously authorized, is a single containment, top entry tank with a nominal working volume of approximately 160,000 m<sup>3</sup>.

<sup>36</sup> The Sabine Pass LNG Terminal is capable of unloading approximately 400 ships per year, or an average of just over one ship every day.



## VII. EXPORT SOURCES

The gas supply underlying the exports contemplated in this Application will come from the interstate grid at different liquidity points. The pipeline infrastructure connected to the Sabine Pass LNG Terminal allows Sabine Pass and its customers to purchase gas for export from any point on the U.S. interstate pipeline system; however, the historically prolific Gulf Coast Texas and Louisiana onshore gas fields, the gas fields in the Permian, Anadarko, and Hugoton basins, and the emerging unconventional gas fields in the Barnett, Haynesville, Eagle Ford, Fayetteville, Woodford, and Bossier basins represent the most likely sources of physical supply. This supply can be sourced in large volumes in the spot market, or pursuant to long-term arrangements, for the account of Sabine Pass or third-party customers. Given the large size of the reserves in these fields and, in particular, the well documented increase in production associated with the emerging unconventional resources, the proposed exports are not anticipated to have any meaningful impact on the availability or pricing of domestic natural gas.

With the deregulation of the natural gas industry, which culminated with FERC's landmark Order 636,<sup>37</sup> the market for buying and selling natural gas in the United States has matured to the point that most large purchasers and sellers no longer enter into long-term supply agreements. Instead, they rely on the liquidity of the market to ensure supply at the market price. Also, market participants have focused their capital on contracting for transportation capacity on a long-term basis, reasoning that gas will always be available to them provided that their capacity terminates at a point of sufficient liquidity. In the case of purchasers (such as gas utilities, power

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<sup>37</sup> *Pipeline Service Obligations and Revisions to Regulations Governing Self-Implementing Transportation and Regulation of Natural Gas Pipelines After Partial Wellhead Decontrol*, Order No. 636, FERC Stats. & Regs. ¶ 30,939, *order on reh'g*, Order No. 636-A, FERC Stats. & Regs. ¶ 30,950, *order on reh'g*, Order No. 636-B, 61 FERC ¶ 61,272 (1992), *order on reh'g*, 62 FERC ¶ 61,007 (1993), *aff'd in part and remanded in part sub nom., United Distribution Cos. v. FERC*, 88 F.3d 1105 (D.C. Cir. 1996), *order on remand*, Order No. 636-C, 78 FERC ¶ 61,186 (1997).

generators and industrial consumers), this means purchasing transportation capacity from supply basins or major liquidity points to points of consumption. In the case of producers, this means purchasing transportation from the point of production to a point of sufficient demand. The former model was the rule for many years following deregulation, and is exemplified by the Transco system, in which the bulk of the capacity is held by northeastern utilities that own firm transportation rights on the Gulf Coast and supply is delivered into the feeder systems in Texas and Louisiana. Recently, however, producers have begun to purchase transportation capacity to ensure sufficient markets for their production. The Rockies Express Pipeline, LLC, in which major Rockies basin producers purchased long-haul firm pipeline capacity in order to reach liquid markets in the eastern and midwestern U.S., exemplifies this type of transportation transaction.

In and around the western half of Louisiana, a significant amount of new natural gas production is being routed to markets via both old and new pipeline capacity. Historically, gas produced in Texas has flowed across the Texas-Louisiana border in the major interstate pipeline systems of Transco, Texas Eastern, Florida Gas, Natural, Trunkline, Gulf South Pipeline Company, LP, Tennessee Gas, ANR, Texas Gas, Columbia Gulf, Southern Natural Gas Company, and several other interstate pipelines originating in Louisiana. These interstate systems receive gas directly at the wellhead, from processing plants, or from intrastate pipelines and gathering systems for delivery out of state. In addition, a multitude of new pipelines and gathering systems in this region have been developed in response to new production in the Barnett and Haynesville shale plays, the Cotton Valley and Bossier Sand tight gas plays, and other production areas. This abundance of new capacity is greatly facilitated by the existing pipeline regulatory framework which ensures open, transparent access for all users.

This well developed and extensive fabric of pipelines has created the world's largest, most liquid complex of natural gas market centers in the world, exemplified primarily by the Henry Hub. Platt's Gas Daily, a key reporter of information for daily gas prices in the United States, lists prices for 19 separate market centers in Louisiana and another 14 in Texas, which on a combined basis roughly equal the number of market centers for which Platt's reports prices across the rest of the United States. This physical liquidity is enhanced by fifty-five basis swaps that are cleared on the New York Mercantile Exchange ("NYMEX") for physical transactions across the U.S. and Canada.<sup>38</sup>

Transactional liquidity for daily, monthly, balance of month, and seasonal delivery periods is now at a level that ensures the quantity of gas demanded at virtually every point throughout the U.S., but particularly in Texas and Louisiana, will be met directly by supply being transported within a pipe, or moved to that pipe from another pipe, at a market clearing price. When demand rises, generally due to extraordinary weather conditions, prices rise in response to attract additional supplies from other pipelines, from storage, or from users that turn back gas into the market. Over time, this price-response mechanism ensures that supply and demand clear at a price sufficient to attract investment in the exploration segment, if demand is greater than supply. Alternatively, if drilling has created excess supply, prices fall to retard new supplies from reaching the market. In this manner, the market ensures that there is sufficient supply to meet demand.

In sum, the natural gas to be exported will be purchased in a market that has sufficient liquidity to accommodate a wide range of sales arrangements beyond long-term physical sales. It is impossible to envision all of the potential sales arrangements and transactions that customers

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<sup>38</sup> NYMEX also clears more than 100 other natural gas financial products, in addition to basis swaps.



may enter into. The supply/demand equilibrium and competitive nature of the U.S. gas market will serve to ensure that domestic demand will not be subordinate to exports of gas.

### **VIII. COMMERCIAL/CONTRACT TERMS**

Sabine Pass currently is engaged in commercial discussions with forty-five end user counterparties and five producer counterparties. Sabine Pass has entered into confidentiality agreements with thirty of these parties, and is in the process of negotiating memoranda of understanding (“MOUs”) for the purchase of capacity in the Liquefaction Project. The MOUs are non-binding, but serve as an agreed framework between the parties to help guide the negotiation of definitive commercial agreements. Sabine Pass anticipates entering into definitive commercial agreements with various counterparties for each stage of the Project,<sup>39</sup> with a minimum contract quantity equivalent to approximately one cargo loading per month.

The service that is being offered by Sabine Pass is an “LNG Processing Service”. The LNG Processing Service will be different from those services offered by conventional LNG projects in that Sabine Pass will earn its return from the processing fee, not from the difference between the price of LNG sold and the cost of gas purchased (or produced, as is the case in many countries). Therefore, the decision by any customer to liquefy gas will be driven by market economics. Sabine Pass will grant to each customer the right to make monthly nominations to load its contract quantity of cargoes; elect not to load any cargoes; or nominate the delivery of cargoes to Sabine Pass for regasification. Therefore, the service is bi-directional – both exports and imports of natural gas are contemplated under the relevant agreements.

In addition, Sabine Pass will provide its customers with the right to source their own feed gas for the facility. In the case that a customer nominates LNG exports, Sabine Pass will notify

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<sup>39</sup> The first stage will result in the construction of the first two liquefaction trains (“Stage 1”), while the second stage would result in the construction of the second two trains (“Stage 2”).

the customer of the amount of feed and fuel gas that will be required to be delivered to Sabine Pass, in order to provide the service. Alternatively, if the customer has nominated LNG cargo imports, Sabine Pass will notify the customer of the quantity of gas it will be required to receive from Sabine Pass during the course of the month. Gas delivery and receipt schedules will be based upon the profile of cargo loadings or unloadings during the month, and the amount of storage available between cargo operations.

Feed gas and fuel gas that is procured in the domestic market by the Liquefaction Project's customers will be delivered to Sabine Pass. Sabine Pass will process the feed gas quantity into LNG, and then deliver that LNG to each customer in exchange for the feed gas that is delivered. Sabine Pass also will provide an option to its customers to nominate a third party to procure domestic gas on their behalf for delivery to Sabine Pass, or to request that Sabine Pass source domestic gas on their behalf. In the first instance, when gas is sourced by a third party, title to the domestic gas will be transferred to Sabine Pass upon delivery at the Sabine Pass LNG Terminal. Title to the LNG then will be transferred to the customer upon loading for the export. In the second instance, when gas is sourced by Sabine Pass, Sabine Pass will hold title to the gas and then title will be transferred to the customer upon loading for the export.

Because the U.S. natural gas market principally operates on terms of either daily or monthly delivery schedules, and the greatest liquidity for financial hedges is found in the monthly market, it is important to receive natural gas from all customers on a consistent, ratable basis during the course of an entire calendar month in order to simplify hedging of natural gas purchases with NYMEX contracts against sales obligations in foreign countries. Therefore, the LNG Processing Service offered by Sabine Pass is being designed in such a way that all customers will deliver the aggregate export quantity (plus fuel) on a consistent basis through the

course of a calendar month, even though each individual customer will load cargoes of LNG on a discrete calendar date during that month. If the Liquefaction Project's customers elect not to liquefy domestic gas, but to import cargoes of LNG instead, the process will work in reverse. Sabine Pass will receive cargoes of LNG, store and subsequently vaporize and redeliver the regasified natural gas to them in downstream interstate pipelines.

Once Sabine Pass has completed the aggregation of customer interests and specific counterparty requests for the Liquefaction Project, Sabine Pass will begin the process of negotiating definitive agreements with each of the counterparties that entered into an MOU, or a subset if Sabine Pass aggregates too much demand during the MOU stage for the first stage of construction. The structure of the definitive agreements will be in two parts. Sabine Pass envisions a set of general terms and conditions applicable to all customers, and a separate service agreement specifically applicable to each customer. In addition, operations and marine manuals will be written in cooperation with the customers to set forth procedures for monthly volumetric nominations and annual planning, as well as to describe marine operations.

Sabine Pass currently is working with customers that would provide their own shipping to load cargoes of LNG produced at the Sabine Pass LNG Terminal. Sabine Pass has offered to deliver LNG to its customers on a free on-board ("FOB") basis,<sup>40</sup> without destination restrictions provided that the ultimate destination must be within the scope of export authorization granted by DOE. Therefore, no cargo of LNG will have a set destination until the capacity holder determines where the cargo will be delivered. Sabine Pass does not anticipate that it will enter

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<sup>40</sup> In FOB transactions, title, risk of loss, and responsibility for transportation pass to the buyer at the loading point of the seller's facilities (in this case, at the outlet of the Liquefaction Project at the flange of the LNG vessel as the LNG is loaded for export).



into shipping arrangements in order to sell LNG to purchasers in foreign countries on a delivery ex-ship (“DES”) basis;<sup>41</sup> however, Sabine Pass anticipates that its customers may do so.

The commercial model being developed for the Liquefaction Project is unusual for the LNG industry. In a conventional project, the LNG production facility is but one element of an integrated value chain which runs from the upstream supply field to the end-destination market. The conventional LNG chain typically relies on dedicated supplies and end markets, and does not contemplate diversion of cargoes except under extreme circumstances. This model has been altered slightly in some projects, depending upon the needs and circumstances of stakeholders in a respective project’s value chain, but only in the recent past have LNG production facilities without destination restrictions (*i.e.*, FOB) been developed.<sup>42</sup>

What is unique about the Liquefaction Project is that its natural gas supply exists in an independent economy. Unlike many LNG-producing countries, the value of natural gas in the United States is a function of the many supply and demand variables that make up the market price on any given day. In contrast to a conventional liquefaction project, in which otherwise stranded gas is monetized through LNG contracts, the value of natural gas in the United States is altered very little by the existence of the Liquefaction Project. The capacity holders will purchase natural gas at the U.S. market price for delivery to Sabine Pass for liquefaction and later export. If the marginal cost of purchasing U.S. natural gas, liquefying it, and transporting the resulting LNG to a destination market is higher than another competing source of supply, the capacity holder may forego its nomination rights for that month. Furthermore, if the value of

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<sup>41</sup> In DES transactions, the seller does not pass title or risk of loss until delivered at the buyer’s facilities. Additionally, sellers in DES transactions typically exercise a significant degree of control over annual take quantities (*i.e.*, buyers must take, without significant flexibility) and restrict buyer’s rights to divert cargoes to other markets, due to logistics constraints of the seller’s transportation fleet and also due to the fact that the cost of shipping is being borne by the seller and recovered through the sale of the delivered product.

<sup>42</sup> For example, the Segas LNG facility in Damietta, Egypt; the IDKU LNG Port in Egypt; and the EG LNG project in Bioko Island, Republic of Equatorial Guinea.

delivering LNG to the U.S. is greater than the U.S. natural gas market price, capacity holders may elect instead to purchase cargoes abroad for delivery, regasification, and later sale in the U.S. gas market. As a result, natural gas delivered to, or received from, the Sabine Pass LNG Terminal into the downstream market should always be competitively priced relative to the broader market.

The combination of the very large, liquid U.S. natural gas market and the commercial flexibility being offered to capacity holders makes the Sabine Pass facilities more like a bi-directional pipeline (from a commercial perspective) than a liquefaction project. This bi-directional pipeline links the U.S. natural gas supply basins to any point in the world that is in need of natural gas, and is paying prices above U.S. market prices plus the costs of liquefaction and delivery. The market for natural gas in the U.S. has matured to the point that it is no longer relevant to count molecules to determine whether supply is needed during a specific timeframe; prices will adjust to supply and demand conditions to ensure balance. Buyers and sellers no longer contract on a long-term basis; the market ensures liquidity through time. The new model that has sprung forth from this regulatory environment is more focused on the capacity to move natural gas to the relevant markets than on the quantities of natural gas available. The Liquefaction Project builds on this model to provide capacity to transport LNG to or from the United States, on the basis of market-based signals of over supply or excess demand.

## **IX. APPLICABLE LEGAL STANDARD**

### **A. WTO Countries**

U.S. international legal obligations under the WTO Agreements prohibit the restriction of exports of LNG made effective through discretionary or non-automatic export licensing requirements. In this regard, applications for exports of LNG to any WTO Country must be

granted under the same standard applicable to applications for export of LNG to FTA countries (*i.e.*, without modification or delay).

a. U.S. Obligations Under the WTO Agreement Prevent DOE from Restricting LNG Exports by Denying Applications for LNG Exports Destined For Other WTO Countries

As part of the Energy Policy Act of 1992, Congress added a new provision to the NGA dealing with imports and exports of natural gas to countries with which the U.S. has entered into certain trade agreements. It states that where an FTA exists that provides for national treatment for trade in natural gas, the export authorization application is deemed to be in the public interest and will be granted without modification or delay. Specifically, Section 717b(c) provides:

**(c) Expedited application and approval process**

For purposes of [15 U.S.C. § 717b(a)], the importation of the natural gas referred to in [15 U.S.C. § 717b(b)], or the exportation of natural gas to a nation with which there is in effect a free trade agreement requiring national treatment for trade in natural gas, shall be deemed to be consistent with the public interest, and applications for such importation or exportation shall be granted without modification or delay.<sup>43</sup>

Sabine Pass respectfully submits that it would be inconsistent with U.S. obligations under the WTO Agreements to grant applications for export to countries with which the U.S. has FTAs while denying or treating in any discriminatory manner applications for exports to WTO Countries with which the U.S. does not have a separate FTA. In this regard, every WTO Country should be treated as an FTA Country.

The legislative history surrounding the inclusion of section 717b(c) relies upon a rationale that extends to all WTO Countries. The original language in H.R. 776, which became the Energy Policy Act of 1992, focused on imports from Canada. In the House Report of the Committee of Energy and Commerce that accompanies H.R. 776, the Committee acknowledged

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<sup>43</sup> 15 U.S.C. § 717b(c).



that the existing FTA prohibited differential treatment of Canadian and U.S. natural gas when it stated that “[b]ecause of the 1988 Canadian Free Trade Agreement, old distinctions between Canadian and U.S. gas are illegal in any event.”<sup>44</sup> Although this comment was made with respect to a specific FTA and in reference to what is now 15 U.S.C. § 717b(c), this same logic applies to all WTO Countries that have committed, by virtue of their WTO accession, to MFN and national treatment of each others’ goods and services.<sup>45</sup> The U.S. has specifically committed to afford MFN treatment to all WTO Countries in its schedule of commitments.<sup>46</sup> As discussed in more detail below, it therefore would be inconsistent with U.S. commitments under the WTO Agreements to potentially restrain exports to WTO Countries under Section 3 of the NGA.

(1) LNG is Subject to the WTO Agreement Provisions on Trade in Goods

Annex 1 to the WTO Agreement is divided into three sections covering trade in goods, trade in services and trade-related aspects of intellectual property rights. Annex 1A consists of the Multilateral Agreements on Trade in Goods, which includes GATT. Like other energy products, natural gas is a commodity or “good” and, thus, a WTO Country’s trade in natural gas is covered by the obligations contained in Annex 1A.<sup>47</sup> Moreover, the U.S. has specifically

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<sup>44</sup> H.R. Rep. No. 102-474, pt. 1, at 136 (1992).

<sup>45</sup> GATT Articles I and III, in WTO, *The Legal Texts: The Results of the Uruguay Round of Multilateral Trade Negotiations*, at 424, 427 (1999).

<sup>46</sup> Marrakesh Protocol, *supra* note 14.

<sup>47</sup> According to Director-General Pascal Lamy, existing WTO rules governing trade in goods apply to energy goods:

So the rules of the WTO do not deal with energy as a distinct sector. Yet since our basic rules are applicable to all forms of trade, they also apply to trade in energy goods and services. And these rules can be enforced through the WTO dispute settlement mechanism even if they were not negotiated with energy in mind.

*See generally* Pascal Lamy, Director-General, WTO, Speech at the 20th World Energy Congress (Nov. 15, 2007), [http://www.wto.org/english/news\\_e/sppl\\_e/sppl80\\_e.htm](http://www.wto.org/english/news_e/sppl_e/sppl80_e.htm).

committed to afford MFN treatment with respect to LNG to all WTO Countries in its schedule of commitments.<sup>48</sup>

Section 3 of the NGA establishes a discretionary or non-automatic export authorization requirement that is arguably inconsistent with U.S. obligations under GATT Articles XI:1 and XIII:1, which impose disciplines on the use of export restrictions if such restrictions are not otherwise waived or justified by exceptions in other GATT articles. A “waiver” under GATT Article XXV releasing a WTO Member from its obligations and disciplines is available only in “exceptional circumstances” and requires a vote of approval by the WTO Countries acting jointly.<sup>49</sup> A review of all publicly available WTO documents indicates, however, that the U.S. has never submitted a request for waiver nor received a waiver with respect to its GATT obligations regarding exports of natural gas. Thus, the U.S. cannot rely upon a waiver under GATT Article XXV to impose export restrictions on natural gas that otherwise would be inconsistent with its GATT obligations.

There also are certain exemptions justifying various actions of WTO Countries that otherwise would be inconsistent with the disciplines of their GATT obligations. Such actions are

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<sup>48</sup> See *supra* note 14.

<sup>49</sup> Under GATT Article XXV, WTO Countries can request a waiver of obligations in “exceptional circumstances” not elsewhere provided for in the WTO Agreement. Such a waiver would require a specific request by the United States for waiver of the GATT obligations and disciplines on the use of export restrictions based on such “exceptional circumstances” and a two-thirds vote of approval by the WTO Countries acting jointly as the CONTRACTING PARTIES.

XXV: 5. “In exceptional circumstances not elsewhere provided for in this Agreement, the CONTRACTING PARTIES may waive an obligation imposed upon a contracting party by this Agreement; *Provided* that any such decision shall be approved by a two-thirds majority of the votes cast and that such majority shall comprise more than half of the contracting parties.”

GATT Article XXV, in WTO, *The Legal Texts: The Results of the Uruguay Round of Multilateral Trade Negotiations*, at 460-61 (1999); WTO Agreement Article IX:3, in WTO, *The Legal Texts: The Results of the Uruguay Round of Multilateral Trade Negotiations*, at 9 (1999); Understanding in Respect of Waivers of Obligations under the General Agreement on Tariffs and Trade 1994, in WTO, *The Legal Texts: Id.* at 29.

justified by the exceptions contained in Articles XI:2(a) (critical shortages),<sup>50</sup> XX(g) (conservation of natural resources),<sup>51</sup> XX(i) (government stabilization plan),<sup>52</sup> XX(j) (short supply),<sup>53</sup> XXI (national security),<sup>54</sup> or XXIV:5(b) (free trade agreements).<sup>55</sup> None of these exemptions are applicable in this case.

(2) The WTO Agreement Generally Prohibits Export Restrictions on Trade in Goods Destined for Other WTO Countries

In recognition of the fact that export restrictions can be highly distortive to trade, and the desire of the WTO Countries to allow such measures only very rarely, GATT Article XI:1 prohibits WTO Countries from instituting or maintaining export bans or restrictions (other than duties, taxes or other charges) on any product destined for another WTO Country that is made effective through export licenses or other measures:

No prohibitions or restrictions other than duties, taxes or other charges, whether made effective through quotas, import or export licences or other measures, shall be instituted or maintained by any contracting party on the importation of any product of the territory of any other contracting party or on the exportation or sale for

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<sup>50</sup> The critical shortages exemption allows export prohibitions or restrictions temporarily applied to prevent or relieve critical shortages of foodstuffs or other products essential to the exporting contracting party. *See* Exhibit B, *A Review of Int'l Trade-Related Legal Obligations*, at 25-26.

<sup>51</sup> The conservation of natural resources exemption allows export restrictions relating to the conservation of exhaustible natural resources that are made effective in conjunction with restrictions on domestic production or consumption. *See id.* at 26-28.

<sup>52</sup> The government stabilization plan exemption allows export restrictions when domestic prices for materials are held below the world price as part of a government stabilization plan. *See* Exhibit B, at 29.

<sup>53</sup> The short supply exemption allows the adoption of measures essential to the acquisition or distribution of products in general or local short supply. *See id.* at 29-32.

<sup>54</sup> The national security exemption allows WTO Countries to take broad actions for the protection of essential security interests (i) relating to fissionable materials or the materials from which they are derived; (ii) relating to the traffic in arms, ammunition and implements of war and to such traffic in other goods and materials as is carried on directly or indirectly for the purpose of supplying a military establishment; (iii) taken in time of war or other emergency in international relations. *See id.* at 32-33.

<sup>55</sup> The WTO Agreement specifically allows WTO Countries to enter into FTAs. However, those FTAs cannot be used to raise barriers to trade with WTO Countries that do not have an FTA. *See id.* at 45-47.



export of any product destined for the territory of any other contracting party.<sup>56</sup>

The term “restriction” in Article XI:1 has been interpreted broadly to cover not just blanket prohibitions or precise numerical limits but also the imposition of limitations or limiting conditions on exportation that generate a disincentive to export not only due to their effect on trade volumes but also by creating uncertainties affecting investment plans, by restricting market access, or by increasing transaction costs to make exportation prohibitively costly.<sup>57</sup>

While an automatic authorization requirement would be permissible, a discretionary or non-automatic export authorization requirement has long been considered to be a restriction prohibited by Article XI:1.<sup>58</sup> For example, a WTO panel in *India – Autos* found that a “trade balancing condition” on import licenses, that limited the value of imports an importer could make to the value of its exports, was a restriction on importation contrary to Article XI:1.<sup>59</sup> Likewise, a GATT panel in *Japan – Semi-Conductors* agreed with the United States’s complaint that Japan’s export license procedures, which led to delays of up to three months in the issuance of licenses for semi-conductors due to the monitoring of costs and export prices, were non-

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<sup>56</sup> GATT Article XI:1, in WTO, THE LEGAL TEXTS: THE RESULTS OF THE URUGUAY ROUND OF MULTILATERAL TRADE NEGOTIATIONS, at 437 (1999) (emphasis added).

<sup>57</sup> Panel Report, *Colombia – Ports of Entry*, WT/DS366/R, adopted May 20, 2009, paras. 7.233-41, 7.244, citing Panel Report, *India – Autos*, paras. 7.269-70, Panel Report, *India – Quantitative Restrictions*, para. 5.128, Panel Report, *Brazil – Retreaded Tyres*, para. 7.371, Panel Report, *Dominican Republic – Import and Sale of Cigarettes*, paras. 7.252, 7.258; see also Panel Report, *Korea – Various Measures on Beef*, WT/DS161/R, WT/DS169/R, para. 778.

<sup>58</sup> See Panel Report, *India – Quantitative Restrictions*, WT/DS90/R, adopted Sept. 22, 1999, paras. 5.129-30 (finding discretionary import licensing system to be a restriction prohibited by Article XI:1); GATT Panel Report, *Japan – Trade in Semi-Conductors*, BISD 30S/129, adopted May 4, 1988, para. 118 (finding discretionary export licensing system to be restriction prohibited by Article XI:1); GATT Panel Report, *EEC – Quantitative Restrictions Against Imports of Certain Products from Hong Kong*, BISD 30S/129, adopted July 12, 1983, at ¶¶ 8, 31, 34; GATT Panel Report, *EEC – Programme of Minimum Import Prices, Licenses and Surety Deposits for Certain Processed Fruits and Vegetables*, BISD 25S/68, adopted Oct. 18, 1978, ¶ 4.1 (finding that an automatic licensing requirement was not a restriction within the meaning of Article XI:1).

<sup>59</sup> Panel Report, *India – Autos*, WT/DS146/R, WT/DS175/R, adopted April 5, 2002, ¶¶ 7.268, 7.278, 7.281.

automatic and constituted a restriction on the exportation of those products contrary to Article XI:1.<sup>60</sup>

Thus, the public interest standard in Section 3 of the NGA has a potentially limiting effect on exportation by creating serious uncertainties affecting exporters' investment plans and by negatively affecting their competitive opportunities.<sup>61</sup> The DOE's discretion also could affect other WTO Countries' access to adequate U.S. supplies of natural gas at fair prices if the U.S. export restriction would thereby affect world market prices in natural gas. Indeed, for similar reasons, the United States is currently challenging China's non-automatic export licensing for certain key raw materials as being contrary to GATT Article XI:1 and China's commitments with respect to the elimination of export restrictions in its Working Party Report and Accession Protocol.<sup>62</sup> For the foregoing reasons, exports of domestically produced LNG to WTO Countries should be subject to an automatic export authorization process and thus should be granted under the same standard of review applicable to applications for export of LNG to FTA Countries.

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<sup>60</sup> GATT Panel Report, *Japan – Trade in Semi-Conductors*, BISD 35S/116, adopted May 4, 1988, ¶¶ 118, 132(b), citing GATT Panel Report, *EEC – Programme of Minimum Import Prices, Licenses and Surety Deposits for Certain Processed Fruits and Vegetables*, BISD 25S/68, adopted Oct. 18, 1978, ¶ 4.1. The GATT Panel in *Japan – Trade in Semi-Conductors* “noted that the CONTRACTING PARTIES had found in a previous case that automatic licensing did not constitute a restriction within the meaning of Article XI:1 and that an import license issued on the fifth working day following the day on which the license application was lodged could be deemed to have been automatically granted (BISD 25S/95).”

<sup>61</sup> See Panel Report, *Colombia – Ports of Entry*, ¶¶ 7.240, 7.250-57, 7.275.

<sup>62</sup> See U.S. First Written Submission in *China – Raw Materials Exports*, WT/DS394, DS395, DS398, at ¶¶ 331-42 (June 1, 2010). During China's accession process, certain members of the Working Party noted the limited scope of the exceptions to Article XI:

Certain members of the Working Party noted the conditions in the GATT 1994 in regard to non-automatic licensing and export restrictions. They pointed out that export prohibitions, restrictions and non-automatic licensing could only temporarily be applied under Article XI of the GATT 1994 to prevent or relieve critical shortages of foodstuffs or other products essential to an exporting WTO Member. Article XX of the GATT 1994 also allowed for restrictive export measures, but only if such measures were made effective in conjunction with restrictions on domestic production or consumption. These members noted that some of the criteria of the Foreign Trade Law referred to above did not at present meet the specific conditions laid down in Articles XI and XX of the GATT 1994.

WT/ACC/CHN/49, ¶ 160 (Oct. 1, 2001).



## B. Non-WTO Countries

Pursuant to Section 3 of the NGA, FE is required to authorize exports to a foreign country unless there is a finding that such exports “will not be consistent with the public interest.”<sup>63</sup> Specifically, Section 717b(a) of the NGA states in relevant part:

### **(a) Mandatory authorization order**

After six months from June 21, 1938, no person shall export any natural gas from the United States to a foreign country or import any natural gas from a foreign country without first having secured an order of the Commission authorizing it to do so. The Commission shall issue such order upon application, unless, after opportunity for hearing, it finds that the proposed exportation or importation will not be consistent with the public interest.<sup>64</sup>

Section 717b(a) thus creates a statutory presumption in favor of approval of this Application which opponents bear the burden of overcoming.<sup>65</sup> Further, in evaluating an export application, FE applies the principles described in DOE Delegation Order No. 0204-111, which focuses primarily on domestic need for the gas to be exported, and the Secretary’s natural gas policy guidelines (“Policy Guidelines”),<sup>66</sup> which presume the normal functioning of the competitive market will benefit the public. In the past, FE also has considered other factors to the extent they are shown to be relevant to the public interest determination for export authorization, including local interests, international effects and the environment.<sup>67</sup>

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<sup>63</sup> 15 U.S.C. § 717b(a).

<sup>64</sup> *Id.* (emphasis added).

<sup>65</sup> *See supra* note 10.

<sup>66</sup> Policy Guidelines and Delegation Orders Relating to the Regulation of Imported Natural Gas, 49 Fed. Reg. 6,684 (Feb. 22, 1984) [hereinafter *Policy Guidelines*].

<sup>67</sup> In DOE Opinion and Order No. 2500, which granted Conocophillips Alaska Natural Gas Corporation and Marathon Oil Company authorization to export LNG from Alaska, for example, DOE considered the regional need for the gas by reviewing the natural gas supply and demand projections submitted, cited or relied on by the parties in the proceeding and determined that there was a reasonable basis for concluding that local supplies were adequate to support the proposed export as well as to meet local demand requirements during the term of the proposed blanket authorization. *ConocoPhillips Alaska Natural Gas Corp.*, FE Docket No. 07-02-LNG, Order No. 2500, at 47 (June 3, 2008). In addition, DOE found that (1) local interests would be well served by a grant of the requested authorization because the continued operation of the applicant’s liquefaction plant



In the context of the instant Application and existing natural gas market conditions, the longstanding principles of minimizing federal control and involvement in natural gas markets articulated in the Policy Guidelines are particularly relevant.<sup>68</sup> The Policy Guidelines emphasize free market principles and promote limited government involvement in federal natural gas regulation:

The market, not government, should determine the price and other contract terms for imported [and exported] gas. U.S. buyers [and sellers] should have full freedom - along with the responsibility - for negotiating the terms of trade arrangements with foreign sellers [and buyers].

The government, while ensuring that the public interest is adequately protected, should not interfere with buyers' and sellers' negotiation of the commercial aspects of import [and export] arrangements. The thrust of this policy is to allow the commercial parties to structure more freely their trade arrangements, tailoring them to the markets served.<sup>69</sup>

The Policy Guidelines also provide some insight into the public interest standard for evaluating potential import and export applications. In this regard, they state that the "policy cornerstone of the public interest standard is competition."<sup>70</sup> Competitive import/export arrangements are therefore an essential element of the public interest and, so long as the sales agreements are set in terms that are consistent with market demands, they should be considered

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provided significant benefits to the local economy, (2) exportation of LNG would help to improve the United States's balance of payments with Pacific Rim countries during the term of the proposed blanket authorization; and (3) there was no significant environmental impact. *See id.* at 57-58. *See also Cheniere Marketing, Inc.*, FE Docket No. 08-77-LNG, Order No. 2651, at 14 (June 8, 2009) (explaining that, consistent with the *Policy Guidelines* and applicable precedent, the DOE considers the potential effects of proposed exports on aspects of the public interest other than domestic need, including international effects and the environment).

<sup>68</sup> While the *Policy Guidelines* deal specifically with imports, the principles are applicable to exports as well. *See Phillips Alaska Natural Gas Corp. and Marathon Oil Co.*, FE Docket No. 96-99-LNG, Order No. 1473, at 14 (Apr. 2, 1999).

<sup>69</sup> *Policy Guidelines*, *supra* note 66, at 6685.

<sup>70</sup> *Id.* at 6687.

to “largely” meet the public interest standard.<sup>71</sup> The guidelines continue by saying that “[t]his policy approach presumes that buyers and sellers, if allowed to negotiate free of constraining governmental limits, will construct competitive import [and export] agreements that will be responsive to market forces over time.”<sup>72</sup>

To date, FE orders granting authorization to export natural gas continue to reflect and reinforce the principles laid out in the Policy Guidelines by emphasizing the ideas of free trade and limited government involvement.<sup>73</sup> For example, natural gas has been exported from Alaska to Japan for over 40 years.<sup>74</sup> Authorization for this export was expanded to include all Pacific Rim countries, or more specifically, “any destination point for the delivery of liquefied natural gas on or abutting the Pacific Ocean in a country with which trade is not prohibited by United States law.”<sup>75</sup> The DOE also allowed export of Alaskan natural gas to Russia in 2007.<sup>76</sup> Additionally, the DOE issued multiple authorizations for exports of foreign-sourced natural gas (*i.e.*, natural gas that is first imported into the U.S. and then exported) to “any country with the capacity to import ocean-going LNG and with which trade is not prohibited by U.S. law or policy.”<sup>77</sup> In granting these authorizations, DOE has determined that exports will be good for the regional economies, help foster healthy competition, mitigate trade imbalances with the foreign

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<sup>71</sup> *Id.* at 6687.

<sup>72</sup> *Id.* at 6687 (with reference to “exports” inserted to reflect DOE policy that “the principles are applicable to exports as well” as enunciated in *Phillips Alaska*, Order No. 1473, at 14).

<sup>73</sup> See, e.g., *Phillips Alaska*, Order No. 1473, at 51 (stating that the public interest is generally best served by a free trade policy); *ConocoPhillips*, Order No. 2500, at 44-45 (stating that DOE’s general policy is to minimize federal government involvement and allow commercial parties to freely negotiate their own trade arrangements).

<sup>74</sup> See *Phillips Petroleum Co. and Marathon Oil Co.*, 37 F.P.C. ¶ 777 (1967).

<sup>75</sup> *ConocoPhillips*, Order No. 2500, at 66.

<sup>76</sup> See *id.* at 9 (stating that there has been an export from the Kenai, Alaska LNG facility to Russia to condition the Sakhalin LNG facility); see also *Phillips Alaska Natural Gas Corp. and Marathon Oil Co.*, FE Docket No. 99-110-LNG, Order No. 1580, at 7 (Apr. 10, 2000) (granting two-year blanket authorization to export up to 10 Btus of LNG from Kenai, Alaska to “international markets”).

<sup>77</sup> See, e.g., *ConocoPhillips Co.*, FE Docket No. 09-92-LNG, Order No. 2731, at 11 (Nov. 30, 2009).

recipients, and encourage efficient management of our natural resources.<sup>78</sup> As discussed below, the export of domestically produced LNG as proposed herein meets these markers of the public interest.

## **X. PUBLIC INTEREST**

The Sabine Pass Liquefaction Project has been proposed due to the improved outlook for domestic natural gas production, owing to drilling productivity gains that have enabled rapid growth in supplies from unconventional, and particularly shale, gas-bearing formations in the United States. Improvements in drilling and extraction technologies have coincided with rapid diffusion in the natural gas industry's understanding of the unconventional resource base and best practices in drilling and resource development. These changes have rendered obsolete once prominent fears of declining future domestic natural gas production.

Authorization for export of natural gas as LNG will provide a market solution to allow the further deliberate development of these emerging sources of domestic natural gas and will result in the following benefits, all of which are consistent with the public interest:

- Stimulate the Louisiana state, regional and national economies through job creation, increased economic activity and tax revenues, including the direct creation or continuation of approximately 3,000 engineering and construction jobs during the design and construction of the Liquefaction Project and, indirectly, 30,000-50,000 permanent jobs in the E&P sector;
- Promote domestic production of petroleum and reduced reliance on foreign sources of oil;
- Further the President's NEI, by improving U.S. balance of payments through the exportation of approximately 2 Bcf/d of natural gas valued at approximately \$5 billion and the displacement of \$1.7 billion in NGL imports;
- Raise domestic natural gas productive capacity and promote stability in domestic natural gas pricing;

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<sup>78</sup> See, e.g., *ConocoPhillips*, Order No. 2500, at 55-58; *Phillips Alaska*, Order No. 1473, at 47-56.



- Promote the liberalization of global natural gas trade through the fostering of a global, liquid, natural gas market;
- Advance national security and the security of U.S. allies through diversification of global natural gas supplies; and
- Increase economic trade and ties with foreign nations, including neighboring trade partners in the Americas, and displace environmentally damaging fuels in those countries.

#### **A. Analysis of Domestic Need for Gas to be Exported**

In support of this Application, Sabine Pass commissioned reports by ARI and Navigant Consulting, Inc. (“NCI”) to assess domestic need for the natural gas to be exported from the Liquefaction Project. The first ARI report, *U.S. Natural Gas Resources and Productive Capacity* (“ARI Resource Report”), was commissioned to evaluate the scope of natural gas resources in the United States and their potential for future recovery. A second report from ARI, *Domestic Hydrocarbon Liquids Production from Gas Shales and Other Unconventional Gas Resources* (“ARI Liquids Report”), was commissioned to evaluate the potential increase in petroleum liquids production associated with certain unconventional formations due to the Sabine Pass export project. The NCI report, *Market Analysis for Sabine Pass LNG Export Project* (“NCI Report”), was commissioned to evaluate the market price impact of LNG exports from the Sabine Pass LNG Terminal under several future U.S. demand scenarios.<sup>79</sup> Both the ARI Resource Report and the NCI Report, as well as publicly available information, indicate that the United States has significant natural gas resources available at prices that are sufficient to meet projected domestic needs and 16 mtpa of exports over the 20-year period covered in Sabine Pass’s request for export authority.

<sup>79</sup> ARI is a geological and engineering consulting firm which specializes in unconventional hydrocarbon geology, and has played an instrumental role over the last three decades in advancing the industry’s and DOE’s own understanding of the domestic unconventional resource base. NCI is an international consultant to the energy and utility industry. The ARI Resource Report, ARI Liquids Report and NCI Report are submitted herewith as Exhibits D, E and F, respectively.

1. *National Interest*

DOE Delegation Order No. 0204-111 designates “domestic need for the natural gas proposed to be exported as the only explicit criterion that must be considered in determining the public interest.”<sup>80</sup> The Liquefaction Project is therefore in the public interest because (i) it does not impinge on domestic needs for natural gas; and (ii) it supports and encourages the continued development of natural gas resources during times when domestic prices of natural gas are depressed, thereby ensuring that domestic supplies will be available throughout demand cycles.

Sabine Pass proposes that a national perspective represents the most appropriate measure for evaluation of domestic need due to the location of the facility in southwest Louisiana. The Gulf Coast region is not only the largest source of domestic natural gas production but, due to its prolific network of long-haul interstate pipelines and storage, also represents a transit point linking major supply basins to most United States consuming regions.

The Sabine Pass LNG Terminal via its direct pipeline interconnections, including its interconnect with the Creole Trail Pipeline, can deliver to and potentially receive natural gas from eleven interstate and intrastate pipeline systems. These pipelines will allow Sabine Pass and its customers to purchase and receive gas from the historically prolific Gulf Coast Texas and Louisiana onshore gas fields; the gas fields in the Permian, Anadarko and Hugoton basins; and the rapidly growing unconventional gas fields in the Barnett, Haynesville, Eagle Ford, Fayetteville, Woodford and Bossier basins.<sup>81</sup> These interstate pipelines also deliver supplies to downstream markets in the Southeast, Northeast, Appalachia and Midwest regions of the United

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<sup>80</sup> *Phillips Alaska*, Order No. 1473, at 14.

<sup>81</sup> *See supra* note 24.

States. These areas comprised a total 16.48 Tcf of demand in 2009, representing 79.6% of U.S. total natural gas consumption of 20.68 Tcf.<sup>82</sup>

## 2. *National Supply – Overview*

Domestic gas production has been on an upward trend in recent years as rapid growth in supply from unconventional basins has more than compensated for declines in conventional onshore and offshore formations. Since 2005, when horizontal drilling began in earnest in the Barnett Shale formation in north-central Texas, U.S. dry gas production has grown 16.1%, to 20.96 Tcf (57.4 Bcf/d) in 2009, representing the highest U.S. production levels since 1973.<sup>83</sup>

Preliminary data point to continued growth in domestic production in 2010<sup>84</sup> despite a significant drop in U.S. natural gas drilling activity from peak levels in 2008.<sup>85</sup> EIA estimates U.S. dry gas production totaled 1.84 Tcf (59.3 Bcf/d) in May 2010, a 1.9 Bcf/d increase compared to May 2009 dry production of 1.78 Tcf (57.4 Bcf/d).<sup>86</sup> Increased drilling productivity in certain prolific shale formations, particularly the Marcellus and Haynesville shales, has enabled domestic production to continue expanding despite a reduction in industry upstream development.

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<sup>82</sup> U.S. Energy Information Administration (“EIA”), DOE, *Annual Energy Outlook 2010*, at Table 117 (May 11, 2010) [hereinafter *AEO 2010*], available at [http://www.eia.doe.gov/oiaf/aeo/supplement/suptab\\_117.xls](http://www.eia.doe.gov/oiaf/aeo/supplement/suptab_117.xls). Calculations represent demand in New England, mid-Atlantic, East North Central, West North Central, South Atlantic, East South Central and West South Central census divisions.

<sup>83</sup> See EIA, *Natural Gas Gross Withdrawals and Production* (July 29, 2010), [http://www.eia.gov/dnav/ng/ng\\_prod\\_sum\\_dcua\\_NUS\\_a.htm](http://www.eia.gov/dnav/ng/ng_prod_sum_dcua_NUS_a.htm).

<sup>84</sup> Lower 48 states wellhead natural gas production increased in the five consecutive months, from December 2009 to May 2010, according to EIA’s Form 914 Survey of US natural gas producers. [http://www.eia.doe.gov/oil\\_gas/natural\\_gas/data\\_publications/eia914/eia914.html](http://www.eia.doe.gov/oil_gas/natural_gas/data_publications/eia914/eia914.html).

<sup>85</sup> There were 973 rigs drilling for natural gas in the U.S. as of the week ended August 27, 2010, 39% below peak drilling levels of 1,606 rigs for the week ended September 12, 2008. Baker Hughes, *North America Rotary Rig Count* (Aug. 27, 2010), [http://files.shareholder.com/downloads/BHI/913806705x0x398363/6B3854F8-8C97-4753-8965-A8429E063801/US\\_Rig\\_Report\\_082710.xls](http://files.shareholder.com/downloads/BHI/913806705x0x398363/6B3854F8-8C97-4753-8965-A8429E063801/US_Rig_Report_082710.xls).

<sup>86</sup> See EIA, *U.S. Dry Natural Gas Production* (Aug. 30, 2010), <http://www.eia.gov/dnav/ng/hist/n9070us2m.htm>.



The robust potential for future United States natural gas supply has been reflected in other recent industry evaluations. The Potential Gas Committee of the Colorado School of Mines (“Potential Gas Committee”) in June 2009 raised its estimates of the U.S. technically recoverable gas resource base by 515 Tcf (+39%) to 1,836 Tcf at year-end 2008.<sup>87</sup> Including 238 Tcf of established proved domestic natural gas reserves, the Potential Gas Committee determined that the United States possesses future available gas supply of 2,074 Tcf,<sup>88</sup> the highest resource evaluation in the group’s 44-year history and over 90 years of domestic market needs, based on 2009 consumption levels.<sup>89</sup>

In its recently published study, *The Future of Natural Gas* (“MIT Report”), the Massachusetts Institute of Technology estimates that the United States has a mean recoverable resource base of approximately 2,100 Tcf.<sup>90</sup> This estimate includes 650 Tcf of recoverable shale resources, “approximately 400 Tcf [of which] could be economically developed with a gas price at or below \$6/MMBtu at the well-head.”<sup>91</sup> According to the MIT Report’s mean resource estimate, United States gas production will rise by 40% between 2005 and 2050.

In addition, the ARI Resource Report provides an independent analysis of the unconventional natural gas resource base in the United States to supplement publicly available information on conventional onshore and offshore gas resources. ARI estimates that the United States possesses technically recoverable natural gas resources totaling 2,585 Tcf, including 2,286

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<sup>87</sup> See Press Release, Potential Gas Committee, Potential Gas Committee Reports Unprecedented Increase In Magnitude of U.S. Natural Gas Resource Base, at 2 (June 18, 2009), <http://www.aga.org/NR/rdonlyres/65B2FD7E-A208-4687-9B4B-6EC079DA673D/0/0906PGCPRESS.PDF>.

<sup>88</sup> *Id.*

<sup>89</sup> U.S. natural gas demand totaled 22.8 Tcf in 2009. EIA, *Natural Gas Consumption by End Use* (July 29, 2010), [http://www.eia.gov/dnav/ng/ng\\_cons\\_sum\\_dcunus\\_a.htm](http://www.eia.gov/dnav/ng/ng_cons_sum_dcunus_a.htm).

<sup>90</sup> MIT Energy Initiative, MIT, *The Future of Natural Gas*, at 9 (2010) [hereinafter *MIT Report*], <http://web.mit.edu/mitei/research/studies/naturalgas.html>.

<sup>91</sup> *Id.* at xii.

Tcf in the Lower 48 region and 299 Tcf located in Alaska.<sup>92</sup> Of this total, 246 Tcf represent proved natural gas reserves and 2,238 Tcf comprise undiscovered or inferred resources.<sup>93</sup> Unconventional gas-bearing formations account for 53% (or 1,373 Tcf) of technically recoverable domestic gas resources and include 700 Tcf of recoverable reserves from shale formations, 567 Tcf from tight sandstones, and 106 Tcf from coalbed formations.<sup>94</sup>

The ARI Resource Report notes that assessments of the domestic natural gas resource base are not static and have expanded over time due to improvements in oilfield service technologies such as horizontal drilling, multi-well pad drilling, and improved fracturing and stimulation of tight gas formations.<sup>95</sup> ARI projects that technology gains will continue to drive production costs lower and augment recoverable natural gas reserves in the future. Remaining recoverable domestic shale gas resources, for example, are projected to increase 18.9% by 2035 to 853 Tcf from their assessment of 711 Tcf at the start of 2009, a time span which matches Sabine Pass's requested period for export authorization.<sup>96</sup>

### 3. *National Natural Gas Demand*

The outlook for natural gas demand in the United States has dimmed considerably over the last decade as a consequence of persistent market price volatility, as well as structural changes afoot in the domestic economy. In its 1999 study on the United States's natural gas market, the National Petroleum Council estimated that domestic consumption of natural gas would grow to 29.0 Tcf (79.5 Bcf/d) in 2010, a 31.8% increase from 22.0 Tcf (60.2 Bcf/d) of

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<sup>92</sup> Exhibit D, ARI, *U.S. Natural Gas Resources and Productive Capacity* (Aug. 26, 2010), at 8 [hereinafter *ARI Resource Report*].

<sup>93</sup> *Id.*

<sup>94</sup> *Id.*

<sup>95</sup> *See id.* at 9, 35-38.

<sup>96</sup> *Id.*

domestic demand in 1998.<sup>97</sup> Instead, the EIA, in its most recent short-term market assessment, predicts U.S. natural gas consumption of 23.68 Tcf (64.9 Bcf/d) in 2010, or growth of only 7.6% from the 1998 benchmark.<sup>98</sup> U.S. demand in 2009 of 22.81 Tcf in fact was 2.2% lower than the 23.33 Tcf consumed at the start of the decade, according to EIA data.<sup>99</sup> Moreover, the 29 Tcf domestic natural gas market once envisioned by the National Petroleum Council has been indefinitely postponed based on evolving market conditions. In its Annual Energy Outlook 2010 (“AEO 2010”), EIA predicts long-term annual gas demand growth of only 0.2%, with the domestic market expected to reach 24.86 Tcf (68.1 Bcf/d) in 2035.<sup>100</sup>

Structural factors have contributed to these more conservative estimates of future demand growth. The composition of U.S. economic activity in time has gravitated toward less energy-dependent activities such as services and health care at the expense of manufacturing-based activity.<sup>101</sup> Furthermore, improved technology and efficiency standards have lead to sharp reductions in energy usage in consumer products that directly, or through reduced electricity usage, indirectly impact U.S. natural gas consumption. According to Department of Energy Secretary Stephen Chu, “... the improvement in the efficiency of refrigerators alone since the 1970s is responsible for energy savings today greater than all non-hydro renewable power generation. During that time, the inflation adjusted cost of refrigerators dropped by about half

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<sup>97</sup> 1 National Petroleum Council, *Meeting the Challenges of the Nation's Growing Natural Gas Demand Summary Report* 33 (Dec. 1999), <http://www.npc.org/>.

<sup>98</sup> See EIA, *Short Term Energy Outlook*, at 4 (Aug. 10, 2010), [http://www.eia.doe.gov/emeu/steo/pub/steo\\_full.pdf](http://www.eia.doe.gov/emeu/steo/pub/steo_full.pdf).

<sup>99</sup> EIA, *Natural Gas Consumption by End Use*, *supra* note 89.

<sup>100</sup> See *AEO 2010*, at Table 13, available at [http://www.eia.doe.gov/oiaf/aeo/excel/aeotab\\_13.xls](http://www.eia.doe.gov/oiaf/aeo/excel/aeotab_13.xls).

<sup>101</sup> In 1950, the manufacturing share of the U.S. economy amounted to 27% of nominal U.S. GDP, but only 12.1% by 2007. See William Strauss, *Is U.S. Manufacturing Disappearing?*, Federal Reserve Bank of Chicago, Aug. 19, 2010, [http://midwest.chicagofedblogs.org/archives/2010/08/bill\\_strauss\\_mf.html](http://midwest.chicagofedblogs.org/archives/2010/08/bill_strauss_mf.html).



while energy consumption was simultaneously reduced by more than 75 percent.”<sup>102</sup> Dr. Chu further noted that appliance standards issued in the last 16 months alone will further reduce energy use and save American consumers more than \$250 billion over the next 20 years.<sup>103</sup> This same trend of increased efficiency through technology gains is evident in industrial applications of natural gas. The new generation of combined-cycle natural gas power plants, for example, consume much less natural gas per unit of electricity output than their older steam-based counterparts.<sup>104</sup> Consequently, electricity output from domestic gas-fired power plants has been expanding at approximately twice the rate of growth in demand for natural gas to fuel these units.<sup>105</sup> The result of these trends is that meeting the future economic needs of the U.S. economy will require relatively less natural gas, and energy in general, than in the past.

a. Industrial Sector

The most significant change in the outlook for U.S. natural gas consumption has occurred in the industrial sector. Consumption of natural gas by U.S. industrial end-users has steadily declined over the last decade, from a peak of 8.51 Tcf (23.3 Bcf/d) in 1997 to 6.14 Tcf (16.8 Bcf/d) in 2009.<sup>106</sup>

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<sup>102</sup> Hearing on National Energy Policies Before the Subcomm. on Energy and Water Development of the S. Comm. on Appropriations, 111<sup>th</sup> Cong. 2-3 (2010) (testimony of Hon. Steven Chu, Secretary, DOE).

<sup>103</sup> *Id.* at 3.

<sup>104</sup> Combined-cycle plants, by reusing waste heat to generate electricity, can achieve thermal efficiencies of up to 60% compared to only 33-35% thermal efficiency in conventional steam boilers. *See* NaturalGas.org, [http://www.naturalgas.org/overview/uses\\_electrical.asp](http://www.naturalgas.org/overview/uses_electrical.asp).

<sup>105</sup> Electricity output from U.S. natural gas-fueled power plants has increased 65.4% over the last decade, to 920.4 million megawatt hours in 2009 from 556.4 million megawatt hours in 1999, while natural gas consumption for electricity has increased 33.5% over this same period, to 7.1 Tcf in 2009 from 5.3 Tcf in 1999. *See* EIA, Table 1.1, Net Generation by Energy Source, [http://www.eia.doe.gov/cneaf/electricity/epm/epmxmlfile1\\_1.xls](http://www.eia.doe.gov/cneaf/electricity/epm/epmxmlfile1_1.xls). *See also* EIA, Table 2.4.A, Natural Gas Consumption for Electric Generation by Sector, [http://www.eia.doe.gov/cneaf/electricity/epm/epmxmlfile2\\_4\\_a.xls](http://www.eia.doe.gov/cneaf/electricity/epm/epmxmlfile2_4_a.xls).

<sup>106</sup> *See* EIA, *U.S. Natural Gas Industrial Consumption* (July 29, 2010), <http://www.eia.gov/dnav/ng/hist/n3035us2a.htm>.

The reduction in industrial gas consumption has resulted, in part, from frequent volatility in domestic natural gas prices over the last decade and structural factors which have discouraged growth in manufacturing. Price volatility also has encouraged many domestic manufacturers to adopt upgrades of facilities to curb natural gas use and boost their competitiveness, reducing natural gas use in the existing industrial base. Other structural factors, such as increasing economic globalization, have incentivized manufacturers to relocate energy-intensive industries to other regions of the world with lower commodity prices and/or more favorable operating conditions.

The recent decline in domestic and global economic output has further exacerbated this trend of reduced consumption. EIA, in its AEO 2010, projects U.S. industrial sector demand to total 6.72 Tcf (18.4 Bcf/d) in 2035, effectively flat consumption compared to 6.65 Tcf (18.2 Bcf/d) consumed in 2008 at the onset of the U.S. economic recession.<sup>107</sup>

b. Residential and Commercial Sectors

Other sectors of the domestic economy have experienced structural changes that have dampened the potential for future growth in natural gas consumption. The EIA has documented that gas demand per U.S. residential household has been in decline since the 1990s, down 22% on a weather-adjusted basis from 1990 to 2009, due to efficiency gains in heating furnaces, improvements in insulation and building construction codes, population shift towards warmer regions, higher commodity prices, and an increase in the share of natural gas customers who do not use natural gas as their primary space-heating fuel.<sup>108</sup> EIA is forecasting effectively no growth in future residential sector consumption of natural gas as customer growth is offset by

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<sup>107</sup> See AEO 2010, Table 13, *supra* note 100.

<sup>108</sup> EIA, *Trends in U.S. Residential Natural Gas Consumption*, at 1 (June 2010), [http://www.eia.gov/pub/oil\\_gas/natural\\_gas/feature\\_articles/2010/ngtrendsresidcon/ngtrendsresidcon.pdf](http://www.eia.gov/pub/oil_gas/natural_gas/feature_articles/2010/ngtrendsresidcon/ngtrendsresidcon.pdf).

these efficiency gains. U.S. residential natural gas demand is forecast at 4.87 Tcf (13.3 Bcf/d) in 2035, approximately the same level as in 2008.<sup>109</sup> Commercial sector natural gas use also is projected to see modest annual growth of 0.6% in the AEO 2010, reaching 3.69 Tcf (10.1 Bcf/d) in 2035 from 3.12 Tcf (8.55 Bcf/d) in 2008.<sup>110</sup>

c. Electricity Sector

The electric generating sector has been the only domestic natural gas consuming sector to experience consistent growth in recent years. Natural gas consumption for electricity generation totaled 6.89 Tcf in 2009, a 32.3% gain from 5.21 Tcf used in 2000. The outlook for future demand is uncertain however, due primarily to economic headwinds caused by the U.S. recession and increased competition from other sources of electric generation.

EIA in its AEO 2010 Reference Case forecast predicts that U.S. gas demand by the electric power sector will decline to 4.82 Tcf (13.2 Bcf/d) in 2014 from 6.86 Tcf (18.8 Bcf/d) in 2009. Rapid near-term installation of renewable sources of power and new coal-fired plant competition are expected to reduce near-term natural gas demand. Installed U.S. renewable power generation is on pace to double by 2012 from current levels,<sup>111</sup> while projects totaling an additional 21.3 gigawatts of new coal-fired power generation capacity are scheduled to start operations from 2009 through 2013.<sup>112</sup> The EIA assumes that gas-fired electric generation will be the marginal supply of future generation, and that coal will be cheaper and thus tend to have a greater share of baseload generation.

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<sup>109</sup> See *AEO 2010*, Table 13, *supra* note 100.

<sup>110</sup> *Id.*

<sup>111</sup> Testimony of Steven Chu, *supra* note 102, at 1.

<sup>112</sup> EIA, *Electric Power Annual 2008*, at 20 (Oct. 22, 2010), <http://www.eia.doe.gov/cneaf/electricity/epa/epa.pdf>.



Electric generation demand resumes its growth trajectory after 2014. Natural gas use in the electricity sector is projected to grow 0.4% annually over the long-term AEO 2010 forecast, to 7.42 Tcf (20.3 Bcf/d) in 2035 from 6.86 Tcf (18.8 Bcf/d) in 2009.

The EIA's outlook for electric sector gas demand reflects the market impacts of current laws and regulations. Changes in public policy intended to reduce future greenhouse gas ("GHG") emissions would likely influence natural gas use for electricity generation, though the impact would vary considerably depending on the particular regulatory structure which is ultimately adopted.

The MIT Report, for example, concludes that pricing carbon and removing subsidies for all sources of electric generation would increase future natural gas demand in the power sector over the long term.<sup>113</sup> Conversely, the EIA determined that the extension of certain federal regulations and subsidies which favor low- and carbon-free sources of generation would reduce future natural gas demand in the sector.<sup>114</sup> Under the Extended Policies case of the AEO 2010, the extension of federal tax credits for renewable generation sources through 2035 would spur more rapid growth in renewable generation, accounting for 61-65% of the growth in future U.S. electric generating capacity compared to 45% under the Reference Case.<sup>115</sup> The EIA projects that U.S. electricity generation from natural gas would fall 16.2% by 2035 as a result, to 915.2 billion kilowatt hours in 2035 in the Extended Policies case from 1,093.2 billion kilowatt hours in 2035 under the Reference Case.<sup>116</sup> The MIT Report also supports that carbon constraints would spur more investment in intermittent renewable resources which would have a deleterious

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<sup>113</sup> *MIT Report*, *supra* note 90, at xiii.

<sup>114</sup> *See AEO 2010*, at 25-27, available at [http://www.eia.doe.gov/oiaf/aeo/no\\_sunset.html](http://www.eia.doe.gov/oiaf/aeo/no_sunset.html) (discussing No Sunset and Extended Policies cases).

<sup>115</sup> *Id.*

<sup>116</sup> *See id.* at 26, Figure 12, available at [http://www.eia.doe.gov/oiaf/aeo/excel/figure12\\_data.xls](http://www.eia.doe.gov/oiaf/aeo/excel/figure12_data.xls).

impact on natural gas demand in the short term.<sup>117</sup> The range of these potential outcomes underscores the potential uncertainty of future gas demand in the electric power sector.

d. Transportation Sector

Natural gas consumed for residential and commercial transportation accounts for a small portion of domestic demand. In 2008, 28.2 Bcf of natural gas was used in the U.S. for vehicle fuel, or 0.1% of the total U.S. gas market of 23.2 Tcf.<sup>118</sup> From this small base, EIA in its AEO 2010 forecast anticipates that transportation sector demand will grow 5.9% annually to 0.19 Tcf (0.5 Bcf/d) in 2035.<sup>119</sup>

e. National Demand Outlook Market Study

In addition to publicly available information and forecasts, Sabine Pass commissioned the NCI Report to assess the potential demand impact on U.S. natural gas markets under several potential regulatory scenarios, including environmental restrictions on GHG emissions. NCI's Gas Pipeline Consumption Model ("GPCM") subsequently was utilized to measure the market pricing impact of LNG exports from the Sabine Pass LNG Terminal at these respective demand levels.

Two future demand cases were developed for consideration by NCI: One case assuming *status quo* energy policy laws ("GHG As Is Case"), and a second "stress case" in which new regulations and policies are adopted that promote the future use of natural gas in the United States ("GHG Plus Case").

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<sup>117</sup> MIT Report, *supra* note 90, at xiv.

<sup>118</sup> EIA, *Gas Consumption by End Use*, *supra* note 89.

<sup>119</sup> AEO 2010, Table 13, *supra* note 100.

(1) GHG As Is Case

The GHG As Is Case assumes no future regulations are imposed on GHG emissions from the status quo, and is represented in NCI's modeling of the AEO 2010 Reference Case for future U.S. natural gas demand in the electricity sector.<sup>120</sup>

(2) GHG Plus Case

The GHG Plus Case was designed to maximize penetration of natural gas in the domestic transportation and electric-generating sectors. The GHG Plus Case is based on NCI's own Spring 2010 forecast of future electric sector demand, and assumes (i) adoption at the state and federal level of a carbon tax on GHG emissions and (ii) the adoption of extensive financial incentives for the conversion of the domestic commercial truck fleet to natural gas vehicles ("NGVs").

(a) Carbon Tax

The GHG Plus Case assumes the start of a national carbon tax on GHG emissions starting in 2015 at \$20.10 per ton (\$1.26 per MMBtu),<sup>121</sup> increasing to \$54.40 per ton (\$3.41 per MMBtu) in 2035, based on the U.S. Environmental Protection Agency's ("EPA") recent analysis of the proposed American Power Act of 2010.<sup>122</sup> The addition of a carbon tax is assumed by NCI to reduce coal-fired generation output in the United States by 1.0% per year starting in 2015 and continuing through 2035, to be replaced by an equivalent quantity of natural gas required for substitution power supplies.<sup>123</sup>

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<sup>120</sup> See Section X.A.3.c above for discussion of the *AEO 2010* Reference Case for future U.S. natural gas demand in the electricity sector.

<sup>121</sup> Assumes 125 lbs per MMBtu.

<sup>122</sup> EPA's analysis is available at <http://www.epa.gov/climatechange/economics/economicanalyses.html#apa2010>. See also *American Power Act*, S. Discussion Draft, 111<sup>th</sup> Cong. (2010), [http://lieberman.senate.gov/assets/pdf/APA\\_full.pdf](http://lieberman.senate.gov/assets/pdf/APA_full.pdf).

<sup>123</sup> Exhibit F, NCI, *Market Analysis for Sabine Pass LNG Export Project* (Aug. 2010), at 15 [hereinafter *NCI Report*].



### (b) Proliferation of Natural Gas Vehicles

The GHG Plus Case also assumes that incentives are adopted at the federal level to promote the conversion of heavy-duty commercial trucks to NGVs and to expand construction of natural gas-fueling infrastructure. NCI derived the policy incentives and market impacts related to NGVs from the “Reference Case 2027 Phaseout with Expanded Market Potential” (“Reference Case 2027”) natural gas market scenario developed by EIA as a modification to its Reference Case in the AEO 2010.<sup>124</sup> The Reference Case 2027 assumes financial subsidies would be adopted which effectively equalize the purchasing costs of new heavy-duty NGVs relative to diesel-powered counterparts, and that new tax incentives would be created for natural gas refueling stations of \$100,000 per facility and for natural gas transportation fuel of \$0.50 per gallon of gasoline equivalent.<sup>125</sup> These incentives, according to EIA’s scenario, are assumed to begin in 2011 and be phased out in 2027.

### (3) Market Demand Impacts

Outputs from NCI’s GPCM model demonstrate that impacts on future demand between the GHG As Is Case and GHG Plus Case are concentrated in the electricity-generating and transportation sectors. Under the GHG Plus case, domestic natural gas demand in the electricity sector would grow at a 2.4% annual rate from 2010 to 2035,<sup>126</sup> compared to EIA’s estimate of 0.4% annual growth in long-term sector demand based on current federal and state regulatory policies.<sup>127</sup> Under the GHG Plus Case, domestic demand for natural gas to generate power would see incremental growth in a range from 6.3 Bcf/d in 2015 to 13.1 Bcf/d in 2035, compared

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<sup>124</sup> AEO 2010, at 42-46, available at [http://www.eia.doe.gov/oiaf/aeo/natgas\\_fuel.html](http://www.eia.doe.gov/oiaf/aeo/natgas_fuel.html).

<sup>125</sup> Without incentives, EIA estimates heavy-duty NGVs are from \$17,000 to \$60,000 more expensive than their diesel counterparts, depending on the vehicle class size. *See id.*

<sup>126</sup> NCI Report, *supra* note 123, at 28.

<sup>127</sup> *See AEO 2010, supra* note 100, at Table 13.

to the GHG As Is Case, owing to the advent of carbon pricing and further restrictions in state and federal law on future GHG emissions.<sup>128</sup> Demand from the electricity sector in the GHG Plus Case would reach 33.5 Bcf/d in 2035, compared to 20.4 Bcf/d by 2035 under the GHG As Is case.<sup>129</sup>

In the transportation sector, the impacts of federal subsidies promoting natural gas fuel use are not apparent until the latter half of the long-term forecast period. Reflecting outcomes in the EIA Reference Case 2027, domestic demand for natural gas in the transportation sector would total 0.7 Bcf/d in 2020 under the GHG Plus Case,<sup>130</sup> a negligible gain compared to the status quo forecast for 0.2 Bcf/d demand in 2020 under the GHG As Is Case.<sup>131</sup> By 2035, subsidies under the Reference Case 2027 would promote deeper fuel penetration in the transportation sector, resulting in NGV sector consumption of 4.7 Bcf/d in 2035 under the GHG Plus Case compared to 0.5 Bcf/d in 2035 under status quo law.<sup>132</sup> In aggregate, NCI projects that total U.S. natural gas consumption would grow to 83.1 Bcf/d by 2035 under the GHG Plus Case, compared to 68.9 Bcf/d under the GHG As Is case.<sup>133</sup>

#### (4) Natural Gas Pricing Impacts

The two future demand scenarios designed for the U.S. natural gas market were subsequently inputted into NCI's GPCM model, in order to establish baselines for future U.S. natural gas prices. The baseline pricing cases were then compared to the market price impacts of adding 1 Bcf/d to 2 Bcf/d of liquefaction capacity at the Sabine Pass LNG Terminal under both

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<sup>128</sup> See *NCI Report*, *supra* note 123, at 17 (Figure 9).

<sup>129</sup> See *id.* at 36, 40.

<sup>130</sup> See *id.* at 40.

<sup>131</sup> See *id.* at 36.

<sup>132</sup> See *id.* at 28.

<sup>133</sup> See *id.* at 36, 40.

the GHG As Is Case and GHG Plus Cases. These combined five scenarios all assume that other parameters in NCI's Spring 2010 forecast remain constant.

NCI's forecast of future domestic natural gas production is based on its 2008 study of the subject prepared for the American Clean Skies Foundation, with some updates as knowledge of the U.S. shale resource base has expanded.<sup>134</sup> NCI estimates maximum recoverable reserves from U.S. shale resources to be 842 Tcf, while maximum recoverable reserves for all U.S. gas formations total 2,247 Tcf.<sup>135</sup>

Under the GHG As Is Case, U.S. gas production is projected to grow to 66.2 Bcf/d in 2035 from estimated production of 56.0 Bcf/d in 2010.<sup>136</sup> This compares to estimated domestic production of 75.2 Bcf/d in 2035 under the GHG Plus demand scenario.<sup>137</sup> Much of the difference in estimated U.S. gas production results from variance in shale resource recovery. In the GHG Plus Case, U.S. shale production would total 33.6 Bcf/d in 2035 compared to 29.4 Bcf/d in the GHG As Is Case.<sup>138</sup>

Modeling the GHG As-Is Case and assuming no exports of LNG from the Sabine Pass Liquefaction Project, NCI projects that Henry Hub forward prices would rise from \$3.29/MMBtu in 2015 to \$6.97 per MMBtu in 2035. Under the GHG Plus Case and assuming no LNG exports from Sabine Pass, Henry Hub forward prices would average \$4.50 in 2015 and steadily rise to \$11.43 per MMBtu by 2035.<sup>139</sup>

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<sup>134</sup> NCI, *North American Natural Gas Supply Assessment*, at 5-6 (July 4, 2008), <http://www.cleanskies.org/pdf/navigant-natural-gas-supply-0708.pdf>.

<sup>135</sup> See NCI Report, *supra* note 123, at 10.

<sup>136</sup> *Id.* at 42.

<sup>137</sup> *Id.* at 45.

<sup>138</sup> *Id.* at 19 (Figure 11), 29 (Figure 21).

<sup>139</sup> See *id.* at 47.



Under the GHG As Is case, the addition of 1.0 Bcf/d of LNG exports to the GHG As-Is Case increases Henry Hub forward prices by only \$0.20 per MMBtu (6.1%) in 2015, and by only slightly more, \$0.23 per MMBtu (3.3%), in 2035, compared to the no-export GHG As-Is Case. Replacing the 1.0 Bcf/d with 2.0 Bcf/d of liquefaction exports increases Henry Hub prices by \$0.35 per MMBtu (10.6%) in 2015 and \$0.49 per MMBtu (7.0%) in 2035, compared to the no-export GHG As-Is Case.<sup>140</sup>

The addition of 2.0 Bcf/d of LNG exports from the Sabine Pass Liquefaction Project to the GHG Plus Case moves Henry Hub forward prices by \$0.52 per MMBtu (4.0%) in 2015, and \$0.90 per MMBtu (7.9%) in 2035, compared to the no-export GHG Plus Case. Significantly, the analysis shows that, on a percentage basis, the increases in price associated with the addition of liquefaction demand are similar across all cases. In the lower demand GHG As-Is Case, the percentage increases in prices are very similar to the price increases in the high demand cases. The test cases in both demand scenarios consistently produce single-digit-percentage increases in future natural gas prices, and demonstrate that the impact of LNG exports from the Sabine Pass Liquefaction Project is negligible on future U.S. natural gas market prices.

Furthermore, it must be emphasized that actual market price impacts of the Sabine Pass Liquefaction Project are expected to be more conservative relative to results generated by NCI's modeling. Under NCI's modeling assumptions, LNG exports are "force fed" through the GPCM model at effective 100% utilization rates. The actual price impact is expected to be lower given that (i) the liquefaction units, once operational, will require normal seasonal maintenance that will reduce periodically operational availability, (ii) Sabine Pass anticipates a tariff structure that creates no contractual compulsion to export LNG if global and domestic market conditions do

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<sup>140</sup> *Id.*

not provide for profitable activity (if natural gas costs rise because of LNG exports, the price pressure will reduce the incentive to purchase natural gas for export), (iii) a phased-in approach will be required over a minimum of three calendar years to construct the full 16 mtpa of liquefaction capacity, further diluting the Project's market influence as stated in the NCI Report, and (iv) NCI has applied relatively conservative assumptions behind the potential for future domestic resource recovery. Thus, the market impacts of LNG exports as established under the NCI scenarios represent a maximalist perspective on future outcomes.

#### 4. *Supply-Demand Balance Demonstrates the Lack of Regional/National Need*

It is evident from the current supply/demand balance of natural gas in the United States that the request for authorization to export domestic natural gas production is in the public interest. U.S. natural gas production has been steadily increasing in recent years while domestic demand since 2008 has experienced a significant retrenchment owing to the global recession. Robust supply and a dimmed outlook for market growth have led to historically low prices, prompting domestic producers to slow drilling, defer completions of recently drilled wells and reduce plans for future investments in natural gas producing basins.<sup>141</sup> Market price volatility during this period also has forced the periodic shut-in of actively producing wells in marginal gas-producing fields, suggesting that domestic natural gas productive capacity has exceeded the ability of the United States market to absorb incremental supplies.<sup>142</sup> The ability to export domestic gas as LNG will greatly expand the market scope and access for domestic natural gas

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<sup>141</sup> Three of the four articles on the cover of the August 4, 2010 edition of Gas Daily concern the impact on producers and production of the current over supply situation: *Chesapeake lays it down until prices pass \$6*; *Prices prompt Petrohawk to trim shale spending* and *Analysts ponder long-term impact of low prices*. Platts Gas Daily, Aug. 4, 2010, at 1.

<sup>142</sup> Jim Magill, Platts Gas Daily, *One-third of wells on Wyoming state land shut in*, Oct. 28, 2009 ("More than a third of all oil and gas wells operating on Wyoming state lands have been shut in, primarily in response to low wellhead prices"). See also Natural Gas Intelligence, *Encana Shuts in Gas Wells on Low Prices*, June 22, 2009 ("Because of low natural gas prices EnCana Corp. has shut in some wells in both the United States and Canada").

producers and thus serve to encourage domestic production at times when U.S. market prices might not otherwise do so. Such production will be available to supply domestic markets and thereby serve to moderate U.S. gas price volatility and keep prices to U.S. natural gas consumers at reasonable levels.

The ARI Resource Report further establishes that U.S. natural gas resources well exceed future domestic needs, and that, absent a sustained downturn in prices, surplus productive capacity will remain a fixture of the U.S. natural gas market. In the ARI Resource Report, the firm examines its unconventional gas resource assessment in the context of the EIA's latest demand Reference Case in AEO 2010 for the U.S. natural gas market through 2035.<sup>143</sup> Using the AEO 2010 reference outputs and holding all other variables constant, ARI used its Technology Model for Unconventional Gas Supply to re-assess the outlook for domestic unconventional gas productive capacity given EIA's projected track for future U.S. natural gas prices.<sup>144</sup> This substitution is appropriate given that EIA historically has underestimated the future contributions of unconventional gas, and particularly shale gas, to domestic markets.<sup>145</sup> These underestimation issues remain a concern in EIA's AEO 2010 forecast, which appears 4.7 Bcf/d too conservative in its estimate of current U.S. shale gas production.<sup>146</sup>

Assuming the same natural gas price outlook as generated by AEO 2010, ARI estimates U.S. unconventional gas productive capacity will grow to 69.0 Bcf/d in 2035 from 36.3 Bcf/d in

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<sup>143</sup> See AEO 2010, available at [http://www.eia.doe.gov/oiaf/aeo/pdf/0383\(2010\).pdf](http://www.eia.doe.gov/oiaf/aeo/pdf/0383(2010).pdf).

<sup>144</sup> AEO 2010 estimates U.S. natural gas prices will rise from \$4.50/MMBtu to \$6.64/MMBtu through 2020, while long-term prices are projected to increase from \$6.74/MMBtu to \$8.88/MMBtu between 2021 and 2035. AEO 2010, Table 13, *supra* note 100.

<sup>145</sup> NCI, *North American Natural Gas Supply Assessment*, *supra* note 134, at 5-6.

<sup>146</sup> AEO 2010 projects U.S. shale gas production of 2.75 Tcf (7.5 Bcf/d) in 2010. See AEO 2010, at Table 14, available at [http://www.eia.doe.gov/oiaf/aeo/excel/aeotab\\_14.xls](http://www.eia.doe.gov/oiaf/aeo/excel/aeotab_14.xls). However, ARI notes that preliminary U.S. shale gas production totals 12.2 Bcf/d in 2010. ARI Resource Report, *supra* note 92, at 6.



2010.<sup>147</sup> Natural gas produced from shales account for 26.9 Bcf/d, or 82.3% of the 32.7 Bcf/d in projected growth in domestic productive capacity from unconventional geologic formations over the 25-year timeframe.<sup>148</sup> ARI subsequently merged its unconventional productive capacity findings with the AEO 2010's projections for conventional domestic dry production, including the estimated full start of a 4.5 Bcf/d pipeline from Alaska's North Slope to the Lower 48 states in 2024, and concluded that U.S. dry natural gas productive capacity would grow to 92.7 Bcf/d in 2035 from 58.6 Bcf/d in 2010, given the future market price track presented in the AEO 2010 report.<sup>149</sup> This growth in domestic productive capacity would well exceed expectations for future U.S. demand, projected by EIA in AEO 2010 to grow to 68.1 Bcf/d in 2035 from 64.7 Bcf/d in 2010.<sup>150</sup> Under the modified supply case presented by ARI, domestic natural gas productive capacity would exceed projected U.S. demand by 11.0 Bcf/d in 2015, 19.9 Bcf/d in 2025, and 28.7 Bcf/d in 2035, assuming timely completion of the North Slope pipeline to the Lower 48.<sup>151</sup> Notably, in each case domestic surplus productive capacity would well exceed the 16 mtpa requested by Sabine Pass for export authority over the course of the 20-year period (2015-2035) covered in the ARI forecast, even given the assumption of delay or cancellation of an Alaska pipeline to the Lower 48 region.<sup>152</sup>

ARI's estimate of potentially 92.7 Bcf/d in future U.S. natural gas productive capacity stands in contrast to estimates by NCI of gas production of up to 75.6 Bcf/d in 2035 under its

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<sup>147</sup> *ARI Resource Report*, *supra* note 92, at 23.

<sup>148</sup> *Id.* at 27.

<sup>149</sup> *Id.* at 23-24.

<sup>150</sup> *Id.* at 24.

<sup>151</sup> *Id.*

<sup>152</sup> *Id.*

GHG Plus, High Export demand scenario.<sup>153</sup> The differences between the ARI and NCI forecasts represent dissimilar comparisons of future domestic production given the different burdens in modeling price-responsive supply by the two consultants. In the case of ARI, a given future price track was pre-assumed to determine future natural gas productive capacity, while NCI's models predict actual U.S. gas production at prevailing market prices, given the assumed interaction of marginal supply and demand economics at a given future point.

The NCI supply outlook also reflects relatively conservative assumptions on future recovery from domestic shale gas resources compared to the ARI Resource Report. NCI assumes that no new economically recoverable reserves will be discovered in future U.S. unconventional basins, while ARI assumes that future resources will be discovered and that further gains can be expected in technology and drilling practices applied to recover potential reserves. Furthermore, NCI's GPCM modeling does not assign weight to the additional value created from producing NGLs from certain shale formations, a factor that is given consideration in ARI's forecasting and would, all else being equal, yield a more robust future outlook for shale gas production.

Significantly, both consultants have concluded that the potential for future recovery of U.S. gas production is more robust than presented in prevailing EIA forecasts. In the ARI Resource Report, this relatively bullish outlook is manifest in the creation of excess productive capacity, while NCI's modeling yields significantly greater production from domestic shale formations in the future at relatively lower prices than assumed by EIA. Both reports conclude that U.S. natural gas resources are sufficient to meet all future demand scenarios under

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<sup>153</sup> *NCI Report, supra* note 123, at 46.

consideration and, therefore, the exporting of up to 2 Bcf/d of natural gas as LNG will not be inconsistent with the public interest.

The ARI Resource Report, NCI Report, and other publicly available information demonstrate that the United States has sufficient natural gas resources available at modest prices to meet projected domestic demand over the 20-year period requested by Sabine Pass in this Application. Even if state and federal policymakers opt to deliberately stimulate future domestic gas demand, the U.S. natural gas resource base is more than sufficient to accommodate incremental market growth as well as the Liquefaction Project proposed herein. Further, these reports establish that the availability of new natural gas reserves is likely to continue expanding into the future as new unconventional formations are discovered and the oil and gas industry continues to improve drilling and extraction techniques.

## **B. Other Public Interest Considerations**

### *1. Benefits to U.S., Regional and Local Economies*

The Sabine Pass Liquefaction Project will stimulate the local, regional, and national economies through job creation, increased economic activity and tax revenues. Much of the technology, equipment, and material needed to construct the Liquefaction Project can be obtained from U.S. sources. The manufacturing and supply of the required materials will result in an investment of over \$400 million per LNG train, which equates to over \$1.6 billion in U.S. sourced materials for the Liquefaction Project as a whole. The Louisiana state and Gulf Coast regional economies will benefit from an immediate boost during the construction and operation of the Liquefaction Project. Moreover, the national economy will benefit indirectly from the Liquefaction Project's role in supporting the E&P chain for natural gas extraction.<sup>154</sup> This

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<sup>154</sup> Natural gas production activity is reported in a total 32 U.S. states. See EIA, *Natural Gas Gross Withdrawals and Production*, *supra* note 83.



indirect stimulus will have a profound multiplier effect due to the wages, taxes and lease payments involved in the natural gas supply chain. Additionally, the creation of jobs that will occur as a result of the Liquefaction Project will further the current Administration's national economic policies as articulated by the President in the State of the Union address in January 2010.<sup>155</sup> In this regard, the Liquefaction Project will help to reduce barriers to trade and promote U.S. businesses with the goal of increasing exports, thereby creating jobs and boosting the economy.

Given the magnitude of the economic benefits associated with its construction and operation, the Liquefaction Project has received significant support from a broad spectrum of local, state and federal officeholders in the state of Louisiana, including the entire congressional delegation from the state.<sup>156</sup> In this regard, the need for LNG export facilities in the United States, and in Louisiana in particular, has been recognized by U.S. Senator Mary Landrieu:

The United States is currently experiencing a natural gas revolution that will open up new markets here at home and abroad.... In northwest Louisiana alone, the Haynesville Shale reserve has 251 trillion cubic feet of recoverable natural gas, almost 11 times the amount consumed by Americans last year. Accessing this growing supply of natural gas and building the means to deliver it to consumers will stabilize prices and allow the U.S. to become a major exporter of natural gas. This project by Cheniere Energy at Sabine Pass is a key piece of that puzzle. The result will be more jobs for Louisianians, a stronger economy and more secure energy future of America.<sup>157</sup>

a. Direct Benefits

The Liquefaction Project will provide a stable source of income and employment to the Louisiana and Gulf Coast communities. Approximately 3,000 jobs will be created or sustained

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<sup>155</sup> See NEI, *supra* note 15.

<sup>156</sup> See *supra* note 16.

<sup>157</sup> Press Release, U.S. Senator Mary Landrieu, Landrieu Welcomes Changes to Sabine Pass to Allow Exportation of Natural Gas (June 4, 2010), <http://landrieu.senate.gov/mediacenter/pressreleases/06-04-2010-2.cfm>.

directly through the design, engineering and construction of the Liquefaction Project, which translates into approximately \$1 billion in wages to U.S. workers over a six-year period.<sup>158</sup> A peak labor force of approximately 2,750 craft workers will be required on site to construct Stage 1, generating estimated wages of \$350 million. An additional 250 workers in managerial staff also will be required to supervise the construction of Stage 1, creating an additional \$170 million in wages.

Stage 2 is anticipated to generate an additional \$300 million in craft labor wages and \$150 million in managerial staff wages. Sabine Pass estimates that approximately 150 to 250 full-time positions will be required to maintain and operate the Liquefaction Project.

Most of the construction workforce will come directly from southern Louisiana and southeastern Texas, providing a direct stimulus to those areas. The Liquefaction Project will provide a lifeline to the southwestern Louisiana area, particularly Cameron Parish, which was decimated by Hurricanes Ike and Rita and has yet to fully recover. The positive economic impact also will reach other areas of Louisiana and the Gulf Coast which recently have suffered a downturn as a result of the deepwater drilling moratorium in the Gulf of Mexico. Once constructed and operational, the state and local economies will derive significant tax revenues from the Liquefaction Project, including tax revenues on NGLs, increased natural gas production, labor, pipelines, and other related infrastructure construction.

b. Indirect Benefits

The Sabine Pass LNG Liquefaction Project will play an influential role in contributing to the growth of natural gas production in the U.S. The natural gas supply chain has very significant multiplier effects on the U.S. economy due to the large number of high-wage jobs

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<sup>158</sup> Estimated construction work force numbers and payroll have been provided by Sabine Pass's engineering, procurement and construction contractor, Bechtel Corporation, and include current staff working on the Liquefaction Project for front end engineering and design.

paid directly by the natural gas industry, as well as royalty and lease payments made to landowners in association with natural gas production. The direct expenditures associated with the Liquefaction Project and indirect benefits made available by increased U.S. gas production and associated liquids will ripple through the U.S. economy and generate further economic activity as businesses and workers spend additional money. In this regard, there will be significant employment and income impacts on local businesses such as restaurants, service companies, retailers and hotels, while the additional U.S. natural gas productive capacity made available by LNG exports will generate benefits on a national scale. The Liquefaction Project also may spur the creation of new value-added businesses associated with the liquefaction and export processes.

The magnitude of economic activity that can be generated by the Liquefaction Project across multiple sectors is difficult to appreciate in the abstract. As a point of reference, a number of economic impact studies have been conducted to assess the economic benefits of shale gas development in several basins, including the Barnett shale in Texas, the Haynesville shale in Louisiana, and the Marcellus shale in West Virginia and Pennsylvania, and are further discussed herein. Each of these studies analyzed the direct and indirect economic impact of natural gas development activity in these respective producing basins, and found that for every dollar spent directly by the gas industry, more than one dollar of indirect economic activity was generated as a consequence.<sup>159</sup>

The impact on the State of Louisiana economy from Haynesville shale extraction has been significant. A 2008 survey of seven of the 17 firms drilling in the shale (which represent 72% of the leased acreage), shows that annual business sales increased by \$2.4 billion,

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<sup>159</sup> See Nat'l Energy Tech. Laboratory ("NETL"), DOE, *Projecting the Economic Impact of Marcellus Shale Gas Development in West Virginia*, Mar. 31, 2010, at 23, <http://www.netl.doe.gov/energy-analyses/pubs/WVMarcellusEconomics3.pdf>.



household earnings increased by \$3.9 billion, tax revenues increased by \$153.3 million, and an additional 32,742 new jobs were created that year due to Haynesville shale development.<sup>160</sup> The volume of gas produced in 2008 from the Haynesville shale averaged 146 MMcf/d.<sup>161</sup>

The Barnett shale also has been a major engine for growth in the North Texas region. Natural gas development in the Barnett shale region in 2008 resulted in: 111,131 permanent jobs, \$3.3 billion in retail sales, \$6.55 billion in personal income and \$11 billion in gross product, for total annual expenditures of \$29.5 billion in North Texas.<sup>162</sup> The Barnett shale produced an average of 4.4 Bcf/d in 2008.<sup>163</sup>

The economic impacts associated with drilling activity in the Marcellus shale have provided a significant boost to the Appalachian region in recent years. In 2009, Marcellus shale development created an estimated total value-added benefit of \$4.36 billion in West Virginia and Pennsylvania,<sup>164</sup> including approximately \$600 million in state and local taxes and 53,000 new regional jobs. In West Virginia, Marcellus shale development in 2009 yielded value-added benefits of approximately \$561 million to the state economy, including \$199 million in taxes and 4,858 additional jobs.<sup>165</sup> In Pennsylvania, value added to the state economy by Marcellus development was estimated at \$3.8 billion in 2009, consisting of more than \$400 million in state

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<sup>160</sup> Loren C. Scott & Associates, *The Economic Impact of the Haynesville Shale on the Louisiana Economy in 2008*, Apr. 2009, at 21-22, <http://dnr.louisiana.gov/haynesvilleshale/loren-scott-impact2008.pdf>.

<sup>161</sup> See Lippman Consulting, *Monthly Major Shale Production Report*, updated Aug. 10, 2010, available by subscription at <http://www.lippmanconsulting.com>.

<sup>162</sup> The Perryman Group, *An Enduring Resource: A Perspective on the Past, Present and Future Contribution of the Barnett Shale to the Economy of Fort Worth and the Surrounding Area*, Mar. 2009, at 32, [http://groundwork.iogcc.org/sites/default/files/2009\\_eco\\_report.pdf](http://groundwork.iogcc.org/sites/default/files/2009_eco_report.pdf).

<sup>163</sup> See Lippman Consulting, *Monthly Major Shale Production Report*, updated Aug. 10, 2010, available by subscription at <http://www.lippmanconsulting.com>.

<sup>164</sup> Value added is defined as the sum of direct, indirect and induced economic impacts, minus intermediate capital and labor expenses.

<sup>165</sup> NETL, *Projecting the Economic Impact of Marcellus Shale Gas Development in West Virginia*, *supra* note 159, at 25.

and local taxes, and employment in excess of 48,000 jobs.<sup>166</sup> The Marcellus shale produced an average of 244 MMcf/d in 2009.<sup>167</sup>

These surveys of economic impacts in emerging shale plays establish that E&P development has a significant multiplier effect which yields numerous benefits for state and regional economies. By promoting increased drilling activity, the Liquefaction Project will foster additional investments in U.S. gas-producing basins and thereby expand economic activity in the broader U.S. economy. These and other surveys suggest that, in the aggregate, the Liquefaction Project will support additional employment of between 30,000 and 50,000 new U.S. jobs associated with natural gas upstream development.<sup>168</sup>

## 2. *International Considerations*

U.S. international trade law, general U.S. trade policy and DOE's longstanding policy that the public interest is best served by the principles of free trade all strongly support exportation of domestically produced LNG. Not only will the exportation of LNG have a beneficial impact on the U.S. trade deficit by leveling the balance of payments between the U.S. and the rest of the world, but it also will enhance the diversity of global supply and contribute to the security interests of the U.S. and its allies.<sup>169</sup> Furthermore, the exportation of LNG will

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<sup>166</sup> Timothy Considine, Ph.D., M.B.A., Robert Watson, Ph.D., P.E., Rebecca Entler & Jeffrey Sparks, The Penn. State Univ. Dep't of Energy & Mineral Eng'g, *An Emerging Giant: Prospects and Economic Impacts of Developing the Marcellus Shale Natural Gas Play*, July 24, 2009, at ii, <http://www.alleghenyconference.org/PDFs/PELMisc/PSUStudyMarcellusShale072409.pdf>.

<sup>167</sup> Lippman Consulting, Inc., *Monthly Major Shale Production Report*, Aug. 10, 2010, available by subscription at <http://www.lippmanconsulting.com>.

<sup>168</sup> Calculations assume a *pro rata* share of employment created by 2 Bcf/d of additional U.S. production capacity. See Nick Snow, *Boost in Marcellus shale jobs, economy expected, study says*, Oil and Gas Journal, Aug. 2, 2010, pp 42-44. In the high development case, the Marcellus shale is forecast to produce 18 Bcf/d and 280,000 jobs, or 15,555 jobs per 1 Bcf/d of production. In the low development case, the Marcellus shale is forecast to produce 4 Bcf/d and 100,000 new jobs, or 25,000 jobs per 1 Bcf/d of production.

<sup>169</sup> See MIT Report, *supra* note 90, at xv.

advance initiatives underway by the current Administration to promote investment in energy infrastructure in neighboring Caribbean and Central/South America nations.

a. Balance of Payments

Allowing for the exportation of LNG will have a beneficial impact for the United States on its balance of payments with the rest of the world, thereby reducing the overall U.S. trade deficit. According to the U.S. Department of Commerce, Bureau of Economic Analysis, in 2009 the total U.S. trade deficit was \$380.7 billion (comprised of approximately \$1.5 trillion in exports minus approximately \$1.9 trillion in imports).<sup>170</sup> Significantly, of that \$380.7 billion deficit, more than half (over \$204 billion) was the direct result of a negative balance of trade in petroleum products.<sup>171</sup> Given the substantial impact the United States's negative trade balance in petroleum products has on its overall trade deficit and balance of payments, approving Sabine Pass's request to export LNG will have a significant positive impact on reducing that deficit.

More specifically, Sabine Pass estimates that it will export approximately \$5 billion of LNG on an annual basis. In addition, LNG exports will allow U.S. natural gas productive capacity to expand, thereby enabling additional production of NGLs such as ethane, propane and condensate derived in association with natural gas processing and field production. According to the ARI Liquids Report, LNG exports from the Gulf Coast will particularly benefit NGL production from several liquids-rich unconventional formations in the region, including the Barnett shale, the Eagle Ford shale and the Granite Wash tight sands. Furthermore, ARI found that an increase of 2 Bcf/d of LNG exports will yield an estimated 46.7 million barrels per year, or 128,000 b/d, of additional NGLs by 2020 due to increased productive capacity in the Gulf

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<sup>170</sup> See BEA, *2009 Trade Gap*, *supra* note 20.

<sup>171</sup> See BEA, U.S. Dep't of Commerce, *U.S. Int'l Trade in Goods and Services*, Feb. 10, 2010, at 11, <http://www.bea.gov/newsreleases/international/trade/2010/pdf/trad1209.pdf>.



Coast region.<sup>172</sup> This incremental liquids production would be available either for export or to reduce current U.S. oil product imports, resulting in a further \$1.7 billion improvement to the U.S. balance of payments.<sup>173</sup> The export of approximately 16 mtpa of LNG in tandem with displacement of 46.7 million barrels of annual oil product would therefore yield an approximate \$6.7 billion improvement to the U.S. balance of trade.<sup>174</sup> Notably, in 2009, the U.S. only exported a total of \$49 billion worth of petroleum products.<sup>175</sup> Accordingly, Sabine Pass estimates that approval of its request will result in a significant net benefit to the U.S. trade deficit and balance of payments over the period of the authorization. These types of potential benefits to the U.S. trade deficit and balance of payments have been expressly recognized by DOE in its prior decisions, when it approved other requests to export LNG from the United States.<sup>176</sup> DOE's prior conclusions are equally applicable here.

b. Geopolitical Benefits

The export of domestically produced LNG will promote liberalization of the global gas market by fostering increased liquidity and trade at prices established by market forces. LNG exports also will advance national security interests as well as the security interests of U.S. allies through the diversification of global natural gas supplies. The current natural gas trade has developed regionally with three primary markets: North America, Europe and Asia. There is

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<sup>172</sup> See *ARI Liquids Report*, *supra* note 18, at 6.

<sup>173</sup> See *supra* note 19.

<sup>174</sup> See *ARI Liquids Report*, *supra* note 18, at 6.

<sup>175</sup> See BEA, *U.S. Int'l Trade*, *supra* note 171, at 11.

<sup>176</sup> See, e.g., *ConocoPhillips*, Order No. 2731, at 10 ("exportation of LNG will help to improve the United States's balance of payments with destination countries"); *Cheniere*, Order No. 2651, at 14 ("I find that mitigation of balance of payment issues may result from a grant of the application [to export LNG]"); *Freeport LNG Dev., L.P.*, FE Docket No. 08-70-LNG, Order No. 2644, at 12 ("mitigation of balance of payments issues to the benefit of United States interests will result from a grant of the application [to export LNG]"); *ConocoPhillips*, Order No. 2500, at 58 ("we find that mitigation of balance of payment issues may result from a grant of the instant application [to export LNG]").

substantial trade within these markets, but limited trade between the markets. The pricing structure within each market is significantly different. In North America, natural gas is traded in a highly liquid and competitive market and prices are very transparent. The European and Asian markets are dominated by natural gas price linkage to the valuation of competing crude oil products. LNG contracts for these markets also are predominantly indexed to crude oil. By introducing market-based price structures, Sabine Pass increases the potential for global decoupling of oil-parity pricing. This will provide significant benefits worldwide because, as stated in the MIT Report, “[a]n interconnected delivery system combined with price competition are essential feature of a ‘liquid’ market.”<sup>177</sup> The Sabine Pass Liquefaction Project can serve as a catalyst for this interconnection.

Natural gas is poised to grow as an energy source globally. Energy and security have historically been linked and this relationship is likely to tighten. On April 8, 2010, in addressing the North Atlantic Treaty Organization (“NATO”), the President said lack of international energy security was a 21st century asymmetric threat for all to address.<sup>178</sup> He suggested that the European Union (“EU”) make an effort collectively within the EU and reiterated that diversity in sources of energy supply was good for all parties. He also pledged cooperation and support with regard to that issue. Energy security is not a new issue for NATO. Its economic committee has, for years, had regular briefings on the topic as well as on industrial planning and energy security. The U.S. government and NATO have stressed that planning in response to terrorism is an area where energy security plays an integral role. The U.S. government has expressed concerns over structural difficulties that inhibit a common position within the EU on energy security

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<sup>177</sup> *MIT Report*, *supra* note 90, at 70.

<sup>178</sup> Press Release, The White House, Press Gaggle by Nat’l Security Advisor Gen. Jim Jones and NSC Chief of Staff Denis McDonough Aboard Air Force One (Apr. 9, 2010), <http://www.whitehouse.gov/the-press-office/press-gaggle-national-security-advisor-general-jim-jones-and-nsc-chief-staff-denis->

cooperation. Exports of U.S. natural gas will play a significant role in reducing the influence of Eurasian/MidEastern price cartels on NATO allies and other U.S. trading partners. Exports of U.S. natural gas could provide the catalyst that helps assure energy security within NATO.

As a related matter, a global, liquid natural gas market is beneficial to U.S. and global economic interests and, at the same time, advances security interests through diversity of supply and resilience to disruptions.<sup>179</sup> To this end, the importance of the Sabine Pass Liquefaction Project has been recognized by multiple European utilities with interest in it due to the competitive pricing structure of U.S. natural gas markets and the security and diversity of supply offered by liberalized market policies. The gas supply available to Europe is restricted to a small group of supplying countries. Even though the amount of supply from the Sabine Pass Liquefaction Project will be an estimated 3% of the global LNG export capacity of 498 mtpa by 2015,<sup>180</sup> the entrance of the United States into the global LNG market as a supplier will significantly diversify the global gas market. Further, the U.S. provides a stable trading partner for European utilities and other international customers. This has important security implications because “[t]he U.S., with its unique international security responsibilities, can be constrained in pursuing collective action if its allies are limited by energy security vulnerabilities.”<sup>181</sup>

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<sup>179</sup> *MIT Report, supra* note 90, at xv (“Greater international market liquidity would be beneficial to U.S. interests. U.S. prices for natural gas would be lower than under current regional markets, leading to more gas use in the U.S. Greater market liquidity would also contribute to security by enhancing diversity of global supply and resilience to supply disruptions for the U.S. and its allies. These factors moderate security concerns about import dependence.”). *See also id.* at xvii (“For reasons of both economy and global security, the U.S. should pursue policies that encourage an efficient integrated global gas market with transparency and diversity of supply, and governed by economic considerations.”).

<sup>180</sup> Currently, the global LNG export capacity is 262 mtpa. By 2015, LNG Reports expects this to grow by 90%. *See* LNGReports, *World LNG Export and Import Markets to 2015* (Jan. 7, 2010), <http://www.lngreports.com/reports.php?reportid=309>.

<sup>181</sup> *MIT Report, supra* note 90, at 71.



c. Economic Trade and Ties with Neighboring Countries in the Americas

The United States has long recognized as a matter of policy that increased economic trade and ties with its proximate hemispheric neighbors in the Americas serve the national interest. In the case of the Caribbean and Central America, these goals are expressed in the trade programs known collectively as the Caribbean Basin Initiative (“CBI”), which are designed to facilitate the economic development and export diversification of the Caribbean Basin economies. Initially launched in 1983 through the Caribbean Basin Economic Recovery Act (“CBERA”)<sup>182</sup> and substantially expanded in 2000 through the U.S.-Caribbean Basin Trade Partnership Act (“CBTPA”),<sup>183</sup> the CBI currently provides 18 beneficiary countries with duty-free access to the U.S. market for most goods. Authorization to export LNG to these participating countries will support those established policy goals. As to the Western Hemisphere as a whole, it has long been a tenet of U.S. foreign policy that healthy economies in the region contribute to improved relations, increased stability, and two-way trade, as well as a reduction of incentives for transnational crimes, illegal immigration and the drug trade. The ability to access an environmentally cleaner, more economical and efficient fuel supply is a proven factor in promoting economic growth. If the source of that fuel is in the U.S., then both the U.S. and its neighbors’ economies will benefit mutually.

Furthermore, LNG exports will directly advance initiatives underway by the current Administration to promote investment in energy infrastructure in Caribbean and South American nations. This effort is manifest in the Energy and Climate Partnership of the Americas (“ECPA”), a set of voluntary initiatives which promote energy efficiency, renewable energy,

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<sup>182</sup> Caribbean Basin Economic Recovery Act, Pub. L. No. 98-67, §§ 201-231, 97 Stat. 369, 384-398 (1983) (codified as amended in scattered sections of 19 U.S.C. and 26 U.S.C.).

<sup>183</sup> Caribbean Basin Trade Partnership Act, Pub. L. No. 106-200, §§ 201-213, 114 Stat. 251, 275-288 (2000) (codified in scattered sections of 19 U.S.C.).

cleaner fossil fuels, and modernized energy infrastructure. President Obama endorsed the goals of the EPCA in his address to the Summit of the Americas in April 2009, and invited countries of the Western Hemisphere to join the partnership.<sup>184</sup> Secretary of State Hillary Rodham Clinton underscored the United States's commitment to help governments achieve low-carbon economic growth, and highlighted new initiatives that the Department of State is sponsoring under ECPA to expand energy and climate cooperation in the Americas.<sup>185</sup>

The promotion of hemispheric natural gas usage via LNG exports will advance the policy goals established under the EPCA. Many countries in the Caribbean and Central America lack access to indigenous natural gas resources, and as a result are highly dependant on imported petroleum products to fuel electric generation and manufacturing activities. Countries in the Latin American region consume approximately 2.3 million b/d of petroleum products in stationary demand sources, including 0.9 million b/d for power generation, 0.6 million b/d in manufacturing and 0.8 million b/d for use in the residential and commercial sectors.<sup>186</sup> These sources of petroleum demand represent viable candidates for conversion to cleaner-burning natural gas, totaling potentially 12 Bcf/d of switchable use if reliable natural gas supplies were made available and related infrastructure developed in the region. Given that natural gas combustion emits approximately 30% less carbon dioxide than petroleum,<sup>187</sup> substituting natural gas for petroleum will reduce the carbon intensity of these economies.

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<sup>184</sup> Press Release, The White House, The United States and the 2009 Summit of the Americas: Securing Our Citizens' Future (Apr. 19, 2009), <http://www.whitehouse.gov/the-press-office/united-states-and-2009-summit-americas-securing-our-citizens-future>.

<sup>185</sup> Press Release, U.S. Dep't of State, Secretary Clinton Announces New Initiatives Under the Energy and Climate Partnership of the Americas (Apr. 15, 2010), <http://www.state.gov/r/pa/prs/ps/2010/04/140288.htm>.

<sup>186</sup> PIRA Energy Group, *The Potential for Natural Gas Substitution*, Jan. 12, 2010, at 5.

<sup>187</sup> See American Clean Skies Foundation, <http://www.cleanskies.org/resources-natgas-basics.html>.

Initiatives are afoot in several countries in the Americas to establish local markets for natural gas through the importation of LNG. Brazil currently imports LNG via two LNG receiving terminals located offshore Rio de Janeiro and Pecem. The Dominican Republic and Puerto Rico are also current importers of LNG. El Salvador is planning its first LNG receiving terminal at the Port of La Union to supply a 525 MW combined-cycle power plant under development at the site. The government of Jamaica has issued a tender for bids to construct a floating LNG regasification unit off its southern coast. Other neighboring countries such as Colombia, Panama and Costa Rica also are considering LNG as an option to meet future growth in energy demand. The authority to export domestically produced natural gas to these hemispheric allies will bolster their efforts to modernize their economies and transition away from more carbon-intensive fuels.

### 3. *Environmental Impacts*

The Liquefaction Project will have minimal environmental impacts given that all facilities will be located within the previously authorized footprint of the existing Sabine Pass LNG Terminal. The FERC conducted an environmental review of the Sabine Pass LNG Terminal site in connection with authorization of the siting, construction and operation of the Terminal in Docket Nos. CP04-47-000 and Docket No. CP05-396-000.<sup>188</sup> Any additional environmental impacts associated with construction and operation of the Liquefaction Project will be reviewed by the FERC and the applicable state and federal permitting agencies (*e.g.*, United States Army Corps of Engineers and Louisiana Department of Natural Resources, among others) as part of the permitting process for the Liquefaction Project. In this regard, on August 4,

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<sup>188</sup> See underlying applications filed in Docket Nos. CP04-47-000 and CP05-396-000 for a description of the location, size and environmental characteristics of the Sabine Pass LNG Terminal site. See also Final Environmental Impact Statement and the Environmental Assessment prepared by the FERC Staff in Docket Nos. CP04-47-000 and CP05-396-000.



2010, FERC initiated the NEPA pre-filing review process for the Sabine Pass Liquefaction Project in Docket No. PF10-24-000. Sabine Pass will keep DOE/FE apprised of the progress of the environmental review conducted by FERC.

#### **XI. ENVIRONMENTAL IMPACT**

As discussed above, the potential environmental impacts of the Sabine Pass Liquefaction Project will be reviewed by FERC under NEPA. In this regard, Sabine Pass has requested that the Assistant Secretary issue a conditional order authorizing the export of domestically produced LNG, conditioned on completion of the environmental review of the Liquefaction Project by FERC.

#### **XII. RELATED AUTHORIZATIONS**

The siting, construction and operation of the Liquefaction Project is subject to approval by FERC pursuant to Section 3 of the NGA. In this regard, Sabine Pass and Sabine Pass LNG currently are undergoing the FERC's mandatory NEPA pre-filing review process for the Sabine Pass Liquefaction Project in Docket No. PF10-24-000.<sup>189</sup> Sabine Pass and Sabine Pass LNG anticipate filing a formal application with FERC no later than February 2011 and will request that FERC issue authorization of the siting, construction and operation of the Liquefaction Project by December 2011.

#### **XIII. REQUEST FOR EXPEDITED APPROVAL**

Sabine Pass respectfully requests that the DOE/FE issue (i) an order pursuant to the Energy Policy Act of 1992's standard by no later than September 22, 2010 for authorization to export LNG to WTO Countries; and (ii) an order pursuant to the NGA's Section 3 public interest standard by no later than December 2010 for authorization to export LNG to non-WTO

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<sup>189</sup> See *supra* note 28.

Countries. Granting these authorizations in the timeframe indicated is critical to the feasibility of the Liquefaction Project. As discussed in Section VIII, Sabine Pass is in the process of aggregating customer interests and requests so that it may soon begin negotiating commercial agreements. As is customary, these commercial arrangements are contingent on Sabine Pass obtaining the necessary regulatory authorizations for the Liquefaction Project. Approval of this Application in the timeframe indicated will positively impact potential exporters' willingness to undertake exporting LNG and help facilitate and expedite investment in the necessary infrastructure.

#### **XIV. EXHIBITS**

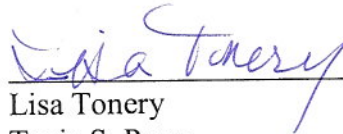
The following appendices are attached hereto and incorporated by reference herein:

- Exhibit A: Opinion of Counsel
- Exhibit B: *A Review of International Trade-Related Legal Obligations and Policy Considerations Governing U.S. Export Licenses for Liquefied Natural Gas*, prepared by Stewart and Stewart (Aug. 23, 2010)
- Exhibit C: Letters of Support: Letter from Cameron Parish Planning and Development (Jun. 29, 2010); Letter from Louisiana State Senator Willie L. Mount, et al. (Jul. 1, 2010); Letter from Louisiana State Representative Jonathan Perry (Jul. 15, 2010); Letter from Lieutenant Governor Scott A. Angelle (Jul. 21, 2010); Letter from U.S. Senator Mary Landrieu, et al. (Jul. 26, 2010)
- Exhibit D: *U.S. Natural Gas Resources and Productive Capacity*, prepared by Advanced Resources International, Inc. (Aug. 26, 2010)
- Exhibit E: *Domestic Hydrocarbon Liquids Production from Gas Shales and Other Unconventional Gas Resources*, prepared by Advanced Resources International, Inc. (Aug. 27, 2010)
- Exhibit F: *Market Analysis for Sabine Pass LNG Export Project*, prepared by Navigant Consulting, Inc. (Aug. 23, 2010)

## **XV. CONCLUSION**

For the foregoing reasons, Sabine Pass respectfully requests that DOE/FE determine that Sabine Pass's request for long-term, multi-contract authorization as discussed herein to enable it to export domestically produced LNG from the Sabine Pass LNG Terminal to any country with which the United States does not have a Free Trade Agreement requiring the national treatment for trade in natural gas and LNG that has the capacity to import LNG and with which trade is not prohibited by U.S. law or policy, is not inconsistent with the public interest. Sabine Pass respectfully requests that the DOE/FE issue (i) an order pursuant to the Energy Policy Act of 1992's standard by no later than September 22, 2010 for authorization to export LNG to WTO Countries; and (ii) an order pursuant to the NGA's Section 3 public interest standard by no later than December 2010 for authorization to export LNG to non-WTO Countries.

Respectfully submitted,



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Dated: September 7, 2010



UNITED STATES OF AMERICA  
DEPARTMENT OF ENERGY  
OFFICE OF FOSSIL ENERGY

In The Matter Of:

SABINE PASS LIQUEFACTION, LLC

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Docket No. 10 - \_\_\_\_ - LNG

EXHIBITS TO  
APPLICATION OF SABINE PASS LIQUEFACTION, LLC  
FOR LONG-TERM AUTHORIZATION  
TO EXPORT LIQUEFIED NATURAL GAS

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## LIST OF EXHIBITS

Opinion of Counsel	Exhibit A
<i>A Review of International Trade-Related Legal Obligations and Policy Considerations Governing U.S. Export Licenses for Liquefied Natural Gas</i> , prepared by Stewart and Stewart (Aug. 23, 2010)	Exhibit B
Letters of Support: Letter from Cameron Parish Planning and Development (Jun. 29, 2010); Letter from Louisiana State Senator Willie L. Mount, et al. (Jul. 1, 2010); Letter from Louisiana State Representative Jonathan Perry (Jul. 15, 2010); Letter from Lieutenant Governor Scott A. Angelle (Jul. 21, 2010); Letter from U.S. Senator Mary Landrieu, et al. (Jul. 26, 2010)	Exhibit C
<i>U.S. Natural Gas Resources and Productive Capacity</i> , prepared by Advanced Resources International, Inc. (Aug. 26, 2010)	Exhibit D
<i>Domestic Hydrocarbon Liquids Production from Gas Shales and Other Unconventional Gas Resources</i> , prepared by Advanced Resources International, Inc. (Aug. 27, 2010)	Exhibit E
<i>Market Analysis for Sabine Pass LNG Export Project</i> , prepared by Navigant Consulting, Inc. (Aug. 23, 2010)	Exhibit F

## EXHIBIT A





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September 7, 2010

Office of Fuel Programs  
Fossil Energy, U.S. Department of Energy  
Docket Room 3F-056, FE50  
Forrestal Building  
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Washington, D.C. 10585

**Re: Sabine Pass Liquefaction, LLC**  
**Application for Long-Term Authorization to Export Liquefied Natural Gas**  
**Opinion of Counsel**

Dear Sir or Madam:

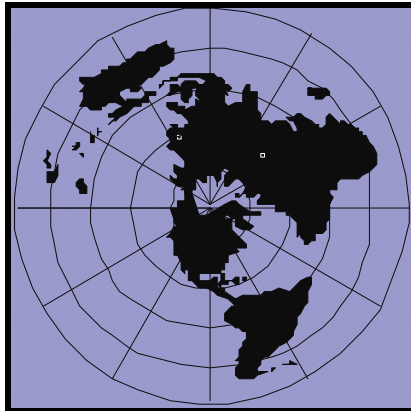
This opinion of counsel is provided in accordance with the requirements of Section 590.202(c) of the U.S. Development of Energy's regulations, 10 C.F.R. § 590.202 (c) (2010). I have examined the Limited Liability Company Agreement of Sabine Pass Liquefaction, LLC ("Sabine Pass") and other authorities as necessary, and have concluded that the proposed long-term, multi-contract exportation of liquefied natural gas is within its corporate powers. Further, Sabine Pass is authorized to do business in Texas and to engage in foreign commerce.

Respectfully submitted,

A handwritten signature in blue ink, appearing to read "Timothy J. Neumann", written over a horizontal line.

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## EXHIBIT B



**A REVIEW OF INTERNATIONAL TRADE-RELATED  
LEGAL OBLIGATIONS AND POLICY CONSIDERATIONS  
GOVERNING  
U.S. EXPORT LICENSES FOR LIQUEFIED NATURAL GAS**

★ ★ ★

**August 23, 2010**

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**I. EXECUTIVE SUMMARY**

U.S. international trade law and general U.S. trade policy strongly support exportation of natural gas. U.S. law requires government approval for a proposed export of natural gas, but the government must approve the export so long as it is not shown to be inconsistent with the public interest. The Department of Energy has a longstanding policy that the public interest is best served by the principles of free trade and limited government involvement, which supports exportation consistent with market demands. In addition, the current Administration's National Export Initiative demonstrates a significant international trade policy objective toward increasing exports and promoting U.S. products overseas to benefit the domestic economy. Although certain exceptions exist in U.S. law that may be applied to restrict exports of natural gas, these exceptions are either inapplicable at present or do not justify blanket export restrictions on natural gas.

A review of U.S. international legal obligations under the WTO Agreement and U.S. free trade agreements indicates that export restrictions made effective through discretionary or non-automatic export licensing requirements can be inconsistent with those U.S. international legal obligations unless they can be justified under an exception.<sup>1</sup> Although there are a number of exceptions potentially available in cases involving critical shortages, the conservation of natural resources, government stabilization plans, short supply situations, or national security interests, it is not clear that the U.S. government would be justified in relying on any of these exceptions to deny a license application to export natural gas at the present time based on available facts. Finally, even if the export licensing requirements in the U.S. statute are deemed not to be inconsistent with U.S. obligations under the WTO Agreement, the DOE's *administration* of the statute adopting a practice of granting export licenses for natural gas exports for brief limited periods appears to be unreasonable and arbitrary contrary to U.S. obligations under the WTO Agreement.

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<sup>1</sup> The following discussion is intended to be an identification and broad review of various U.S. international trade-related legal obligations and policy considerations governing U.S. export licenses for liquefied natural gas. As such, the memorandum does not weigh the relative merits of various claims or defenses that could be raised before U.S. courts or international dispute settlement bodies.

In sum, the following analysis indicates that there are a number of significant U.S. domestic and international legal obligations and policy considerations that should weigh heavily in favor of approving U.S. export license applications for natural gas at this time.

**II. U.S. LAW AND POLICY REQUIRE THE DOE TO APPROVE AN EXPORT LICENSE APPLICATION ABSENT RECORD EVIDENCE THAT THE PROPOSED EXPORT WILL NOT BE CONSISTENT WITH THE PUBLIC INTEREST**

**A. *U.S. Law Governing Consideration of Export License Applications Requires Their Approval Unless They Are Shown to Be Inconsistent with the Public Interest***

**1. U.S. Statutes Support Exportation of Natural Gas**

U.S. laws directly relating to the regulation of exports of natural gas provide for export approval so long as they are determined to be in the public interest. The Natural Gas Act of 1938 requires that all proposed exports of natural gas<sup>2</sup> from the United States must be approved by the government. It further states that such applications shall be granted unless the government finds that the proposed export will not be consistent with the public interest. Specifically, 15 U.S.C. § 717b(a) states:

**(a) Mandatory authorization order**

After six months from June 21, 1938, no person shall export any natural gas from the United States to a foreign country or import any natural gas from a foreign country without first having secured an order of the Commission authorizing it to do so. The Commission shall issue such order upon application, unless, after opportunity for hearing, it finds that the proposed exportation or importation will not be consistent with the public interest. The Commission may by its order grant such application, in whole or in part, with such modification and upon such terms and conditions as the Commission may find necessary or appropriate, and may from time to time, after opportunity for hearing, and for good cause shown, make such supplemental order in the premises as it may find necessary or appropriate.

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<sup>2</sup> “Natural gas” is defined as “either natural gas unmixed, or any mixture of natural and artificial gas.” 15 U.S.C. § 717a(5) (2010).

The Department of Energy (“DOE”) has interpreted this provision as providing a presumption of approval for exports of natural gas, but this presumption can be rebutted with specific evidence showing that the exports would be inconsistent with the public interest.<sup>3</sup> Accordingly, unless opponents can show that the proposed exports of natural gas would be inconsistent with the public interest, the export application must be granted.<sup>4</sup>

In 1992, as part of the Energy Policy Act, Congress added a new provision dealing with exportation to countries with which the U.S. has entered into certain trade agreements. It states that where a free trade agreement (FTA) exists that provides for national treatment for trade in natural gas, the export license application is deemed to be in the public interest and will be granted without modification or delay. Specifically, section 717b(c) provides the following:

**(c) Expedited application and approval process**

For purposes of {15 U.S.C. § 717b(a)}, the importation of the natural gas referred to in {15 U.S.C. § 717b(b)}, or the exportation of natural gas to a nation with which there is in effect a free trade agreement requiring national treatment for trade in natural gas, shall be deemed to be consistent with the public interest, and applications for such importation or exportation shall be granted without modification or delay.<sup>5</sup>

The addition of this provision is consistent with the fundamental policies of free trade and limited government involvement that underlie U.S. natural gas regulation, discussed in more detail *infra*.

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<sup>3</sup> See, e.g., ConocoPhillips Alaska Natural Gas Corporation and Marathon Oil Company: Order Granting Authorization to Export Liquefied Natural Gas From Alaska, DOE Opinion and Order No. 2500, at 43 (June 3, 2008); Phillips Alaska Natural Gas Corporation and Marathon Oil Company: Order Extending Authorization to Export Liquefied Natural Gas from Alaska, DOE/FE Opinion and Order No. 1473, at 13 (April 2, 1999).

<sup>4</sup> Phillips Alaska Natural Gas Corporation and Marathon Oil Company: Order Extending Authorization to Export Liquefied Natural Gas from Alaska, DOE/FE Opinion and Order No. 1473, at 13 (April 2, 1999).

<sup>5</sup> 15 U.S.C. § 717b(c) (2010).



The United States currently has FTAs in force with 17 countries.<sup>6</sup> Each of these FTAs contains a National Treatment clause from which natural gas is not excluded.<sup>7</sup> Additionally, the North American Free Trade Agreement between the U.S., Canada and Mexico contains specific provisions regarding energy and basic petrochemicals, which provides for national treatment of such products and limits potential import and export restraints on the countries' energy and petrochemical products.<sup>8</sup> Accordingly, the DOE is required, by the statutory provision in 15 U.S.C. § 717b(c), to grant applications without modification or delay for exports of natural gas destined for any of these 17 countries. It would be inconsistent with U.S. obligations under the WTO Agreements, however, to grant applications for exports to countries with which the U.S. has FTAs while denying applications for exports to other WTO Members with which the U.S. does not have a separate FTA.

Furthermore, the legislative history surrounding the inclusion of section 717b(c) provides a rationale that extends to all other WTO Members. The original language in the bill that went on to become the Energy Policy Act of 1992 focused on imports from Canada. In the House Report of the Committee of Energy and Commerce that accompanies H.R. 776, the Committee acknowledged that the existing free trade agreement prohibited differential treatment of Canadian and U.S. natural gas when it stated that “{b}ecause of the 1988 Canadian Free Trade Agreement, old distinctions between Canadian and U.S. gas are illegal in any event.”<sup>9</sup> Although this comment was made with respect to a specific free trade agreement and in reference to what

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<sup>6</sup> The countries are Australia, Bahrain, Canada, Chile, Costa Rica, Dominican Republic, El Salvador, Guatemala, Honduras, Israel, Jordan, Mexico, Morocco, Nicaragua, Oman, Peru, and Singapore. See Office of the United States Trade Representative at [www.ustr.gov/trade-agreements/free-trade-agreements](http://www.ustr.gov/trade-agreements/free-trade-agreements).

<sup>7</sup> The relevant provisions of the FTAs addressing national treatment are included as Annex A to this memorandum. Note: Although the free trade agreement with Israel does not explicitly state that the parties must provide national treatment to each other's goods, Article 3 of the U.S.-Israel FTA states that the parties “affirm their respective rights and obligations with respect to each other under existing bilateral and multilateral agreements, including...the GATT.” By affirming their rights and obligations under the GATT, this presumptively includes the national treatment provisions included in GATT Article III. The full text of GATT Article III also is included in Annex A.

<sup>8</sup> See North American Free Trade Agreement, Articles 301, 603 and 606.

<sup>9</sup> House Report (Energy and Commerce Committee) No. 102-474(I), at 136 (March 30, 1992).

is now 15 U.S.C. § 717b(c), this same logic applies to all WTO Members that have committed, by virtue of their WTO accession, to most-favored-nation and national treatment of each others' goods and services.<sup>10</sup> The U.S. has specifically committed to afford most-favored-nation treatment to all WTO Members in its schedule of commitments.<sup>11</sup> As discussed in more detail further below, it would therefore be inconsistent with U.S. commitments under the WTO agreements to restrain exports to WTO Members under 15 U.S.C. § 717b(a), especially in light of the provision requiring approval of export applications involving countries with which the U.S. has a separate FTA (15 U.S.C. § 717b(c)).

There is one possible exception to the general export provisions discussed immediately above. The statutes impose an additional requirement on proposed exports of large quantities of Alaskan natural gas. The Alaskan Gas Transportation Act provides for exports of Alaskan natural gas, under the terms of the Natural Gas Act (15 U.S.C. § 717 et seq.) described above, but imposes an additional requirement: for proposed exports in excess of 1,000 Mcf per day destined for countries other than Canada or Mexico, the "the President must make and publish an express finding that such exports will not diminish the total quantity or quality nor increase the total price of energy available to the United States."<sup>12</sup> This provision also raises concerns under the WTO agreements and U.S. FTAs other than NAFTA by providing Canada and Mexico with preferential treatment, which is inconsistent with the most favored nation and national treatment clauses, but it is also relevant in that it does not prohibit exports of domestic natural gas.

## **2. The DOE Policy Supports Exportation of Domestic Natural Gas**

The DOE has a longstanding policy of promoting free trade and limiting government involvement to allow parties to negotiate commercial transactions, thus establishing competitive

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<sup>10</sup> GATT 1994 Articles I and III, *in* WTO, *The Legal Texts: The Results of the Uruguay Round of Multilateral Trade Negotiations* at 424, 427 (1999). See also the discussion in Section III D *infra* at notes 115 – 120.

<sup>11</sup> Marrakesh Protocol to the General Agreement on Tariffs and Trade 1994, Schedule XX- United States of America, Part I, Section II, page 54 at HTS 2711.11.00 "Liquefied Natural Gas".

<sup>12</sup> 15 U.S.C. § 719j (2010).

prices for natural gas. In February 1984, the agency published guidelines relating to regulation of natural gas,<sup>13</sup> which originally only applied to imports but have since been applied to exports as well.<sup>14</sup> The guidelines emphasize free market principles and promote limited government involvement in federal natural gas regulation:

The market, not government, should determine the price and other contract terms for imported {and exported} gas. U.S. buyers {and sellers} should have full freedom – along with the responsibility – for negotiating the terms of trade arrangements with foreign sellers {and buyers}.

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The government, while ensuring that the public interest is adequately protected, should not interfere with buyers' and sellers' negotiation of the commercial aspects of import {and export} arrangements. The thrust of this policy is to allow the commercial parties to structure more freely their trade arrangements, tailoring them to the markets served.<sup>15</sup>

The guidelines also provide some insight on the public interest standard for evaluating potential import and export applications. They note that Congress did not define the term “public interest” in the Natural Gas Act and attempted to provide some additional clarity on that phrase. The guidelines state that the “policy cornerstone of the public interest standard is competition.”<sup>16</sup> Competitive import/export arrangements are therefore an essential element of the public interest and so long as the sales agreements are set in terms that are consistent with

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<sup>13</sup> New Policy Guidelines and Delegation Orders From Secretary of Energy to Economic Regulatory Administration and Federal Energy Regulatory Commission Relating to the Regulation of Imported Natural Gas, Department of Energy, 49 Fed. Reg. 6684 (February 22, 1984) [hereinafter DOE Policy Guidelines].

<sup>14</sup> Phillips Alaska Natural Gas Corporation and Marathon Oil Company: Order Extending Authorization to Export Liquefied Natural Gas from Alaska, DOE/FE Opinion and Order No. 1473, at 14 (April 2, 1999) (noting that although the DOE guidelines specifically address imports, “the principles are applicable to exports as well”).

<sup>15</sup> DOE Policy Guidelines at 6685 (with references to “exports” inserted to reflect DOE policy that “the principles are applicable to exports as well” as enunciated in Phillips Alaska Natural Gas Corporation and Marathon Oil Company: Order Extending Authorization to Export Liquefied Natural Gas from Alaska, DOE/FE Opinion and Order No. 1473, at 14 (April 2, 1999)).

<sup>16</sup> DOE Policy Guidelines at 6687.



market demands, they should be considered to “largely” meet the public interest standard.<sup>17</sup> The guidelines continue by saying that “{t}his policy approach presumes that buyers and sellers, if allowed to negotiate free of constraining governmental limits, will construct competitive import {and export} agreements that will be responsive to market forces over time.”<sup>18</sup>

While competitiveness is the key focus in considering whether to authorize potential international trade in natural gas, additional factors may also be relevant in making the determination. Specifically, the guidelines instruct consideration of the domestic need for natural gas and the security of supply, and also recognize the need to consider other factors that may bear on the import or export authorization request, including international trade policy, foreign policy and national security.<sup>19</sup>

U.S. international trade policy encourages trade and embodies the view that trade is a tool for growth and prosperity. Moreover, as discussed in more detail *infra*, the Administration has recently launched the National Export Initiative with the goal of doubling U.S. exports over the next five years. Because exports of liquefied natural gas (“LNG”) would stimulate considerable infrastructure building to enable and facilitate such exports as well as exploration, recovery, and distribution of additional natural gas, U.S. international trade policy weighs strongly in favor of authorizing U.S. exports of LNG.

To date, the DOE orders granting authorization to export natural gas continue to reflect and reinforce the principles laid out in the 1984 guidelines. The orders issued by the DOE emphasize the ideas of free trade and limited government involvement,<sup>20</sup> and evaluate the public

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<sup>17</sup> DOE Policy Guidelines at 6687.

<sup>18</sup> DOE Policy Guidelines at 6687 (with reference to “exports” inserted to reflect DOE policy that “the principles are applicable to exports as well” as enunciated in Phillips Alaska Natural Gas Corporation and Marathon Oil Company: Order Extending Authorization to Export Liquefied Natural Gas from Alaska, DOE/FE Opinion and Order No. 1473, at 14 (April 2, 1999)).

<sup>19</sup> DOE Policy Guidelines at 6688.

<sup>20</sup> See, e.g., ConocoPhillips Alaska Natural Gas Corporation and Marathon Oil Company: Order Granting Authorization to Export Liquefied Natural Gas from Alaska, DOE Opinion and Order No. 2500, at 44-45 (June 3, 2008) (stating that DOE’s general policy is to minimize federal government involvement and allow commercial parties to freely negotiate their own trade arrangements).

interest through consideration of numerous factors. As noted above, it is now established that there is a presumption of approval for export applications and any objectors bare the burden to present evidence demonstrating that the export would be inconsistent with the public interest in order to overcome that presumption.<sup>21</sup> When evaluating the public interest standard, the DOE takes into account the domestic need for natural gas as well as other factors, including the potential international effects of the transaction.<sup>22</sup> For example, the DOE orders recognize positive international effects based on the mitigating effects of exports on the balance of payments with the recipient country.<sup>23</sup> The DOE also has stated that the public interest is generally best served by a free trade policy.<sup>24</sup>

Pursuant to the statute and the guiding principles, the DOE granted multiple applications for proposed exports of both domestic and foreign-sourced natural gas from the United States. Natural gas from Alaska has been exported to Japan for 30 years.<sup>25</sup> Authorization for this export was expanded to include all Pacific Rim countries, or more specifically, “any destination point for the delivery of liquefied natural gas on or abutting the Pacific Ocean in a country with which

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<sup>21</sup> ConocoPhillips Alaska Natural Gas Corporation and Marathon Oil Company: Order Granting Authorization to Export Liquefied Natural Gas from Alaska, DOE Opinion and Order No. 2500, at 43 (June 3, 2008); Phillips Alaska Natural Gas Corporation and Marathon Oil Company: Order Extending Authorization to Export Liquefied Natural Gas from Alaska, DOE/FE Opinion and Order No. 1473, at 13 (April 2, 1999).

<sup>22</sup> See, e.g., Phillips Alaska Natural Gas Corporation and Marathon Oil Company: Order Extending Authorization to Export Liquefied Natural Gas from Alaska, DOE/FE Opinion and Order No. 1473, at 47, 51 (April 2, 1999).

<sup>23</sup> See, e.g., Cheniere Marketing, Inc.: Order Granting Authorization to Export Liquefied Natural Gas, DOE Opinion and Order No. 2651, at 14 (June 8, 2009).

<sup>24</sup> Phillips Alaska Natural Gas Corporation and Marathon Oil Company: Order Extending Authorization to Export Liquefied Natural Gas from Alaska, DOE/FE Opinion and Order No. 1473, at 51 (April 2, 1999).

<sup>25</sup> See Yukon Pacific Corporation: Order Granting Authorization to Export Liquefied Natural Gas from Alaska, DOE/FE Opinion and Order No. 350 (November 16, 1989); see also ConocoPhillips Alaska Natural Gas Corporation and Marathon Oil Company: Order Granting Authorization to Export Liquefied Natural Gas from Alaska, DOE Opinion and Order No. 2500, at 8-9 (June 3, 2008) (noting that long-term authorization for export to Japan of Alaskan LNG was granted in 1967 and has subsequently been through multiple amendments and extensions).

trade is not prohibited by United States law.”<sup>26</sup> The DOE also allowed export of Alaskan natural gas to Russia in 2007.<sup>27</sup> Additionally, the DOE issued multiple authorizations for exports of foreign-sourced natural gas (*i.e.*, natural gas that is first imported into the U.S. and then exported) to “any country with the capacity to import ocean-going LNG and with which trade is not prohibited by U.S. law or policy.”<sup>28</sup> After considering the public interest factors discussed above, the DOE has determined the exports will be good for the regional economies, help foster healthy competition, mitigate trade imbalances with the foreign recipients, and encourage efficient management of our natural resources.<sup>29</sup>

Given this history and the current regulatory regime, restricting exports of LNG would be inconsistent with the underlying principles of natural gas regulation and the DOE’s longstanding practice of authorizing exportation.

***B. The Limited Exceptions in U.S. Law Would Not Permit the U.S. Government to Deny License Applications Submitted by U.S. Companies to Export LNG Under Current Conditions***

Certain U.S. laws provide for existing or potential export restraints on natural gas, but these are either inapplicable at present or do not provide for blanket restrictions on exports of

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<sup>26</sup> ConocoPhillips Alaska Natural Gas Corporation and Marathon Oil Company: Order Granting Authorization to Export Liquefied Natural Gas from Alaska, DOE Opinion and Order No. 2500, at Glossary of Terms and Abbreviations (June 3, 2008).

<sup>27</sup> See ConocoPhillips Alaska Natural Gas Corporation and Marathon Oil Company: Order Granting Authorization to Export Liquefied Natural Gas from Alaska, DOE Opinion and Order No. 2500, at 9 (June 3, 2008) (stating that there has been an export from the Kenai, Alaska LNG facility to Russia to condition the Sakhalin LNG facility); see also Phillips Alaska Natural Gas Corporation and Marathon Oil Company: Order Granting Blanket Authorization to Export Liquefied Natural Gas from Alaska, DOE/FE Opinion and Order No. 1580, at 7 (April 10, 2000) (granting two-year blanket authorization to export up to 10 Btus of LNG from Kenai, Alaska, to “international markets”).

<sup>28</sup> See, *e.g.*, ConocoPhillips Company: Order Granting Authorization to Export Liquefied Natural Gas, DOE Opinion and Order No. 2731, at 11 (November 30, 2009).

<sup>29</sup> See, *e.g.*, ConocoPhillips Alaska Natural Gas Corporation and Marathon Oil Company: Order Granting Authorization to Export Liquefied Natural Gas from Alaska, DOE Opinion and Order No. 2500, at 55-58 (June 3, 2008); Phillips Alaska Natural Gas Corporation and Marathon Oil Company: Order Extending Authorization to Export Liquefied Natural Gas from Alaska, DOE/FE Opinion and Order No. 1473, at 47-57 (April 2, 1999).



domestic LNG.

**1. Economic Sanctions and Military-Related Controls Currently Restrict Certain Exports but These Do Not *Per Se* Apply to Exports of LNG**

The U.S. export control and economic sanctions regimes effectively restrict certain exports, but neither set of laws justify imposing export bans on domestic LNG to countries and individuals with which trade is not prohibited.

U.S. export controls generally govern exports of military-related items, primarily through the Export Administration Regulations<sup>30</sup> (EAR) and the International Traffic in Arms Regulations<sup>31</sup> (ITAR). The ITAR regulates defense articles and services that are “specifically designed, developed, configured, adapted, or modified for a military application,”<sup>32</sup> and thus would not, on a general basis, apply to domestic LNG. The EAR, however, contains provisions relating to petroleum products and addresses exports of products from the Naval Petroleum Reserves (NPR).<sup>33</sup> Although liquefied natural gas that is derived from the NPR or that is available for export as the result of an NPR-related exchange is controlled for reasons of short supply under the EAR, this provision does not extend to natural gas that is unrelated to the NPR.<sup>34</sup> Accordingly, the U.S. export control regimes do not provide for broad justification to restrict exports of domestic natural gas that has no connection to the Naval Petroleum Reserves.

The U.S. economic sanctions regime effectively restricts trade with certain geographic regions and targeted individuals, entities and governments. The restrictions are imposed for a variety of national security and foreign policy reasons and apply to all exports, regardless of the product. Economic sanctions, therefore, also do not justify prohibiting or restricting particular

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<sup>30</sup> 15 C.F.R. § 730 et seq.

<sup>31</sup> 22 C.F.R. § 120 et seq.

<sup>32</sup> 22 C.F.R. § 120.3 (2010).

<sup>33</sup> 15 C.F.R. Part 754 (2010).

<sup>34</sup> See ECCN 1C983: Natural gas liquids and other natural gas derivatives listed in Supplement No. 1 to Part 754 of the EAR that were produced or derived from the Naval Petroleum Reserves (NPR) or became available for export as a result of an exchange of any NPR produced or derived commodities, 15 U.S.C. § 774, Supplement No. 1 (2010); see also 15 U.S.C. § 754.3 (2010).

items on their face, but rather the restrictions are triggered by the parties or destinations involved. Accordingly, the sanctions may still restrict a proposed transaction to export natural gas if a prohibited party or destination is involved.<sup>35</sup> This reality is reflected in the DOE's recent orders that authorize export to "any country with the capacity to import ocean-going LNG and with which trade is not prohibited by U.S. law or policy."<sup>36</sup>

## **2. The President May, By Rule, Restrict Energy-Related Exports but Such a Rule Currently Is Not In Force**

As part of the Energy Policy and Conservation Act of 1975,<sup>37</sup> the President was granted the authority to restrict exports of energy-related products and supplies, including natural gas. The President may restrict such exports "by rule, under such terms and conditions as he determines to be appropriate and necessary to carry out the purposes of this chapter...."<sup>38</sup> The Chapter in which the provision is contained is entitled "Energy Conservation."<sup>39</sup> The first section of this Chapter lists the Congressional purposes, which include, *inter alia*, creating a Strategic Petroleum Reserve to reduce the impact of severe energy supply disruptions, to provide for more energy efficient motor vehicles, major appliances and other consumer products, and "to conserve energy supplies through energy conservation programs, and, where necessary, the regulation of certain energy uses."<sup>40</sup> Taken together, these provisions allow for the President to issue a rule that restricts exports of natural gas in order to conserve energy supplies. However, the President has not issued such a rule that currently restricts natural gas exports.

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<sup>35</sup> For example, prohibited parties include "specially designated nationals" (SDNs), as well as "blocked persons and vessels" and "denied" persons. Prohibited destinations include Cuba and Iran as well as certain other areas.

<sup>36</sup> See, e.g., ConocoPhillips Company: Order Granting Authorization to Export Liquefied Natural Gas, DOE Opinion and Order No. 2731, at 11 (November 30, 2009).

<sup>37</sup> Pub. L. 94-163 (December 22, 1975), codified as 42 U.S.C. § 6201 et seq.

<sup>38</sup> 42 U.S.C. § 6212(a) (2010).

<sup>39</sup> U.S. Code Title 42, Chapter 77 (2010).

<sup>40</sup> 42 U.S.C. § 6201 (2010).

**3. Provisions in the Defense Production Act Can Be Applied to Allocate Domestic Energy Supplies with the Potential to Restrict LNG Exports, But the DOE is Not Currently Using its Authority Under these Provisions**

The Defense Production Act of 1950 (DPA), as amended, authorizes the President to, *inter alia*, “require the allocation of, or the priority performance under contracts or orders...relating to, materials, equipment, and services in order to maximize domestic energy supplies” under certain conditions.<sup>41</sup> In order to use this authority, the President must find that:

(A) such materials, services, and facilities are scarce, critical, and essential –

(i) to maintain or expand exploration, production, refining, transportation;

(ii) to conserve energy supplies; or

(iii) to construct or maintain energy facilities; and

(B) maintenance or expansion of exploration, production, refining, transportation, or conservation of energy supplies or the construction and maintenance of energy facilities cannot reasonably be accomplished without exercising the authority {regarding allocation and prioritization of contracts or orders.}<sup>42</sup>

These provisions again concern domestic energy supply, similar to the Energy Policy and Conservation Act provisions discussed immediately above, and can only be utilized under the strict terms outlined in the statute and pursuant to the DOE’s corresponding regulations.<sup>43</sup> Accordingly, although these provisions have the ability to restrict exports in the event that certain circumstances arise that require allocation of domestic natural gas or prioritization of contracts or orders, the DPA cannot be viewed as providing justification for denying export applications for domestic natural gas in non-critical situations.<sup>44</sup>

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<sup>41</sup> 50 U.S.C. App. § 2071(c) (2010). The Defense Production Act was most recently reauthorized with the Defense Production Act Reauthorization of 2009, Pub. L. 111-67 (September 30, 2009).

<sup>42</sup> 50 U.S.C. App. § 2071(c)(2) (2010).

<sup>43</sup> See 10 C.F.R. Part 216. The Department of Energy has been delegated the function of determining whether supplies are critical and essential. 10 C.F.R. § 216.1 (2010).

<sup>44</sup> Indeed, a 2008 GAO report states that DOE has “little or no experience using {DPA} Title I authorities.” Aside from certain instances where the National Nuclear Security Administration, an agency



**C. U.S. Trade Law Treats Export Bans as Conferring Potentially Countervailable Subsidies on Domestic Processing Industries**

The U.S. government has found certain export restraints imposed by foreign governments to be countervailable subsidies within the definitions of the Trade Act of 1930 (as amended).<sup>45</sup> The statute generally defines a subsidy as:

the case in which an authority –

- (i) provides a financial contribution,
- (ii) provides any form of income or price support within the meaning of Article XVI of the GATT 1994, or
- (iii) makes a payment to a funding mechanism to provide a financial contribution, or entrusts or directs a private entity to make a financial contribution, if providing the contribution would normally be vested in the government and the practice does not differ in substance from practices normally followed by governments,

to a person and a benefit thereby is conferred.<sup>46</sup>

The U.S. government has held that export bans on inputs to downstream products qualify as an indirect subsidy within this definition.<sup>47</sup> For example, in the investigation concerning Coated Free Sheet Paper from Indonesia, the Department of Commerce concluded that an export ban on logs provided a financial contribution to the specific downstream industries using logs as

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within DOE, has prioritized contracts in support of defense and atomic energy programs, the “DOE has not encountered a need requiring the use of its priority and allocations authority for energy resources in the past several years.” *Defense Production Act: Agencies Lack Policies and Guidance for Use of Key Authorities*, United States Government Accountability Office, at 7 (June 2008).

<sup>45</sup> See, e.g., Issues and Decision Memorandum for the Final Affirmative Countervailing Duty Determination: Coated Free Sheet Paper from Indonesia, U.S. Department of Commerce, Import Administration, at Comment 24 (October 17, 2007).

<sup>46</sup> 19 U.S.C. § 1677(5)(B) (2010).

<sup>47</sup> The Statement of Administrative Action explains that the Administration intended a broad scope for the definition of a subsidy so that indirect subsidies did not become a loophole used to injure domestic industries. See Uruguay Round Agreements Act, Statement of Administrative Action, House Document 103-316 (1994) at 926 (“Article VI of the GATT 1994 continues to refer to subsidies provided ‘directly or indirectly’ by a government. Accordingly, the Administration intends that the ‘entrusts or directs’ standard shall be interpreted broadly. The Administration plans to continue its policy of not permitting the indirect provision of a subsidy to become a loophole when unfairly traded imports enter the United States and injure a U.S. industry.”).

an input (*i.e.*, pulp and paper mills).<sup>48</sup> The export restriction was found to suppress domestic prices for logs, which allowed the downstream industries to purchase a primary input at artificially low prices.

The imposition of export restrictions on domestic natural gas would, similarly, provide a financial contribution to all downstream users of natural gas in the U.S. market by suppressing the price for the natural gas input. While both U.S. domestic and trade policy recognize that there are some legitimate purposes and methods by which subsidies can and should be permitted in order to achieve economic goals, the U.S. government policy has been to avoid the use of trade distorting subsidies. This policy is reflected in the context of numerous international agreements where the U.S. has agreed not to introduce measures that convey export subsidies or other types of subsidies that cause material harm or serious prejudice to other countries.<sup>49</sup>

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<sup>48</sup> See Issues and Decision Memorandum for the Final Affirmative Countervailing Duty Determination: Coated Free Sheet Paper from Indonesia, U.S. Department of Commerce, Import Administration, at 95 (October 17, 2007); *see also id.* at 97 (rejecting the argument that *US – Measures Treating Export Restraints as Subsidies* (WT/DS194/R) is controlling).

<sup>49</sup> For example, The U.S. undertook the obligation in the context of GATT Article VI not to impose countervailing duties unless the effect of the subsidy against which the duties were to be imposed is to cause or threaten material injury:

6. (a) No contracting party shall levy any anti-dumping or countervailing duty on the importation of any product of the territory of another contracting party unless it determines that the effect of the dumping or subsidization, as the case may be, is such as to cause or threaten material injury to an established domestic industry, or is such as to retard materially the establishment of a domestic industry.

But the GATT Agreement limited this discipline on the use of countervailing duties by agreeing that:

6. (b) . . . The CONTRACTING PARTIES shall waive the requirements of subparagraph (a) of this paragraph, so as to permit the levying of a countervailing duty, in cases in which they find that a subsidy is causing or threatening material injury to an industry in the territory of another contracting party exporting the product concerned to the territory of the importing

The U.S., together with all the other countries that are signatories to the GATT, also recognized the need to limit subsidization, whether direct or indirect GATT Article XVI:

Section A — Subsidies in General

Moreover, the U.S. and its trading partners in the World Trade Organization specifically identified quantitative restrictions as a type of measure to be avoided except in the narrowest of circumstances:

Article XI\*: General Elimination of Quantitative Restrictions

1. No prohibitions or restrictions other than duties, taxes or other charges, whether made effective through quotas, import or export licences or other measures, shall be instituted or maintained by any contracting party on the importation of any product of the territory of any other contracting party or on the exportation or sale for export of any product destined for the territory of any other contracting party.<sup>50</sup>

Given these clearly analogous holdings by the U.S. government opposing the imposition of restrictions upon exports and the underpinning U.S. policy, it would be incongruous for the U.S. government to restrict exports of natural gas in a manner that could provide a similar downstream benefit to domestic purchasers of natural gas.

***D. Increasing U.S. Exports is a High Priority Objective of the Current Administration and Restricting Exports of LNG Would Be Inconsistent with this High-Priority Trade Policy***

In the State of the Union address in January 2010, President Obama stated his goal of

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1. If any contracting party grants or maintains any subsidy, including any form of income or price support, which operates directly or indirectly to increase exports of any product from, or to reduce imports of any product into, its territory, it shall notify the CONTRACTING PARTIES in writing of the extent and nature of the subsidization, of the estimated effect of the subsidization on the quantity of the affected product or products imported into or exported from its territory and of the circumstances making the subsidization necessary. In any case in which it is determined that serious prejudice to the interests of any other contracting party is caused or threatened by any such subsidization, the contracting party granting the subsidy shall, upon request, discuss with the other contracting party or parties concerned, or with the CONTRACTING PARTIES, the possibility of limiting the subsidization.

See GATT 1994 Articles VI and XVI *in* WTO, THE LEGAL TEXTS: THE RESULTS OF THE URUGUAY ROUND OF MULTILATERAL TRADE NEGOTIATIONS (1999)

<sup>50</sup> GATT 1994 Article XI:1, *in* WTO, THE LEGAL TEXTS: THE RESULTS OF THE URUGUAY ROUND OF MULTILATERAL TRADE NEGOTIATIONS at 437 (1999).

doubling exports over the next five years. On March 11, 2010, the President unveiled the National Export Initiative (NEI) via Executive Order.<sup>51</sup> The NEI is designed to reduce barriers to trade and promote U.S. businesses with the goal of increasing exports, thereby creating jobs and boosting the economy. The NEI is to be implemented by the Export Promotion Cabinet, consisting of:

- the Secretary of State;
- the Secretary of the Treasury;
- the Secretary of Agriculture;
- the Secretary of Commerce;
- the Secretary of Labor;
- the Director of the Office of Management and Budget;
- the United States Trade Representative;
- the Assistant to the President for Economic Policy;
- the National Security Advisor;
- the Chair of the Council of Economic Advisers;
- the President of the Export-Import Bank of the United States;
- the Administrator of the Small Business Administration;
- the President of the Overseas Private Investment Corporation;
- the Director of the United States Trade and Development Agency; and
- the heads of other executive branch departments, agencies, and offices as the President may, from time to time, designate.

Increasing U.S. exports is clearly a priority for the Administration. Thus, it would be inconsistent with this U.S. export-oriented trade policy to restrict exports of a valuable, lucrative product such as liquefied natural gas. The President's export policy also strongly implies that exports should be deemed to be in the public interest, as they lead to job creation and economic growth. Accordingly, denying exports of U.S.-origin natural gas would be inconsistent with both a high-priority government policy and the public interest.

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<sup>51</sup> "Executive Order – National Export Initiative," The White House (March 11, 2010), *available at* <http://www.whitehouse.gov/the-press-office/executive-order-national-export-initiative>.



**III. UNDER THE WTO AGREEMENT, THE U.S. IS OBLIGATED NOT TO ADOPT MEASURES OR PRACTICES THAT RESTRICT GAS EXPORTS DESTINED FOR OTHER WTO MEMBERS**

***A. Natural Gas is Subject to the WTO Agreement Provisions on Trade in Goods***

Annex 1 to the WTO Agreement is divided into three sections covering trade in goods, trade in services, and trade-related aspects of intellectual property rights. Annex 1A consists of the Multilateral Agreements on Trade in Goods, which includes the General Agreement on Tariffs and Trade 1994 (“GATT 1994”). Like other energy products, natural gas is a commodity or “good” and, thus, a WTO Member’s trade in natural gas is covered by the obligations contained in Annex 1A.<sup>52</sup>

As explained in Sections III.B, III.C, and III.D of this memorandum, the U.S. statute (15 U.S.C. § 717b(a)) establishes a discretionary or non-automatic export licensing requirement that is arguably inconsistent with U.S. obligations under GATT 1994 Articles XI:1 and XIII:1, which impose disciplines on the use of export restrictions if such restrictions are not otherwise waived or justified by exceptions in other GATT articles.

A “waiver” under GATT Article XXV releasing a WTO Member from its obligations and disciplines is available only in “exceptional circumstances” and requires a vote of approval by the WTO Members acting jointly.<sup>53</sup> A review of all publicly available WTO documents

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<sup>52</sup> According to Director-General Pascal Lamy, existing WTO rules governing trade in goods apply to energy goods:

So the rules of the WTO do not deal with energy as a distinct sector. Yet since our basic rules are applicable to all forms of trade, they also apply to trade in energy goods and services. And these rules can be enforced through the WTO dispute settlement mechanism even if they were not negotiated with energy in mind.

*See generally* Director-General Pascal Lamy, Speech at the 20th World Energy Congress on 15 November 2007, available at [http://www.wto.org/english/news\\_e/sppl\\_e/sppl80\\_e.htm](http://www.wto.org/english/news_e/sppl_e/sppl80_e.htm).

<sup>53</sup> Under GATT Article XXV, WTO Members can request a waiver of obligations in “exceptional circumstances” not elsewhere provided for in the WTO agreement. Such a waiver would require a specific request by the United States for waiver of the GATT obligations and disciplines on the use of export restrictions based on such “exceptional circumstances” and a two-thirds vote of approval by the WTO Members acting jointly as the CONTRACTING PARTIES.

XXV: 5. “In exceptional circumstances not elsewhere provided for in this Agreement, the

indicates, however, that the U.S. has never submitted a request for waiver nor received a waiver with respect to its GATT obligations regarding exports of natural gas. Thus, the U.S. cannot rely upon a waiver under GATT Article XXV to impose export restrictions on natural gas that otherwise would be inconsistent with its GATT obligations.

There are certain exemptions justifying various actions of WTO Members that otherwise would be inconsistent with the disciplines of their GATT obligations. Such actions are justified by the exceptions contained in Articles XI:2(a) (critical shortages), XX(g) (conservation of natural resources), XX(i) (government stabilization plan), XX(j) (short supply), XXI (national security), or XXIV:5(b) (free trade agreements). These exemptions, discussed further in Section III.C. of this memorandum below, are generally construed narrowly and are unlikely to be applicable to actions by the U.S. to limit exports of natural gas.

As explained in Section III.D below, whether or not the export licensing requirement in 15 U.S.C. § 717b(a) is inconsistent with U.S. obligations under the WTO Agreement provisions, the DOE's *administration* of 15 U.S.C. § 717b, adopting a practice of granting export licenses for natural gas exports for brief limited periods, could be challenged as unreasonable and arbitrary contrary to U.S. obligations under GATT 1994 Article X:3(a) (requiring "reasonable" administration).

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CONTRACTING PARTIES may waive an obligation imposed upon a contracting party by this Agreement; *Provided* that any such decision shall be approved by a two-thirds majority of the votes cast and that such majority shall comprise more than half of the contracting parties."

GATT 1994 Article XXV, *in* WTO, The Legal Texts: The Results of the Uruguay Round of Multilateral Trade Negotiations at 460-61 (1999); WTO Agreement Article IX:3, *in* WTO, The Legal Texts: The Results of the Uruguay Round of Multilateral Trade Negotiations at 9 (1999); Understanding in Respect of Waivers of Obligations under the General Agreement on Tariffs and Trade 1994, *in* WTO, The Legal Texts: The Results of the Uruguay Round of Multilateral Trade Negotiations at 29 (1999).

***B. The WTO Agreement Generally Prohibits Export Restrictions on Trade in Goods Destined for Other WTO Members***

**1. GATT 1994 Article XI:1 Specifically Prohibits Export Restrictions on Any Product Destined for a WTO Member, Whether Restrictions are Implemented Through Export Licenses or Other Measures**

In recognition of the fact that export restrictions can be highly distortive to trade, and the desire of the WTO Members to allow such measures only very rarely, GATT 1994 Article XI:1 prohibits WTO Members from instituting or maintaining export bans or restrictions (other than duties, taxes or other charges) on any product destined for another WTO Member that is made effective through export licenses or other measures.<sup>54</sup>

No prohibitions or restrictions other than duties, taxes or other charges, whether made effective through quotas, import or export licences or other measures, shall be instituted or maintained by any contracting party on the importation of any product of the territory of any other contracting party or on the exportation or sale for export of any product destined for the territory of any other contracting party.<sup>55</sup>

The term “restriction” in Article XI:1 has been interpreted broadly to cover not just blanket prohibitions or precise numerical limits but also the imposition of limitations or limiting conditions on exportation that generate a disincentive to export not only due to their effect on trade volumes but also by creating uncertainties affecting investment plans, by restricting market access, or by increasing transaction costs to make exportation prohibitively costly.<sup>56</sup>

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<sup>54</sup> A list of WTO Members is provided in Annex B. WTO Members now account for 77% of all countries in the world.

<sup>55</sup> GATT 1994 Article XI:1, in WTO, *THE LEGAL TEXTS: THE RESULTS OF THE URUGUAY ROUND OF MULTILATERAL TRADE NEGOTIATIONS* at 437 (1999) (emphasis added). Likewise, as explained in Section IV *infra*, the United States’ free trade agreements also prohibit export restrictions on exports destined to FTA Members.

<sup>56</sup> Panel Report, *Colombia – Ports of Entry*, WT/DS366/R, adopted May 20, 2009, paras. 7.233-41, 7.244, citing Panel Report, *India – Autos*, paras. 7.269-70, Panel Report, *India – Quantitative Restrictions*, para. 5.128, Panel Report, *Brazil – Retreaded Tyres*, para. 7.371, Panel Report, *Dominican Republic – Import and Sale of Cigarettes*, paras. 7.252, 7.258; see also Panel Report, *Korea – Various*

While an automatic licensing requirement would be permissible, a discretionary or non-automatic export licensing requirement has long been considered to be a restriction prohibited by Article XI:1.<sup>57</sup> For example, a WTO panel in *India – Autos* found that a “trade balancing condition” on import licenses, that limited the value of imports an importer could make to the value of its exports, was a restriction on importation contrary to Article XI:1.<sup>58</sup> Likewise, a GATT panel in *Japan – Semi-Conductors* agreed with the United States’ complaint that Japan’s export license procedures, which led to delays of up to three months in the issuance of licenses for semi-conductors due to the monitoring of costs and export prices, were non-automatic and constituted a restriction on the exportation of those products contrary to Article XI:1.<sup>59</sup>

The Article XI:1 prohibition on import and export restrictions has been found to protect competitive opportunities<sup>60</sup> and reflects the strong preference for Members to rely on transparent, negotiated tariffs rather than non-tariff barriers to trade:

The prohibition on the use of quantitative restrictions forms one of

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*Measures on Beef*, WT/DS161/R, WT/DS169/R, para. 778.

<sup>57</sup> See Panel Report, *India – Quantitative Restrictions*, WT/DS90/R, adopted Sept. 22, 1999, paras. 5.129-30 (finding discretionary import licensing system to be a restriction prohibited by Article XI:1); GATT Panel Report, *Japan – Trade in Semi-Conductors*, BISD 30S/129, adopted May 4, 1988, para. 118 (finding discretionary export licensing system to be restriction prohibited by Article XI:1); GATT Panel Report, *EEC – Quantitative Restrictions Against Imports of Certain Products from Hong Kong*, BISD 30S/129, adopted July 12, 1983, at paras. 8, 31, 34; GATT Panel Report, *EEC – Programme of Minimum Import Prices, Licenses and Surety Deposits for Certain Processed Fruits and Vegetables*, BISD 25S/68, adopted Oct. 18, 1978, para. 4.1 (finding that an automatic licensing requirement was not a restriction within the meaning of Article XI:1).

<sup>58</sup> Panel Report, *India – Autos*, WT/DS146/R, WT/DS175/R, adopted April 5, 2002, paras. 7.268, 7.278, 7.281.

<sup>59</sup> GATT Panel Report, *Japan – Trade in Semi-Conductors*, BISD 35S/116, adopted May 4, 1988, paras. 118, 132(b), citing GATT Panel Report, *EEC – Programme of Minimum Import Prices, Licenses and Surety Deposits for Certain Processed Fruits and Vegetables*, BISD 25S/68, adopted Oct. 18, 1978, para. 4.1. The GATT Panel in *Japan – Trade in Semi-Conductors* “noted that the CONTRACTING PARTIES had found in a previous case that automatic licensing did not constitute a restriction within the meaning of Article XI:1 and that an import licence issued on the fifth working day following the day on which the licence application was lodged could be deemed to have been automatically granted (BISD 25S/95).”

<sup>60</sup> Panel Report, *Colombia – Ports of Entry*, para. 7.236, n.463; see Panel Report, *Argentina – Hides and Leather*, WT/DS155/R, adopted Feb. 16, 2001, para. 11.20.



the cornerstones of the GATT system. A basic principle of the GATT system is that tariffs are the preferred and acceptable form of protection. Tariffs, to be reduced through reciprocal concessions, ought to be applied in a non-discriminatory manner independent of the origin of the goods (the "most-favoured-nation" (MFN) clause). Article I, which requires MFN treatment, and Article II, which specifies that tariffs must not exceed bound rates, constitute Part I of GATT. Part II contains other related obligations, *inter alia* to ensure that Members do not evade the obligations of Part I. Two fundamental obligations contained in Part II are the national treatment clause and the prohibition against quantitative restrictions. The prohibition against quantitative restrictions is a reflection that tariffs are GATT's border protection "of choice". Quantitative restrictions impose absolute limits on imports, while tariffs do not. In contrast to MFN tariffs which permit the most efficient competitor to supply imports, quantitative restrictions usually have a trade distorting effect, their allocation can be problematic and their administration may not be transparent.

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Participants in the Uruguay Round recognized the overall detrimental effects of non-tariff border restrictions (whether applied to imports or exports) and the need to favour more transparent price-based, i.e. tariff-based, measures; to this end they devised mechanisms to phase-out quantitative restrictions in the sectors of agriculture and textiles and clothing. This recognition is reflected in the GATT 1994 Understanding on Balance-of-Payments Provisions, the Agreement on Safeguards, the Agreement on Agriculture where quantitative restrictions were eliminated and the Agreement on Textiles and Clothing (further discussed below) where MFA derived restrictions are to be completely eliminated by 2005.<sup>61</sup>

Thus, in addition to Article XI, other WTO Agreement provisions specifically identify export restraints and similar measures as inhibiting or distorting trade. For example, the WTO Agreement on Agriculture identifies "voluntary export restraints" as non-tariff barriers to trade, and the Safeguards Agreement specifically prohibits their use as safeguard measures as well as "similar measures on the export or the import side," including export moderation, export-price

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<sup>61</sup> Panel Report, *Turkey – Textiles*, WT/DS34/R, adopted Nov. 19, 1999, paras. 9.63, 9.65 (emphasis added, footnotes omitted).

monitoring systems, export surveillance, and discretionary export licensing schemes “which afford protection.”<sup>62</sup> As another example, the Agreement on Trade-Related Investment Measures (“TRIMs”) further prohibits WTO Members from applying any TRIM that is inconsistent with Article XI and identifies in its illustrative list those TRIMS that restrict:

the exportation or sale for export by an enterprise of products, whether specified in terms of particular products, in terms of volume or value of products, or in terms of a proportion of volume or value of its local production.<sup>63</sup>

Therefore, unless the export restriction is justified as an exception to the general rule in Article XI:1, discretionary or non-automatic export licensing requirements are prohibited by Article XI:1.

**2. The Discretionary or Non-Automatic Export License Requirements in 15 U.S.C. § 717b(a) Applicable to Non-FTA WTO Members Could Arguably Impose An Export Restriction Subject to U.S. Obligations Under GATT 1994 Article XI:1**

For exports of natural gas not benefitting from the expedited application and approval process applicable to exports destined for FTA countries in 15 U.S.C. § 717b(c), the statute (15 U.S.C. § 717b(a)) gives the DOE discretion to grant or deny an application to export natural gas based on additional consideration of the “public interest,” or grant an application in whole or in part, with modifications or additional terms and conditions, and make any supplemental order:

**§ 717b (a) Mandatory authorization order**

After six months from June 21, 1938, no person shall export any natural gas from the United States to a foreign country or import any natural gas from a foreign country without first having secured an order of the Commission authorizing it to do so. The

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<sup>62</sup> WTO Agreement on Agriculture, art. 4.2, n.1, *in* WTO, The Legal Texts: The Results of the Uruguay Round of Multilateral Trade Negotiations at 36 (1999); WTO Agreement on Safeguards, art. 11.1(b), n.4, *in* WTO, The Legal Texts: The Results of the Uruguay Round of Multilateral Trade Negotiations at 280 (1999); *see* Appellate Body Report, *Chile – Price Band System*, WT/DS207/AB/R, adopted Oct. 23, 2002, paras. 200-01, 219.

<sup>63</sup> WTO Agreement on Trade-Related Investment Measures, Annex para. 2(c), *in* WTO, The Legal Texts: The Results of the Uruguay Round of Multilateral Trade Negotiations at 146 (1999).

Commission shall issue such order upon application, unless, after opportunity for hearing, it finds that the proposed exportation or importation will not be consistent with the public interest. The Commission may by its order grant such application, in whole or in part, with such modification and upon such terms and conditions as the Commission may find necessary or appropriate, and may from time to time, after opportunity for hearing, and for good cause shown, make such supplemental order in the premises as it may find necessary or appropriate.<sup>64</sup>

According to DOE guidelines, natural gas exports shall be regulated “based on a consideration of the domestic need for the gas to be exported and such other matters” found in the circumstances of a particular case to be appropriate.<sup>65</sup> While the DOE has adopted a presumption of approval for export applications, the presumption is rebuttable.<sup>66</sup>

Thus, the export license process required by 15 U.S.C. § 717b(a) for natural gas has a potentially limiting effect on exportation by creating serious uncertainties affecting exporters’ investment plans and by negatively affecting their competitive opportunities.<sup>67</sup> The DOE’s discretion also could affect WTO Members’ access to adequate U.S. supplies of natural gas at fair prices if the U.S. export restriction would thereby affect world market prices in natural gas. Indeed, for similar reasons, the United States is currently challenging China’s non-automatic export licensing for certain key raw materials as being contrary to GATT 1994 Article XI:1 and China’s commitments with respect to the elimination of export restrictions in its Working Party

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<sup>64</sup> 15 U.S.C. § 717b(a). Separately, 42 U.S.C. § 6212(a) further gives the President the authority to restrict exports of natural gas “by rule, under such terms and conditions as he determines to be appropriate and necessary to carry out the purposes” of Chapter 77 on Energy Conservation. Section 6201 identifies the following objectives for Chapter 77:

- (1) to grant specific authority to the President to fulfill obligations of the United States under the international energy program;  
\* \* \*
- (4) to conserve energy supplies through energy conservation programs, and, where necessary, the regulation of certain energy uses....

<sup>65</sup> DOE Policy Guidelines at 6690.

<sup>66</sup> See *supra* Section II.A.2.

<sup>67</sup> See Panel Report, *Colombia – Ports of Entry*, paras. 7.240, 7.250-57, 7.275.

Report and Accession Protocol.<sup>68</sup> As explained in Section III.B.1 above, discretionary or non-automatic export licensing requirements are prohibited by GATT 1994 Article XI:1 unless they can be justified under one of the exceptions.<sup>69</sup>

***C. The Limited Exceptions to the Bar on Export Restrictions in the WTO Agreement Are Unlikely To Apply To Justify Denial of Natural Gas Export License Applications Pursuant to 15 U.S.C. § 717b(a)***

The strong prohibition of export restrictions in Article XI:1 only gives way to a handful of limited and conditional exceptions<sup>70</sup> that are unlikely to apply to the DOE's non-automatic export license approval process under 15 U.S.C. § 717b(a) at the present time based on available

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<sup>68</sup> See U.S. First Written Submission in *China -- Raw Materials Exports*, WT/DS394, DS395, DS398, at paras. 331-42 (June 1, 2010). During China's accession process, certain members of the Working Party noted the limited scope of the exceptions to Article XI:

Certain members of the Working Party noted the conditions in the GATT 1994 in regard to non-automatic licensing and export restrictions. They pointed out that export prohibitions, restrictions and non-automatic licensing could only temporarily be applied under Article XI of the GATT 1994 to prevent or relieve critical shortages of foodstuffs or other products essential to an exporting WTO Member. Article XX of the GATT 1994 also allowed for restrictive export measures, but only if such measures were made effective in conjunction with restrictions on domestic production or consumption. These members noted that some of the criteria of the Foreign Trade Law referred to above did not at present meet the specific conditions laid down in Articles XI and XX of the GATT 1994.

WT/ACC/CHN/49, para. 160 (Oct. 1, 2001).

<sup>69</sup> WTO Members can challenge export restrictions as being either *de jure* or *de facto* inconsistent with Article XI:1. In a *de jure* challenge, the complaining party challenges the measure on the basis of its design, structure, and underlying architecture having a potential limiting effect on exportation by negatively affecting competitive opportunities. See Panel Report, *Colombia – Ports of Entry*, paras. 7.250-57, 7.275. In a *de facto* challenge, the complaining party must provide additional evidence concerning the actual trade impact of a measure and establish a causal link between the contested measure and the low level of exports. See Panel Report, *Argentina – Hides and Leather*, para. 11.21.

<sup>70</sup> See Appellate Body Report, *US – Shrimp*, WT/DS58/AB/R, adopted Nov. 6, 1998, para. 157 (“In our view, the language of the chapeau makes clear that each of the exceptions in paragraphs (a) to (j) of Article XX is a *limited and conditional* exception from the substantive obligations contained in the other provisions of the GATT 1994, that is to say, the ultimate availability of the exception is subject to the compliance by the invoking Member with the requirements of the chapeau.”).



facts. If challenged, the United States would bear the burden of proving that its export licensing requirements were justified under the temporary exception in GATT 1994 Article XI:2(a), or the specific exceptions in Articles XX(g), (i), or (j), including the chapeau to Article XX.<sup>71</sup> As explained below, it is not clear that the breadth of the discretionary “public interest” language in 15 U.S.C. § 717b(a) governing the export license approval process for natural gas would be sufficiently tailored to the limited objectives identified in the exceptions.<sup>72</sup>

**1. The GATT 1994 Article XI:2(a) Temporary Exception for Critical Shortages is Unlikely to Justify Denial of a Natural Gas Export License Application Under 15 U.S.C. § 717b(a)**

GATT 1994 Article XI:2(a) specifically provides an exception for temporary export restrictions, otherwise prohibited by Article XI:1, that address critical shortages of products essential to the exporting Member:

(2) The provisions of paragraph 1 of this Article shall not extend to the following:

\* \* \*

(a) Export prohibitions or restrictions temporarily applied to prevent or relieve critical shortages of foodstuffs or other products essential to the exporting contracting party....

As the DOE recently recognized, however, U.S. consumers “presently have access to substantial quantities of natural gas sufficient to meet domestic demand from multiple other sources ....”<sup>73</sup> Therefore, there appears to be no basis for the United States to rely on the temporary Article XI:2(a) exception at the present time.

Nor is it clear that the United States could rely on the exceptions in Article XI:2(a) to justify the broad, discretionary language governing the export license approval process for natural gas in 15 U.S.C. § 717b(a). Nothing in that statutory provision states that denial of an

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<sup>71</sup> See Appellate Body Report, *EC – Tariff Preferences*, WT/DS246/AB/R, adopted April 20, 2004, para. 95.

<sup>72</sup> See, e.g., Appellate Body Report, *United States – Shrimp*, para. 141.

<sup>73</sup> DOE Opinion and Order No. 2795, FE Docket No. 10-31-LNG, at 7 (June 1, 2010).

application would be temporary or limited to situations involving “critical shortages” of natural gas. Instead, the statute refers broadly to “public interest” considerations, and the DOE guidelines refer to considerations of domestic need or “such other matters.”<sup>74</sup> When actually faced with a “critical shortage,” the President would presumably rely on 42 U.S.C. § 6212(a), not 15 U.S.C. § 717b(a), to restrict natural gas exports or other energy exports because the statute gives the President broader discretion as well as unilateral authority to restrict exports across the board:

**(a) Export restrictions**

The President may, by rule, under such terms and conditions as he determines to be appropriate and necessary to carry out the purposes of this chapter, restrict exports of—

(1) coal, petroleum products, natural gas, or petrochemical feedstocks, and

(2) supplies of materials or equipment which he determines to be necessary

(A) to maintain or further exploration, production, refining, or transportation of energy supplies, or

(B) for the construction or maintenance of energy facilities within the United States.<sup>75</sup>

**2. The GATT 1994 Article XX(g) Exception for the Conservation of Natural Resources is Unlikely to Justify Denial of a Natural Gas Export License Application Under 15 U.S.C. § 717b(a)**

While GATT 1994 Article XX(g) does permit the adoption or enforcement of export restrictions relating to the conservation of “exhaustible natural resources,”<sup>76</sup> the exception only applies to export restrictions that are made effective in conjunction with restrictions on domestic production or consumption:

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<sup>74</sup> DOE Policy Guidelines at 6690.

<sup>75</sup> 42 U.S.C. § 6212(a) (emphasis added).

<sup>76</sup> For example, the Appellate Body has recognized that clean air is an exhaustible natural resources within the meaning of GATT 1994 Article XX(g). *See* Appellate Body Report, *United States -- Gasoline*, WT/DS2/AB/R, adopted May 20, 1996, p. 17.

Subject to the requirement that such measures are not applied in a manner which would constitute a means of arbitrary or unjustifiable discrimination between countries where the same conditions prevail, or a disguised restriction on international trade, nothing in this Agreement shall be construed to prevent the adoption or enforcement by any contracting party of measures:

\* \* \*

(g) relating to the conservation of exhaustible natural resources if such measures are made effective in conjunction with restrictions on domestic production or consumption....<sup>77</sup>

First, Article XX(g) requires consideration of “the relationship between the measure at stake and the legitimate policy of conserving exhaustible natural resources.”<sup>78</sup> Whether measures “relate to” the conservation of natural resources involves an examination of the “relationship between the general structure and design of the measure ... and the policy goal it purports to serve” to determine whether the measure is “primarily aimed at” conservation or whether there is a “substantial” or “close and genuine relationship of ends and means” so that “{t}he means are, in principle, reasonably related to the ends.”<sup>79</sup> In other words, the design of the measure cannot be “disproportionately wide in its scope and reach in relation to the policy objective of protection and conservation....”<sup>80</sup>

Second, Article XX(g) requires consideration of whether the measures are “made effective in conjunction with restrictions on domestic production or consumption.” According to the Appellate Body, this clause requires *even-handedness* in the imposition of restrictions.<sup>81</sup> Accordingly, “if *no* restrictions on domestically-produced like products are imposed at all, and all limitations are placed upon imported products *alone*, the measure cannot be accepted as

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<sup>77</sup> GATT 1994 Article XX(g).

<sup>78</sup> Appellate Body Report, *United States – Shrimp*, WT/DS58/AB/R, para. 135.

<sup>79</sup> See Appellate Body Report, *United States – Shrimp*, paras. 136-42; Appellate Body Report, *United States – Gasoline*, at pp. 14, 16-17, citing GATT Panel Report, *Canada – Measures Affecting Exports of Unprocessed Herring and Salmon*, BISD 35S/98, adopted March 22, 1988, para. 4.6.

<sup>80</sup> Appellate Body Report, *United States – Shrimp*, para. 141.

<sup>81</sup> See Appellate Body Report, *United States – Shrimp*, para. 143, citing Appellate Body Report, *United States – Gasoline*, at 18.

primarily or even substantially designed for implementing conservationist goals.”<sup>82</sup>

It is important to point out that the United States has repeatedly failed to justify important U.S. measures aimed at conserving tuna, clean air, and sea turtles because such measures were found to be inconsistent with Article XX(g). For example, in *US – Tuna*, a GATT panel rejected the U.S. defense because its import ban to conserve tuna stocks was not made effective in conjunction with restrictions on U.S. domestic production or consumption on all tuna and tuna products.<sup>83</sup> In *US – Gasoline*, the Appellate Body rejected the U.S. defense because the rules applied to imports constituted “unjustifiable discrimination” and a “disguised restriction on international trade” contrary to the chapeau to Article XX.<sup>84</sup> Finally, in *US – Shrimp*, the Appellate Body rejected the U.S. defense because differences in the measures’ application constituted “unjustifiable discrimination” and “arbitrary discrimination” between exporting WTO Members within the meaning of the chapeau of Article XX.<sup>85</sup>

For the reasons outlined above, it is again not clear that the United States could rely on the exceptions in Article XX(g) to justify export restrictions contained in the broad, discretionary language governing export licenses for natural gas in 15 U.S.C. § 717b(a). Nothing in that statutory provision indicates that denial of an application would implement conservationist objectives. Instead, the statute refers broadly to “public interest” considerations, and the DOE guidelines refer to considerations of domestic need or “such other matters.”<sup>86</sup> Nor does that statutory language make denial of an export license contingent on restrictions on domestic producers or domestic consumption. Therefore, it is likely that the discretionary export licensing requirement in 15 U.S.C. § 717b(a) would not qualify for exceptional treatment under Article

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<sup>82</sup> Appellate Body Report, *United States – Gasoline*, at pp. 18-19, citing GATT Panel Report, *Canada – Measures Affecting Exports of Unprocessed Herring and Salmon*, BISD 35S/98, adopted March 22, 1988, para. 5.1; GATT Panel Report, *United States – Prohibition of Imports of Tuna and Tuna Products from Canada*, BISD 29S/91, adopted February 22, 1982, paras. 4.10-12.

<sup>83</sup> GATT Panel Report, *United States – Prohibition of Imports of Tuna and Tuna Products from Canada*, BISD 29S/91, adopted Feb. 22, 1982, paras. 4.9-4.12.

<sup>84</sup> Appellate Body Report, *United States – Gasoline*, at p. 26.

<sup>85</sup> Appellate Body Report, *United States – Shrimp*, paras. 176, 184.

<sup>86</sup> DOE Policy Guidelines at 6690.



XX(g).

**3. The GATT 1994 Article XX(i) Exception for Government Stabilization Plans is Unlikely to Justify Denial of a Natural Gas Export License Application Under 15 U.S.C. § 717b(a)**

GATT 1994 Article XX(i) provides an exception for certain necessary export restrictions when domestic prices for materials are held below the world price as part of a government stabilization plan:

Subject to the requirement that such measures are not applied in a manner which would constitute a means of arbitrary or unjustifiable discrimination between countries where the same conditions prevail, or a disguised restriction on international trade, nothing in this Agreement shall be construed to prevent the adoption or enforcement by any contracting party of measures:

\* \* \*

(i) involving restrictions on exports of domestic materials necessary to ensure essential quantities of such materials to a domestic processing industry during periods when the domestic price of such materials is held below the world price as part of a governmental stabilization plan; Provided that such restrictions shall not operate to increase the exports of or the protection afforded to such domestic industry, and shall not depart from the provisions of this Agreement relating to non-discrimination;

Assuming that LNG would qualify as a “domestic material,” there are no remaining federal controls on natural gas wellhead prices.<sup>87</sup> Therefore, in the absence of any government stabilization plan, the exception in Article XX(i) cannot apply to U.S. export restrictions on natural gas.

**4. The GATT 1994 Article XX(j) Short Supply Exception is Unlikely to Justify Denial of a Natural Gas Export License Application Under 15 U.S.C. § 717b(a)**

GATT 1994 Article XX(j) establishes an exception for measures essential to the

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<sup>87</sup> See Primer on Natural Gas Prices, available at

<http://www.aga.org/Kc/aboutnaturalgas/consumerinfo/NGPricePrimer.htm>.

acquisition or distribution of products in general or local short supply:

Subject to the requirement that such measures are not applied in a manner which would constitute a means of arbitrary or unjustifiable discrimination between countries where the same conditions prevail, or a disguised restriction on international trade, nothing in this Agreement shall be construed to prevent the adoption or enforcement by any contracting party of measures:

\* \* \*

(j) essential to the acquisition or distribution of products in general or local short supply; *Provided* that any such measures shall be consistent with the principle that all contracting parties are entitled to an equitable share of the international supply of such products, and that any such measures, which are inconsistent with the other provisions of the Agreement shall be discontinued as soon as the conditions giving rise to them have ceased to exist. The CONTRACTING PARTIES shall review the need for this sub paragraph not later than 30 June 1960.

With respect to 15 U.S.C. § 717b(a), it is again not clear that the United States could rely on the limited “short supply” exceptions in Article XX(j) to justify the broad, discretionary “public interest” language governing export licenses for natural gas in 15 U.S.C. § 717b(a).<sup>88</sup> Article XX(j) was initially intended to permit export restrictions when prompted by emergency situations like wars and natural catastrophes.<sup>89</sup> As the DOE recently recognized, however, U.S. consumers “presently have access to substantial quantities of natural gas sufficient to meet domestic demand from multiple other sources at competitive prices....”<sup>90</sup> Therefore, there appears to be no basis for the United States to rely on the Article XX(j) exception at the present time.

Any U.S. export restriction under 15 U.S.C. § 717b(a) also would have to satisfy the non-discrimination requirements in Article XX(j) and the requirements of the chapeau to Article XX.

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<sup>88</sup> As explained above in Section II, this memorandum does not address the exceptional short supply export controls on natural gas authorized pursuant to 50 U.S.C. App. § 2406 and 10 U.S.C. § 7430 and sourced from the Naval Petroleum reserves. *See* Export Administration Regulations, Short Supply Controls, § 754.3 (Aug. 21, 2008).

<sup>89</sup> *See* GATT Analytical Index at 593-95.

<sup>90</sup> DOE Opinion and Order No. 2795, FE Docket No. 10-31-LNG, at 7 (June 1, 2010).

Article XX(j) states that “any such measures shall be consistent with the principle that all contracting parties are entitled to an equitable share of the international supply of such products....” The chapeau to Article XX further states that the measures must not be (1) applied in a manner which would constitute a means of arbitrary or unjustifiable discrimination between countries where the same conditions prevail, or (2) a disguised restriction on international trade. According to the Appellate Body, the analysis of whether discrimination is arbitrary or unjustifiable usually relates to the cause or rationale of the discrimination.<sup>91</sup>

For example, in the *Brazil – Retreaded Tyres* dispute, the Appellate Body relied on the chapeau to GATT 1994 Article XX to reject Brazil’s discriminatory application of an import ban to non-MERCOSUR imports.<sup>92</sup> The Appellate Body explained that “there is arbitrary or unjustifiable discrimination when a measure provisionally justified under a paragraph of Article XX is applied in a discriminatory manner ‘between countries where the same conditions prevail’, and when the reasons given for this discrimination bear no rational connection to the objective falling within the purview of a paragraph of Article XX, or would go against that objective.”<sup>93</sup> In that case, the Appellate Body pointed out that the reason given for the discrimination (*i.e.*, Brazil’s compliance with its MERCOSUR obligations) had nothing to do with pursuing the objective of the import ban under Article XX(b).<sup>94</sup> Therefore, the Appellate Body found that Brazil’s import ban was applied in a manner that constituted arbitrary or unjustified discrimination and that discrimination did not result from a conflict between Brazil’s MERCOSUR commitments (under Article XXIV) and the GATT 1994.<sup>95</sup>

Likewise, the U.S. statute at issue (15 U.S.C. §§ 717b(a) and (c)) governing export

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<sup>91</sup> Appellate Body Report, *Brazil – Retreaded Tyres*, WT/DS332/AB/R, adopted Dec. 17, 2007, para. 225.

<sup>92</sup> Appellate Body Report, *Brazil – Retreaded Tyres*, para. 233. As explained in Section III.D.2, GATT 1994 Article XXIV specifically allows WTO Members to enter into customs unions and free trade agreements, like MERCOSUR.

<sup>93</sup> Appellate Body Report, *Brazil – Retreaded Tyres*, para. 227.

<sup>94</sup> Appellate Body Report, *Brazil – Retreaded Tyres*, para. 228.

<sup>95</sup> Appellate Body Report, *Brazil – Retreaded Tyres*, paras. 231-34.

licenses for natural gas clearly discriminates between non-FTA and FTA members with agreements requiring national treatment for trade in natural gas. As explained further in Section III.D below, it is difficult to see how the United States could justify discriminating between WTO Members when the rationale for the discrimination (*i.e.*, the FTA provisions) would be unrelated to GATT Article XX objectives.<sup>96</sup> In sum, even if the U.S. statute could satisfy one of the exceptions under the specific subsection to Article XX, it is unlikely that the United States could satisfy the non-discrimination requirements in Article XX(j) or the requirements in the chapeau to Article XX.

**5. The GATT 1994 Article XXI National Security Exception is Unlikely to Justify Denial of a Natural Gas Export License Application Under 15 U.S.C. § 717b(a)**

Finally, GATT 1994 Article XXI provides a broad exception for actions taken for the protection of “essential security interests”:

Nothing in this Agreement shall be construed

\* \* \*

(b) to prevent any contracting party from taking any action which it considers necessary for the protection of its essential security interests

(i) relating to fissionable materials or the materials from which they are derived;

(ii) relating to the traffic in arms, ammunition and implements of war and to such traffic in other goods and materials as is carried on directly or indirectly for the purpose of supplying a military establishment;

(iii) taken in time of war or other emergency in international relations....

While it is possible for the United States to justify export restrictions of natural gas to particular WTO Members that are “necessary for the protection of its essential security interests,” as

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<sup>96</sup> Indeed, it is not clear why FTA provisions would justify distinguishing between WTO Members on the basis of the national treatment obligations in those FTAs when all WTO Members are subject to the same national treatment obligations. For this reason and the reasons expressed in Section III.D.5, the United States is unlikely to be able to rely on GATT 1994 Article XXIV (permitting FTAs) as a defense to an alleged WTO violation.



explained in Section II.B.1, natural gas unrelated to the Naval Petroleum Reserves is not currently on the list of products subject to export controls for national security reasons as required by 50 U.S.C. App. § 2404(a)(1) and (c)(1),<sup>97</sup> which state:

**§ 2404. National security controls**

(a) Authority

(1) In order to carry out the policy set forth in section 3(2)(A) of this Act [section 2402 (2)(A) of this Appendix], the President may, in accordance with the provisions of this section, prohibit or curtail the export of any goods or technology subject to the jurisdiction of the United States or exported by any person subject to the jurisdiction of the United States. The authority contained in this subsection includes the authority to prohibit or curtail the transfer of goods or technology within the United States to embassies and affiliates of controlled countries. For purposes of the preceding sentence, the term “affiliates” includes both governmental entities and commercial entities that are controlled in fact by controlled countries. The authority contained in this subsection shall be exercised by the Secretary, in consultation with the Secretary of Defense, and such other departments and agencies as the Secretary considers appropriate, and shall be implemented by means of export licenses described in section 4(a) of this Act [section 2403 (a) of this Appendix].

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(c) Control list

(1) The Secretary shall establish and maintain, as part of the control list, a list of all goods and technology subject to export controls under this section. Such goods and technology shall be clearly identified as being subject to controls under this section.

Because natural gas is not currently on the list of products subject to export controls for national security reasons, export restrictions on natural gas unrelated to the U.S. Naval Petroleum Reserves would not be eligible for this exemption from the WTO ban on export restrictions.

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<sup>97</sup> The Export Administration Act has currently lapsed, but the U.S. Department of Commerce Bureau of Industry and Security’s Export Administration regulations remain in effect through the President’s powers under the International Emergency Economic Powers Act.

***D. Even if the Language of U.S. Laws Governing the Licensing of Natural Gas Exports Is Consistent With GATT 1994 Article XI:1, The DOE's Administration of those Laws Also Must Be Reasonable Under GATT 1994 Article X:3(a), Non-Discriminatory Under GATT Article XIII; and Consistent with Most-Favoured-Nation Treatment Under GATT Article I in Order to be Consistent With U.S. WTO Obligations***

**1. GATT 1994 Article X:3(a) Requires the United States to Administer its Trade Laws in a Reasonable Manner**

Even if the U.S. statute is not inconsistent with WTO obligations governing export restrictions under GATT 1994 Article XI, the DOE's adoption of a practice of granting natural gas export licenses only for brief limited periods could be unreasonable and arbitrary, contrary to GATT 1994 Article X:3(a).

GATT 1994 Article X establishes obligations concerning the publication and administration of trade regulations.<sup>98</sup> Article X:3(a) specifically requires the United States to administer its trade laws in a reasonable manner:<sup>99</sup>

“Each Member shall administer in a uniform, impartial and reasonable manner all its laws, regulations, decisions and rulings of the kind described in paragraph 1 of this Article.”

Article X:3 has been interpreted as establishing certain minimum standards for procedural

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<sup>98</sup> See WTO Panel Report, *EC – Bananas III (US)*, WT/DS27/R/USA, adopted September 25, 1997, para. 7.206 (“Given that this provision enumerates national legislation regarding border measures as well as internal measures, and customs tariffs as well as quantitative measures, the coverage of Article X could hardly be more comprehensive.”).

<sup>99</sup> In *Dominican Republic – Import and Sale of Cigarettes*, the WTO dispute settlement panel interpreted GATT Article X:3(a) to permit a challenge to an *unreasonable* administration of its tax law:

The Panel considers that the obligation under Article X:3(a) of the GATT is that Members administer the provisions covered by that Article in a uniform manner, in an impartial manner, and in a reasonable manner. These are not cumulative requirements. A member may thus act in a breach of its obligations under Article X:3(a) of the GATT, if it administers the provisions in an unreasonable manner, even if there is no evidence that that Member has also administered the provisions in a non-uniform manner or in a partialized manner.

WTO Panel Report, *Dominican Republic – Import and Sale of Cigarettes*, WT/DS302/R, adopted May 19, 2005, para. 7.383.

fairness and due process<sup>100</sup> in the WTO Members' administration of trade regulations, which encompass notions such as notice, transparency, fairness and equity.<sup>101</sup>

According to the Appellate Body, the term "administer" in GATT 1994 Article X:3 "refers to *putting into practical effect*, or *applying*, a legal instrument of the kind described in Article X:1."<sup>102</sup> Article X:1 covers "[l]aws, regulations, judicial decisions and administrative rulings of *general application*' ... that apply to a range of situations or cases, rather than being limited in their scope of application."<sup>103</sup> Thus, the obligations imposed by Article X:3(a) do not apply only to the written language of the substantive rules governing the enforcement of U.S. export laws but also to their administration,<sup>104</sup> including administrative processes and practices.<sup>105</sup>

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<sup>100</sup> According to the WTO panel in *EC – Selected Customs Matters*, WT/DS315/R, adopted Dec. 11, 2006, para. 7.108, "[t]he due process theme underlying Article X of the GATT 1994 suggests that the aim of Article X:3(a) of the GATT 1994 is to ensure that traders are treated fairly and consistently when seeking to import from or export to a particular WTO Member." The Appellate Body has further pointed out that "it is only reasonable that rigorous compliance with the fundamental requirements of due process should be required in the application and administration of a measure which purports to be an exception to the treaty obligations of the Member imposing the measure and which effectively results in a suspension *pro hac vice* of the treaty rights of other Members." WTO Appellate Body Report, *US – Shrimp*, WT/DS58/AB/R, adopted Nov. 6, 1998, para. 182.

<sup>101</sup> WTO Panel Report, *EC – Selected Customs Matters*, para. 7.134, citing Appellate Body Report, *US – Shrimp*, paras. 181-83.

<sup>102</sup> WTO Appellate Body Report, *EC – Selected Customs Matters*, para. 224 (emphasis in original). According to the panel in *EC – Customs Matters*:

{T}here would appear to be nothing in the ordinary meaning of the term "administer" that would suggest that it covers laws and regulations as such. On the contrary, the relevant dictionary definitions indicate that the term "administer" refers to positive action or steps taken to put into effect measures such as laws and regulations, but not the laws and regulations themselves, which merely exist without effect until they are actually applied in practice.

WTO Panel Report, *EC – Selected Customs Matters*, para. 7.106 (emphasis in original).

<sup>103</sup> WTO Panel Report, *EC – Selected Customs Matters*, para. 7.116; see WTO Appellate Body Report, *EC – Poultry*, WT/DS69/AB/R, adopted July 23, 1998, para. 111.

<sup>104</sup> WTO Appellate Body Report, *EC – Bananas III*, WT/DS27/AB/R, adopted September 25, 1997, para. 200; Panel Report, *US – Offset Act*, para. 7.143, citing *Argentina – Hides and Leather*, para. 11.72.

<sup>105</sup> WTO Appellate Body Report, *EC – Selected Customs Matters*, para. 226. In the *EC – Selected Customs Matters* dispute, the United States specifically challenged, *inter alia*, the EC's administration of its customs laws, including the administrative practices of customs authorities of member States of the European Communities. *Id.* at Annex III.

Applying this interpretation from the WTO Appellate Body, it is clear that regardless of whether the underlying U.S. statutes and regulations are held to be consistent with U.S. WTO obligations, there is a risk of running afoul of the WTO obligations if the DOE's practices in administering the laws have the result of being unreasonable or arbitrary.

Moreover, evidence of "trade damage" from the unreasonable or arbitrary administration of laws is not necessary in order for such administration or practice to be found to be inconsistent with U.S. obligations under the WTO. Article X:3(a) concerns the "real effect that a measure might have on traders operating in the commercial world" and "whether there is a possible impact on the competitive situation" due to the alleged unreasonable application of the trade laws.<sup>106</sup>

**2. The DOE's Grant of Licenses for Export of Gas to WTO Members for Only a Brief Limited Period Would Likely Be Found To Be Inconsistent With GATT 1994 Article X:3(a), as Unreasonable and Arbitrary**

As explained above, the U.S. statute (15 U.S.C. § 717b) establishes application and approval requirements for natural gas exports. Once export authorization is granted, however, the DOE has adopted a consistent practice of requiring applicants to renew their blanket export licenses on a recurring basis. Thus, the U.S. statute is a measure of "general application" within the meaning of Article X:1, which is administered by the DOE through its adoption of a blanket authorization renewal requirement for export licensing.

Presumably, the DOE's decision to grant license applications for a brief limited period is to allow the agency to revisit its public interest determinations. The DOE, however, has not explained why a limited period is reasonable or necessary for blanket authorizations. For example, for applications to export natural gas to an FTA member, the statute specifically directs the Commission to find that the exportation of natural gas to countries with which the U.S. has an FTA would be in the public interest. The statute also requires that applications for the

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<sup>106</sup> WTO Panel Report, *Argentina – Hides and Leather*, WT/DS155/R, adopted Feb. 16, 2001, para. 11.77.



exportation of natural gas to those FTA members be granted “without modification or delay.” Therefore, to the extent that the DOE can impose other “terms and conditions”<sup>107</sup> on the grant of these export applications, the other “terms and conditions” would presumably not involve “public interest” considerations.

Even if it would not be inconsistent with U.S. WTO obligations for the DOE to periodically reconsider the “public interest” for exports of natural gas to WTO Members (whether or not they have an FTA with the U.S.), the DOE’s current licensing scheme could be viewed as unreasonable within the interpretation of GATT Article X. As the DOE recently recognized, U.S. consumers “presently have access to substantial quantities of natural gas sufficient to meet domestic demand from multiple other sources at competitive prices....”<sup>108</sup> Given that the timeframe for recovery and distribution of natural gas to both domestic and export markets requires a decade or more of exploration, drilling, and recovery, as well as building collection, storage, and distribution infrastructure, the DOE’s adoption of a consistent practice of granting for only very short periods blanket authorizations to export natural gas could be seen as arbitrary and unreasonable within the framework of WTO jurisprudence. In such a capital-intensive industry, the DOE’s licensing requirement could be viewed as arbitrary because it not only imposes an unnecessary administrative burden on applicants but actively discourages investment in the infrastructure necessary to export natural gas. Because the DOE’s practice has the practical effect of discouraging the requisite investment to support exports without a clearly articulated and reasonable basis, current DOE practice could be challenged as inconsistent with U.S. obligations under GATT 1994 on the grounds that the laws are being applied in an unreasonable or arbitrary manner.

If the basis for the DOE’s decision to so severely limit the period of authorization is potential concerns over the *quantity* of natural gas actually exported, the DOE can and, in fact, has addressed this concern by including *monthly* reporting requirements regarding delivery

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<sup>107</sup> 15 U.S.C. § 717b(a) (note that § 717b(a) allows the Commission to modify the “terms and conditions” as necessary or appropriate, but the same language does not appear in § 717b(c)) .

<sup>108</sup> DOE Opinion and Order No. 2795, FE Docket No. 10-31-LNG, at 7 (June 1, 2010).

volumes and prices in its blanket authorizations.<sup>109</sup> It is not clear why the DOE would need to require frequent renewal of export licenses when it has access to and is presumably reviewing ongoing export activity to identify and address any potential problems arising out of quantities exported.

Indeed, the United States is, at present, challenging China's administration of its coke export quotas and its export quota bidding regime as being unreasonable contrary to GATT 1994 Article X:3(a).<sup>110</sup> Based on the available facts, the DOE's requirement for frequent renewal of export licenses for natural gas similarly appears to be an administrative practice adopted to implement its statutory authority to consider, approve, and deny applications to export natural gas. As such, the licensing requirement is subject to the GATT 1994 Article X:3(a) requirement

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<sup>109</sup> See, e.g., DOE Opinion and Order No. 2795, FE Docket No. 10-31-LNG, at 12 (June 1, 2010). According to the DOE, the monthly reporting requirement was adopted "to perform market and regulatory analyses; improve the capability of industry and the government to respond to any future energy-related problems; and keep the general public informed of international natural gas trade." *Office of Fossil Energy; Procedural Order Requiring Monthly Reporting*, 70 Fed. Reg. 60,305 (Dep't Energy Oct. 17, 2005).

<sup>110</sup> See U.S. First Written Submission in the WTO dispute settlement proceeding initiated by the U.S., EU and Mexico in *China -- Raw Materials Exports*, WT/DS394, DS395, DS398, at paras. 291-314 (June 1, 2010). Other WTO Members have also successfully challenged the administration of laws as being unreasonable contrary to Article X:3(a). For example, in the *Dominican Republic – Cigarettes* dispute, a WTO panel found that the administration of tax laws was unreasonable when the selection of the tax base was chosen without regard to existing rules and evidence:

The Panel thus finds that the manner in which the Dominican Republic administered the provisions governing the Selective Consumption Tax, in particular with respect to the determination of the tax base for the application of the tax on cigarettes, and the use in this regard of the "nearest similar product on the domestic market", was unreasonable. *The fact that the Dominican Republic authorities did not support its decisions regarding the determination of the tax base for imported cigarettes by resorting to the rules in force at the time and that they decided to disregard retail selling prices of imported cigarettes, is not "in accordance with reason", "having sound judgement", "sensible", "within the limits of reason", nor "articulate".*

WTO Panel Report, *Dominican Republic – Import and Sale of Cigarettes*, para. 7.388 (emphasis added); see also WTO Panel Report, *Argentina – Hides and Leather*, para. 11.94 (finding administrative process aimed at ensuring proper classification of products, but possibly revealing confidential business information, to be unreasonable).

that WTO Members must administer their trade laws in a reasonable manner. Absent a justification for the DOE's current practice of granting short-term blanket authorizations to export natural gas that is strongly defensible as a reasonable measure to restrict exports, the United States could be subject to claims that its practice is unreasonable and arbitrary contrary to its GATT Article X:3(a) obligations.

**3. GATT 1994 Article XIII Requires the United States to Administer Any Measures That Impose Quantitative Restrictions in a Non-Discriminatory Manner with Respect to All WTO Members**

As noted above in Sections III.B and C, GATT 1994 Article XI:1 specifically prohibits export restrictions on any product destined for a WTO member country, whether such restrictions are made effective through export licenses or other measures:

Article XI: General Elimination of Quantitative Restrictions

1. No prohibitions or restrictions other than duties, taxes or other charges, whether made effective through quotas, import or export licences or other measures, shall be instituted or maintained by any contracting party on the importation of any product of the territory of any other contracting party or on the exportation or sale for export of any product destined for the territory of any other contracting party.

In addition, where exports are restricted in any way under an exception to GATT 1994 Article XI, GATT Article XIII:1 also prohibits *discriminatory application* of such export restrictions as between or among any WTO Members.<sup>111</sup>

Article XIII: Non-discriminatory Administration of Quantitative Restrictions

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<sup>111</sup> Although WTO Members in other disputes have challenged import restrictions as being inconsistent with both GATT 1994 Articles XI:1 and XIII, a WTO panel or the Appellate Body sitting in judgement of a dispute may exercise judicial economy with respect to either claim. *Compare* WTO Panel Report, *Colombia – Ports of Entry*, paras. 7.281-92 (exercising judicial economy with respect to GATT 1994 Article XIII:1 claim after finding a violation of GATT 1994 Article XI:1), *with* WTO Appellate Body Report, *Turkey – Textiles*, para. 66 (finding that GATT 1994 Article XXIV did not justify quantitative restrictions on Indian imports found to violate both GATT 1994 Articles XI:1 and XIII:1).

1. No prohibition or restriction shall be applied by any contracting party on the importation of any product of the territory of any other contracting party or on the exportation of any product destined for the territory of any other contracting party, unless the importation of the like product of all third countries or the exportation of the like product to all third countries is similarly prohibited or restricted.

The Appellate Body has made it clear that a “quantitative restriction” that is lawful under Article XI:1 by reason of an exception in Article XI:2 or another provision in the covered agreements “must nevertheless satisfy the requirements of Article XIII in respect of its non-discriminatory administration.”<sup>112</sup> Thus, the same conditions for licensing or other certification applied by the United States to the exportation of LNG or natural gas to any WTO Member (whether or not the U.S. has an FTA with that country) must also be applied in a non-discriminatory manner with respect to the exportation of LNG or natural gas to any other WTO Member.

**4. The Natural Gas Act of 1938, As Amended, Appears To Create A Process For Consideration Of Export Licenses That Is Discriminatory On Its Face and That Disadvantages WTO Members That Do Not Have FTAs With the U.S., Which Would Likely Be Deemed Inconsistent with GATT Articles I and XIII**

As explained above in Section II, the Natural Gas Act of 1938, as amended (15 U.S.C. § 717b(c)) establishes an expedited application and approval process for natural gas exports to FTA members:

**(c) Expedited application and approval process**

For purposes of subsection (a) of this section, the importation of the natural gas referred to in subsection (b) of this section, or the exportation of natural gas to a nation with which there is in effect a free trade agreement requiring national treatment for trade in natural gas, shall be deemed to be consistent with the public interest, and applications for such importation or exportation shall

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<sup>112</sup> Appellate Body Report, *EC – Bananas III* (Art. 21.5), WT/DS27/AB/RW2/ECU, WT/DS27/AB/RW/USA, adopted December 12 and 22, 2008, para. 334, n.407; *see also* WTO Panel Report, *Colombia – Ports of Entry*, paras. 7.286-87, *citing* WTO Panel Report, *Turkey – Textiles*, paras. 9.61-62.



be granted without modification or delay.<sup>113</sup>

Unlike applications for exports destined to non-FTA members, the statute requires the DOE to grant an application to export natural gas to those FTA countries automatically, without any additional consideration of the “public interest” and without modification or delay.

For exports of natural gas to countries that do not have an FTA with the U.S. and, therefore, that do not benefit from the expedited application and approval process, the statute gives the DOE discretion to grant or deny an application to export natural gas based on additional consideration of the “public interest,” or grant an application in whole or in part, with modifications or additional terms and conditions, and make any supplemental order:

**§ 717b (a) Mandatory authorization order**

After six months from June 21, 1938, no person shall export any natural gas from the United States to a foreign country or import any natural gas from a foreign country without first having secured an order of the Commission authorizing it to do so. The Commission shall issue such order upon application, unless, after opportunity for hearing, it finds that the proposed exportation or importation will not be consistent with the public interest. The Commission may by its order grant such application, in whole or in part, with such modification and upon such terms and conditions as the Commission may find necessary or appropriate, and may from time to time, after opportunity for hearing, and for good cause shown, make such supplemental order in the premises as it may find necessary or appropriate.<sup>114</sup>

For applications to export natural gas to an FTA member country, the statute specifically requires the Commission to find that the exportation of natural gas to those countries would be in the public interest. The statute also requires that applications for the exportation of natural gas to those FTA members be granted “without modification or delay.”

Because the same requirements would not apply for applications to export natural gas to a

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<sup>113</sup> 15 U.S.C. § 717b(c) (emphasis added).

<sup>114</sup> 15 U.S.C. § 717b(a).

WTO Member that does not have an FTA with the United States, the Natural Gas Act of 1938, as amended (15 U.S.C. § 717b), appears to be discriminatory on its face.

**5. GATT Article I Most-Favoured-Nation Treatment Requires That No Discrimination Be Imposed on Exports to Any WTO Member Country**

When current U.S. law and practices governing the review and approval of licenses for the export of natural gas are reviewed in the context of U.S. international legal obligations under the WTO Agreement and U.S. free trade agreements, these laws and practices appear to be measures affecting exports that could be deemed inconsistent with U.S. international obligations to provide most-favored-nation (MFN) treatment and national treatment with respect to exports to (and imports from) other WTO member countries. As noted in Section II.A.1 *supra*,<sup>115</sup> the logic of the House Report of the Committee of Energy and Commerce that accompanies H.R. 776 (the bill that went on to become the Energy Policy Act of 1992) focused on imports from Canada and recognized that “[b]ecause of the 1988 Canadian Free Trade Agreement, old distinctions between Canadian and U.S. gas are illegal in any event.”<sup>116</sup> Although this comment was made with respect to a specific free trade agreement and in reference to what is now 15 U.S.C. § 717b(c), this same logic applies to all WTO Members that have committed, by virtue of their WTO accession, to most-favored-nation and national treatment of each others’ goods and services.<sup>117</sup>

Specifically, Article I (*General Most-Favoured-Nation Treatment*) and Article III (*National Treatment on Internal Taxation and Regulation*) are incorporated into the GATT 1994 directly from the GATT 1947 text.<sup>118</sup> Thus, the U.S. (as well as all other WTO member

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<sup>115</sup> See discussion in Section II.A.1 *supra* at notes 5 – 11.

<sup>116</sup> House Report (Energy and Commerce Committee) No. 102-474(I), at 136 (March 30, 1992).

<sup>117</sup> GATT 1994 Articles I and III, *in* WTO, *The Legal Texts: The Results of the Uruguay Round of Multilateral Trade Negotiations* at 424, 427 (1999).

<sup>118</sup> The General Agreement on Tariffs and Trade of 1994 (GATT 1994) incorporates the text of

countries) has specifically committed to afford most-favored-nation treatment and national treatment to all WTO Members in its schedule of commitments and have done so since entering into GATT 1947. The schedule of U.S. exemptions from the MFN commitment in GATT 1994 includes specific references to the duties on liquefied natural gas but does not exempt LNG or natural gas in any form from the MFN disciplines and rules of GATT 1994.<sup>119</sup>

National treatment, as defined under GATT 1947 and incorporated in GATT 1994, requires the treatment of imports from WTO member countries no less favorably than domestic products, so the national treatment obligation only indirectly affects exports insofar as the products are reexported following importation into a WTO member country. The discussion of “national treatment” in the context of the statutory language as well as the legislative history of the Natural Gas Act of 1938 (as amended in 1992 at provision 15 U.S.C. § 717b(c)) granted more favorable terms for export of gas from the U.S. to countries with which the U.S. has an FTA and justified it on the grounds that the U.S. - Canada FTA made “old distinctions between Canadian and U.S. gas . . . illegal.” This is correct but in the GATT sense, the Article I commitment to provide MFN treatment addresses both imports and exports (directly and indirectly), while the GATT Article III commitment to provide national treatment addresses treatment of imports.

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the relevant provisions on Most Favored nation treatment and national treatment from GATT 1947:

1. The General Agreement on Tariffs and Trade 1994 (“GATT 1994”) shall consist of:

(a) the provisions in the General Agreement on Tariffs and Trade, dated 30 October 1947, annexed to the Final Act Adopted at the Conclusion of the Second Session of the Preparatory Committee of the United Nations Conference on Trade and Employment (excluding the Protocol of Provisional Application), as rectified, amended or modified by the terms of legal instruments which have entered into force before the date of entry into force of the WTO Agreement;

GATT 1994, The Legal Texts: The Results of the Uruguay Round of Multilateral Trade Negotiations (1999).

<sup>119</sup> See Marrakesh Protocol to the General Agreement on Tariffs and Trade 1994, Schedule XX-United States of America, Part I, Section II, page 54 at HTS 2711.11.00 “Liquefied Natural Gas”. See also Annex C setting forth the U.S. exemptions from MFN treatment, which includes transport services associated with natural gas pipelines but does not exempt natural gas in any form from MFN treatment.

In any case, the U.S. and all of its FTA partner countries all adopted both the MFN and national treatment obligations of the GATT in all of the FTAs. Moreover, all of the FTA countries also are WTO member countries and all have taken an identical commitment to each other in the context of agreeing and acceding to GATT 1994.<sup>120</sup>

Thus, the statutory language of the Natural Gas Act of 1938 (as amended) at provision 15 U.S.C. § 717b(c)) may refer only to “national treatment,” but the U.S. was and is, in any case, committed to afford GATT consistent MFN treatment as well as national treatment for both exports and imports to Canada and all other WTO member countries.

Therefore, based on the MFN obligations and commitments taken by the U.S. in GATT 1994, it would be inconsistent with U.S. commitments under the WTO agreements to restrain exports to any WTO Members under 15 U.S.C. § 717b(a), especially in light of the more favorable terms of provision at 15 U.S.C. § 717b(c) requiring approval of export applications involving countries with which the U.S. has separate FTAs. The preferential treatment accorded exports to countries with which the U.S. has a FTA in effect discriminates against exports to non-FTA countries whether or not such countries are WTO Members. This distinction in the treatment accorded to exports destined to WTO member countries is likely to be deemed inconsistent with U.S. obligations under the WTO.

Although there are a number of exceptions to the U.S. obligations to provide MFN treatment that are potentially available in cases involving critical shortages, the conservation of natural resources, government stabilization plans, short supply situations, or national security interests, it is not clear that the U.S. government would be justified in relying on any of these exceptions to deny a license application to export natural gas to any WTO member country at the present time based on available facts. As noted above, the U.S. has challenged similar export restrictions imposed by other countries in WTO dispute settlement proceedings.

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<sup>120</sup> See Annex D for excerpts from the GATT 1994 and each of the FTAs to which the US is a party committing to accord most-favored-nation treatment to the other signatories.



Therefore, a WTO Member that does not have an FTA with the United States could claim that 15 U.S.C. § 717b fails to satisfy the requirements of both most-favoured-nation treatment in GATT 1994 Article I and non-discrimination in GATT 1994 Article XIII:1

**6. It is Not Clear That GATT 1994 Article XXIV Permitting FTAs Would Provide a Convincing Defense of Discriminatory Export Licensing Requirements Applicable to FTA and Non-FTA Members**

Although the WTO Agreement specifically allows Members to enter into FTAs, those FTAs cannot be used to raise barriers to trade with non-FTA members. Paragraph 5 of GATT 1994 Article XXIV allows WTO Members to enter into voluntary trade agreements to establish customs unions or free trade areas to develop “closer integration between the economies” of members:

The contracting parties recognize the desirability of increasing freedom of trade by the development, through voluntary agreements, of closer integration between the economies of the countries parties to such agreements. They also recognize that the purpose of a customs union or of a free-trade area should be to facilitate trade between the constituent territories and not to raise barriers to the trade of other contracting parties with such territories.<sup>121</sup>

The preamble to the WTO Understanding on the Interpretation of Article XXIV of the General Agreement on Tariffs and Trade 1994 further recognizes the “contribution to the expansion of world trade that may be made by closer integration between the economies of the parties to such agreements” and reaffirmed that the purpose of such agreements was to facilitate trade not to “raise barriers to the trade of other Members with such territories....”<sup>122</sup>

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<sup>121</sup> GATT 1994 Article XXIV:4, *in* WTO, THE LEGAL TEXTS: THE RESULTS OF THE URUGUAY ROUND OF MULTILATERAL TRADE NEGOTIATIONS at 458 (1999) (emphasis added). According to the Appellate Body, Article XXIV:4 contains purposive, not operative, language that informs other paragraphs of Article XXIV including the chapeau to paragraph 5. Appellate Body Report, *Turkey – Textiles*, para. 57.

<sup>122</sup> WTO Understanding on the Interpretation of Article XXIV of the General Agreement on Tariffs and Trade 1994, *in* WTO, THE LEGAL TEXTS: THE RESULTS OF THE URUGUAY ROUND OF

The exception in Article XXIV:5 for free-trade areas, however, does not provide a comprehensive defense for unrelated WTO violations:

5. Accordingly, the provisions of this Agreement shall not prevent, as between the territories of contracting parties, the formation of a customs union or of a free-trade area or the adoption of an interim agreement necessary for the formation of a customs union or of a free-trade area; Provided that:

\* \* \*

(b) with respect to a free-trade area, or an interim agreement leading to the formation of a free-trade area, the duties and other regulations of commerce maintained in each if the constituent territories and applicable at the formation of such free-trade area or the adoption of such interim agreement to the trade of contracting parties not included in such area or not parties to such agreement shall not be higher or more restrictive than the corresponding duties and other regulations of commerce existing in the same constituent territories prior to the formation of the free-trade area, or interim agreement as the case may be....<sup>123</sup>

On the contrary, the Appellate Body has interpreted GATT 1994 Article XXIV as providing a limited defense to a finding of a WTO inconsistency:

First, in examining the text of the chapeau to establish its ordinary meaning, we note that the chapeau states that the provisions of the GATT 1994 "*shall not prevent*" the formation of a customs union. We read this to mean that the provisions of the GATT 1994 *shall not make impossible* the formation of a customs union. Thus, the chapeau makes it clear that Article XXIV may, under certain conditions, justify the adoption of a measure which is inconsistent with certain other GATT provisions, and may be invoked as a

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MULTILATERAL TRADE NEGOTIATIONS at 26 (1999). The General Agreement on Trade in Services (GATS) Article V entitled "Economic Integration" also permits WTO Members to enter into agreements liberalizing trade in services as long as they, *inter alia*, are designed to facilitate trade not to "raise the overall level of barriers to trade in services within the respective sectors or subsectors...." GATS Article V:4, *in* WTO, THE LEGAL TEXTS: THE RESULTS OF THE URUGUAY ROUND OF MULTILATERAL TRADE NEGOTIATIONS at 289 (1999).

<sup>123</sup> GATT 1994 Article XXIV:5, *in* WTO, The Legal Texts: The Results of the Uruguay Round of Multilateral Trade Negotiations at 458-59 (1999) (underlined emphasis added).

possible "defence" to a finding of inconsistency.<sup>124</sup>

Specifically, Article XXIV can justify the adoption of a measure which is inconsistent with certain other GATT provisions only (1) if the measure is introduced upon the formation of a free-trade area, which fully meets, *inter alia*, the requirements in Article XXIV:5(b) relating to “other regulations of commerce” applied by the FTA members to trade with third countries, and (2) to the extent that the formation of the free-trade area would be prevented if the introduction of the measure were not allowed.<sup>125</sup>

For example, the Appellate Body specifically rejected Turkey’s GATT 1994 Article XXIV defense that its quantitative import restrictions, which discriminated against certain Indian textile and clothing products contrary to GATT 1994 Articles XI:1 and XIII:1, were somehow necessary to form a customs union with the European Communities. Although the Appellate Body made no finding on the issue of whether quantitative restrictions found to be inconsistent with Article XI and Article XIII of the GATT 1994 would ever be justified by Article XXIV, the Appellate Body found that Turkey has failed to demonstrate that the formation of the customs union would have been prevented if it were not allowed to adopt the quantitative restrictions.<sup>126</sup>

Given that discretionary or non-automatic export licensing requirement in 15 U.S.C. § 717b(a) applicable to non-FTA members was enacted in 1938, long before the United States entered into the free trade agreements at issue,<sup>127</sup> it is not clear that the United States would be able to argue that any discrimination between WTO Members was necessary for the formation of its free-trade agreements within the meaning of Article XXIV:5. Section 717b(a) has absolutely nothing to do with implementing U.S. obligations under its free trade agreements and, therefore, cannot justify why the statute distinguishes between FTA and non-FTA members.

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<sup>124</sup> Appellate Body Report, *Turkey – Textiles*, WT/DS34/AB/R, adopted Nov. 19, 1999, para. 45 (underlined emphasis added).

<sup>125</sup> Appellate Body Report, *Turkey – Textiles*, paras. 46, 52, 58.

<sup>126</sup> Appellate Body Report, *Turkey – Textiles*, paras. 63-65.

<sup>127</sup> As indicated in Annexes A and B, the United States has FTAs with 17 other countries, and all of those countries are also WTO Members.

***E. U.S. Economic and International Trade Policies Strongly Encourage Exportation and Oppose Unreasonable and Burdensome Administrative Requirements on Imports and Exports***

As explained in Section II.D, increasing exports is currently a high priority for the U.S. government. On March 11, 2010, the President unveiled the National Export Initiative (NEI) via Executive Order, which is designed to reduce barriers to trade and promote U.S. exports.<sup>128</sup> The goal is to double U.S. exports over the next five years, which in turn will create jobs and boost the economy. Requirements that tend to restrict exports, including licensing procedures that reduce the certainty that certain exports will be permitted for a timeframe long enough to recover the costs of developing the export capacity, would, thus, be inconsistent with this current policy and a long-term Administration objective.

Furthermore, the U.S. routinely views burdensome and unreasonable administrative procedures relating to importing and exporting requirements as foreign trade barriers. In the United States Trade Representative's annual National Trade Estimate Report on Foreign Trade Barriers, there are numerous instances where burdensome regulations are cited as presenting barriers to trade.<sup>129</sup> For instance, Argentina's non-automatic import licensing requirements for footwear and toys are viewed as delaying imports,<sup>130</sup> and Cambodia's import policies are described as "unnecessarily burdensome" and "driven by excessively discretionary practices."<sup>131</sup> This demonstrates a distinct U.S. policy view that unreasonable, burdensome regulatory practices can act as barriers to foreign trade, which again is inconsistent with the above-referenced pro-export stance of the current Administration.

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<sup>128</sup> "Executive Order – National Export Initiative," The White House (March 11, 2010), available at <http://www.whitehouse.gov/the-press-office/executive-order-national-export-initiative>.

<sup>129</sup> 2010 National Trade Estimate Report on Foreign Trade Barriers, Office of the United States Trade Representative, available at <http://www.ustr.gov/about-us/press-office/reports-and-publications/2010>.

<sup>130</sup> *Id.* at 19.

<sup>131</sup> *Id.* at 43. There are multiple other examples of burdensome regulatory schemes that serve to restrict trade, such as China's overly burdensome regulatory regime that creates barriers to its services industry (*id.* at 70) and burdensome regulations concerning import registration with the Indonesian food and drug agency (*id.* at 184).

**IV. UNDER ITS FREE TRADE AGREEMENTS, THE U.S. IS OBLIGATED NOT TO RESTRICT GAS EXPORTS DESTINED FOR OTHER FTA MEMBER COUNTRIES**

**A. *U.S. Free Trade Agreements Generally Prohibit Export Restrictions on Trade in Goods Destined for Other FTA Member Countries***

**1. U.S. FTAs Generally Prohibit Export Restrictions on Trade in Goods**

As explained in Section III.E of this memorandum, the WTO Agreement specifically allows Members to enter into free trade agreements (“FTAs”) as long as they do not raise barriers to trade with non-FTA members. The United States currently has FTAs in force with 17 countries.<sup>132</sup> Under U.S. law (15 U.S.C. § 717b(c)), the DOE is required to grant export license applications without modification or delay for exports of natural gas destined to any country with which there is in effect a free trade agreement requiring national treatment for trade in natural gas:

**(c) Expedited application and approval process**

For purposes of {15 U.S.C. § 717b(a)}, the importation of the natural gas referred to in {15 U.S.C. § 717b(b)}, or the exportation of natural gas to a nation with which there is in effect a free trade agreement requiring national treatment for trade in natural gas, shall be deemed to be consistent with the public interest, and applications for such importation or exportation shall be granted without modification or delay.<sup>133</sup>

Each of the U.S. FTAs contains a national treatment clause from which natural gas is not excluded.<sup>134</sup> Therefore, it should follow that the DOE must grant license applications for the export of natural gas to FTA members.

Even if 15 U.S.C. § 717b(c) could somehow be construed not to require the automatic grant of license applications for natural gas export to all FTA members, the United States would

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<sup>132</sup> The countries are Australia, Bahrain, Canada, Chile, Costa Rica, Dominican Republic, El Salvador, Guatemala, Honduras, Israel, Jordan, Mexico, Morocco, Nicaragua, Oman, Peru, and Singapore. See Office of the United States Trade Representative at [www.ustr.gov/trade-agreements/free-trade-agreements](http://www.ustr.gov/trade-agreements/free-trade-agreements).

<sup>133</sup> 15 U.S.C. § 717b(c) (2010).

<sup>134</sup> The relevant provisions of the FTAs addressing national treatment are included as Annex A to this memorandum.



still have a general obligation under the FTAs not to institute or maintain export restrictions made effective through export licenses. Except for the FTA with Jordan, all of the FTAs to which the United States is a member contain a general provision prohibiting export restrictions for any good destined for the territory of another FTA member consistent with the requirements of GATT 1994 Article XI:1.<sup>135</sup> As explained in Section III.B.1 of this memorandum, export restrictions are prohibited by GATT 1994 Article XI:1 unless they can be justified under an exception.

## **2. NAFTA Articles 603 and 605 Specifically Prohibit Export Restrictions on Trade in Natural Gas**

Like the other U.S. FTAs, the North American Free Trade Agreement (“NAFTA”) Article 309 specifically prohibits member countries from restricting the exportation of any goods destined for any other member country except in accordance with GATT 1994 Article XI. NAFTA Article 315 establishes limits on the available exceptions to GATT 1994 Article XI:1 affecting the level of shipments, prices, and channels of supply.

In addition to NAFTA Articles 309 and 315 covering export restrictions in general, NAFTA also includes provisions in Chapter 6 specifically covering energy and basic petrochemicals, including natural gas.<sup>136</sup> Article 603.1 specifically incorporates the GATT provisions “with respect to prohibitions or restrictions on trade in energy and basic petrochemical goods”:

Subject to the further rights and obligations of this Agreement, the Parties incorporate the provisions of the General Agreement on Tariffs and Trade (GATT), with respect to prohibitions or restrictions on trade in energy and basic petrochemical goods. The Parties agree that this language does not incorporate their respective protocols of provisional application to the GATT.

Article 609 specifically defines “restriction” to include “any limitation, whether made

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<sup>135</sup> See Annex A.

<sup>136</sup> “Energy and basic petrochemicals” are defined to include goods classified under HS 27.11 (except for ethylene, propylene, butylene and butadiene in purities over 50 percent), which includes liquefied natural gas under US HTS 27.11.11.00.

effective through quotas, licenses, permits, minimum or maximum price requirements or any other means.” Article 603.5 further permits an export licensing system for energy or basic petrochemical goods provided that such system is operated in a manner consistent with NAFTA provisions, including Article 603.1 and Article 1502 (Monopolies and State Enterprises). Finally, Article 605 establishes limits on the available exceptions to GATT 1994 Article XI:1 affecting the level of shipments, prices, and channels of supply:

Subject to Annex 605, a Party may adopt or maintain a restriction otherwise justified under Articles XI:2(a) or XX(g), (i) or (j) of the GATT with respect to the export of an energy or basic petrochemical good to the territory of another Party, only if:

a) the restriction does not reduce the proportion of the total export shipments of the specific energy or basic petrochemical good made available to that other Party relative to the total supply of that good of the Party maintaining the restriction as compared to the proportion prevailing in the most recent 36 month period for which data are available prior to the imposition of the measure, or in such other representative period on which the Parties may agree;

b) the Party does not impose a higher price for exports of an energy or basic petrochemical good to that other Party than the price charged for such good when consumed domestically, by means of any measure such as licenses, fees, taxation and minimum price requirements. The foregoing provision does not apply to a higher price that may result from a measure taken pursuant to subparagraph (a) that only restricts the volume of exports; and

c) the restriction does not require the disruption of normal channels of supply to that other Party or normal proportions among specific energy or basic petrochemical goods supplied to that other Party, such as, for example, between crude oil and refined products and among different categories of crude oil and of refined products.

Annexes 603.6 and 605 include reservations and exceptions to Articles 603 and 605. Specifically, Annex 603.6 provides an exception for Mexico’s import and export licenses, and Annex 605 states that the provisions of Article 605 “shall not apply as between other Parties and Mexico.”

In sum, the United States has a specific obligation under NAFTA not to establish export restrictions on natural gas.

***B. The Limited Exceptions in U.S. Free Trade Agreements Are Unlikely To Justify Denial of Natural Gas Export License Applications***

**1. The General FTA Exceptions to the Prohibition of Export Restrictions on Trade in Goods are Unlikely to Justify the DOE's Denial of a Natural Gas Export License Application**

All of the FTAs to which the United States is a member also contain a general exception provision that specifically incorporates the list of exceptions contained in GATT 1994 Article XX. As explained above in Section III.C, however, the limited and conditional exceptions<sup>137</sup> are unlikely to justify denial of a license application for natural gas exports to an FTA member at the present time based on available facts under Articles XI:2(a) (critical shortages), XX(g) (conservation of natural resources), XX(i) (government stabilization plan), or XX(j) (short supply).

The United States has also routinely sought and received exemptions from its FTA obligations regarding export restrictions and other controls on specific items such as: the export of logs; certain measures under the Merchant Marine Act, Passenger Vessel Act, and 46 U.S.C. § 12108; actions authorized by the Dispute Settlement Body of the WTO; and actions authorized by the Agreement on Textiles and Clothing -- but not natural gas.<sup>138</sup> Therefore, for the reasons expressed in Section III.C, the available general exceptions are unlikely to justify the DOE's denial of a license application for natural gas exports to an FTA member at the present time based on available facts.

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<sup>137</sup> See Appellate Body Report, *US – Shrimp*, para. 157 (“In our view, the language of the chapeau makes clear that each of the exceptions in paragraphs (a) to (j) of Article XX is a limited and conditional exception from the substantive obligations contained in the other provisions of the GATT 1994, that is to say, the ultimate availability of the exception is subject to the compliance by the invoking Member with the requirements of the chapeau.”).

<sup>138</sup> See Annex A.

**2. The FTA National Security Exceptions to the Prohibition of Export Restrictions on Trade in Goods are Unlikely to Justify Denial of a Natural Gas Export License Application**

All of the FTAs to which the United States is a member also contain a general national security exception provision that contains fairly broad language allowing member countries to apply measures necessary to protect their own security interests. NAFTA Article 2102 likewise establishes general national security exceptions, and NAFTA Article 607 provides additional limitations on the national security exceptions for exports of an energy or basic petrochemical good to another NAFTA member country. Specifically, NAFTA Article 2102 is very similar to the exception contained in GATT 1994 Article XXI and states:

1. Subject to Articles 607 (Energy - National Security Measures) and 1018 (Government Procurement Exceptions), nothing in this Agreement shall be construed:

(a) to require any Party to furnish or allow access to any information the disclosure of which it determines to be contrary to its essential security interests;

(b) to prevent any Party from taking any actions that it considers necessary for the protection of its essential security interests

(i) relating to the traffic in arms, ammunition and implements of war and to such traffic and transactions in other goods, materials, services and technology undertaken directly or indirectly for the purpose of supplying a military or other security establishment,

(ii) taken in time of war or other emergency in international relations, or

(iii) relating to the implementation of national policies or international agreements respecting the non-proliferation of nuclear weapons or other nuclear explosive devices; or

(c) to prevent any Party from taking action in pursuance of its obligations under the United Nations Charter for the maintenance of international peace and security.

Article 607 further limits the ability of NAFTA Members to rely on GATT 1994 Article XXI (national security):

Subject to Annex 607, no Party may adopt or maintain a measure restricting imports of an energy or basic petrochemical good from, or exports of an energy or basic petrochemical good to, another Party under Article XXI of the GATT or under Article 2102 (National Security), except to the extent necessary to:

- a) supply a military establishment of a Party or enable fulfillment of a critical defense contract of a Party;
- b) respond to a situation of armed conflict involving the Party taking the measure;
- c) implement national policies or international agreements relating to the non-proliferation of nuclear weapons or other nuclear explosive devices; or
- d) respond to direct threats of disruption in the supply of nuclear materials for defense purposes.

According to Annex 607.1, Mexico is not covered by Article 607. Instead, Annex 607.2 states that Article 2102 “shall apply as between Mexico and the other parties.”

For the reasons expressed in Section III.C, however, the United States has an obligation under its FTAs not to establish export restrictions on natural gas, and it is not clear that the United States could rely on a national security exception to deny an export license application for natural gas unrelated to the Naval Petroleum Reserves at this time when it is not even on the list of products subject to export controls for national security reasons.

**V. U.S. LAWS OR PRACTICES GOVERNING OR RESTRICTING EXPORTS OF LNG THAT ARE VIEWED BY U.S. TRADING PARTNERS AS INCONSISTENT WITH TRADE AGREEMENTS OR NULLIFYING OR IMPAIRING RIGHTS UNDER TRADE AGREEMENTS COULD BE SUBMITTED TO A WTO OR FTA DISPUTE SETTLEMENT PROCEEDING FOR RESOLUTION**

The foregoing sections of this memorandum identify a number of U.S. international trade-related legal obligations and policy considerations governing U.S. export licenses for liquefied natural gas.<sup>139</sup> Should the DOE decide to deny export license applications for LNG, or should U.S. trading partners<sup>140</sup> regard the administration of U.S. law governing export licensing to be unreasonable or arbitrary, those countries could raise potential claims of WTO or FTA-

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<sup>139</sup> As such, the memorandum does not weigh the relative merits of various claims or defenses that could be raised before U.S. courts or international dispute settlement bodies.

<sup>140</sup> This analysis is restricted to U.S. trading partner countries that are members of the WTO or that are signatories to FTAs with the U.S.



related violations in international dispute settlement fora.

For example, WTO Members have access to dispute settlement proceedings under the WTO Dispute Settlement Understanding (DSU) to challenge measures taken by another WTO Member that are perceived to be inconsistent with their obligations under the WTO Agreement, including GATT 1994. The WTO dispute settlement system exists to address “situations in which a Member considers that any benefits accruing to it directly or indirectly under the covered agreements are being impaired by measures taken by another Member.”<sup>141</sup> Since its creation in 1994, the WTO dispute settlement system has been a “plaintiff’s” court with the vast majority of cases resulting in a finding of at least one WTO violation. WTO Members can challenge measures, like U.S. laws, before they have ever been applied<sup>142</sup> in any particular case and an adverse impact on the challenging WTO Member (in the form of nullification or impairment of rights under the covered agreements) is presumed.<sup>143</sup> Similarly, FTA Members can rely on the dispute settlement provisions contained in each of the FTAs to raise FTA-related violations.

For the foregoing reasons, the DOE’s denial of an export license application pursuant to the “public interest” requirement under 15 U.S.C. § 717b(a) could expose the United States to a potential WTO dispute settlement proceeding or, if the country is a signatory to an FTA with the U.S., a similar proceeding under the terms of the FTA.

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<sup>141</sup> Appellate Body Report, *United States – Continued Zeroing*, WT/DS350/AB/R, para. 176, quoting DSU Art. 3.3.

<sup>142</sup> Although WTO panels have distinguished between the reviewability of mandatory versus discretionary measures “as such”, the Appellate Body has not embraced the distinction. Therefore, it is not entirely clear whether the discretionary language in 15 U.S.C. § 717b(a) would be reviewable in the absence of a denial of an export license application.

<sup>143</sup> DSU at art. 3.8.

## ANNEX A

Containing full text of GATT Article III (national treatment provision) and relevant excerpts from U.S. Free Trade Agreements (provisions regarding national treatment, import and export restrictions, and exceptions)

GATT 1994 – Article III & *Ad Note*  
National Treatment Provision

## **PART II**

### **Article III\***

#### *National Treatment on Internal Taxation and Regulation*

1. The contracting parties recognize that internal taxes and other internal charges, and laws, regulations and requirements affecting the internal sale, offering for sale, purchase, transportation, distribution or use of products, and internal quantitative regulations requiring the mixture, processing or use of products in specified amounts or proportions, should not be applied to imported or domestic products so as to afford protection to domestic production.\*

2. The products of the territory of any contracting party imported into the territory of any other contracting party shall not be subject, directly or indirectly, to internal taxes or other internal charges of any kind in excess of those applied, directly or indirectly, to like domestic products. Moreover, no contracting party shall otherwise apply internal taxes or other internal charges to imported or domestic products in a manner contrary to the principles set forth in paragraph 1.\*

3. With respect to any existing internal tax which is inconsistent with the provisions of paragraph 2, but which is specifically authorized under a trade agreement, in force on April 10, 1947, in which the import duty on the taxed product is bound against increase, the contracting party imposing the tax shall be free to postpone the application of the provisions of paragraph 2 to such tax until such time as it can obtain release from the obligations of such trade agreement in order to permit the increase of such duty to the extent necessary to compensate for the elimination of the protective element of the tax.

4. The products of the territory of any contracting party imported into the territory of any other contracting party shall be accorded treatment no less favourable than that accorded to like products of national origin in respect of all laws, regulations and requirements affecting their internal sale, offering for sale, purchase, transportation, distribution or use. The provisions of this paragraph shall not prevent the application of differential internal transportation charges which are based exclusively on the economic operation of the means of transport and not on the nationality of the product.

5. No contracting party shall establish or maintain any internal quantitative regulation relating to the mixture, processing or use of products in specified amounts or proportions which requires, directly or indirectly, that any specified amount or proportion of any product which is the subject of the regulation must be supplied from domestic sources. Moreover, no contracting party shall otherwise apply internal quantitative regulations in a manner contrary to the principles set forth in paragraph 1.\*

6. The provisions of paragraph 5 shall not apply to any internal quantitative regulation in force in the territory of any contracting party on July 1, 1939, April 10, 1947, or March 24, 1948, at the option of that contracting party; *Provided* that any such regulation which is contrary to the provisions of paragraph 5 shall not be modified to the detriment of imports and shall be treated as a customs duty for the purpose of negotiation.

7. No internal quantitative regulation relating to the mixture, processing or use of products in specified amounts or proportions shall be applied in such a manner as to allocate any such amount or proportion among external sources of supply.

8. (a) The provisions of this Article shall not apply to laws, regulations or requirements governing the procurement by governmental agencies of products purchased for governmental purposes and not with a view to commercial resale or with a view to use in the production of goods for commercial sale.

(b) The provisions of this Article shall not prevent the payment of subsidies exclusively to domestic producers, including payments to domestic producers derived from the proceeds of internal taxes or charges applied consistently with the provisions of this Article and subsidies effected through governmental purchases of domestic products.

9. The contracting parties recognize that internal maximum price control measures, even though conforming to the other provisions of this Article, can have effects prejudicial to the interests of contracting parties supplying imported products. Accordingly, contracting parties applying such measures shall take account of the interests of exporting contracting parties with a view to avoiding to the fullest practicable extent such prejudicial effects.

10. The provisions of this Article shall not prevent any contracting party from establishing or maintaining internal quantitative regulations relating to exposed cinematograph films and meeting the requirements of Article IV.



*Ad Article II**Paragraph 2 (a)*

The cross-reference, in paragraph 2 (a) of Article II, to paragraph 2 of Article III shall only apply after Article III has been modified by the entry into force of the amendment provided for in the Protocol Modifying Part II and Article XXVI of the General Agreement on Tariffs and Trade, dated September 14, 1948.<sup>1</sup>

*Paragraph 2 (b)*

See the note relating to paragraph 1 of Article I.

*Paragraph 4*

Except where otherwise specifically agreed between the contracting parties which initially negotiated the concession, the provisions of this paragraph will be applied in the light of the provisions of Article 31 of the Havana Charter.

*Ad Article III*

Any internal tax or other internal charge, or any law, regulation or requirement of the kind referred to in paragraph 1 which applies to an imported product and to the like domestic product and is collected or enforced in the case of the imported product at the time or point of importation, is nevertheless to be regarded as an internal tax or other internal charge, or a law, regulation or requirement of the kind referred to in paragraph 1, and is accordingly subject to the provisions of Article III.

*Paragraph 1*

The application of paragraph 1 to internal taxes imposed by local governments and authorities with the territory of a contracting party is subject to the provisions of the final paragraph of Article XXIV. The term "reasonable measures" in the last-mentioned paragraph would not require, for example, the repeal of existing national legislation authorizing local governments to impose internal taxes which, although technically inconsistent with the letter of Article III, are not in fact inconsistent with its spirit, if such repeal would result in a serious financial hardship for the local governments or authorities concerned. With regard to taxation by local governments or authorities which is inconsistent with both the letter and spirit of Article III, the term "reasonable measures" would permit a contracting party to eliminate the inconsistent taxation gradually over a transition period, if abrupt action would create serious administrative and financial difficulties.

*Paragraph 2*

A tax conforming to the requirements of the first sentence of paragraph 2 would be considered to be inconsistent with the provisions of the second sentence only in cases where competition was

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<sup>1</sup>This Protocol entered into force on 14 December 1948.

involved between, on the one hand, the taxed product and, on the other hand, a directly competitive or substitutable product which was not similarly taxed.

*Paragraph 5*

Regulations consistent with the provisions of the first sentence of paragraph 5 shall not be considered to be contrary to the provisions of the second sentence in any case in which all of the products subject to the regulations are produced domestically in substantial quantities. A regulation cannot be justified as being consistent with the provisions of the second sentence on the ground that the proportion or amount allocated to each of the products which are the subject of the regulation constitutes an equitable relationship between imported and domestic products.

*Ad Article V*

*Paragraph 5*

With regard to transportation charges, the principle laid down in paragraph 5 refers to like products being transported on the same route under like conditions.

*Ad Article VI*

*Paragraph 1*

1. Hidden dumping by associated houses (that is, the sale by an importer at a price below that corresponding to the price invoiced by an exporter with whom the importer is associated, and also below the price in the exporting country) constitutes a form of price dumping with respect to which the margin of dumping may be calculated on the basis of the price at which the goods are resold by the importer.

2. It is recognized that, in the case of imports from a country which has a complete or substantially complete monopoly of its trade and where all domestic prices are fixed by the State, special difficulties may exist in determining price comparability for the purposes of paragraph 1, and in such cases importing contracting parties may find it necessary to take into account the possibility that a strict comparison with domestic prices in such a country may not always be appropriate.

*Paragraphs 2 and 3*

1. As in many other cases in customs administration, a contracting party may require reasonable security (bond or cash deposit) for the payment of anti-dumping or countervailing duty pending final determination of the facts in any case of suspected dumping or subsidization.

2. Multiple currency practices can in certain circumstances constitute a subsidy to exports which may be met by countervailing duties under paragraph 3 or can constitute a form of dumping

United States-Australia Free Trade Agreement  
Entered into force on January 1, 2005

## **CHAPTER TWO**

### **NATIONAL TREATMENT AND MARKET ACCESS FOR GOODS**

#### **ARTICLE 2.1 : SCOPE AND COVERAGE**

Except as otherwise provided, this Chapter applies to trade in goods of a Party.

#### **Section A : National Treatment**

#### **ARTICLE 2.2 : NATIONAL TREATMENT**

Each Party shall accord national treatment to the goods of the other Party in accordance with Article III of GATT 1994, including its interpretative notes. To this end, Article III of GATT 1994 and its interpretative notes are incorporated into and made a part of this Agreement, subject to Annex 2-A (Application of Chapter 2).

#### **Section B : Tariffs**

#### **ARTICLE 2.3 : ELIMINATION OF CUSTOMS DUTIES**

1. Except as otherwise provided in this Agreement, each Party shall progressively eliminate its customs duties on originating goods of the other Party in accordance with Annex 2-B (Tariff Elimination).
2. Neither Party may increase an existing customs duty or introduce a new customs duty on imports of an originating good, other than as permitted by this Agreement, subject to Annex 2-A (Application of Chapter 2).

#### **ARTICLE 2.4 : CUSTOMS VALUE**

The Parties shall apply the provisions of the Customs Valuation Agreement for the purposes of determining the customs value of goods traded between the Parties.

#### **ARTICLE 2.5 : TEMPORARY ADMISSION**

1. Each Party shall grant duty-free temporary admission for the following goods, imported by or for the use of a resident of the other Party:
  - (a) professional equipment, including software and broadcasting and cinematographic equipment, necessary for carrying out the business activity, trade, or profession of a person who qualifies for temporary entry pursuant to the laws of the importing Party;
  - (b) goods intended for display or demonstration at exhibitions, fairs, or similar events, including commercial samples for the solicitation of orders, and advertising films and recordings; and

Each Party shall grant duty-free entry to commercial samples of negligible value, and to printed advertising materials, imported from the territory of the other Party, regardless of their origin, but may require that:

- (a) the samples be imported solely for the solicitation of orders for goods of, or services provided from the territory of, the other Party or a non-Party; or
- (b) the advertising materials be imported in packets that each contain no more than one copy of each such material and that neither those materials nor packets form part of a larger consignment.

#### ARTICLE 2.8 : WAIVER OF CUSTOMS DUTIES

1. Neither Party may adopt a new waiver of customs duties, or expand with respect to existing recipients or extend to any new recipient the application of an existing waiver of customs duties, where the waiver is conditioned, explicitly or implicitly, on the fulfilment of a performance requirement.
2. Neither Party may condition, explicitly or implicitly, the continuation of any existing waiver of customs duties on the fulfilment of a performance requirement.
3. This Article shall not apply to drawback or duty deferral programs.

### **Section C : Non-Tariff Measures**

#### ARTICLE 2.9 : IMPORT AND EXPORT RESTRICTIONS

1. Except as otherwise provided in this Agreement, neither Party may adopt or maintain any prohibition or restriction on the importation of any good of the other Party or on the exportation or sale for export of any good destined for the territory of the other Party, except in accordance with Article XI of GATT 1994, including its interpretative notes, and to this end Article XI of GATT 1994, including its interpretative notes, is incorporated into and made a part of this Agreement.
2. The Parties understand that the rights and obligations incorporated by paragraph 1 prohibit, in any circumstances in which any other form of restriction is prohibited, import licensing conditioned on the fulfilment of a performance requirement, export price requirements, and, except as permitted in enforcement of countervailing and antidumping orders and undertakings, import price requirements.
3. In the event that a Party adopts or maintains a prohibition or restriction on the importation from or exportation to a non-Party of a good, nothing in this Agreement shall be construed as preventing the Party from:
  - (a) limiting or prohibiting the importation from the territory of the other Party of such good of that non-Party; or



- (b) requiring as a condition of export of such good of the Party to the territory of the other Party, that the good not be re-exported to the non-Party, directly or indirectly, without being consumed in the territory of the other Party.
- 4. Paragraphs 1 through 3 shall not apply to the measures set out in Annex 2-A.
- 5. Nothing in this Article shall be construed as affecting a Party's rights and obligations under the Agreement on Textiles and Clothing.

#### ARTICLE 2.10 : ADMINISTRATIVE FEES AND FORMALITIES

- 1. Each Party shall ensure, in accordance with Article VIII:1 of GATT 1994 and its interpretive notes, that all fees and charges of whatever character (other than customs duties, charges equivalent to an internal tax or other internal charges applied consistently with Article III:2 of GATT 1994, and antidumping and countervailing duties applied pursuant to a Party's law), imposed on or in connection with importation or exportation, are limited in amount to the approximate cost of services rendered and do not represent indirect protection of domestic products or a taxation of imports or exports for fiscal purposes.
- 2. Neither Party may require consular transactions, including related fees and charges, in connection with the importation of any good of the other Party.
- 3. Each Party shall make available on the Internet a current list of the fees and charges it imposes in connection with importation or exportation.

#### ARTICLE 2.11 : EXPORT TAXES

Neither Party may adopt or maintain any duty, tax, or other charge on the export of any good to the territory of the other Party, unless such duty, tax, or charge is adopted or maintained on any such good when destined for consumption in its territory.

### **Section D : Other Measures**

#### ARTICLE 2.12 : MERCHANDISE PROCESSING FEE

Neither Party may adopt or maintain a merchandise processing fee on originating goods.

### **Section E : Institutional Provisions**

#### ARTICLE 2.13 : COMMITTEE ON TRADE IN GOODS

- 1. The Parties hereby establish a Committee on Trade in Goods, comprising representatives of each Party.
- 2. The Committee shall meet on the request of either Party or the Joint Committee established in Chapter 21 (Institutional Arrangements and Dispute Settlement) to consider any

**ANNEX 2-A**  
**APPLICATION OF CHAPTER TWO**

**Section A-Measures of the United States**

Articles 2.2, 2.3, and 2.9 shall not apply to:

- (a) controls by the United States on the export of logs of all species;
- (b)
  - (i) measures under existing provisions of the Merchant Marine Act of 1920, 46 App. U.S.C. § 883; the Passenger Vessel Act, 46 App. U.S.C. §§ 289, 292, and 316; and 46 U.S.C. § 12108, to the extent that such measures were mandatory legislation at the time of the accession of the United States to the *General Agreement on Tariffs and Trade 1947* (“GATT 1947”) and have not been amended so as to decrease their conformity with Part II of GATT 1947;
  - (ii) the continuation or prompt renewal of a non-conforming provision of any statute referred to in clause (i); and
  - (iii) the amendment to a non-conforming provision of any statute referred to in clause (i) to the extent that the amendment does not decrease the conformity of the provision with Articles 2.2 and 2.9; and
- (c) actions by the United States authorized by the Dispute Settlement Body of the WTO.

## Section B – Measures of Australia

Articles 2.2, 2.3, and 2.9 shall not apply to:

- (a) controls by Australia on the exports of woodchips and unprocessed forest products (e.g., whole logs) sourced from native forests outside Regional Forest Agreement regions, or plantation forests within States where Codes of Practice have not been approved by the Australian Government, and Sandalwood (*Santalum spicatum*) sourced from any State, the Australian Capital Territory, or the Northern Territory;
- (b) controls on importation of second hand motor vehicles under Section 17A of the *Motor Vehicles Standards Act of 1989* and the *Motor Vehicles Standards Regulations of 1989*;
- (c) wheat marketing arrangements under the *Wheat Marketing Act 1989* and the Customs (Prohibited Exports) Regulations 1958, as amended;
- (d) grain marketing arrangements under the New South Wales *Grain Marketing Act 1991* and Marketing of Primary Products Act 1983, the South Australian *Barley Marketing Act 1993*, the Western Australian *Grain Marketing Act 2002* and Grain Marketing Regulations 2002, and the Queensland Grain Industry (Restructuring) Act 1991, as amended;
- (e) sugar marketing arrangements under the Queensland *Sugar Industry Amendment Act 2000*, as amended;
- (f) rice marketing arrangements under the New South Wales *Marketing of Primary Products Act 1983*, as amended;
- (g) horticulture export efficiency licensing arrangements under the *Horticulture Marketing and Research and Development Services Act 2000* and *Horticulture Marketing and Research and Development (Export Efficiency) Regulations 2002*, as amended;
- (h) the provisions of and measures under the *Livestock Export (Merino) Orders*, made under the *Export Control Act of 1982*, as amended; and
- (i) actions by Australia authorized by the Dispute Settlement Body of the WTO.

## CHAPTER TWENTY-TWO

### GENERAL PROVISIONS AND EXCEPTIONS

#### ARTICLE 22.1 : GENERAL EXCEPTIONS

1. For the purposes of Chapters Two through Eight (National Treatment and Market Access for Goods, Agriculture, Textiles, Rules of Origin, Customs Administration, Sanitary and Phytosanitary Measures, and Technical Barriers to Trade), GATT 1994 Article XX and its interpretive notes are incorporated into and made part of this Agreement, *mutatis mutandis*. The Parties understand that the measures referred to in GATT 1994 Article XX(b) include environmental measures necessary to protect human, animal, or plant life or health, and that GATT 1994 Article XX(g) applies to measures relating to the conservation of living and non-living exhaustible natural resources.

2. For the purposes of Chapters Ten, Twelve, and Sixteen (Cross Border Trade in Services, Telecommunications, and Electronic Commerce), GATS Article XIV (including its footnotes) is incorporated into and made part of this Agreement, *mutatis mutandis*. The Parties understand that the measures referred to in GATS Article XIV(b) include environmental measures necessary to protect human, animal, or plant life or health.

#### ARTICLE 22.2 : ESSENTIAL SECURITY

Nothing in this Agreement shall be construed:

- (a) to require a Party to furnish or allow access to any information the disclosure of which it determines to be contrary to its essential security interests; or
- (b) to preclude a Party from applying measures that it considers necessary for the fulfilment of its obligations with respect to the maintenance or restoration of international peace or security, or the protection of its own essential security interests.

#### ARTICLE 22.3 : TAXATION

- 1. Except as set out in this Article, nothing in this Agreement shall apply to taxation measures.
- 2.
  - (a) Nothing in this Agreement shall affect the rights and obligations of either Party under any tax convention. In the event of any inconsistency between this Agreement and any such convention, that convention shall prevail to the extent of the inconsistency.
  - (b) In the case of a tax convention between the Parties the competent authorities under that convention shall have sole responsibility for

determining whether any inconsistency exists between this Agreement and that convention.

3. Notwithstanding paragraph 2:

- (a) Article 2.2 (National Treatment) and such other provisions of this Agreement as are necessary to give effect to that Article shall apply to taxation measures to the same extent as does GATT 1994 Article III; and
- (b) Article 2.11 (Export Taxes) shall apply to taxation measures.

4. Subject to paragraph 2:

- (a) Article 10.2 (National Treatment), Article 13.2 (National Treatment), and Article 13.5.1 (Cross-Border Trade) shall apply to taxation measures on income, capital gains, or on the taxable capital of corporations that relate to the purchase or consumption of particular services, except that nothing in this sub-paragraph shall prevent a Party from conditioning the receipt or continued receipt of an advantage relating to the purchase or consumption of particular services on requirements to provide the service in its territory;<sup>22-1</sup> and
- (b) Articles 11.3, 11.4 (Most-Favoured-Nation Treatment), 10.2 (National Treatment), 10.3 (Most-Favoured-Nation Treatment), 13.2, 13.3 (Most-Favoured-Nation Treatment), and 13.5.1 shall apply to all taxation measures, other than those on income, capital gains, or on the taxable capital of corporations, taxes on estates, inheritances, gifts, and generation-skipping transfers;

except that nothing in those Articles shall apply:

- (c) any most-favoured-nation obligation in this Agreement with respect to an advantage accorded by a Party pursuant to a tax convention;
- (d) to a non-conforming provision of any existing taxation measure;
- (e) to the continuation or prompt renewal of a non-conforming provision of any existing taxation measure;
- (f) to an amendment to a non-conforming provision of any existing taxation measure to the extent that the amendment does not decrease its conformity, at the time of the amendment, with any of those Articles;

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<sup>22-1</sup>For the avoidance of doubt, nothing in this exception to the obligation imposed by sub-paragraph 4(a) allows a Party to condition the receipt or continued receipt of an advantage relating to the purchase or consumption of particular services on the nationality of the service supplier.



- (g) to the adoption or enforcement of any taxation measure aimed at ensuring the equitable or effective imposition or collection of taxes (as permitted by GATS Article XIV(d) without regard to the limitation in Article XIV(d) to direct taxes); or
- (h) to a provision that conditions the receipt, or continued receipt of an advantage relating to the contributions to, or income of, a pension trust, superannuation fund, or other arrangement to provide pension, superannuation, or similar benefits on a requirement that the Party maintain continuous jurisdiction, regulation, or supervision over such trust, fund, or other arrangement.

5. Subject to paragraph 2 and without prejudice to the rights and obligations of the Parties under paragraph 3, paragraphs 2, 3, and 4 of Article 11.9 (Performance Requirements) shall apply to taxation measures.

6. (a) Article 11.7 (Expropriation and Compensation) shall apply to taxation measures.

- (b) Where a Party alleges in writing that a taxation measure of the other Party is an expropriation, that other Party's designated authority may request in writing consultations between the designated authorities regarding whether a determination that the taxation measure is an expropriation under this Agreement would give rise to an inconsistency with any tax convention between the Parties. Unless the designated authorities agree within sixty days after receipt of the request for consultations (which period may be extended by mutual agreement of such designated authorities) that an inconsistency would arise in case of such determination, the Party alleging an expropriation may pursue the matter under Section B of Chapter 21 (Dispute Settlement Procedures). Notwithstanding subparagraph 2(b), the designated authorities shall have sole responsibility with respect to this issue of whether a determination that a taxation measure alleged by a Party to be an expropriation under this Agreement would give rise to an inconsistency with any tax convention between the Parties.

(c) For the purposes of this paragraph, **designated authority** means:

- (i) in the case of Australia, the Secretary to the Treasury or his authorised representative; and
- (ii) in the case of the United States, the Assistant Secretary of the Treasury (Tax Policy).

7. For the purposes of this Article, **taxes** and **taxation measures** do not include any import or customs duties.

#### ARTICLE 22.4 : DISCLOSURE OF INFORMATION

1. Nothing in this Agreement shall be construed as requiring a Party to furnish or allow access to confidential information the disclosure of which would impede law enforcement or otherwise be contrary to the public interest<sup>22-2</sup> or which would prejudice the legitimate commercial interests of particular enterprises, public or private.

2. When a Party provides written information pursuant to a request or a requirement under this Agreement and informs the other Party that it considers the information to be of the type described in paragraph 1, the Party receiving the information shall not disclose or use the information for a purpose other than that for which it was requested or required, except where the disclosure or use is required or authorised pursuant to the receiving Party's law and regulations or with the prior consent of the Party providing the information.

#### ARTICLE 22.5 : ANTI-CORRUPTION

The Parties shall cooperate in seeking to eliminate bribery and corruption and to promote transparency in international trade. They are committed to seeking avenues in relevant international fora to address bribery, corruption, and transparency and to build on anti-corruption efforts in these fora.

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<sup>22-2</sup>For the purposes of this paragraph the public interest includes, for Australia, compliance with the Privacy Act (Cth) 1988.

United States-Bahrain Free Trade Agreement  
Entered into force in August 2006

**CHAPTER TWO**  
**NATIONAL TREATMENT AND MARKET ACCESS FOR GOODS**

ARTICLE 2.1: SCOPE AND COVERAGE

Except as otherwise provided, this Chapter applies to trade in goods of a Party.

**Section A: National Treatment**

ARTICLE 2.2: NATIONAL TREATMENT

1. Each Party shall accord national treatment to the goods of the other Party in accordance with Article III of GATT 1994, including its interpretive notes, and to this end Article III of GATT 1994 and its interpretative notes are incorporated into and made a part of this Agreement, *mutatis mutandis*.
2. The treatment to be accorded by a Party under paragraph 1 means, with respect to a regional level of government, treatment no less favorable than the most favorable treatment that regional level government accords to any like, directly competitive, or substitutable goods, as the case may be, of the Party of which it forms a part.
3. Paragraphs 1 and 2 shall not apply to the measures set out in Annex 2-A.

**Section B: Tariff Elimination**

ARTICLE 2.3: TARIFF ELIMINATION

1. Except as otherwise provided in this Agreement, neither Party may increase any existing customs duty, or adopt any new customs duty, on an originating good.
2. Except as otherwise provided in this Agreement, each Party shall progressively eliminate its customs duties on originating goods, in accordance with its Schedule to Annex 2-B.
3. On the request of either Party, the Parties shall consult to consider accelerating the elimination of customs duties set out in their Schedules to Annex 2-B. An agreement by the Parties to accelerate the elimination of a customs duty on a good shall supercede any duty rate or staging category determined pursuant to their Schedules to Annex 2-B for that good when approved by each Party in accordance with its applicable legal procedures.
4. For greater certainty, a Party may:
  - (a) raise a customs duty back to the level established in its Schedule to Annex 2-B following a unilateral reduction; or
  - (b) maintain or increase a customs duty as authorized by the Dispute Settlement Body of the WTO.

ARTICLE 2.7: DUTY-FREE ENTRY OF COMMERCIAL SAMPLES OF NEGLIGIBLE VALUE  
AND PRINTED ADVERTISING MATERIALS

Each Party shall grant duty-free entry to commercial samples of negligible value, and to printed advertising materials, imported from the territory of the other Party, regardless of their origin, but may require that:

- (a) such samples be imported solely for the solicitation of orders for goods, or services provided from the territory, of the other Party or a non-Party; or
- (b) such advertising materials be imported in packets that each contain no more than one copy of each such material and that neither such materials nor packets form part of a larger consignment.

**Section D: Non-Tariff Measures**

ARTICLE 2.8: IMPORT AND EXPORT RESTRICTIONS

1. Except as otherwise provided in this Agreement, neither Party may adopt or maintain any prohibition or restriction on the importation of any good of the other Party or on the exportation or sale for export of any good destined for the territory of the other Party, except in accordance with Article XI of GATT 1994 and its interpretive notes, and to this end Article XI of GATT 1994 and its interpretive notes are incorporated into and made a part of this Agreement, *mutatis mutandis*.<sup>1</sup>

2. The Parties understand that GATT 1994 rights and obligations incorporated by paragraph 1 prohibit, in any circumstances in which any other form of restriction is prohibited, a Party from adopting or maintaining:

- (a) export and import price requirements, except as permitted in enforcement of countervailing and antidumping duty orders and undertakings;
- (b) measures conditioning the grant of an import license on the fulfillment of a performance requirement; or
- (c) voluntary export restraints inconsistent with Article VI of GATT 1994, as implemented under Article 18 of the WTO Agreement on Subsidies and Countervailing Measures and Article 8.1 of the WTO Agreement on Implementation of Article VI of GATT 1994.

3. In the event that a Party adopts or maintains a prohibition or restriction on the importation from or exportation to a non-Party of a good, no provision of this Agreement shall be construed to prevent the Party from:

- (a) limiting or prohibiting the importation of the good of the non-Party from the territory of the other Party;
- (b) requiring as a condition for exporting the good of the Party to the territory of the other Party, that the good not be re-exported to the non-Party, directly or indirectly, without being consumed in the territory of the other Party.

4. In the event that a Party adopts or maintains a prohibition or restriction on the importation of a good from a non-Party, the Parties, on the request of either Party,

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<sup>1</sup> For greater certainty, paragraph 1 applies to prohibitions or restrictions on the importation of remanufactured products.



shall consult with a view to avoiding undue interference with or distortion of pricing, marketing, and distribution arrangements in the other Party.

5. Paragraphs 1 through 4 shall not apply to the measures set out in Annex 2-A.

ARTICLE 2.9: ADMINISTRATIVE FEES AND FORMALITIES

1. Each Party shall ensure, in accordance with Article VIII:1 of GATT 1994 and its interpretive notes, that all fees and charges of whatever character (other than import and export duties, charges equivalent to an internal tax or other internal charges applied consistently with Article III:2 of GATT 1994, and antidumping and countervailing duties applied pursuant to a Party's law) imposed on, or in connection with, importation or exportation are limited in amount to the approximate cost of services rendered and do not represent an indirect protection to domestic goods or a taxation of imports or exports for fiscal purposes.
2. Neither Party may require consular transactions, including related fees and charges, in connection with the importation of any good of the other Party.
3. Each Party shall make available on the Internet a current list of the fees and charges it imposes in connection with importation or exportation.
4. The United States shall eliminate its merchandise processing fee on originating goods.

ARTICLE 2.10: EXPORT TAXES

Neither Party may adopt or maintain any tax, duty, or other charge on the export of any good to the territory of other Party, unless the tax, duty, or charge is also adopted or maintained on the good when destined for domestic consumption.

**Section E: Agriculture**

ARTICLE 2.11: AGRICULTURAL EXPORT SUBSIDIES

1. The Parties share the objective of the multilateral elimination of export subsidies for agricultural goods and shall work together toward an agreement in the WTO to eliminate those subsidies and prevent their reintroduction in any form.
2. Except as provided in paragraph 3, neither Party may introduce or maintain any export subsidy on any agricultural good destined for the territory of the other Party.
3. Where an exporting Party considers that a non-Party is exporting an agricultural good to the territory of the other Party with the benefit of export subsidies, the importing Party shall, on written request of the exporting Party, consult with the exporting Party with a view to agreeing on specific measures that the importing Party may adopt to counter the effect of such subsidized imports. If the importing Party adopts the agreed-on measures, the exporting Party shall refrain from applying any export subsidy to exports of such good to the territory of the importing Party.<sup>2</sup>

**Section F: Definitions**

ARTICLE 2.12: DEFINITIONS

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<sup>2</sup> For greater certainty, each Party confirms that any measure that it adopts pursuant to this paragraph shall be consistent with the WTO Agreement.

**ANNEX 2-A**  
**NATIONAL TREATMENT AND IMPORT AND EXPORT RESTRICTIONS**

**Section A: Measures of the United States**

Paragraphs 1 and 2 of Article 2.2 and paragraphs 1 through 4 of Article 2.8 shall not apply to:

- (a) controls on the export of logs of all species;
- (b)
  - (i) measures under existing provisions of the *Merchant Marine Act of 1920*, 46 App. U.S.C. § 883; the *Passenger Vessel Act*, 46 App. U.S.C. §§ 289, 292, and 316; and 46 U.S.C. § 12108, to the extent that such measures were mandatory legislation at the time the United States acceded to the *General Agreement on Tariffs and Trade 1947* (“GATT 1947”) and have not been amended so as to decrease their conformity with Part II of GATT 1947;
  - (ii) the continuation or prompt renewal of a non-conforming provision of any statute referred to in clause (i); and
  - (iii) the amendment to a non-conforming provision of any statute referred to in clause (i) to the extent that the amendment does not decrease the conformity of the provision with Articles 2.2 and 2.8;
- (c) actions authorized by the Dispute Settlement Body of the WTO; and
- (d) actions authorized by the Agreement on Textiles and Clothing.

**Section B: Measures of Bahrain**

Paragraphs 1 and 2 of Article 2.2 and paragraphs 1 through 4 of Article 2.8 shall not apply to:

- (a) prohibitions on the importation of retreaded tires, for ten years from the effective date of this Agreement; and
- (b) actions authorized by the Dispute Settlement Body of the WTO.

## CHAPTER TWENTY

### EXCEPTIONS

#### ARTICLE 20.1: GENERAL EXCEPTIONS

1. For purposes of Chapters Two through Seven (National Treatment and Market Access for Goods, Textiles and Apparel, Rules of Origin, Customs Administration, Sanitary and Phytosanitary Measures, and Technical Barriers to Trade), Article XX of GATT 1994 and its interpretive notes are incorporated into and made part of this Agreement, *mutatis mutandis*. The Parties understand that the measures referred to in Article XX(b) of GATT 1994 include environmental measures necessary to protect human, animal, or plant life or health, and that Article XX(g) of GATT 1994 applies to measures relating to the conservation of living and non-living exhaustible natural resources.
2. For purposes of Chapters Ten, Twelve, and Thirteen<sup>1</sup> (Cross-Border Trade in Services, Telecommunications, and Electronic Commerce), Article XIV of GATS (including its footnotes) is incorporated into and made part of this Agreement, *mutatis mutandis*. The Parties understand that the measures referred to in Article XIV(b) of GATS include environmental measures necessary to protect human, animal, or plant life or health.

#### ARTICLE 20.2: ESSENTIAL SECURITY

Nothing in this Agreement shall be construed:

- (a) to require a Party to furnish or allow access to any information the disclosure of which it determines to be contrary to its essential security interests; or
- (b) to preclude a Party from applying measures that it considers necessary for the fulfillment of its obligations with respect to the maintenance or restoration of international peace or security or the protection of its own essential security interests.

#### ARTICLE 20.3: TAXATION

1. Except as set out in this Article, nothing in this Agreement shall apply to taxation measures.
2. Nothing in this Agreement shall affect the rights and obligations of either Party under any tax convention. In the event of any inconsistency between this Agreement and any such convention, that convention shall prevail to the extent of the inconsistency. In the case of a tax convention between the Parties, the competent authorities under that convention shall have sole responsibility for determining whether any inconsistency exists between this Agreement and that convention.
3. Notwithstanding paragraph 2:
  - (a) Article 2.2 (National Treatment and Market Access for Goods – National Treatment) and such other provisions of this Agreement as are necessary to give effect to that Article shall apply to taxation measures to the same extent as does Article III of GATT 1994; and

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<sup>1</sup> This Article is without prejudice to whether digital products should be classified as goods or services.

- (b) Article 2.10 (National Treatment and Market Access for Goods – Export Taxes) shall apply to taxation measures.

4. Subject to paragraph 2:

- (a) Article 10.2 (Cross-Border Trade in Services – National Treatment) and Article 11.2 (Financial Services – National Treatment) shall apply to taxation measures on income, capital gains, or on the taxable capital of corporations that relate to the purchase or consumption of particular services, except that nothing in this subparagraph shall prevent a Party from conditioning the receipt or continued receipt of an advantage relating to the purchase or consumption of particular services on requirements to provide the service in its territory; and
- (b) Articles 10.2 (Cross-Border Trade in Services – National Treatment) and 10.3 (Cross-Border Trade in Services – Most-Favored-Nation Treatment) and Articles 11.2 (Financial Services – National Treatment) and 11.3 (Financial Services – Most-Favored-Nation Treatment) shall apply to all taxation measures other than those on income, capital gains, or on the taxable capital of corporations, taxes on estates, inheritances, gifts, and generation-skipping transfers,

except that nothing in those Articles shall apply:

- (c) any most-favored-nation obligation with respect to an advantage accorded by a Party pursuant to a tax convention;
- (d) to a non-conforming provision of any existing taxation measure;
- (e) to the continuation or prompt renewal of a non-conforming provision of any existing taxation measure;
- (f) to an amendment to a non-conforming provision of any existing taxation measure to the extent that the amendment does not decrease its conformity, at the time of the amendment, with any of those Articles;
- (g) to the adoption or enforcement of any taxation measure aimed at ensuring the equitable or effective imposition or collection of taxes (as permitted by Article XIV(d) of GATS); or
- (h) to a provision that conditions the receipt, or continued receipt, of an advantage relating to the contributions to, or income of, pension trusts or pension plans on a requirement that the Party maintain continuous jurisdiction over the pension trust or pension plan.

ARTICLE 20.4: DISCLOSURE OF INFORMATION

Nothing in this Agreement shall be construed to require a Party to furnish or allow access to information the disclosure of which would impede law enforcement or would be contrary to the Party's law protecting personal privacy or the financial affairs and accounts of individual customers of financial institutions.

United States-Chile Free Trade Agreement  
Entered into force on January 1, 2004



## **Chapter Three**

### **National Treatment and Market Access for Goods**

#### **Article 3.1: Scope and Coverage**

Except as otherwise provided, this Chapter applies to trade in goods of a Party.

#### **Section A - National Treatment**

##### **Article 3.2: National Treatment**

1. Each Party shall accord national treatment to the goods of the other Party in accordance with Article III of GATT 1994, including its interpretative notes, and to this end Article III of GATT 1994, and its interpretative notes, are incorporated into and made part of this Agreement, *mutatis mutandis*.
2. The provisions of paragraph 1 regarding national treatment shall mean, with respect to a regional level of government, treatment no less favorable than the most favorable treatment that regional level of government accords to any like, directly competitive, or substitutable goods, as the case may be, of the Party of which it forms a part.<sup>1</sup>
3. Paragraphs 1 and 2 shall not apply to the measures set out in Annex 3.2.

#### **Section B - Tariff Elimination**

##### **Article 3.3: Tariff Elimination**

1. Except as otherwise provided in this Agreement, neither Party may increase any existing customs duty, or adopt any customs duty, on an originating good.
2. Except as otherwise provided in this Agreement, each Party shall progressively eliminate its customs duties on originating goods in accordance with Annex 3.3.
3. The United States shall eliminate customs duties on any non-agricultural originating goods that, after the date of entry into force of this Agreement, are designated as articles eligible for duty-free treatment under the U.S. *Generalized System of Preferences*, effective from the date of such designation.
4. On the request of either Party, the Parties shall consult to consider accelerating the elimination of customs duties set out in their Schedules to Annex 3.3. An agreement

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<sup>1</sup> For greater certainty, “goods of the Party” includes goods produced in a state or region of that Party.

## **Section D - Non-Tariff Measures**

### **Article 3.11: Import and Export Restrictions**

1. Except as otherwise provided in this Agreement, neither Party may adopt or maintain any prohibition or restriction on the importation of any good of the other Party or on the exportation or sale for export of any good destined for the territory of the other Party, except in accordance with Article XI of GATT 1994 and its interpretative notes and to this end Article XI of GATT 1994 and its interpretative notes are incorporated into and made a part of this Agreement, *mutatis mutandis*.
2. The Parties understand that the GATT rights and obligations incorporated by paragraph 1 prohibit, in any circumstances in which any other form of restriction is prohibited, a Party from adopting or maintaining:
  - (a) export and import price requirements, except as permitted in enforcement of countervailing and antidumping orders and undertakings;
  - (b) import licensing conditioned on the fulfilment of a performance requirement; or
  - (c) voluntary export restraints not consistent with Article VI of GATT 1994, as implemented under Article 18 of the SCM Agreement and Article 8.1 of the AD Agreement.
3. In the event that a Party adopts or maintains a prohibition or restriction on the importation from or exportation to a non-Party of a good, nothing in this Agreement shall be construed to prevent the Party from:
  - (a) limiting or prohibiting the importation from the territory of the other Party of such good of that non-Party; or
  - (b) requiring as a condition of export of such good of the Party to the territory of the other Party, that the good not be re-exported to the non-Party, directly or indirectly, without being consumed in the territory of the other Party.
4. In the event that a Party adopts or maintains a prohibition or restriction on the importation of a good from a non-Party, the Parties, on the request of either Party, shall consult with a view to avoiding undue interference with or distortion of pricing, marketing, and distribution arrangements in the other Party.
5. Paragraphs 1 through 4 shall not apply to the measures set out in Annex 3.2.

## **Annex 3.2**

### **National Treatment and Import and Export Restrictions**

#### **Section A - Measures of the United States**

Article 3.2 and Article 3.11 shall not apply to:

- (a) controls by the United States on the export of logs of all species;
- (b)
  - (i) measures under existing provisions of the *Merchant Marine Act of 1920*, 46 App. U.S.C. § 883; the *Passenger Vessel Act*, 46 App. U.S.C. §§ 289, 292 and 316; and 46 U.S.C. § 12108, to the extent that such measures were mandatory legislation at the time of the United States accession to the General Agreement on Tariffs and Trade 1947 and have not been amended so as to decrease their conformity with Part II of GATT 1947;
  - (ii) the continuation or prompt renewal of a non-conforming provision of any statute referred to in clause (i); and
  - (iii) the amendment to a non-conforming provision of any statute referred to in clause (i) to the extent that the amendment does not decrease the conformity of the provision with Articles 3.2 and 3.11;
- (c) actions by the United States authorized by the Dispute Settlement Body of the WTO; and
- (d) actions by the United States authorized by the Agreement on Textiles and Clothing.

## **Section B - Measures of Chile**

1. Article 3.2 and Article 3.11 shall not apply to actions by Chile authorized by the Dispute Settlement Body of the WTO.
2. Article 3.11 shall not apply to measures of Chile relating to imports of used vehicles.

## Chapter Twenty-Three

### Exceptions

#### Article 23.1: General Exceptions

1. For purposes of Chapters Three through Seven (National Treatment and Market Access for Goods, Rules of Origin and Origin Procedures, Customs Administration, Sanitary and Phytosanitary Measures, and Technical Barriers to Trade), Article XX of GATT 1994 and its interpretive notes are incorporated into and made part of this Agreement, *mutatis mutandis*. The Parties understand that the measures referred to in Article XX(b) of GATT 1994 include environmental measures necessary to protect human, animal, or plant life or health, and that Article XX(g) of GATT 1994 applies to measures relating to the conservation of living and non-living exhaustible natural resources.

2. For purposes of Chapters Eleven, Thirteen, and Fifteen<sup>1</sup> (Cross-Border Trade in Services, Telecommunications, and Electronic Commerce), Article XIV of GATS (including its footnotes) is incorporated into and made part of this Agreement.<sup>2</sup> The Parties understand that the measures referred to in Article XIV(b) of GATS include environmental measures necessary to protect human, animal, or plant life or health.

#### Article 23.2: Essential Security

Nothing in this Agreement shall be construed:

- (a) to require a Party to furnish or allow access to any information the disclosure of which it determines to be contrary to its essential security interests; or
- (b) to preclude a Party from applying measures that it considers necessary for the fulfillment of its obligations under the United Nations Charter with respect to the maintenance or restoration of international peace or security, or the protection of its own essential security interests.

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<sup>1</sup> This Article is without prejudice to whether digital products should be classified as goods or services.

<sup>2</sup> If Article XIV of GATS is amended, this Article shall be amended, as appropriate, after consultations between the Parties.

### **Article 23.3: Taxation**

1. Except as set out in this Article, nothing in this Agreement shall apply to taxation measures.
2. Nothing in this Agreement shall affect the rights and obligations of either Party under any tax convention. In the event of any inconsistency between this Agreement and any such convention, that convention shall prevail to the extent of the inconsistency. In the case of a tax convention between the Parties, the competent authorities under that convention shall have sole responsibility for determining whether any inconsistency exists between this Agreement and that convention.
3. Notwithstanding paragraph 2:
  - (a) Article 3.2 (Market Access – National Treatment) and such other provisions of this Agreement as are necessary to give effect to that Article shall apply to taxation measures to the same extent as does Article III of the GATT 1994; and
  - (b) Articles 3.13 (Market Access – Export Taxes) and 3.14 (Market Access – Luxury Tax) shall apply to taxation measures.
4. Subject to paragraph 2:
  - (a) Article 11.2 (Cross-Border Trade in Services – National Treatment) and Article 12.2 (Financial Services – National Treatment) shall apply to taxation measures on income, capital gains, or on the taxable capital of corporations that relate to the purchase or consumption of particular services, except that nothing in this subparagraph shall prevent a Party from conditioning the receipt or continued receipt of an advantage relating to the purchase or consumption of particular services on requirements to provide the service in its territory; and
  - (b) Articles 10.2 (Investment – National Treatment) and 10.3 (Investment – Most-Favored-Nation Treatment), Articles 11.2 (Cross-Border Trade in Services – National Treatment) and 11.3 (Cross-Border Trade in Services – Most-Favored Nation Treatment), and Articles 12.2 (Financial Services – National Treatment) and 12.3 (Financial Services – Most-Favored-Nation Treatment) shall apply to all taxation measures, other than those on income, capital gains, or on the taxable capital of corporations, taxes on estates, inheritances, gifts, and generation-skipping transfers,



except that nothing in those Articles shall apply:

- (c) any most-favored-nation obligation with respect to an advantage accorded by a Party pursuant to a tax convention;
- (d) to a non-conforming provision of any existing taxation measure;
- (e) to the continuation or prompt renewal of a non-conforming provision of any existing taxation measure;
- (f) to an amendment to a non-conforming provision of any existing taxation measure to the extent that the amendment does not decrease its conformity, at the time of the amendment, with any of those Articles;
- (g) to the adoption or enforcement of any taxation measure aimed at ensuring the equitable or effective imposition or collection of taxes (as permitted by Article XIV(d) of GATS);
- (h) to a provision that conditions the receipt, or continued receipt, of an advantage relating to the contributions to, or income of, pension trusts or pension plans on a requirement that the Party maintain continuous jurisdiction over the pension trust or pension plan; or
- (i) to any excise tax on insurance premiums adopted by Chile to the extent that such tax would, if levied by the United States, be covered by subparagraphs (d), (e), or (f).

5. Subject to paragraph 2 and without prejudice to the rights and obligations of the Parties under paragraph 3, Article 10.5(2), (3), and (4) (Investment – Performance Requirements) shall apply to taxation measures.

6. Article 10.9 (Expropriation and Compensation) and Article 10.15 (Submission of a Claim to Arbitration) shall apply to a taxation measure alleged to be an expropriation or a breach of an investment agreement or investment authorization. However, no investor may invoke Article 10.9 as the basis of a claim where it has been determined pursuant to this paragraph that the measure is not an expropriation. An investor that seeks to invoke Article 10.9 with respect to a taxation measure must first refer to the competent authorities set out in Annex 23.3 at the time that it gives its notice of intent under Article 10.15(4) the issue of whether that taxation measure involves an expropriation. If the competent authorities do not agree to consider the issue or, having agreed to consider it, fail to agree that the measure is not an expropriation within a period of six months of such referral, the investor may submit its claim to arbitration under Article 10.15.

**Article 23.4: Balance of Payments Measures on Trade in Goods**

Should a Party decide to impose measures for balance of payments purposes, it shall do so only in accordance with that Party's rights and obligations under GATT 1994, including the *Declaration on Trade Measures Taken for Balance of Payments Purposes* (1979 Declaration) and the *Understanding on the Balance of Payments Provisions of the GATT 1994* (BOP Understanding). In adopting such measures, the Party shall immediately consult with the other Party and shall not impair the relative benefits accorded to the other Party under this Agreement.<sup>3</sup>

**Article 23.5: Disclosure of Information**

Nothing in this Agreement shall be construed to require a Party to furnish or allow access to information the disclosure of which would impede law enforcement or would be contrary to the Party's law protecting personal privacy or the financial affairs and accounts of individual customers of financial institutions.

**Article 23.6: Definitions**

For purposes of this Chapter:

**tax convention** means a convention for the avoidance of double taxation or other international taxation agreement or arrangement; and

**taxes and taxation measures** do not include:

- (a) a customs duty; or
- (b) the measures listed in exceptions (b) and (c) of the definition of customs duty.

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<sup>3</sup> For greater certainty, this Article applies to balance of payments measures imposed on trade in goods.

### **Annex 23.3**

#### **Competent Authorities**

For purposes of this Chapter:

**competent authorities** means

- (a) in the case of Chile, the *Director del Servicio de Impuestos Internos*, *Ministerio de Hacienda*; and
- (b) in the case of the United States, the Assistant Secretary of the Treasury (Tax Policy), Department of the Treasury.

Dominican Republic-Central America-United  
States Free Trade Agreement (CAFTA-DR)  
Entered into force on rolling basis between  
March 1, 2006 and January 1, 2009

Countries: Costa Rica, El Salvador, Guatemala,  
Honduras, Nicaragua, and the Dominican Republic

## **Chapter Three**

### **National Treatment and Market Access for Goods**

#### **Article 3.1: Scope and Coverage**

Except as otherwise provided, this Chapter applies to trade in goods of a Party.

#### **Section A: National Treatment**

##### **Article 3.2: National Treatment**

1. Each Party shall accord national treatment to the goods of another Party in accordance with Article III of the GATT 1994, including its interpretive notes, and to this end Article III of the GATT 1994 and its interpretative notes are incorporated into and made part of this Agreement, *mutatis mutandis*.
2. The provisions of paragraph 1 regarding national treatment shall mean, with respect to a regional level of government, treatment no less favorable than the most favorable treatment that regional level of government accords to any like, directly competitive, or substitutable goods, as the case may be, of the Party of which it forms a part.
3. Paragraphs 1 and 2 shall not apply to the measures set out in Annex 3.2.

#### **Section B: Tariff Elimination**

##### **Article 3.3: Tariff Elimination**

1. Except as otherwise provided in this Agreement, no Party may increase any existing customs duty, or adopt any new customs duty, on an originating good.
2. Except as otherwise provided in this Agreement, each Party shall progressively eliminate its customs duties on originating goods, in accordance with Annex 3.3.<sup>1</sup>

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<sup>1</sup> For greater certainty, except as otherwise provided in this Agreement, each Central American Party and the Dominican Republic shall provide that any originating good is entitled to the tariff treatment for the good set out in its Schedule to Annex 3.3, regardless of whether the good is imported into its territory from the territory of the United States or any other Party. An originating good may include a good produced in a Central American Party or the Dominican Republic with materials from the United States.

### **Article 3.6: Goods Re-entered after Repair or Alteration**

1. No Party may apply a customs duty to a good, regardless of its origin, that re-enters its territory after that good has been temporarily exported from its territory to the territory of another Party for repair or alteration, regardless of whether such repair or alteration could be performed in the territory of the Party from which the good was exported for repair or alteration.

2. No Party may apply a customs duty to a good, regardless of its origin, admitted temporarily from the territory of another Party for repair or alteration.

3. For purposes of this Article, **repair or alteration** does not include an operation or process that:

- (a) destroys a good's essential characteristics or creates a new or commercially different good; or
- (b) transforms an unfinished good into a finished good.

### **Article 3.7: Duty-Free Entry of Commercial Samples of Negligible Value and Printed Advertising Materials**

Each Party shall grant duty-free entry to commercial samples of negligible value and to printed advertising materials, imported from the territory of another Party, regardless of their origin, but may require that:

- (a) such samples be imported solely for the solicitation of orders for goods, or services provided from the territory, of another Party or a non-Party; or
- (b) such advertising materials be imported in packets that each contain no more than one copy of each such material and that neither such materials nor packets form part of a larger consignment.

## **Section D: Non-Tariff Measures**

### **Article 3.8: Import and Export Restrictions**

1. Except as otherwise provided in this Agreement, no Party may adopt or maintain any prohibition or restriction on the importation of any good of another Party or on the exportation or sale for export of any good destined for the territory of another Party, except in accordance with Article XI of the GATT 1994 and its interpretative notes, and to this end Article XI of the GATT



1994 and its interpretative notes are incorporated into and made a part of this Agreement, *mutatis mutandis*.<sup>2</sup>

2. The Parties understand that the GATT 1994 rights and obligations incorporated by paragraph 1 prohibit, in any circumstances in which any other form of restriction is prohibited, a Party from adopting or maintaining:

- (a) export and import price requirements, except as permitted in enforcement of countervailing and antidumping duty orders and undertakings;
- (b) import licensing conditioned on the fulfillment of a performance requirement, except as provided in a Party's Schedule to Annex 3.3; or
- (c) voluntary export restraints inconsistent with Article VI of the GATT 1994, as implemented under Article 18 of the SCM Agreement and Article 8.1 of the AD Agreement.

3. In the event that a Party adopts or maintains a prohibition or restriction on the importation from or exportation to a non-Party of a good, nothing in this Agreement shall be construed to prevent the Party from:

- (a) limiting or prohibiting the importation from the territory of another Party of such good of that non-Party; or
- (b) requiring as a condition of export of such good of the Party to the territory of another Party, that the good not be re-exported to the non-Party, directly or indirectly, without being consumed in the territory of the other Party.

4. In the event that a Party adopts or maintains a prohibition or restriction on the importation of a good from a non-Party, the Parties, on the request of any Party, shall consult with a view to avoiding undue interference with or distortion of pricing, marketing, or distribution arrangements in another Party.

5. Paragraphs 1 through 4 shall not apply to the measures set out in Annex 3.2.

6. Neither a Central American Party nor the Dominican Republic may, as a condition for engaging in importation or for the import of a good, require a person of another Party to establish or maintain a contractual or other relationship with a dealer in its territory.

7. Neither a Central American Party nor the Dominican Republic may remedy a violation or alleged violation of any law, regulation, or other measure regulating or otherwise relating to the

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<sup>2</sup> For greater certainty, this paragraph applies, *inter alia*, to prohibitions or restrictions on the importation of remanufactured goods.

relationship between any dealer in its territory and any person of another Party, by prohibiting or restricting the importation of any good of another Party.

8. For purposes of this Article:

**dealer** means a person of a Party who is responsible for the distribution, agency, concession, or representation in the territory of that Party of goods of another Party; and

**remedy** means to obtain redress or impose a penalty, including through a provisional, precautionary, or permanent measure.

### **Article 3.9: Import Licensing**

1. No Party may adopt or maintain a measure that is inconsistent with the Import Licensing Agreement.

2. Promptly after entry into force of this Agreement, each Party shall notify the other Parties of any existing import licensing procedures, and thereafter shall notify the other Parties of any new import licensing procedure and any modification to its existing import licensing procedures, within 60 days before it takes effect. A notification provided under this Article shall:

- (a) include the information specified in Article 5 of the Import Licensing Agreement; and
- (b) be without prejudice as to whether the import licensing procedure is consistent with this Agreement.

3. No Party may apply an import licensing procedure to a good of another Party unless it has provided notification in accordance with paragraph 2.

### **Article 3.10: Administrative Fees and Formalities**

1. Each Party shall ensure, in accordance with Article VIII:1 of the GATT 1994 and its interpretive notes, that all fees and charges of whatever character (other than customs duties, charges equivalent to an internal tax or other internal charge applied consistently with Article III:2 of the GATT 1994, and antidumping and countervailing duties) imposed on or in connection with importation or exportation are limited in amount to the approximate cost of services rendered and do not represent an indirect protection to domestic products or a taxation of imports or exports for fiscal purposes.

2. No Party may require consular transactions, including related fees and charges, in connection with the importation of any good of another Party.

## **Annex 3.2**

### **National Treatment and Import and Export Restrictions**

#### **Section A: Measures of Costa Rica**

Articles 3.2 and 3.8 shall not apply to:

- (a) controls on the import of crude oil, its fuel, derivatives, asphalt, and gasoline pursuant to Law No. 7356 of September 6, 1993;
- (b) controls on the export of wood in logs and boards from forests pursuant to Law No. 7575 of April 16, 1996;
- (c) controls on the export of hydrocarbons pursuant to Law No. 7399 of May 3, 1994;
- (d) controls on the export of coffee pursuant to Law No. 2762 of June 21, 1961;
- (e) controls on the import and export of ethanol and crude rums pursuant to Law No. 8 of October 31, 1885;
- (f) controls to establish a minimum export price for bananas, pursuant to Law No. 7472 of January 19, 1995; and
- (g) actions authorized by the Dispute Settlement Body of the WTO.

#### **Section B: Measures of the Dominican Republic**

Articles 3.2 and 3.8 shall not apply to:

- (a) controls on the importation of motor vehicles and motorcycles older than five years, and vehicles greater or equal to five tons older than 15 years, pursuant to Law No. 147 of December 27, 2000, and Law No. 12-01 of January 17, 2001;<sup>8</sup>
- (b) controls on the importation of used household appliances, pursuant to Law No. 147 of December 27, 2000;<sup>9</sup>
- (c) controls on the importation of used clothes, pursuant to Law No. 458 of January 3,

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<sup>8</sup> The controls identified in this subparagraph do not apply to remanufactured goods.

<sup>9</sup> The controls identified in this subparagraph do not apply to remanufactured goods.

1973;

- (d) controls on the importation of motor vehicles not suitable for operation, pursuant to Decree No. 671-02 of August 27, 2002;<sup>10</sup> and
- (e) actions by the Dominican Republic authorized by the Dispute Settlement Body of the WTO.

### **Section C: Measures of El Salvador**

Articles 3.2 and 3.8 shall not apply to:

- (a) controls on the importation of arms and ammunition, parts, and accessories included in HS Chapter 93, pursuant to Decree No. 655 of July 26, 1999 and its amendment pursuant to Decree No. 1035 of November 13, 2002;
- (b) controls on the importation of motor vehicles older than eight years, and on buses and trucks older than 15 years, pursuant to Article 1 of Decree No. 357 of April 6, 2001;<sup>11</sup>
- (c) controls on the importation of sacks and bags made out of jute and other similar textile fibers in subheading 6305.10 pursuant to Article 1 of Decree No. 1097 of July 10, 1953. El Salvador shall eliminate the controls identified in this subparagraph ten years after the date of entry into force of this Agreement; and
- (d) actions authorized by the Dispute Settlement Body of the WTO.

### **Section D: Measures of Guatemala**

Articles 3.2 and 3.8 shall not apply to:

- (a) controls on the exportation of timber in round logs or worked logs and sawn timber measuring more than 11 centimeters in thickness, pursuant to the *Ley de Bosques* Legislative Decree No. 101-96 of October 31, 1996;
- (b) controls on the exportation of coffee pursuant to the *Ley del Café*, Legislative Decree No. 19-69 of April 22, 1969;

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<sup>10</sup> The controls identified in this subparagraph do not apply to remanufactured goods.

<sup>11</sup> The controls identified in this subparagraph do not apply to remanufactured goods.

- (c) controls on the importation of weapons pursuant to the *Ley de Armas y Municiones*, Legislative Decree No. 39-89 of June 29, 1989; and
- (d) actions authorized by the Dispute Settlement Body of the WTO.

### **Section E: Measures of Honduras**

Articles 3.2 and 3.8 shall not apply to:

- (a) controls on the exportation of wood from broadleaved forests pursuant to Decree No. 323-98 of December 29, 1998;
- (b) controls on the importation of arms and ammunitions pursuant to Article 292 of Decree No. 131 of January 11, 1982;
- (c) controls on the importation of motor vehicles older than seven years and buses older than ten years pursuant to Article 7 of Decree No. 194-2002 of May 15, 2002;<sup>12</sup> and
- (d) actions authorized by the Dispute Settlement Body of the WTO.

### **Section F: Measures of Nicaragua**

1. Articles 3.2 and 3.8 shall not apply to:

- (a) controls on the exportation of basic foodstuffs provided that these controls are used to temporarily alleviate a critical shortage of that particular food item. For the purposes of this subparagraph, “temporarily” means up to one year, or such longer period as the United States and Nicaragua may agree;
- (b) controls on the importation of motor vehicles older than seven years pursuant to Article 112 of Decree No. 453 of May 6, 2003;<sup>13</sup> and
- (c) actions authorized by the Dispute Settlement Body of the WTO.

2. For purposes of paragraph 1, “basic foodstuffs” include the following:

Beans

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<sup>12</sup> The controls identified in this subparagraph do not apply to remanufactured goods.

<sup>13</sup> The controls identified in this subparagraph do not apply to remanufactured goods.

Brown sugar  
Chicken meat  
Coffee  
Corn  
Corn flour  
Corn tortillas  
Powdered milk  
Rice  
Salt  
Vegetable oil

3. Notwithstanding Articles 3.2 and 3.8, for the first ten years after the date of entry into force of this Agreement, Nicaragua may maintain its existing prohibitions or restrictions on the importation of the used goods set out below:

<u>Tariff Classification</u>	<u>Description</u>
Subheading 4012.10	Used retreaded tires <sup>14</sup>
Subheading 4012.20	Used pneumatic tires <sup>15</sup>
Heading 63.09	Used clothing
Heading 63.10	Rags, scrap twine, cordage, rope, and cable, and worn out or unusable articles of twine, cordage, rope, or cables, of textile materials

(Note: Descriptions are provided for reference purposes only. To the extent of a conflict between the tariff classification and the description, the tariff classification governs.)

### **Section G: Measures of the United States**

Articles 3.2 and 3.8 shall not apply to:

- (a) controls on the export of logs of all species;
- (b) (i) measures under existing provisions of the *Merchant Marine Act of 1920*, 46 App. U.S.C. § 883; the *Passenger Vessel Act*, 46 App. U.S.C. §§ 289, 292, and 316; and 46 U.S.C. § 12108, to the extent that such measures

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<sup>14</sup> The controls identified in this subparagraph do not apply to remanufactured goods.

<sup>15</sup> The controls identified in this subparagraph do not apply to remanufactured goods.



were mandatory legislation at the time of the accession of the United States to the General Agreement on Tariffs and Trade 1947 (GATT 1947) and have not been amended so as to decrease their conformity with Part II of the GATT 1947;

- (ii) the continuation or prompt renewal of a non-conforming provision of any statute referred to in clause (i); and
  - (iii) the amendment to a non-conforming provision of any statute referred to in clause (i) to the extent that the amendment does not decrease the conformity of the provision with Articles 3.2 and 3.8;
- (c) actions authorized by the Dispute Settlement Body of the WTO; and
  - (d) actions authorized by the Agreement on Textiles and Clothing.

## **Chapter Twenty-One**

### **Exceptions**

#### **Article 21.1: General Exceptions**

1. For purposes of Chapters Three through Seven (National Treatment and Market Access for Goods, Rules of Origin and Origin Procedures, Customs Administration and Trade Facilitation, Sanitary and Phytosanitary Measures, and Technical Barriers to Trade), Article XX of the GATT 1994 and its interpretive notes are incorporated into and made part of this Agreement, *mutatis mutandis*. The Parties understand that the measures referred to in Article XX(b) of the GATT 1994 include environmental measures necessary to protect human, animal, or plant life or health, and that Article XX(g) of the GATT 1994 applies to measures relating to the conservation of living and non-living exhaustible natural resources.

2. For purposes of Chapters Eleven, Thirteen, and Fourteen<sup>1</sup> (Cross-Border Trade in Services, Telecommunications, and Electronic Commerce), Article XIV of the GATS (including its footnotes) is incorporated into and made part of this Agreement, *mutatis mutandis*. The Parties understand that the measures referred to in Article XIV(b) of the GATS include environmental measures necessary to protect human, animal, or plant life or health.

#### **Article 21.2: Essential Security**

Nothing in this Agreement shall be construed:

- (a) to require a Party to furnish or allow access to any information the disclosure of which it determines to be contrary to its essential security interests; or
- (b) to preclude a Party from applying measures that it considers necessary for the fulfillment of its obligations with respect to the maintenance or restoration of international peace or security, or the protection of its own essential security interests.

#### **Article 21.3: Taxation**

1. Except as set out in this Article, nothing in this Agreement shall apply to taxation measures.

2. Nothing in this Agreement shall affect the rights and obligations of any Party under any tax convention. In the event of any inconsistency between this Agreement and any such convention, that convention shall prevail to the extent of the inconsistency. In the case of a tax convention between two or more Parties, the competent authorities under that convention shall

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<sup>1</sup> This Article is without prejudice to whether digital products should be classified as goods or services.

have sole responsibility for determining whether any inconsistency exists between this Agreement and that convention.

3. Notwithstanding paragraph 2:

- (a) Article 3.2 (National Treatment) and such other provisions of this Agreement as are necessary to give effect to that Article shall apply to taxation measures to the same extent as does Article III of the GATT 1994; and
- (b) Article 3.10 (Export Taxes) shall apply to taxation measures.

4. Subject to paragraph 2:

- (a) Article 11.2 (National Treatment) and Article 12.2 (National Treatment) shall apply to taxation measures on income, capital gains, or on the taxable capital of corporations that relate to the purchase or consumption of particular services, except that nothing in this subparagraph shall prevent a Party from conditioning the receipt or continued receipt of an advantage relating to the purchase or consumption of particular services on requirements to provide the service in its territory; and
- (b) Articles 10.3 (National Treatment) and 10.4 (Most-Favored-Nation Treatment), Articles 11.2 (National Treatment) and 11.3 (Most-Favored-Nation Treatment) and Articles 12.2 (National Treatment) and 12.3 (Most-Favored-Nation Treatment) shall apply to all taxation measures, other than those on income, capital gains, or on the taxable capital of corporations, taxes on estates, inheritances, gifts, and generation-skipping transfers,

except that nothing in those Articles shall apply:

- (c) any most-favored-nation obligation with respect to an advantage accorded by a Party pursuant to any tax convention;
- (d) to a non-conforming provision of any existing taxation measure;
- (e) to the continuation or prompt renewal of a non-conforming provision of any existing taxation measure;
- (f) to an amendment to a non-conforming provision of any existing taxation measure to the extent that the amendment does not decrease its conformity, at the time of the amendment, with any of those Articles;
- (g) to the adoption or enforcement of any taxation measure aimed at ensuring the equitable or effective imposition or collection of taxes (as permitted by Article XIV(d) of the GATS); or

- (h) to a provision that conditions the receipt, or continued receipt, of an advantage relating to the contributions to, or income of, pension trusts or pension plans on a requirement that the Party maintain continuous jurisdiction over the pension trust or pension plan.

5. Subject to paragraph 2 and without prejudice to the rights and obligations of the Parties under paragraph 3, Article 10.9.2, 10.9.3, and 10.9.4 (Performance Requirements) shall apply to taxation measures.

6. Article 10.7 (Expropriation and Compensation) and Article 10.16 (Submission of a Claim to Arbitration) shall apply to a taxation measure alleged to be an expropriation or a breach of an investment agreement or investment authorization. However, no investor may invoke Article 10.7 as the basis of a claim where it has been determined pursuant to this paragraph that the measure is not an expropriation. An investor that seeks to invoke Article 10.7 with respect to a taxation measure must first refer to the competent authorities of the Parties of the claimant and the respondent set out in Annex 21.3 at the time that it gives its notice of intent under Article 10.16.2 the issue of whether that taxation measure involves an expropriation. If the competent authorities do not agree to consider the issue or, having agreed to consider it, fail to agree that the measure is not an expropriation within a period of six months of such referral, the investor may submit its claim to arbitration under Article 10.16.

#### **Article 21.4: Balance of Payments Measures on Trade in Goods**

Should a Party decide to impose measures for balance of payments purposes, it shall do so only in accordance with that Party's rights and obligations under the GATT 1994, including the *Declaration on Trade Measures Taken for Balance of Payments Purposes* (1979 Declaration) and the *Understanding on the Balance of Payments Provisions of the GATT 1994* (BOP Understanding). In adopting such measures, the Party shall immediately consult with the other Parties and shall not impair the relative benefits accorded to the other Parties under this Agreement.<sup>2</sup>

#### **Article 21.5: Disclosure of Information**

Nothing in this Agreement shall be construed to require a Party to furnish or allow access to confidential information the disclosure of which would impede law enforcement, or otherwise be contrary to the public interest, or which would prejudice the legitimate commercial interests of particular enterprises, public or private.

#### **Article 21.6: Definitions**

For purposes of this Chapter:

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<sup>2</sup> For greater certainty, this Article applies to balance of payments measures imposed on trade in goods.

**tax convention** means a convention for the avoidance of double taxation or other international taxation agreement or arrangement; and

**taxes** and **taxation measures** do not include:

- (a) a customs duty; or
- (b) the measures listed in exceptions (b) and (c) of the definition of customs duty.

### **Annex 21.3**

#### **Competent Authorities**

For purposes of this Chapter:

**competent authorities** means

- (a) in the case of Costa Rica, the *Viceministro de Hacienda*;
- (b) in the case of the Dominican Republic, the *Subsecretario de Estado de Finanzas*;
- (c) in the case of El Salvador, the *Viceministro de Hacienda*;
- (d) in the case of Guatemala, the *Viceministro de Finanzas Públicas*;
- (e) in the case of Honduras, the *Subsecretario en el Despacho de Finanzas*;
- (f) in the case of Nicaragua, the *Viceministro de Hacienda y Crédito Público*; and
- (g) in the case of the United States, the Assistant Secretary of the Treasury (Tax Policy), Department of the Treasury,

or their successors.



United States-Israel Free Trade Agreement  
Entered into force on August 19, 1985

# **Israel Free Trade Agreement**

Entered into Force August 19, 1985

Agreement on the Establishment of a Free Trade Area between the Government of Israel and the Government of the United States of America

## **[PREAMBLE]**

The Government of Israel and the Government of the United States of America,

Desiring to promote mutual relations and further the historic friendship between them;

Determined to strengthen and develop the economic relations between them for their mutual benefit;

Recognizing that Israel's economy is still in a process of development, wishing to contribute to the harmonious development and expansion of world trade;

Wishing to establish bilateral free trade between the two nations through the removal of trade barriers;

Wishing to promote cooperation in areas which are of mutual interest;

Have decided to conclude this Agreement:

## **ARTICLE 1**

### **[ESTABLISHMENT OF A FREE TRADE AREA]**

The governments of Israel and the United States of America (the Parties), consistent with Article XXIV (8) (b) of the General Agreement on Tariffs and Trade (GATT), establish hereby between them a Free Trade Area and will in accordance with the provisions of this Agreement eliminate the duties and other restrictive regulations of commerce on trade between the two nations in products originating therein.

## **ARTICLE 2**

1. Products of Israel shall, when imported into the customs territory of the United States, be governed by the provisions of Annex 1.
2. Products of the United States shall, when imported into Israel, be governed by the provisions of Annex 2.
3. The rules of origin applicable to this Agreement are set forth in Annex 3.
4. The commitment with respect to export subsidies is contained in Annex 4.
5. The Annexes to this Agreement constitute an integral part thereof.

## ARTICLE 3

### [RELATIONSHIP TO OTHER AGREEMENTS]

The Parties affirm their respective rights and obligations with respect to each other under existing bilateral and multilateral agreements, including the Treaty of Friendship, Commerce and Navigation between the United States and Israel and the GATT. In the event of an inconsistency between provisions of this Agreement and such existing agreements, the provisions of this Agreement shall prevail.

## ARTICLE 4

### [NEW RESTRICTIONS ON TRADE]

New customs duties on imports or exports or any charge having equivalent effect and new quantitative restrictions on imports or exports or any measure having equivalent effect may be introduced in the trade between the Parties only if permitted by this Agreement or by the GATT as in effect on the date of entry into force of this Agreement and as interpreted by the CONTRACTING PARTIES to the GATT and in so far as not inconsistent with this Agreement.

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## ARTICLE 7

### [GENERAL AND SECURITY EXCEPTIONS]

Article XX and XXI of the GATT are hereby incorporated into and made a part of this Agreement.

## ARTICLE 8

### [SPECIAL EXCEPTION FOR KASHRUTH]

This Agreement shall not preclude the adoption or enforcement by either Party of measures relating to prohibitions on religious or ritual grounds provided that they are applied in accordance with the principle of national treatment.

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## ANNEX I

### Implementation of Duty-Free Treatment for United States Imports of Products of Israel

NOTE: Effective January 1, 1995 all duties on the vast majority of Israeli exports into the United States were eliminated. For certain agricultural products, Israel retains all of its special duty-free status for these products according to the pre-existing WTO commitments. In addition, Israel receives guaranteed duty-free quota allocations above the WTO commitments for some products specified in the U.S.-Israel Agricultural Trade Agreement, signed on November 4, 1996. SEE FULL TEXT OF U.S.-ISRAEL AGRICULTURAL AGREEMENT INCLUDED SEPARATELY.

## ANNEX II

### Implementation of Duty-Free Treatment for Israeli Imports of Products of the United States of America

NOTE: Effective January 1, 1995, duties on United States imports into Israel were eliminated. However, Israel maintains a system of import levies and tariff-rate quotas (TRQs) for certain agricultural products. Some of the levies are ad valorem while others are based on weight - and all are set at levels well below Israel's MFN commitments. Most of the TRQs allow a duty-free import into Israel of certain agricultural commodities above the WTO limit. SEE FULL TEXT OF U.S.-ISRAEL AGRICULTURAL AGREEMENT INCLUDED SEPARATELY.

United States-Jordan Free Trade Agreement  
Entered into force on December 17, 2001

## ARTICLE 1: ESTABLISHMENT OF A FREE TRADE AREA AND RELATIONSHIP TO OTHER AGREEMENTS

1. The Parties to this Agreement, consistent with Article XXIV of the *General Agreement on Tariffs and Trade 1994* ("GATT 1994") and Article V of the *General Agreement on Trade in Services* ("GATS"), hereby establish a free trade area in accordance with the provisions of this Agreement.
2. The Parties reaffirm their respective rights and obligations with respect to each other under existing bilateral and multilateral agreements to which both Parties are party, including the *Marrakesh Agreement Establishing the World Trade Organization* ("WTO Agreement").
3. This Agreement shall not be construed to derogate from any international legal obligation between the Parties that entitles a good or service, or the supplier of a good or service, to treatment more favorable than that accorded by this Agreement.
4. Nothing in Article 17 shall be construed to authorize a Party to apply a measure that is inconsistent with the Party's obligations under the WTO Agreement.

## ARTICLE 2: TRADE IN GOODS

1. Except as otherwise provided in this Agreement, each Party shall progressively eliminate its customs duties on originating goods of the other Party in accordance with Annex 2.1 and its schedule<sup>1</sup> to Annex 2.1.
2. For purposes of this Agreement, **originating good** means an article described in Annex 2.2.
3. Each Party shall accord national treatment to the goods of the other Party in accordance with Article III of the GATT 1994, including its interpretative notes. To this end, Article III of GATT 1994 and its interpretative notes are incorporated into and made a part of this Agreement, subject to Annex 2.3.
4. A Party may not introduce a new customs duty on imports or a new quantitative restriction on imports in the trade between the Parties, other than as permitted by this Agreement, subject to Annex 2.3.
5. In the event that this Agreement enters into force on a date other than January 1, "year one" for purposes of Annex 2.1 and each Party's schedule to Annex 2.1 shall mean the period from the date of entry into force of this Agreement through the end of the calendar year, and the duty reductions in each Party's schedule to Annex 2.1 shall take effect on such date of entry into force. In such event, the term "January 1 of year one" for purposes of Annex 2.1 and each Party's schedule to Annex 2.1 shall mean the date of entry into force of this Agreement.

## ARTICLE 3: TRADE IN SERVICES

1. This Article applies to measures by a Party affecting trade in services between the Parties.

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<sup>1</sup> For purposes of this Agreement, "schedule" shall include both the schedule and headnotes.



## ANNEX 2.3

### UNDERSTANDING CONCERNING ARTICLE 2

1. Articles 2.3 and 2.4 shall not apply to:
  - (a) controls by the United States on the export of logs of all species;
  - (b)
    - (i) measures under existing provisions of the *Merchant Marine Act of 1920*, 46 App. U.S.C. § 883; the *Passenger Vessel Act*, 46 App. U.S.C. §§ 289, 292 and 316; and 46 U.S.C. § 12108, to the extent that such measures were mandatory legislation at the time of the United States' access to the General Agreement on Tariffs and Trade 1947 and have not been amended so as to decrease their conformity with Part II of GATT 1947;
    - (ii) the continuation or prompt renewal of a non-conforming provision of any statute referred to in subparagraph (b); and
    - (iii) the amendment to a non-conforming provision of any statute referred to in subparagraph (b) to the extent that the amendment does not decrease the conformity of the provision with Articles 2.3 and 2.4; and
  - (c) Actions authorized by the Dispute Settlement Body of the WTO
2. For purposes of Article 2.1 and 2.4:
  - (a) "customs duty" includes any customs or import duty and a charge of any kind imposed in connection with the importation of a good, including any form of surtax or surcharge in connection with such importation, but does not include any:
    - (i) charge equivalent to an internal tax imposed consistently with Article III:2 GATT 1994, in respect of like, directly competitive or substitutable goods of the Party, or in respect of goods from which the imported good has been manufactured or produced in whole or in part;
    - (ii) antidumping or countervailing duty that is applied pursuant to a Party's domestic law;
    - (iii) fee or other charge in connection with importation commensurate with the cost of services rendered; and
    - (iv) a duty imposed pursuant to Article 5 of the WTO Agreement on Agriculture.
  - (b) "quantitative restriction" includes any prohibition or restriction on the importation of any good of another Party, except in accordance with Article XI of GATT 1994 or Article 6 of the WTO Agreement on Textiles and Clothing, including their interpretative notes, and to this end, Article XI of GATT 1994 and Article 6 of the WTO Agreement on Textiles and Clothing are incorporated into and made a part of this Annex.

**substantial cause** means a cause which is important and not less than any other cause;

**threat of serious injury** means serious injury that, on the basis of facts and not merely on allegation, conjecture or remote possibility, is clearly imminent; and

**transition period** means the 15-year period beginning on January 1 of the year following entry into force of this Agreement, except if such period is extended in accordance with paragraph 6 of this Article.

8. Each Party retains its rights and obligations under Article XIX of GATT 1994 and the WTO Agreement on Safeguards. This Agreement does not confer any additional rights or obligations on the Parties with regard to actions taken pursuant to Article XIX and the Agreement on Safeguards, except that a Party taking a safeguard measure under Article XIX and the Agreement on Safeguards may exclude imports of an originating good from the other Party if such imports are not a substantial cause of serious injury or threat thereof.

#### **ARTICLE 11: BALANCE OF PAYMENTS**

Should either Party decide to impose measures for balance of payments purposes, it shall do so in accordance with the Party's obligations under the WTO Agreement. In adopting such measures, the Party shall strive not to impair the relative benefits accorded to the other Party under this Agreement.

#### **ARTICLE 12: EXCEPTIONS**

1. For purposes of Article 2 of this Agreement, Article XX of GATT 1994 and its interpretative notes are incorporated into and made a part of this Agreement. The Parties understand that the measures referred to in GATT 1994 Article XX(b) include environmental measures necessary to protect human, animal or plant life or health, and that GATT 1994 Article XX(g) applies to measures relating to conservation of living and non-living exhaustible natural resources.

2. Nothing in this Agreement shall be construed:

- (a) to require any Party to furnish or allow access to any information the disclosure of which it determines to be contrary to its essential security interests;
- (b) to prevent any Party from taking any actions that it considers necessary for the protection of its essential security interests:
  - (i) relating to the traffic in arms, ammunition and implements of war and to such traffic and transactions in other goods, materials, services and technology undertaken directly or indirectly for the purpose of supplying a military or other security establishment,
  - (ii) taken in time of war or other emergency in international relations, or
  - (iii) relating to the implementation of national policies or international agreements respecting the non-proliferation of nuclear weapons or other nuclear explosive devices; or

(c) to prevent any Party from taking action in pursuance of its obligations under the United Nations Charter for the maintenance of international peace and security.

3. Except as set out in this paragraph, nothing in this Agreement shall apply to taxation measures.

(a) Nothing in this Agreement shall affect the rights and obligations of either Party under any tax convention. In the event of any inconsistency between this Agreement and any such convention, that convention shall prevail to the extent of the inconsistency.

(b) Notwithstanding subparagraph (a), Article 2.3 and such other provisions of this Agreement as are necessary to give effect to Article 2.3 shall apply to taxation measures to the same extent as does Article III of the GATT 1994.

(c) Notwithstanding subparagraph (a), the national treatment commitment under Article 3.2 shall apply to taxation measures to the same extent as under the GATS, and the national treatment commitment under Article 3.2(b) shall apply to taxation measures to the same extent as if the Party had made an identical national treatment commitment under Article XVII of the GATS.

#### **ARTICLE 13: ECONOMIC COOPERATION AND TECHNICAL ASSISTANCE**

To realize the objectives of this Agreement and to contribute to the implementation of its provisions:

- (a) the Parties declare their readiness to foster economic cooperation; and
- (b) in view of Jordan's developing status, and the size of its economy and resources, the United States shall strive to furnish Jordan with economic technical assistance, as appropriate.

#### **ARTICLE 14: RULES OF ORIGIN AND COOPERATION IN CUSTOMS ADMINISTRATION**

1. The Parties recognize that the rules regarding eligibility for the preferential tariff treatment afforded by this Agreement, as set out in Article 2 and Annex 2.2, are crucial to the functioning of this Agreement, and each Party shall strive to administer such rules effectively, uniformly, and consistently with the object and purpose of this Agreement and the WTO Agreement.
2. The Parties shall consult as appropriate, through the Joint Committee or through the consultative mechanism established in Article 16:
  - (a) to agree upon the means to cooperate and provide administrative assistance to achieve the commitments in paragraph 1; and
  - (b) to address situations pertaining to claims of preferential treatment under this Agreement for imported goods that do not satisfy the requirements in Annex 2.2.

United States-Morocco Free Trade Agreement  
Entered into force on January 1, 2006

## **CHAPTER TWO**

### **NATIONAL TREATMENT AND MARKET ACCESS FOR GOODS**

#### **ARTICLE 2.1: SCOPE AND COVERAGE**

Except as otherwise provided, this Chapter applies to trade in goods of a Party.

#### **Section A: National Treatment**

#### **ARTICLE 2.2: NATIONAL TREATMENT**

1. Each Party shall accord national treatment to the goods of the other Party in accordance with Article III of GATT 1994, including its interpretive notes, and to this end Article III of GATT 1994 and its interpretative notes are incorporated into and made a part of this Agreement, *mutatis mutandis*.
2. The treatment to be accorded by a Party under paragraph 1 means, with respect to a regional level of government, treatment no less favorable than the most favorable treatment that regional level government accords to any like, directly competitive, or substitutable goods, as the case may be, of the Party of which it forms a part.
3. Paragraphs 1 and 2 shall not apply to the measures set out in Annex 2-A.

#### **Section B: Tariff Elimination**

#### **ARTICLE 2.3: TARIFF ELIMINATION**

1. Except as otherwise provided in this Agreement, neither Party may increase any existing customs duty, or adopt any new customs duty, on an originating good.
2. Except as otherwise provided in this Agreement, each Party shall progressively eliminate its customs duties on originating goods, in accordance with its schedule to Annex IV (Tariff Elimination).

## **Section D: Non-Tariff Measures**

### **ARTICLE 2.8: IMPORT AND EXPORT RESTRICTIONS**

1. Except as otherwise provided in this Agreement, neither Party may adopt or maintain any prohibition or restriction on the importation of any good of the other Party or on the exportation or sale for export of any good destined for the territory of the other Party, except in accordance with Article XI of GATT 1994 and its interpretative notes, and to this end Article XI of GATT 1994 and its interpretive notes are incorporated into and made a part of this Agreement, *mutatis mutandis*.<sup>1</sup>

2. The Parties understand that GATT 1994 rights and obligations incorporated by paragraph 1 prohibit, in any circumstances in which any other form of restriction is prohibited, a Party from adopting or maintaining:

- (a) export and import price requirements, except as permitted in enforcement of countervailing and antidumping duty orders and undertakings;
- (b) measures conditioning the grant of an import license on the fulfillment of a performance requirement; or
- (c) voluntary export restraints inconsistent with Article VI of GATT 1994, as implemented under Article 18 of the WTO Agreement on Subsidies and Countervailing Measures and Article 8.1 of the WTO Agreement on Implementation of Article VI of GATT 1994.

3. In the event that a Party adopts or maintains a prohibition or restriction on the importation from or exportation to a non-Party of a good, no provision of this Agreement shall be construed to prevent the Party from:

- (a) limiting or prohibiting the importation of the good of the non-Party from the territory of the other Party; or

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<sup>1</sup> For greater certainty, paragraph 1 applies to prohibitions or restrictions on the importation of remanufactured products.



- (b) requiring as a condition for exporting the good of the Party to the territory of the other Party, that the good not be re-exported to the non-Party, directly or indirectly, without being consumed in the territory of the other Party.

4. In the event that a Party adopts or maintains a prohibition or restriction on the importation of a good from a non-Party, the Parties, on the request of either Party, shall consult with a view to avoiding undue interference with or distortion of pricing, marketing, and distribution arrangements in the other Party.

5. Paragraphs 1 through 4 shall not apply to the measures set out in Annex 2-A.

#### ARTICLE 2.9: ADMINISTRATIVE FEES AND FORMALITIES

1. Each Party shall ensure, in accordance with Article VIII:1 of GATT 1994 and its interpretive notes, that all fees and charges of whatever character (other than import and export duties, charges equivalent to an internal tax or other internal charges applied consistently with Article III:2 of GATT 1994, and antidumping and countervailing duties applied pursuant to a Party's law) imposed on, or in connection with, importation or exportation are limited in amount to the approximate cost of services rendered and do not represent an indirect protection to domestic goods or a taxation of imports or exports for fiscal purposes.

2. Neither Party may require consular transactions, including related fees and charges, in connection with the importation of any good of the other Party.

3. Each Party shall make available on the Internet a current list of the fees and charges it imposes in connection with importation or exportation.

#### ARTICLE 2.10: EXPORT TAXES

Except as provided in Annex 2-C, neither Party may adopt or maintain any tax, duty, or other charge on the export of any good to the territory of other Party, unless the tax, duty, or charge is also adopted or maintained on the good when destined for domestic consumption.

**ANNEX 2-A**  
**NATIONAL TREATMENT AND IMPORT AND EXPORT RESTRICTIONS**

**Section A: Measures of the United States**

Articles 2.2 and 2.8 shall not apply to:

- (a) controls on the export of logs of all species;
- (b)
  - (i) measures under existing provisions of the Merchant Marine Act of 1920, 46 App. U.S.C. § 883; the Passenger Vessel Act, 46 App. U.S.C. §§ 289, 292, and 316; and 46 U.S.C. § 12108, to the extent that such measures were mandatory legislation at the time the United States acceded to the *General Agreement on Tariffs and Trade 1947* (“GATT 1947”) and have not been amended so as to decrease their conformity with Part II of GATT 1947;
  - (ii) the continuation or prompt renewal of a non-conforming provision of any statute referred to in clause (i); and
  - (iii) the amendment to a non-conforming provision of any statute referred to in clause (i) to the extent that the amendment does not decrease the conformity of the provision with Articles 2.2 and 2.8;
- (c) actions authorized by the Dispute Settlement Body of the WTO; and
- (d) actions authorized by the Agreement on Textiles and Clothing.

**Section B: Measures of Morocco**

Articles 2.2 and 2.8 shall not apply to actions authorized by the Dispute Settlement Body of the WTO.

## CHAPTER TWENTY-ONE EXCEPTIONS

### ARTICLE 21.1: GENERAL EXCEPTIONS

1. For purposes of Chapters Two through Seven (National Treatment and Market Access for Goods, Agriculture, Textiles and Apparel, Rules of Origin, Customs Administration, and Technical Barriers to Trade), Article XX of GATT 1994 and its interpretive notes are incorporated into and made part of this Agreement, *mutatis mutandis*.
2. For purposes of Chapters Eleven, Thirteen, and Fourteen<sup>1</sup> (Cross-Border Trade in Services, Telecommunications, and Electronic Commerce), Article XIV of GATS (including its footnotes) is incorporated into and made part of this Agreement.

### ARTICLE 21.2: ESSENTIAL SECURITY

Nothing in this Agreement shall be construed:

- (a) to require a Party to furnish or allow access to any information the disclosure of which it determines to be contrary to its essential security interests; or
- (b) to preclude a Party from applying measures that it considers necessary for the fulfillment of its obligations with respect to the maintenance or restoration of international peace or security or the protection of its own essential security interests.

For greater certainty, measures that a Party considers necessary for the protection of its own essential security interests may include, *inter alia*, measures relating to the production of or traffic in arms, ammunition, and implements of war and to such traffic and transactions in other goods, materials, services, and technology undertaken directly or indirectly for the purpose of supplying a military or other security establishment.

### ARTICLE 21.3: TAXATION

1. Except as set out in this Article, nothing in this Agreement shall apply to taxation measures.

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<sup>1</sup> This Article is without prejudice to whether digital products should be classified as goods or services.

2. Nothing in this Agreement shall affect the rights and obligations of either Party under any existing or future tax convention. In the event of any inconsistency between this Agreement and any tax convention, the provisions of such convention shall prevail to the extent of such inconsistency. In the case of the *Convention Between the Government of the United States of America and the Kingdom of Morocco for the Avoidance of Double Taxation and the Prevention of Fiscal Evasion with Respect to Taxes on Income*, the competent authorities of the Parties, as defined in that convention, are exclusively responsible for determining whether any inconsistency exists between this Agreement and that convention.

3. Notwithstanding paragraph 2:

- (a) Article 2.2 (Market Access – National Treatment) and such other provisions of this Agreement as are necessary to give effect to that Article shall apply to taxation measures to the same extent as does Article III of GATT 1994; and
- (b) Article 2.10 (Market Access – Export Taxes) shall apply to taxation measures.

4. Subject to paragraph 2:

- (a) Article 11.2 (Cross-Border Trade in Services – National Treatment) and Article 12.2 (Financial Services – National Treatment) shall apply to taxation measures on income, capital gains, or on the taxable capital of corporations that relate to the purchase or consumption of particular services, except that nothing in this subparagraph shall prevent a Party from conditioning the receipt or continued receipt of an advantage relating to the purchase or consumption of particular services on requirements to provide the service in its territory; and
- (b) Articles 10.3 (Investment – National Treatment) and 10.4 (Investment – Most-Favored-Nation Treatment), Articles 11.2 (Cross-Border Trade in Services – National Treatment) and 11.3 (Cross-Border Trade in Services – Most-Favored-Nation Treatment), and Articles 12.2 (Financial Services – National Treatment) and 12.3 (Financial Services – Most-Favored-Nation Treatment) shall apply to all taxation measures other than those on income,

capital gains, or on the taxable capital of corporations, taxes on estates, inheritances, gifts, and generation-skipping transfers,

except that nothing in those Articles shall apply:

- (c) any most-favored-nation obligation with respect to an advantage accorded by a Party pursuant to a tax convention;
- (d) to a non-conforming provision of any existing taxation measure;
- (e) to the continuation or prompt renewal of a non-conforming provision of any existing taxation measure;
- (f) to an amendment to a non-conforming provision of any existing taxation measure to the extent that the amendment does not decrease its conformity, at the time of the amendment, with any of those Articles;
- (g) to the adoption or enforcement of any taxation measure aimed at ensuring the equitable or effective imposition or collection of taxes (as permitted by Article XIV(d) of GATS); or
- (h) to a provision that conditions the receipt, or continued receipt, of an advantage relating to the contributions to, or income of, pension trusts or pension plans on a requirement that the Party maintain continuous jurisdiction over the pension trust or pension plan.

5. Subject to paragraph 2 and without prejudice to the rights and obligations of the Parties under paragraph 3, paragraphs 2, 3, and 4 of Article 10.8 (Investment – Performance Requirements) shall apply to taxation measures.<sup>2</sup>

6. Article 10.6 (Expropriation and Compensation) and Article 10.15 (Submission of a Claim to Arbitration) shall apply to a taxation measure alleged to be an expropriation or a breach of an investment agreement or investment authorization. However, no investor may invoke Article 10.6 as the basis of a claim where it has been determined pursuant to this

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<sup>2</sup> For greater certainty, nothing in paragraphs 2, 3, and 4 of Article 10.8 (Investment – Performance Requirements) shall be construed to prevent a Party from conditioning the receipt or continued receipt of a tax advantage for income earned from the export of any goods or services, in connection with an investment in its territory of an investor of a Party or of a non-Party, on compliance with a requirement that such income be denominated in a foreign currency and received in its territory.

paragraph that the measure is not an expropriation. An investor that seeks to invoke Article 10.6 with respect to a taxation measure must first refer to the competent authorities at the time that it gives notice of intent under Article 10.15.2 the issue of whether the measure involves an expropriation. If the competent authorities do not agree to consider the issue or, having agreed to consider it, fail to agree that the measure is not an expropriation within a period of six months of such referral, the investor may submit its claim to arbitration under Article 10.15.

7. For purposes of paragraph 6, **competent authorities** means (a) in the case of Morocco, the minister in charge of finances or his delegate (Director General of Taxes); and (b) in the case of the United States, the Assistant Secretary of the Treasury (Tax Policy).

#### ARTICLE 21.4: DISCLOSURE OF INFORMATION

Nothing in this Agreement shall be construed to require a Party to furnish or allow access to information the disclosure of which would impede law enforcement or would be contrary to the Party's law protecting personal privacy or the financial affairs and accounts of individual customers of financial institutions.

#### ARTICLE 21.5: BALANCE OF PAYMENTS MEASURES ON TRADE IN GOODS

Should a Party decide to impose measures for balance of payments purposes, it shall do so only in accordance with that Party's rights and obligations under GATT 1994, including the *Declaration on Trade Measures Taken for Balance of Payments Purposes* (1979 Declaration) and the *Understanding on the Balance of Payments Provisions of the GATT 1994* (BOP Understanding). In adopting such measures, the Party shall immediately consult with the other Party and shall not impair the relative advantages accorded to the goods of the other Party under this Agreement.<sup>3</sup>

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<sup>3</sup> For greater certainty, this Article applies to balance of payments measures imposed on trade in goods.



Washington, D.C.

June 15, 2004

The Honorable Taïb Fassi Fihri  
Minister Delegate for Foreign Affairs and Cooperation  
Kingdom of Morocco

Dear Minister Fassi Fihri:

I have the honor to propose the following understandings regarding Article 21.1 (General Exceptions) of the Free Trade Agreement signed this day between the Government of the United States of America and the Government of the Kingdom of Morocco:

The measures referred to in Article XX(b) of the *General Agreement on Tariffs and Trade* 1994 ("GATT 1994") include environmental measures necessary to protect human, animal, or plant life or health, and Article XX(g) of GATT 1994 applies to measures relating to the conservation of living and non-living exhaustible natural resources.

The measures referred to in Article XIV(b) of the *General Agreement on Trade in Services* include environmental measures necessary to protect human, animal, or plant life or health.

I have the honor to propose that this letter and your letter of confirmation in reply shall constitute an agreement between our Governments, to enter into force on the entry into force of the Free Trade Agreement.

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Sincerely,

Robert B. Zoellick

COURTESY TRANSLATION

Washington, D.C.  
June 15, 2004

The Honorable Robert B. Zoellick  
United States Trade Representative

Dear Ambassador Zoellick:

I am pleased to receive your letter of today's date, which reads as follows:

“I have the honor to propose the following understandings regarding Article 21.1 (General Exceptions) of the Free Trade Agreement signed this day between the Government of the United States of America and the Government of the Kingdom of Morocco:

The measures referred to in Article XX(b) of the *General Agreement on Tariffs and Trade* 1994 ('GATT 1994') include environmental measures necessary to protect human, animal, or plant life or health, and Article XX(g) of GATT 1994 applies to measures relating to the conservation of living and non-living exhaustible natural resources.

The measures referred to in Article XIV(b) of the *General Agreement on Trade in Services* include environmental measures necessary to protect human, animal, or plant life or health.

I have the honor to propose that this letter and your letter of confirmation in reply shall constitute an agreement between our Governments, to enter into force on the entry into force of the Free Trade Agreement.”

I have the honor to confirm that the understandings referred to in your letter are shared by my Government, and that your letter and this letter in reply shall constitute an agreement between our Governments.

Sincerely,

Taïb Fassi Fihri  
Minister Delegate for Foreign Affairs and Cooperation

North American Free Trade Agreement  
Entered into force on January 1, 1994

## **CHAPTER THREE: NATIONAL TREATMENT AND MARKET ACCESS FOR GOODS**

### **Article 300: Scope and Coverage**

This Chapter applies to trade in goods of a Party, including:

- a) goods covered by Annex 300-A (Trade and Investment in the Automotive Sector),
- b) goods covered by Annex 300-B (Textile and Apparel Goods), and
- c) goods covered by another Chapter in this Part, except as provided in such Annex or Chapter.

### **Section A - National Treatment**

#### **Article 301: National Treatment**

1. Each Party shall accord national treatment to the goods of another Party in accordance with Article III of the *General Agreement on Tariffs and Trade* (GATT), including its interpretative notes, and to this end Article III of the GATT and its interpretative notes, or any equivalent provision of a successor agreement to which all Parties are party, are incorporated into and made part of this Agreement.

2. The provisions of paragraph 1 regarding national treatment shall mean, with respect to a state or province, treatment no less favorable than the most favorable treatment accorded by such state or province to any like, directly competitive or substitutable goods, as the case may be, of the Party of which it forms a part.

3. Paragraphs 1 and 2 do not apply to the measures set out in Annex 301.3.

### **Section B - Tariffs**

#### **Article 302: Tariff Elimination**

1. Except as otherwise provided in this Agreement, no Party may increase any existing customs duty, or adopt any customs duty, on an originating good.

2. Except as otherwise provided in this Agreement, each Party shall progressively eliminate its customs duties on originating goods in accordance with its Schedule to Annex 302.2.

3. On the request of any Party, the Parties shall consult to consider accelerating the elimination of customs duties set out in their Schedules. An agreement between two or more Parties to accelerate the elimination of a customs duty on a good shall supersede any duty rate or staging category determined pursuant to their Schedules for such good when approved by each such Party in accordance with its applicable legal procedures.

4. Each Party may adopt or maintain import measures to allocate in-quota imports made pursuant to a tariff rate quota set out in Annex 302.2, provided that such measures do not have trade restrictive effects on imports additional to those caused by the imposition of the tariff rate quota.

- a) such samples be imported solely for the solicitation of orders for goods, or services provided from the territory, of another Party or non-Party; or
- b) such advertising materials be imported in packets that each contain no more than one copy of each such material and that neither such materials nor packets form part of a larger consignment.

#### **Article 307: Goods Re-Entered after Repair or Alteration**

1. Except as set out in Annex 307.1, no Party may apply a customs duty to a good, regardless of its origin, that re enters its territory after that good has been exported from its territory to the territory of another Party for repair or alteration, regardless of whether such repair or alteration could be performed in its territory.
2. Notwithstanding Article 303, no Party may apply a customs duty to a good, regardless of its origin, imported temporarily from the territory of another Party for repair or alteration.
3. Annex 307.3 applies to the Parties specified in that Annex respecting the repair and rebuilding of vessels.

#### **Article 308: MostFavoredNation Rates of Duty on Certain Goods**

1. Annex 308.1 applies to certain automatic data processing goods and their parts.
2. Annex 308.2 applies to certain color television tubes.
3. Each Party shall accord mostfavorednation duty-free treatment to any local area network apparatus imported into its territory, and shall consult in accordance with Annex 308.3.

### **Section C - Non-Tariff Measures**

#### **Article 309: Import and Export Restrictions**

1. Except as otherwise provided in this Agreement, no Party may adopt or maintain any prohibition or restriction on the importation of any good of another Party or on the exportation or sale for export of any good destined for the territory of another Party, except in accordance with Article XI of the GATT, including its interpretative notes, and to this end Article XI of the GATT and its interpretative notes, or any equivalent provision of a successor agreement to which all Parties are party, are incorporated into and made a part of this Agreement.
2. The Parties understand that the GATT rights and obligations incorporated by paragraph 1 prohibit, in any circumstances in which any other form of restriction is prohibited, export price requirements and, except as permitted in enforcement of countervailing and antidumping orders and undertakings, import price requirements.
3. In the event that a Party adopts or maintains a prohibition or restriction on the importation from or exportation to a non-Party of a good, nothing in this Agreement shall be construed to prevent the Party from:

- a) limiting or prohibiting the importation from the territory of another Party of such good of that non- Party; or
- b) requiring as a condition of export of such good of the Party to the territory of another Party, that the good not be re-exported to the non-Party, directly or indirectly, without being consumed in the territory of the other Party.

4. In the event that a Party adopts or maintains a prohibition or restriction on the importation of a good from a non-Party, the Parties, on request of any Party, shall consult with a view to avoiding undue interference with or distortion of pricing, marketing and distribution arrangements in another Party.

5. Paragraphs 1 through 4 shall not apply to the measures set out in Annex 301.3.

#### **Article 310: Customs User Fees**

- 1. No Party may adopt any customs user fee of the type referred to in Annex 310.1 for originating goods.
- 2. The Parties specified in Annex 310.1 may maintain existing such fees in accordance with that Annex.

#### **Article 311: Country of Origin Marking**

Annex 311 applies to measures relating to country of origin marking.

#### **Article 312: Wine and Distilled Spirits**

- 1. No Party may adopt or maintain any measure requiring that distilled spirits imported from the territory of another Party for bottling be blended with any distilled spirits of the Party.
- 2. Annex 312.2 applies to other measures relating to wine and distilled spirits.

#### **Article 313: Distinctive Products**

Annex 313 applies to standards and labelling of the distinctive products set out in that Annex.

#### **Article 314: Export Taxes**

Except as set out in Annex 314, no Party may adopt or maintain any duty, tax or other charge on the export of any good to the territory of another Party, unless such duty, tax or charge is adopted or maintained on:

- a) exports of any such good to the territory of all other Parties; and
- b) any such good when destined for domestic consumption.

#### **Article 315: Other Export Measures**

- 1. Except as set out in Annex 315, a Party may adopt or maintain a restriction otherwise justified under Articles XI:2(a) or XX(g), (i) or (j) of the GATT with respect to the export of a good of the Party to the territory of another Party, only if:

- a) the restriction does not reduce the proportion of the total export shipments of the specific good made available to that other Party relative to the total supply of that good of the Party maintaining the restriction as compared to the proportion prevailing in the most recent 36month period for which data are available prior to the imposition of the measure, or in such other representative period on which the Parties may agree;
  - b) the Party does not impose a higher price for exports of a good to that other Party than the price charged for such good when consumed domestically, by means of any measure, such as licenses, fees, taxation and minimum price requirements. The foregoing provision does not apply to a higher price that may result from a measure taken pursuant to subparagraph (a) that only restricts the volume of exports; and
  - c) the restriction does not require the disruption of normal channels of supply to that other Party or normal proportions among specific goods or categories of goods supplied to that other Party.
2. The Parties shall cooperate in the maintenance and development of effective controls on the export of each other's goods to a non-Party in implementing this Article.

## **Section D - Consultations**

### **Article 316: Consultations and Committee on Trade in Goods**

1. The Parties hereby establish a Committee on Trade in Goods, comprising representatives of each Party.
2. The Committee shall meet on the request of any Party or the Commission to consider any matter arising under this Chapter.
3. The Parties shall convene at least once each year a meeting of their officials responsible for customs, immigration, inspection of food and agricultural products, border inspection facilities, and regulation of transportation for the purpose of addressing issues related to movement of goods through the Parties' ports of entry.

### **Article 317: Third Country Dumping**

1. The Parties affirm the importance of cooperation with respect to actions under Article 12 of the *Agreement on Implementation of Article VI of the General Agreement on Tariffs and Trade*.
2. Where a Party presents an application to another Party requesting antidumping action on its behalf, those Parties shall consult within 30 days respecting the factual basis of the request, and the requested Party shall give full consideration to the request.

## **Section E - Definitions**

### **Article 318: Definitions**

For purposes of this Chapter:



**satisfactory evidence** means:

- a) a receipt, or a copy of a receipt, evidencing payment of customs duties on a particular entry;
- b) a copy of the entry document with evidence that it was received by a customs administration;
- c) a copy of a final customs duty determination by a customs administration respecting the relevant entry;
- d) any other evidence of payment of customs duties acceptable under the Uniform Regulations established in accordance with Chapter Five (Customs Procedures);

**total export shipments** means all shipments from total supply to users located in the territory of another Party;

**total supply** means all shipments, whether intended for domestic or foreign users, from:

- a) domestic production;
- b) domestic inventory; and
- c) other imports as appropriate; and

**waiver of customs duties** means a measure that waives otherwise applicable customs duties on any good imported from any country, including the territory of another Party.

### **Annex 301.3: Exceptions to Articles 301 and 309**

#### **Section A - Canadian Measures**

1. Articles 301 and 309 shall not apply to controls by Canada on the export of logs of all species.

2. Articles 301 and 309 shall not apply to controls by Canada on the export of unprocessed fish pursuant to the following existing statutes, as amended as of August 12, 1992:

- a) *New Brunswick Fish Processing Act*, R.S.N.B. c. F18.01 (1982), and *Fisheries Development Act*, S.N.B. c. F15.1 (1977);
- b) *Newfoundland Fish Inspection Act*, R.S.N. 1990, c. F12;
- c) *Nova Scotia Fisheries Act*, S.N.S. 1977, c. 9;
- d) *Prince Edward Island Fish Inspection Act*, R.S.P.E.I. 1988, c. F13; and

- e) *Quebec Marine Products Processing Act*, No. 38, S.Q. 1987, c. 51.

3. Articles 301 and 309 shall not apply to:

- a) except as provided in Annex 300-A, Appendix 300-A.1, paragraph 4, measures by Canada respecting the importation of any goods enumerated or referred to in Schedule VII of the *Customs Tariff*, R.S.C. 1985, c. 41 (3rd Supp.), as amended,
- b) measures by Canada respecting the exportation of liquor for delivery into any country into which the importation of liquor is prohibited by law under the existing provisions of the *Export Act*, R.S.C. 1985, c. E18, as amended,
- c) measures by Canada respecting preferential rates for certain freight traffic under the existing provisions of the *Maritime Freight Rate Act*, R.S.C. 1985, c. M-1, as amended,
- d) Canadian excise taxes on absolute alcohol used in manufacturing under the existing provisions of the *Excise Tax Act*, R.S.C. 1985, c. E-14, as amended, and
- e) measures by Canada prohibiting the use of foreign or non-duty paid ships in the coasting trade of Canada unless granted a license under the *Coasting Trade Act*, S.C. 1992, c. 31,

to the extent that such provisions were mandatory legislation at the time of Canada's accession to the GATT and have not been amended so as to decrease their conformity with the GATT.

4. Articles 301 and 309 shall not apply to quantitative import restrictions on goods that originate in the territory of the United States, considering operations performed in, or materials obtained from, Mexico as if they were performed in, or obtained from, a non-Party, and that are indicated by asterisks in Chapter 89 in Annex 401.2 (Tariff Schedule of Canada) of the *Canada United States Free Trade Agreement* for as long as the measures taken under the Merchant Marine Act of 1920, 46 App. U.S.C. §§ 883, and the *Merchant Marine Act of 1936*, 46 App. U.S.C. §§ 1171, 1176, 1241 and 1241o, apply with quantitative effect to comparable Canadian origin goods sold or offered for sale into the U.S. market.

5. Articles 301 and 309 shall not apply to:

- a) the continuation or prompt renewal of a non-conforming provision of any statute referred to in paragraph 2 or 3; and
- b) the amendment to a non-conforming provision of any statute referred to in paragraph 2 or 3 to the extent that the amendment does not decrease the conformity of the provision with Articles 301 and 309.

## **Section B - Mexican Measures**

1. Articles 301 and 309 shall not apply to controls by Mexico on the export of logs of all species.

2. Articles 301 and 309 shall not apply to:

- a) measures under the existing provisions of Articles 192 through 194 of the *General Ways of Communication Act* ("Ley de Vías Generales de Comunicación") reserving exclusively to Mexican vessels all services and operations not authorized for foreign vessels and empowering the Mexican Ministry of Communications and Transportation to deny foreign vessels the right to perform authorized services if their country of origin does not grant reciprocal rights to Mexican vessels; and
  - b) export permit measures applied to goods for exportation to another Party that are subject to quantitative restrictions or tariff rate quotas adopted or maintained by that other Party.
3. Articles 301 and 309 shall not apply to:
- a) the continuation or prompt renewal of a non-conforming provision of the statute referred to in paragraph 2(a); and
  - b) the amendment to a non-conforming provision of the statute referred to in paragraph 2(a) to the extent that the amendment does not decrease the conformity of the provision with Articles 301 and 309.
- 4.
- (a) Notwithstanding Article 309, for the first 10 years after the date of entry into force of this Agreement, Mexico may adopt or maintain prohibitions or restrictions on the importation of used goods provided for in the items, as of August 12, 1992, in the Tariff Schedule of the *General Import Duty Act* (Tarifa de la "Ley del Impuesto General de Importación") set out below:

Note: (For purposes of reference only, descriptions are provided next to the corresponding item.)

Item	Description
8407.34.99	Gasoline engines of more than 1,000 cm <sup>3</sup> , except for motorcycles.
8413.11.01	Distributors fitted with a measuring device even if it includes a totalizing mechanism.
8413.40.01	Trailer type, from 36 up to 60 m <sup>3</sup> /hr capacity; without hydraulic elevator for the discharge hose.
8426.12.01	Mobile portals on tires and straddle carriers.
8426.19.01	Other (overhead travelling cranes, bridge cranes and straddle carriers).
8426.30.01	Portal cranes.
8426.41.01	Cranes with structural iron jib (lattice) with mechanical working, self-propelled, with unit weight up to 55 tons.
8426.41.02	Cranes with hydraulically actuated rigid jib, selfpropelled with maximum capacity above 9.9 tons and not exceeding 30 tons.

- 8426.41.99 Other (machinery and apparatus, self propelled, on tires.)
- 8426.49.01 Cranes with structural iron jib (lattice) with mechanical working, with unit weight up to 55 tons.
- 8426.49.02 Cranes with hydraulically actuated rigid jib, selfpropelled, with load capacity above 9.9 tons and not exceeding 30 tons.
- 8426.91.01 Cranes, other than those provided for in items 8426.91.02, 8426.91.03 and 8426.91.04.
- 8426.91.02 Cranes with hydraulic working, with articulated or rigid booms, with capacity up to 9.9 tons at 1 meter radius.
- 8426.91.03 Isolated elevating cranes, basket type, with carrying capacity equal to or less than 1 ton and up to 15 meters lift.
- 8426.91.99 Other (machinery and apparatus; designed for mounting on road vehicles).
- 8426.99.01 Cranes, other than those provided for in items 8426.91.02
- 8426.99.02 Swivel cranes.
- 8426.99.99 Other (cranes and air cables ("blondines"); overhead travelling cranes, handling or unloading frames, bridge cranes, straddle carriers and straddle cranes).
- 8427.10.01 With load capacity up to 3,500 kilograms, measured at 620 millimeters from the frontal surface of the forks, without battery or loader.
- 8427.20.01 With explosion or internal combustion engine, with carrying capacity up to 7,000 kilograms, measured at 620 millimeters from the frontal surface of the forks.
- 8428.40.99 Other (escalators and moving walkways).
- 8428.90.99 Other (machinery and apparatus for lifting, loading, unloading or handling).
- 8429.11.01 Caterpillar type.
- 8429.19.01 Other (bulldozers and angledozers).
- 8429.20.01 Graders.
- 8429.30.01 Scrapers.
- 8429.40.01 Tamping machines.
- 8429.51.02 Frontend loader with hydraulic working, wheeltype, with capacity equal or less than 335 HP.

- 8429.51.03 Mechanical shovels, other than those provided for in item 8429.51.01.
- 8429.51.99 Other (mechanical shovels, excavators, loaders and frontend shovel loaders).
- 8429.52.02 Draglines or excavators, other than those provided for in item 8429.52.01.
- 8429.52.99 Other (machinery with a 360 revolving superstructure).
- 8429.59.01 Trenchers.
- 8429.59.02 Draglines, with dragging load capacity up to 4,000 kilograms
- 8429.59.03 Draglines or excavators, other than those provided for in item 8429.59.04.
- 8429.59.99 Other (selfpropelled bulldozers, angledozers, graders, scrapers, mechanical shovels, excavators, loaders, shovel loaders, tamping machines and road rollers).
- 8430.31.01 Rotation and/or percussion perforators.
- 8430.31.99 Other (selfpropelled cutters, pullers or wrenchers and machines to open tunnels or galleries).
- 8430.39.01 Boring shields.
- 8430.39.99 Other (not selfpropelled cutters, pullers or wrenchers and machines to open tunnels or galleries).
- 8430.41.01 Boring or sinking machinery, other than those provided for in item 8430.41.02.
- 8430.41.99 Other (selfpropelled probing or boring machinery).
- 8430.49.99 Other (not selfpropelled probing or boring machinery).
- 8430.50.01 Excavators, frontal carriers with hydraulic mechanism, with capacity equal to or less than 335 h.p.
- 8430.50.02 Scrapers.
- 8430.50.99 Other (selfpropelled machinery and apparatus).
- 8430.61.01 Graders (pushers).
- 8430.61.02 Tamping or compacting rollers.
- 8430.61.99 Other (machinery and apparatus, not selfpropelled).
- 8430.62.01 Scarification machine (ripping machine).
- 8430.69.01 Scrapers, not selfpropelled.

- 8430.69.02 Trencher machine, other than those provided for in item 8430.69.03.
- 8430.69.99 Other (trenchers, other than those provided for in items 8430.69.01, 8430.69.02 and 8430.69.03).
- 8452.10.01 Sewing machines of the household type.
- 8452.21.04 Industrial machines, other than those provided for in items 8452.21.02, 8452.21.03 and 8452.21.05.
- 8452.21.99 Other (automatic sewing machines).
- 8452.29.05 Machines or heads for industrial use, with straight seams, straight needle and a rotating and oscillating thread linking device, double backstitching, flat bed and transportation only.
- 8452.29.06 Industrial machines, other than those provided for in items 8452.29.01, 8452.29.03 and 8452.29.05.
- 8452.29.99 Other (non-automatic sewing machines).
- 8452.90.99 Other (parts of sewing machines).
- 8471.10.01 Analogue or hybrid automatic data processing machines.
- 8471.20.01 Digital or numerical automatic data processing machines, containing in the same housing at least a central processing unit and an input and output unit.
- 8471.91.01 Numerical or digital processing units, even if presented with the rest of the system, including one or two of the following types of units contained in the same housing: storage units, input units, output unit.
- 8471.92.99 Other (input or output units whether or not entered with the rest of a system and whether or not containing storage units in the same housing).
- 8471.93.01 Storage units, including the rest of the system.
- 8471.99.01 Other (automatic data processing machines and units thereof).
- 8474.20.01 Crushing and grinding with two or more cylinders.
- 8474.20.02 Crushing jawbone and grinding millstone.
- 8474.20.03 Blade crushing machines.
- 8474.20.04 Crushing machines of balls or bars.
- 8474.20.05 Drawer cone crushing, with diameter no more than 1200 millimeters.
- 8474.20.06 Grinding hammer percussion.
- 8474.20.99 Other (machines and apparatus to break, crush or grind or pulverize dirt, stones and other solid mineral materials).

- 8474.39.99 Other (mixing machines).
- 8474.80.99 Other (machines and apparatus to classify, sieve, separate, break, crush, grind, mix, or knead dirt, stones and other mineral materials).
- 8475.10.01 Machines for assembling lamps.
- 8477.10.01 Injectionmolding machines for thermoplastic materials, up to 5 kg capacity for one molding model.
- 8701.30.01 Caterpillar tractors with an engine power at the flywheel equal to or above 105 h.p., but less than 380 h.p. measured at 1,900 rpm, including pushing blade.
- 8701.90.02 Railroad tractors, on tires with mechanical mechanism for pavement.
- 8711.10.01 Motorcycles fitted with an auxiliary motor with reciprocating piston engine not exceeding 50 cm<sup>3</sup>.
- 8711.20.01 Motorcycles fitted with an auxiliary motor with reciprocating piston engine over 50 cm<sup>3</sup> but not over 250 cm<sup>3</sup>.
- 8711.30.01 Motorcycles fitted with an auxiliary motor with reciprocating piston engine over 250 cm<sup>3</sup> but not over 500 cm<sup>3</sup>.
- 8711.40.01 Motorcycles fitted with an auxiliary motor with reciprocating piston engine over 500 cm<sup>3</sup> but less than 550 cm<sup>3</sup>.
- 8711.90.99 Other (motorcycles, cycles fitted with an auxiliary motor and sidecars without a reciprocating piston engine, and that are not sidecars for motorcycles and velocipedes of any kind presented separately).
- 8712.00.02 Bicycles, other than of the type for racing.
- 8712.00.99 Other (cycles, not motorized, except bicycles, and tricycles for the transport of merchandise).
- 8716.10.01 Trailers and semitrailers for housing and camping, of the caravan type.
- 8716.31.02 Steeltank type tankers, including cryogenic or hoppers.
- 8716.31.99 Other (tankers except of the steeltank type, and of the thermal type for the transportation of milk).
- 8716.39.01 Trailers or semitrailers of the platform type, with or without stakes, including those accepted for the transport of boxes or metal baskets for cans and bottles or container carriers, or low beds, except those with hydraulic or pneumatic suspension and collapsible gooseneck.
- 8716.39.02 Trailers or semitrailers for the transport of vehicles.



- 8716.39.04 Trailers of the modularplatform type with directional axis, including transporter bridge section, hydraulic couplings or gooseneck or motor for hydraulic conditioning of the equipment.
  - 8716.39.05 Semitrailers of the lowbed type, with pneumatic or hydraulic suspension and collapsible gooseneck.
  - 8716.39.06 Trailers and semitrailers of the closedbox type, including refrigerated.
  - 8716.39.07 Trailers and semitrailers of the steeltank type, including cryogenic and hoppers.
  - 8716.39.99 Other (trailers and semitrailers for the transportation of goods, other than those provided for in items 8716.39.01, 8716.39.02, 8716.39.04, 8716.39.05, 8716.39.06 and 8716.39.07, and that are not vehicles for the transport of goods, with solid rubber wheels, nor doubledecker trailers or semitrailers of the type recognized as used exclusively for hauling cattle.
  - 8716.40.01 Other trailers and semitrailers not used for transporting goods.
  - 8716.80.99 Other (non-automotive vehicles except trailers or semitrailers, wheel barrows and handcarts, or wheel barrows of hydraulic operation).
- b) Notwithstanding subparagraph (a), Mexico shall not prohibit or restrict the importation, on a temporary basis, of used goods provided for in the items set out in subparagraph (c) for the provision of a crossborder service subject to Chapter Twelve (CrossBorder Trade in Services) or the performance of a contract subject to Chapter Ten (Government Procurement), provided that the imported goods
- (i) are necessary to the provision of the cross border service or the performance of the contract awarded to a supplier of another Party,
  - (ii) are used solely by or under the supervision of the service provider or the supplier performing the contract,
  - (iii) are not sold, leased or loaned while in the territory of Mexico,
  - (iv) are imported in no greater quantity than is necessary for the provision of the service or the performance of the contract,
  - (v) are reexported promptly on completion of the service or the contract, and
  - (vi) comply with other applicable requirements on the importation of such goods to the extent they are not inconsistent with this Agreement.
- c) Subparagraph (b) applies to used goods provided for in the following items:

<b>Item</b>	<b>Description</b>
8413.11.01	Distributors fitted with a measuring device even if it includes a totalizing mechanism.
8413.40.01	Concrete pumps for liquids, not fitted with a measuring device from 36 up to 60 m <sup>3</sup> /hr capacity.
8426.12.01	Mobile portals on tires and straddle carriers.
8426.19.01	Other (overhead travelling cranes, bridge cranes and straddle carriers).
8426.30.01	Portal cranes.
8426.41.01	Cranes with hydraulically actuated rigid jib, selfpropelled with maximum capacity above 9.9 tons and not exceeding 30 tons.
8426.41.02	Cranes with structural iron jib (lattice) with mechanical working, selfpropelled, with unit weight up to 55 tons.
8426.41.99	Other (machinery and apparatus, self propelled, on tires.)
8426.49.01	Cranes with structural iron jib (lattice) with mechanical working, with unit weight up to 55 tons.
8426.49.02	Cranes with hydraulically actuated rigid jib, selfpropelled, with load capacity above 9.9 tons and not exceeding 30 tons.
8426.91.01	Cranes, other than those provided for in items 8426.91.02, 8426.91.03 and 8426.91.04.
8426.99.01	Cranes
8426.99.02	Swivel cranes.
8426.99.99	Other (cranes and air cables ("blondines"); overhead travelling cranes, handling or unloading frames, bridge cranes, straddle carriers and straddle cranes).
8427.10.01	With load capacity up to 3,500 kilograms, measured at 620 millimeters from the frontal surface of the forks, without battery or loader.
8428.40.99	Other (escalators and moving walkways).
8428.90.99	Other (machinery and apparatus for lifting, loading, unloading or handling).
8429.11.01	Caterpillar type.
8429.19.01	Other (bulldozers and angledozers).
8429.30.01	Scrapers.

- 8429.40.01 Tamping machines.
- 8429.51.02 Frontend loader with hydraulic working, wheeltype, with capacity equal or less than 335 HP.
- 8429.51.03 Mechanical shovels, other than those provided for in item 8429.51.01.
- 8429.51.99 Other (mechanical shovels, excavators, loaders and frontend shovel loaders).
- 8429.52.02 Draglines or excavators, other than those provided for in item 8429.52.01.
- 8429.52.99 Other (machinery with a 360 revolving superstructure).
- 8429.59.01 Trenchers.
- 8429.59.02 Draglines, with dragging load capacity up to 4,000 kilograms.
- 8429.59.03 Draglines or excavators, other than those provided for in item 8429.59.04.
- 8429.59.99 Other (selfpropelled bulldozers, angledozers, graders, scrapers, mechanical shovels, excavators, loaders, shovel loaders, tamping machines and road rollers).
- 8430.31.01 Rotation and/or percussion perforators.
- 8430.31.99 Other (selfpropelled cutters, pullers or wrenchers and machines to open tunnels or galleries).
- 8430.39.01 Boring shields.
- 8430.39.99 Other (not selfpropelled cutters, pullers or wrenchers and machines to open tunnels or galleries).
- 8430.41.01 Boring or sinking machinery, other than those provided for in item 8430.41.02.
- 8430.41.99 Other (selfpropelled probing or boring machinery).
- 8430.49.99 Other (not selfpropelled probing or boring machinery).
- 8430.50.01 Excavators, frontal loaders with hydraulic mechanism, with capacity equal to or less than 335 h.p.
- 8430.50.02 Scrapers.
- 8430.50.99 Other (selfpropelled machinery and apparatus).
- 8430.61.01 Graders (pushers).
- 8430.61.02 Tamping or compacting rollers.
- 8430.62.01 Scarification machine (ripping machine).

- 8430.69.01 Scrapers, not selfpropelled.
- 8430.69.02 Trencher machine, other than those provided for in item 8430.69.03.
- 8430.69.99 Other (trenchers, other than those provided for in items 8430.69.01, 8430.69.02 and 8430.69.03).
- 8452.10.01 Sewing machines of the household type.
- 8452.21.04 Industrial machines, other than those provided for in items 8452.21.02, 8452.21.03 and 8452.21.05.
- 8452.21.99 Other (automatic sewing machines).
- 8452.29.06 Industrial machines, other than those provided for in items 8452.29.01, 8452.29.03 and 8452.29.05.
- 8452.29.99 Other (non-automatic sewing machines).
- 8452.90.99 Other (parts of sewing machines).
- 8471.10.01 Analogue or hybrid automatic data processing machines.
- 8474.20.01 Crushing and grinding with two or more cylinders.
- 8474.20.03 Blade crushing machines.
- 8474.20.04 Crushing machines of balls or bars.
- 8474.20.99 Other (machines and apparatus to break, crush or grind or pulverize dirt, stones and other solid mineral materials).
- 8474.39.99 Other (mixing machines).
- 8474.80.99 Other (machines and apparatus to classify, sieve, separate, break, crush, grind, mix, or knead dirt, stones and other mineral materials).
- 8477.10.01 Injectionmolding machines for thermoplastic materials, up to 5 kg capacity for one molding model.
- 8701.30.01 Caterpillar tractors with an engine power at the flywheel equal to or above 105 h.p., but less than 380 h.p. measured at 1,900 rpm, including pushing blade.

## **Section C - U.S. Measures**

1. Articles 301 and 309 shall not apply to controls by the United States on the export of logs of all species.
2. Articles 301 and 309 shall not apply to:
  - a) taxes on imported perfume containing distilled spirits under existing provisions of section 5001(a)(3) and 5007(b)(2) of the Internal Revenue Code of 1986, 26 U.S.C. 5001(a)(3), 5007(b)(2), and

- b) measures under existing provisions of the Merchant Marine Act of 1920, 46 App. U.S.C. 883; the Passenger Vessel Act, 46 App. U.S.C. 289, 292, and 316; and 46 U.S.C. 12108, to the extent that such measures were mandatory legislation at the time of the United States' accession to the GATT and have not been amended so as to decrease their conformity with the GATT.
3. Articles 301 and 309 shall not apply to:
- a) the continuation or prompt renewal of a non-conforming provision of any statute referred to in paragraph 2; and
  - b) the amendment to a non-conforming provision of any statute referred to in paragraph 2 to the extent that the amendment does not decrease the conformity of the provision with Articles 301 and 309.

### **Annex 302.2: Tariff Elimination**

1. Except as otherwise provided in a Party's Schedule attached to this Annex, the following staging categories apply to the elimination of customs duties by each Party pursuant to Article 302(2):
- a) duties on goods provided for in the items in staging category A in a Party's Schedule shall be eliminated entirely and such goods shall be duty-free, effective January 1, 1994;
  - b) duties on goods provided for in the items in staging category B in a Party's Schedule shall be removed in five equal annual stages beginning on January 1, 1994, and such goods shall be duty-free, effective January 1, 1998;
  - c) duties on goods provided for in the items in staging category C in a Party's Schedule shall be removed in 10 equal annual stages beginning on January 1, 1994, and such goods shall be duty-free, effective January 1, 2003;
  - d) duties on goods provided for in the items in staging category C+ in a Party's Schedule shall be removed in 15 equal annual stages beginning on January 1, 1994, and such goods shall be duty-free, effective January 1, 2008; and
  - e) goods provided for in the items in staging category D in a Party's Schedule shall continue to receive duty-free treatment.
2. The base rate of customs duty and staging category for determining the interim rate of customs duty at each stage of the U.S. Generalized System of Preferences and the General Preferential Tariff of Canada.
3. For the purpose of the elimination of customs duties in accordance with Article 302, interim staged rates shall be rounded down, except as set out in each Party's Schedule attached to this Annex, at least to the nearest tenth of a percentage point or, if the rate of duty is expressed in monetary units, at least to the nearest .001 of the official monetary unit of the Party.
4. Canada shall apply a rate of customs duty no higher than the rate applicable under the staging category set out for an item in Annex 401.2, as amended, of the *Canada-*

Cooked ham	Salt
Corn tortillas	Soft drinks
Corn flour	Soup paste
Corn dough	Tomato puree
Crackers	Vegetable oil
Eggs	Vegetable fat
Evaporated milk	Wheat flour
French rolls ("pan blanco")	White sugar

### **Annex 315: Other Export Measures**

Article 315 shall not apply as between Mexico and the other Parties.

### **Annex 300-A : Trade and Investment in the Automotive Sector**

1. Each Party shall accord to all existing producers of vehicles in its territory treatment no less favorable than it accords to any new producer of vehicles in its territory under the measures referred to in this Annex, except that this obligation shall not be construed to apply to any differences in treatment specifically provided for in the Appendices to this Annex.
2. The Parties shall review, no later than December 31, 2003, the status of the North American automotive sector and the effectiveness of the measures referred to in this Annex to determine actions that could be taken to strengthen the integration and global competitiveness of the sector.
3. Appendices 300-A.1, 300-A.2 and 300-A.3 apply to the Parties specified therein respecting trade and investment in the automotive sector.
4. For purposes of this Annex, unless otherwise specified in the Appendices:

**existing producer of vehicles** means a producer that was producing vehicles in the territory of the relevant Party prior to model year 1992;

**new producer of vehicles** means a producer that began producing vehicles in the territory of the relevant Party after model year 1991;

**used vehicle means** a vehicle that:

- (a) has been sold, leased or loaned;
- (b) has been driven for more than
  - (i) 1,000 kilometers if the vehicle has a gross weight of less than five metric tons, or
  - (ii) 5,000 kilometers if the vehicle has a gross weight of five metric tons or more; or
- (c) was manufactured prior to the current year and at least 90 days have elapsed since the date of manufacture; and

For purposes of this Chapter:

**commercial importation** means the importation of a good into the territory of any Party for the purpose of sale, or any commercial, industrial or other like use;

**customs administration** means the competent authority that is responsible under the law of a Party for the administration of customs laws and regulations;

**determination of origin** means a determination as to whether a good qualifies as an originating good in accordance with Chapter Four;

**exporter in the territory of a Party** means an exporter located in the territory of a Party and an exporter required under this Chapter to maintain records in the territory of that Party regarding exportations of a good;

**identical goods** means goods that are the same in all respects, including physical characteristics, quality and reputation, irrespective of minor differences in appearance that are not relevant to a determination of origin of those goods under Chapter Four;

**importer in the territory of a Party** means an importer located in the territory of a Party and an importer required under this Chapter to maintain records in the territory of that Party regarding importations of a good;

**intermediate material** means "intermediate material" as defined in Article 415; Marking Rules means "Marking Rules" established under Annex 311;

**material** means "material" as defined in Article 415;

**net cost of a good** means "net cost of a good" as defined in Article 415;

**preferential tariff treatment** means the duty rate applicable to an originating good;

**producer** means "producer" as defined in Article 415;

**production** means "production" as defined in Article 415;

**transaction value** means "transaction value" as defined in Article 415;

**Uniform Regulations** means "Uniform Regulations" established under Article 511;

**used** means "used" as defined in Article 415; and

**value** means value of a good or material for purposes of calculating customs duties or for purposes of applying Chapter Four.

## CHAPTER SIX: ENERGY AND BASIC PETROCHEMICALS

### Article 601: Principles

1. The Parties confirm their full respect for their Constitutions.



2. The Parties recognize that it is desirable to strengthen the important role that trade in energy and basic petrochemical goods plays in the free trade area and to enhance this role through sustained and gradual liberalization.

3. The Parties recognize the importance of having viable and internationally competitive energy and petrochemical sectors to further their individual national interests.

#### **Article 602: Scope and Coverage**

1. This Chapter applies to measures relating to energy and basic petrochemical goods originating in the territories of the Parties and to measures relating to investment and to the cross-border trade in services associated with such goods, as set forth in this Chapter.

2. For purposes of this Chapter, energy and basic petrochemical goods refer to those goods classified under the Harmonized System as:

- a) subheading 2612.10;
- b) headings 27.01 through 27.06;
- c) subheading 2707.50;
- d) subheading 2707.99 (only with respect to solvent naphtha, rubber extender oils and carbon black feedstocks);
- e) headings 27.08 and 27.09;
- f) heading 27.10 (except for normal paraffin mixtures in the range of C9 to C15);
- g) heading 27.11 (except for ethylene, propylene, butylene and butadiene in purities over 50 percent);
- h) headings 27.12 through 27.16;
- i) subheadings 2844.10 through 2844.50 (only with respect to uranium compounds classified under those subheadings);
- j) subheading 2845.10; and
- k) subheading 2901.10 (only with respect to ethane, butanes, pentanes, hexanes, and heptanes).

3. Except as specified in Annex 602.3, energy and petrochemical goods and activities shall be governed by the provisions of this Agreement.

#### **Article 603: Import and Export Restrictions**

1. Subject to the further rights and obligations of this Agreement, the Parties incorporate the provisions of the *General Agreement on Tariffs and Trade* (GATT), with respect to prohibitions or restrictions on trade in energy and basic petrochemical goods. The Parties agree that this language does not incorporate their respective protocols of provisional application to the GATT.

2. The Parties understand that the provisions of the GATT incorporated in paragraph 1 prohibit, in any circumstances in which any other form of quantitative restriction is prohibited, minimum or maximum export - price requirements and, except as permitted in enforcement of countervailing and antidumping orders and undertakings, minimum or maximum import-price requirements.

3. In circumstances where a Party adopts or maintains a restriction on importation from or exportation to a non-Party of an energy or basic petrochemical good, nothing in this Agreement shall be construed to prevent the Party from:

- a) limiting or prohibiting the importation from the territory of any Party of such energy or basic petrochemical good of the nonParty; or
- b) requiring as a condition of export of such energy or basic petrochemical good of the Party to the territory of any other Party that the good be consumed within the territory of the other Party.

4. In the event that a Party adopts or maintains a restriction on imports of an energy or basic petrochemical good from non-Party countries, the Parties, on request of any Party, shall consult with a view to avoiding undue interference with or distortion of pricing, marketing and distribution arrangements in another Party.

5. Each Party may administer a system of import and export licensing for energy or basic petrochemical goods provided that such system is operated in a manner consistent with the provisions of this Agreement, including paragraph 1 and Article 1502 (Monopolies and State Enterprises).

6. This Article is subject to the reservations set out in Annex 603.6.

#### **Article 604: Export Taxes**

No Party may adopt or maintain any duty, tax or other charge on the export of any energy or basic petrochemical good to the territory of another Party, unless such duty, tax or charge is adopted or maintained on:

- a) exports of any such good to the territory of all other Parties; and
- b) any such good when destined for domestic consumption.

#### **Article 605: Other Export Measures**

Subject to Annex 605, a Party may adopt or maintain a restriction otherwise justified under Articles XI:2(a) or XX(g), (i) or (j) of the GATT with respect to the export of an energy or basic petrochemical good to the territory of another Party, only if:

- a) the restriction does not reduce the proportion of the total export shipments of the specific energy or basic petrochemical good made available to that other Party relative to the total supply of that good of the Party maintaining the restriction as compared to the proportion prevailing in the most recent 36month period for which data are available prior to the imposition of the measure, or in such other representative period on which the Parties may agree;

- b) the Party does not impose a higher price for exports of an energy or basic petrochemical good to that other Party than the price charged for such good when consumed domestically, by means of any measure such as licenses, fees, taxation and minimum price requirements. The foregoing provision does not apply to a higher price that may result from a measure taken pursuant to subparagraph (a) that only restricts the volume of exports; and
- c) the restriction does not require the disruption of normal channels of supply to that other Party or normal proportions among specific energy or basic petrochemical goods supplied to that other Party, such as, for example, between crude oil and refined products and among different categories of crude oil and of refined products.

#### **Article 606: Energy Regulatory Measures**

1. The Parties recognize that energy regulatory measures are subject to the disciplines of:
  - a) national treatment, as provided in Article 301;
  - b) import and export restrictions, as provided in Article 603; and
  - c) export taxes, as provided in Article 604.
2. Each Party shall seek to ensure that in the application of any energy regulatory measure, energy regulatory bodies within its territory avoid disruption of contractual relationships to the maximum extent practicable, and provide for orderly and equitable implementation appropriate to such measures.

#### **Article 607: National Security Measures**

Subject to Annex 607, no Party may adopt or maintain a measure restricting imports of an energy or basic petrochemical good from, or exports of an energy or basic petrochemical good to, another Party under Article XXI of the GATT or under Article 2102 (National Security), except to the extent necessary to:

- a) supply a military establishment of a Party or enable fulfillment of a critical defense contract of a Party;
- b) respond to a situation of armed conflict involving the Party taking the measure;
- c) implement national policies or international agreements relating to the non-proliferation of nuclear weapons or other nuclear explosive devices; or
- d) respond to direct threats of disruption in the supply of nuclear materials for defense purposes.

#### **Article 608: Miscellaneous Provisions**

1. The Parties agree to allow existing or future incentives for oil and gas exploration, development and related activities in order to maintain the reserve base for these energy resources.

2. Annex 608.2 applies only to the Parties specified in that Annex with respect to other agreements relating to trade in energy goods.

#### **Article 609: Definitions**

For purposes of this Chapter:

**consumed** means transformed so as to qualify under the rules of origin set out in Chapter Four (Rules of Origin), or actually consumed;

**cross-border trade in services** means "crossborder trade in services" as defined in Article 1213 (Cross-Border Trade in Services Definitions);

**energy regulatory measure** means any measure by federal or sub-federal entities that directly affects the transportation, transmission or distribution, purchase or sale, of an energy or basic petrochemical good;

**enterprise** means "enterprise" as defined in Article 1139 (Investment-Definitions);

**enterprise of a Party** means "enterprise of a Party" as defined in Article 1139;

**facility for independent power production** means a facility that is used for the generation of electric energy exclusively for sale to an electric utility for further resale;

**first hand sale** refers to the first commercial transaction affecting the good in question;

**investment** means investment as defined in Article 1139;

**restriction** means any limitation, whether made effective through quotas, licenses, permits, minimum or maximum price requirements or any other means;

**total export shipments** means the total shipments from total supply to users located in the territory of the other Party; and

**total supply** means shipments to domestic users and foreign users from:

- a) domestic production;
- b) domestic inventory; and
- c) other imports, as appropriate.

#### **Annex 602.3: Reservations and Special Provisions**

##### *Reservations*

1. The Mexican State reserves to itself the following strategic activities, including investment in such activities and the provision of services in such activities:

- a) exploration and exploitation of crude oil and natural gas; refining or processing of crude oil and natural gas; and production of artificial gas, basic petrochemicals and their feedstocks and pipelines;
- b) foreign trade; transportation, storage and distribution, up to and including the first hand sales of the following goods:
  - (i) crude oil,
  - (ii) natural and artificial gas,
  - (iii) goods covered by this Chapter obtained from the refining or processing of crude oil and natural gas, and
  - (iv) basic petrochemicals;
- c) the supply of electricity as a public service in Mexico, including, except as provided in paragraph 5, the generation, transmission, transformation, distribution and sale of electricity; and
- d) exploration, exploitation and processing of radioactive minerals, the nuclear fuel cycle, the generation of nuclear energy, the transportation and storage of nuclear waste, the use and reprocessing of nuclear fuel and the regulation of their applications for other purposes and the production of heavy water.

In the event of an inconsistency between this paragraph and another provision of this Agreement, this paragraph shall prevail to the extent of that inconsistency.

2. Pursuant to Article 1101(2), (Investment-Scope and Coverage), private investment is not permitted in the activities listed in paragraph 1. Chapter Twelve (CrossBorder Trade in Services) shall only apply to activities involving the provision of services covered in paragraph 1 when Mexico permits a contract to be granted in respect of such activities and only to the extent of that contract.

#### *Trade in Natural Gas and Basic Petrochemicals*

3. Where end-users and suppliers of natural gas or basic petrochemical goods consider that cross-border trade in such goods may be in their interests, each Party shall permit such end-users and suppliers, and any state enterprise of that Party as may be required under its domestic law, to negotiate supply contracts.

Each Party shall leave the modalities of the implementation of any such contract to the endusers, suppliers, and any state enterprise of the Party as may be required under its domestic law, which may take the form of individual contracts between the state enterprise and each of the other entities. Such contracts may be subject to regulatory approval.

#### *Performance Clauses*

4. Each Party shall allow its state enterprises to negotiate performance clauses in their service contracts.

#### *Activities and Investment in Electricity Generation Facilities*

5.

## a) Production for Own Use

An enterprise of another Party may acquire, establish, and/or operate an electrical generating facility in Mexico to meet the enterprise's own supply needs. Electricity generated in excess of such needs must be sold to the Federal Electricity Commission (Comisi n Federal de Electricidad) (CFE) and CFE shall purchase such electricity under terms and conditions agreed to by CFE and the enterprise.

## b) Co-generation

An enterprise of another Party may acquire, establish, and/or operate a co-generation facility in Mexico that generates electricity using heat, steam or other energy sources associated with an industrial process. Owners of the industrial facility need not be the owners of the co-generating facility. Electricity generated in excess of the industrial facility's supply requirements must be sold to CFE and CFE shall purchase such electricity under terms and conditions agreed to by CFE and the enterprise.

## c) Independent Power Production

An enterprise of another Party may acquire, establish, and/or operate an electricity generating facility for independent power production (IPP) in Mexico. Electricity generated by such a facility for sale in Mexico shall be sold to CFE and CFE shall purchase such electricity under terms and conditions agreed to by CFE and the enterprise. Where an IPP located in Mexico and an electric utility of another Party consider that cross-border trade in electricity may be in their interests, each relevant Party shall permit these entities and CFE to negotiate terms and conditions of power purchase and power sale contracts. The modalities of implementing such supply contracts are left to the end users, suppliers and CFE and may take the form of individual contracts between CFE and each of the other entities. Each relevant Party shall determine whether such contracts are subject to regulatory approval.

**Annex 603.6: Exception to Article 603**

For only those goods listed below, Mexico may restrict the granting of import and export licenses for the sole purpose of reserving foreign trade in these goods to itself.

- 2707.50 Other aromatic hydrocarbon mixtures of which 65 percent or more by volume (including losses) distills at 250 C by the ASTM D 86 method.
- 2707.99 Rubber extender oils, solvent naphtha and carbon black feedstocks only.
- 2709 Petroleum oils and oils obtained from bituminous minerals, crude.
- 2710 Aviation gasoline; gasoline and motor fuel blending stocks (except aviation gasoline) and reformates when used as motor fuel blending stocks; kerosene; gas oil and diesel oil; petroleum ether; fuel oil; paraffinic oils other than for lubricating purposes; pentanes; carbon black feedstocks; hexanes; heptanes and naphthas.
- 2711 Petroleum gases and other gaseous hydrocarbons other than: ethylene, propylene, butylene and butadiene, in purities over 50 percent.
- 2712.90 Only paraffin wax containing by weight more than 0.75 percent of oil, in bulk (Mexico classifies these goods under HS 2712.90.02) and only when imported to be used for further refining.
- 2713.11 Petroleum coke not calcined.
- 2713.20 Petroleum bitumen (except when used for road surfacing purposes under HS 2713.20.01).

- 2713.90 Other residues of petroleum oils or of oils obtained from bituminous minerals.
- 2714 Bitumen and asphalt, natural; bituminous or oil shale and tar sands, asphaltites and asphaltic rocks (except when used for road surfacing purposes under HS 2714.90.01).
- 2901.10 Ethane, butanes, pentanes, hexanes, and heptanes only.

#### **Annex 605: Exception to Article 605**

Notwithstanding any other provision of this Chapter, the provisions of Article 605 shall not apply as between the other Parties and Mexico.

#### **Annex 607: National Security**

- 1. Article 607 shall impose no obligations and confer no rights on Mexico.
- 2. Article 2102 (National Security) shall apply as between Mexico and the other Parties.

#### **Annex 608.2: Other Agreements**

- 1. Canada and the United States shall act in accordance with the terms of Annexes 902.5 and 905.2 of the *Canada United States Free Trade Agreement*, which are hereby incorporated into and made a part of this Agreement for such purpose. This paragraph shall impose no obligations and confer no rights on Mexico.
- 2. Canada and the United States intend no inconsistency between this Chapter and the *Agreement on an International Energy Program (IEP)*. In the event of any inconsistency between the IEP and this Chapter, the IEP shall prevail as between Canada and the United States to the extent of that inconsistency.

### **CHAPTER SEVEN: AGRICULTURE AND SANITARY AND PHYTOSANITARY MEASURES**

#### **Section A - Agriculture**

##### **Article 701: Scope and Coverage**

- 1. This Section applies to measures adopted or maintained by a Party relating to agricultural trade.
- 2. In the event of any inconsistency between this Section and another provision of this Agreement, this Section shall prevail to the extent of the inconsistency.

##### **Article 702: International Obligations**

- 1. Annex 702.1 applies to the Parties specified in that Annex with respect to agricultural trade under certain agreements between them.
- 2. Prior to adopting pursuant to an intergovernmental commodity agreement, a measure that may affect trade in an agricultural good between the Parties, the Party proposing to adopt the measure shall consult with the other Parties with a view to avoiding nullification or impairment of a concession granted by that Party in its Schedule to Annex 302.2.



United States-Oman Free Trade Agreement  
Entered into force on January 1, 2009

**CHAPTER TWO**  
**NATIONAL TREATMENT AND MARKET ACCESS FOR GOODS**

**ARTICLE 2.1: SCOPE AND COVERAGE**

Except as otherwise provided, this Chapter applies to trade in goods of a Party.

**Section A: National Treatment**

**ARTICLE 2.2: NATIONAL TREATMENT**

1. Each Party shall accord national treatment to the goods of the other Party in accordance with Article III of GATT 1994, including its interpretive notes, and to this end Article III of GATT 1994 and its interpretative notes are incorporated into and made a part of this Agreement, *mutatis mutandis*.
2. The treatment to be accorded by a Party under paragraph 1 means, with respect to a regional level of government, treatment no less favorable than the most favorable treatment that regional level government accords to any like, directly competitive, or substitutable goods, as the case may be, of the Party of which it forms a part.
3. Paragraphs 1 and 2 shall not apply to the measures set out in Annex 2-A.

**Section B: Tariff Elimination**

**ARTICLE 2.3: TARIFF ELIMINATION**

1. Except as otherwise provided in this Agreement, neither Party may increase any existing customs duty, or adopt any new customs duty, on an originating good.
2. Except as otherwise provided in this Agreement, each Party shall progressively eliminate its customs duties on originating goods, in accordance with its Schedule to Annex 2-B.
3. On the request of either Party, the Parties shall consult to consider accelerating the elimination of customs duties set out in their Schedules to Annex 2-B. An agreement by the Parties to accelerate the elimination of a customs duty on a good shall supercede any duty rate or staging category determined pursuant to their Schedules to Annex 2-B for that good when approved by each Party in accordance with its applicable legal procedures.
4. For greater certainty, a Party may:
  - (a) raise a customs duty back to the level established in its Schedule to Annex 2-B following a unilateral reduction; or
  - (b) maintain or increase a customs duty as authorized by the Dispute Settlement Body of the WTO.

**Section C: Special Regimes**

**ARTICLE 2.4: WAIVER OF CUSTOMS DUTIES**

1. Neither Party may adopt any new waiver of customs duties, or expand with respect to existing recipients or extend to any new recipient the application of an existing waiver of customs duties, where the waiver is conditioned, explicitly or implicitly, on the fulfillment of a performance requirement.

Each Party shall grant duty-free entry to commercial samples of negligible value, and to printed advertising materials, imported from the territory of the other Party, regardless of their origin, but may require that:

- (a) such samples be imported solely for the solicitation of orders for goods, or the solicitation of orders for services provided from the territory, of the other Party or a non-Party; or
- (b) such advertising materials be imported in packets that each contain no more than one copy of each such material and that neither such materials nor packets form part of a larger consignment.

#### **Section D: Non-Tariff Measures**

##### **ARTICLE 2.8: IMPORT AND EXPORT RESTRICTIONS**

1. Except as otherwise provided in this Agreement, neither Party may adopt or maintain any prohibition or restriction on the importation of any good of the other Party or on the exportation or sale for export of any good destined for the territory of the other Party, except in accordance with Article XI of GATT 1994 and its interpretive notes, and to this end Article XI of GATT 1994 and its interpretive notes are incorporated into and made a part of this Agreement, *mutatis mutandis*.<sup>2</sup>

2. The Parties understand that GATT 1994 rights and obligations incorporated by paragraph 1 prohibit, in any circumstances in which any other form of restriction is prohibited, a Party from adopting or maintaining:

- (a) export and import price requirements, except as permitted in enforcement of countervailing and antidumping duty orders and undertakings;
- (b) measures conditioning the grant of an import license on the fulfillment of a performance requirement; or
- (c) voluntary export restraints inconsistent with Article VI of GATT 1994, as implemented under Article 18 of the WTO Agreement on Subsidies and Countervailing Measures and Article 8.1 of the WTO Agreement on Implementation of Article VI of GATT 1994.

3. In the event that a Party adopts or maintains a prohibition or restriction on the importation from or exportation to a non-Party of a good, no provision of this Agreement shall be construed to prevent the Party from:

- (a) limiting or prohibiting the importation of the good of the non-Party from the territory of the other Party; or
- (b) requiring as a condition for exporting the good of the Party to the territory of the other Party, that the good not be re-exported to the non-Party, directly or indirectly, without being consumed in the territory of the other Party.

4. In the event that a Party adopts or maintains a prohibition or restriction on the importation of a good from a non-Party, the Parties, on the request of either Party, shall consult with a view to avoiding undue interference with or distortion of pricing, marketing, and distribution arrangements in the other Party.

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<sup>2</sup> For greater certainty, paragraph 1 applies to prohibitions or restrictions on the importation of remanufactured goods.

5. Paragraphs 1 through 4 shall not apply to the measures set out in Annex 2-A.

#### ARTICLE 2.9: ADMINISTRATIVE FEES AND FORMALITIES

1. Each Party shall ensure, in accordance with Article VIII:1 of GATT 1994 and its interpretive notes, that all fees and charges of whatever character (other than import and export duties, charges equivalent to an internal tax or other internal charges applied consistently with Article III:2 of GATT 1994, and antidumping and countervailing duties applied pursuant to a Party's law) imposed on, or in connection with, importation or exportation are limited in amount to the approximate cost of services rendered and do not represent an indirect protection to domestic goods or a taxation of imports or exports for fiscal purposes.

2. Neither Party may require consular transactions, including related fees and charges, in connection with the importation of any good of the other Party.

3. Each Party shall make available on the Internet a current list of the fees and charges it imposes in connection with importation or exportation.

4. The United States shall eliminate its merchandise processing fee on originating goods.

#### ARTICLE 2.10: EXPORT TAXES

Neither Party may adopt or maintain any tax, duty, or other charge on the export of any good to the territory of the other Party, unless the tax, duty, or charge is also adopted or maintained on the good when destined for domestic consumption.

### **Section E: Agriculture**

#### ARTICLE 2.11: AGRICULTURAL EXPORT SUBSIDIES

1. The Parties share the objective of the multilateral elimination of export subsidies for agricultural goods and shall work together toward an agreement in the WTO to eliminate those subsidies and prevent their reintroduction in any form.

2. Except as provided in paragraph 3, neither Party may introduce or maintain any export subsidy on any agricultural good destined for the territory of the other Party.

3. Where an exporting Party considers that a non-Party is exporting an agricultural good to the territory of the other Party with the benefit of export subsidies, the importing Party shall, on written request of the exporting Party, consult with the exporting Party with a view to agreeing on specific measures that the importing Party may adopt to counter the effect of such subsidized imports. If the importing Party adopts the agreed-on measures, the exporting Party shall refrain from applying any export subsidy to exports of such good to the territory of the importing Party.<sup>3</sup>

### **Section F: Definitions**

#### ARTICLE 2.12: DEFINITIONS

For purposes of this Chapter:

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<sup>3</sup> For greater certainty, each Party confirms that any measure that it adopts pursuant to this paragraph shall be consistent with the WTO Agreement.

**ANNEX 2-A**  
**NATIONAL TREATMENT AND IMPORT AND EXPORT RESTRICTIONS**

**Section A: Measures of the United States**

Paragraphs 1 and 2 of Article 2.2 and paragraphs 1 through 4 of Article 2.8 shall not apply to:

- (a) controls on the export of logs of all species;
- (b)
  - (i) measures under existing provisions of the *Merchant Marine Act of 1920*, 46 App. U.S.C. § 883; the *Passenger Vessel Act*, 46 App. U.S.C. §§ 289, 292, and 316; and 46 U.S.C. § 12108, to the extent that such measures were mandatory legislation at the time the United States acceded to the *General Agreement on Tariffs and Trade 1947* (“GATT 1947”) and have not been amended so as to decrease their conformity with Part II of GATT 1947;
  - (ii) the continuation or prompt renewal of a non-conforming provision of any statute referred to in clause (i); and
  - (iii) the amendment to a non-conforming provision of any statute referred to in clause (i) to the extent that the amendment does not decrease the conformity of the provision with Articles 2.2 and 2.8; and
- (c) actions authorized by the Dispute Settlement Body of the WTO.

**Section B: Measures of Oman**

Paragraphs 1 and 2 of Article 2.2 and paragraphs 1 through 4 of Article 2.8 shall not apply to actions authorized by the Dispute Settlement Body of the WTO.

## CHAPTER TWENTY-ONE EXCEPTIONS

### ARTICLE 21.1: GENERAL EXCEPTIONS

1. For purposes of Chapters Two through Seven (National Treatment and Market Access for Goods, Textiles and Apparel, Rules of Origin, Customs Administration, Sanitary and Phytosanitary Measures, and Technical Barriers to Trade), Article XX of GATT 1994 and its interpretive notes are incorporated into and made part of this Agreement, *mutatis mutandis*. The Parties understand that the measures referred to in Article XX(b) of GATT 1994 include environmental measures necessary to protect human, animal, or plant life or health, and that Article XX(g) of GATT 1994 applies to measures relating to the conservation of living and non-living exhaustible natural resources.

2. For purposes of Chapters Eleven (Cross-Border Trade in Services), Thirteen (Telecommunications), and Fourteen (Electronic Commerce),<sup>1</sup> Article XIV of GATS (including its footnotes) is incorporated into and made part of this Agreement, *mutatis mutandis*. The Parties understand that the measures referred to in Article XIV(b) of GATS include environmental measures necessary to protect human, animal, or plant life or health.

### ARTICLE 21.2: ESSENTIAL SECURITY

Nothing in this Agreement shall be construed:

- (a) to require a Party to furnish or allow access to any information the disclosure of which it determines to be contrary to its essential security interests; or
- (b) to preclude a Party from applying measures that it considers necessary for the fulfillment of its obligations with respect to the maintenance or restoration of international peace or security or the protection of its own essential security interests.

### ARTICLE 21.3: TAXATION

1. Except as set out in this Article, nothing in this Agreement shall apply to taxation measures.

- 2. (a) Nothing in this Agreement shall affect the rights and obligations of either Party under any tax convention. In the event of any inconsistency between this Agreement and any such convention, that convention shall prevail to the extent of the inconsistency.
- (b) In the case of a tax convention between the Parties, the competent authorities under that convention shall have sole responsibility for determining whether any inconsistency exists between this Agreement and that convention.

3. Notwithstanding paragraph 2:

- (a) Article 2.2 (National Treatment and Market Access for Goods – National Treatment) and such other provisions of this Agreement as are necessary to give effect to that Article shall apply to taxation measures to the same extent as does Article III of GATT 1994; and

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<sup>1</sup> This Article is without prejudice to whether digital products should be classified as goods or services.

- (b) Article 2.10 (National Treatment and Market Access for Goods – Export Taxes) shall apply to taxation measures.

4. Subject to paragraph 2:

- (a) Article 11.2 (Cross-Border Trade in Services – National Treatment), Article 12.2 (Financial Services – National Treatment), and Article 12.5 (Financial Services – Cross-Border Trade) shall apply to taxation measures on income, capital gains, or on the taxable capital of corporations that relate to the purchase or consumption of particular services, except that nothing in this subparagraph shall prevent a Party from conditioning the receipt or continued receipt of an advantage relating to the purchase or consumption of particular services on requirements to provide the service in its territory; and
- (b) Articles 10.3 (Investment – National Treatment) and 10.4 (Investment – Most-Favored-Nation Treatment), Articles 11.2 (Cross-Border Trade in Services – National Treatment) and 11.3 (Cross – Border Trade in Services – Most-Favored-Nation Treatment), and Articles 12.2 (Financial Services – National Treatment) and 12.3 (Financial Services – Most-Favored-Nation Treatment) shall apply to all taxation measures, other than those on income, capital gains, or on the taxable capital of corporations, taxes on estates, inheritances, gifts, and generation-skipping transfers;

except that nothing in those Articles shall apply:

- (c) any most-favored-nation obligation in this Agreement with respect to an advantage accorded by a Party pursuant to a tax convention;
- (d) to a non-conforming provision of any existing taxation measure;
- (e) to the continuation or prompt renewal of a non-conforming provision of any existing taxation measure;
- (f) to an amendment to a non-conforming provision of any existing taxation measure to the extent that the amendment does not decrease its conformity, at the time of the amendment, with any of those Articles;
- (g) to the adoption or enforcement of any taxation measure aimed at ensuring the equitable or effective imposition or collection of taxes (as permitted by Article XIV(d) of GATS; or
- (h) to a provision that conditions the receipt, or continued receipt, of an advantage relating to the contributions to, or income of, a pension trust, fund, or other arrangement to provide pension or similar benefits on a requirement that the Party maintain continuous jurisdiction, regulation, or supervision over such trust, fund, or other arrangement.

5. Subject to paragraph 2 and without prejudice to the rights and obligations of the Parties under paragraph 3, paragraphs 2, 3, and 4 of Article 10.8 (Investment – Performance Requirements) shall apply to taxation measures.

- 6. (a) Article 10.15 (Investment – Submission of a Claim to Arbitration) shall apply to a taxation measure alleged to be an expropriation or a breach of an investment agreement or an investment authorization.
- (b) Article 10.6 (Investment – Expropriation and Compensation) shall apply to taxation measures. However, no investor may invoke Article 10.6 (Investment – Expropriation and Compensation) as the basis for a claim



where it has been determined pursuant to this subparagraph that the measure is not an expropriation. An investor that seeks to invoke Article 10.6 (Investment – Expropriation and Compensation) with respect to a taxation measure must first refer to the competent authorities, at the time that it gives its notice of intent under Article 10.15.4 (Investment – Submission of a Claim to Arbitration), the issue of whether that taxation measure is not an expropriation. If the competent authorities do not agree to consider the issue or, having agreed to consider it, fail to agree that the measure is not an expropriation within a period of 180 days of such referral, the investor may submit its claim to arbitration under Article 10.15 (Investment – Submission of a Claim to Arbitration).

- (c) For purposes of this paragraph, **competent authorities** means:
  - (i) in the case of Oman, the Minister of National Economy; and
  - (ii) in the case of the United States, the Assistant Secretary of the Treasury (Tax Policy).

7. For purposes of this Article, **taxes** and **taxation measures** do not include:

- (a) a customs duty; or
- (b) the measures listed in exceptions (b) and (c) of the definition of customs duty.

#### ARTICLE 21.4: DISCLOSURE OF INFORMATION

Nothing in this Agreement shall be construed as requiring a Party to furnish or allow access to confidential information the disclosure of which would impede law enforcement or otherwise be contrary to the public interest or which would prejudice the legitimate commercial interests of particular enterprises, public or private.

United States-Peru Trade Promotion Agreement  
Entered into force on February 1, 2009

## **Chapter Two**

### **National Treatment and Market Access for Goods**

#### **Article 2.1: Scope and Coverage**

Except as otherwise provided in this Agreement, this Chapter applies to trade in goods of a Party.

#### **Section A: National Treatment**

##### **Article 2.2: National Treatment**

1. Each Party shall accord national treatment to the goods of another Party in accordance with Article III of the GATT 1994, including its interpretive notes, and to this end Article III of the GATT 1994 and its interpretive notes are incorporated into and made part of this Agreement, *mutatis mutandis*.
2. The treatment to be accorded by a Party under paragraph 1 means, with respect to a regional level of government, treatment no less favorable than the most favorable treatment that regional level of government accords to any like, directly competitive, or substitutable goods, as the case may be, of the Party of which it forms a part.
3. Paragraphs 1 and 2 shall not apply to the measures set out in Annex 2.2.

#### **Section B: Tariff Elimination**

##### **Article 2.3: Tariff Elimination**

1. Except as otherwise provided in this Agreement, no Party may increase any existing customs duty, or adopt any new customs duty, on an originating good.
2. Except as otherwise provided in this Agreement, each Party shall progressively eliminate its customs duties on originating goods, in accordance with its Schedule to Annex 2.3.
3. For greater certainty, paragraph 2 shall not prevent Peru from granting identical or more favorable tariff treatment to a good as provided for under the legal instruments of the Andean integration, provided that the goods meet the rules of origin under those instruments.
4. On the request of any Party, the requesting Party and one or more other Parties shall consult to consider accelerating the elimination of customs duties set out in their Schedules to Annex 2.3. The consulting Parties shall notify the other Parties of the goods that will be subject to the consultations, and shall afford the other Parties an opportunity to participate in the

- (a) such samples be imported solely for the solicitation of orders for goods, or services provided from the territory, of another Party or a non-Party; or
- (b) such advertising materials be imported in packets that each contain no more than one copy of each such material and that neither such materials nor packets form part of a larger consignment.

## **Section D: Non-Tariff Measures**

### **Article 2.8: Import and Export Restrictions**

1. Except as otherwise provided in this Agreement, no Party may adopt or maintain any prohibition or restriction on the importation of any good of another Party or on the exportation or sale for export of any good destined for the territory of another Party, except in accordance with Article XI of the GATT 1994 and its interpretative notes, and to this end Article XI of the GATT 1994 and its interpretive notes are incorporated into and made a part of this Agreement, *mutatis mutandis*.<sup>1</sup>

2. The Parties understand that the GATT 1994 rights and obligations incorporated by paragraph 1 prohibit, in any circumstances in which any other form of restriction is prohibited, a Party from adopting or maintaining:

- (a) export and import price requirements, except as permitted in enforcement of countervailing and antidumping duty orders and undertakings;
- (b) import licensing conditioned on the fulfillment of a performance requirement, except as provided in a Party's Schedule to Annex 2.3; or
- (c) voluntary export restraints inconsistent with Article VI of the GATT 1994, as implemented under Article 18 of the SCM Agreement and Article 8.1 of the AD Agreement.

3. Paragraphs 1 and 2 shall not apply to the measures set out in Annex 2.2.

4. In the event that a Party adopts or maintains a prohibition or restriction on the importation from or exportation to a non-Party of a good, no provision of this Agreement shall be construed to prevent the Party from:

- (a) limiting or prohibiting the importation from the territory of another Party of such good of that non-Party; or

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<sup>1</sup> For greater certainty, this paragraph applies, *inter alia*, to prohibitions or restrictions on the importation of remanufactured goods.

- (b) requiring as a condition of export of such good of the Party to the territory of another Party, that the good not be re-exported to the non-Party, directly or indirectly, without being consumed in the territory of the other Party.

5. In the event that a Party adopts or maintains a prohibition or restriction on the importation of a good from a non-Party, the Parties, on the request of any Party, shall consult with a view to avoiding undue interference with or distortion of pricing, marketing, or distribution arrangements in another Party.

6. No Party may, as a condition for engaging in importation or for the import of a good, require a person of another Party to establish or maintain a contractual or other relationship with a distributor in its territory.

7. Nothing in paragraph 6 prevents a Party from requiring the designation of an agent for the purpose of facilitating communications between regulatory authorities of the Party and a person of another Party.

8. For purposes of paragraph 6:

**distributor** means a person of a Party who is responsible for the commercial distribution, agency, concession, or representation in the territory of that Party of goods of another Party;

## **Article 2.9: Import Licensing**

1. No Party may adopt or maintain a measure that is inconsistent with the Import Licensing Agreement.

2. Promptly after entry into force of this Agreement, each Party shall notify the other Parties of any existing import licensing procedures, and thereafter shall notify the other Parties of any new import licensing procedure and any modification to its existing import licensing procedures, within 60 days before it takes effect. A notification provided under this Article shall:

- (a) include the information specified in Article 5 of the Import Licensing Agreement; and
- (b) be without prejudice as to whether the import licensing procedure is consistent with this Agreement.

3. No Party may apply an import licensing procedure to a good of another Party unless it has provided notification in accordance with paragraph 2.

## **Article 2.10: Administrative Fees and Formalities**

1. Each Party shall ensure, in accordance with Article VIII:1 of the GATT 1994 and its interpretive notes, that all fees and charges of whatever character (other than customs duties, charges equivalent to an internal tax or other internal charge applied consistently with Article

## **Annex 2.2**

### **National Treatment and Import and Export Restrictions**

#### **Section A: Measures of Peru**

Articles 2.2 and 2.8 shall not apply to:

- (a) measures of Peru governing the importation of used clothing and footwear, used vehicles and automotive motors, parts and replacements, and used goods, machinery, and equipment which utilize radioactive sources implementing Law No. 28514, Legislative Decree No. 843, Urgent Decree No. 079-2000, Supreme Decree No. 003-97-SA, and Law No. 27757 and any amendment to these laws or decrees, provided that the amendment does not decrease the conformity of the law or decree with the Agreement;<sup>3</sup> and
- (b) actions authorized by the Dispute Settlement Body of the WTO.

#### **Section B: Measures of the United States**

Articles 2.2 and 2.8 shall not apply to:

- (a) controls on the export of logs of all species;
- (b)
  - (i) measures under existing provisions of the *Merchant Marine Act of 1920*, 46 App. U.S.C. § 883; the *Passenger Vessel Act*, 46 App. U.S.C. §§ 289, 292, and 316; and 46 U.S.C. § 12108, to the extent that such measures were mandatory legislation at the time of the accession of the United States to the General Agreement on Tariffs and Trade 1947 (GATT 1947) and have not been amended so as to decrease their conformity with Part II of the GATT 1947;
  - (ii) the continuation or prompt renewal of a non-conforming provision of any statute referred to in clause (i); and
  - (iii) the amendment to a non-conforming provision of any statute referred to in clause (i) to the extent that the amendment does not decrease the conformity of the provision with Articles 2.2 and 2.8; and
- (c) actions authorized by the Dispute Settlement Body of the WTO.

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<sup>3</sup> The controls identified in this subparagraph do not apply to remanufactured goods.

## **Chapter Twenty-Two**

### **Exceptions**

#### **Article 22.1: General Exceptions**

1. For purposes of Chapters Two through Seven (National Treatment and Market Access for Goods, Textiles and Apparel, Rules of Origin and Origin Procedures, Customs Administration and Trade Facilitation, Sanitary and Phytosanitary Measures, and Technical Barriers to Trade), Article XX of the GATT 1994 and its interpretive notes are incorporated into and made part of this Agreement, *mutatis mutandis*. The Parties understand that the measures referred to in Article XX(b) of the GATT 1994 include environmental measures necessary to protect human, animal, or plant life or health, and that Article XX(g) of the GATT 1994 applies to measures relating to the conservation of living and non-living exhaustible natural resources.

2. For purposes of Chapters Eleven, Fourteen, and Fifteen<sup>1</sup> (Cross-Border Trade in Services, Telecommunications, and Electronic Commerce), Article XIV of the GATS (including its footnotes) is incorporated into and made part of this Agreement, *mutatis mutandis*. The Parties understand that the measures referred to in Article XIV(b) of the GATS include environmental measures necessary to protect human, animal, or plant life or health.

#### **Article 22.2: Essential Security**

Nothing in this Agreement shall be construed:

- (a) to require a Party to furnish or allow access to any information the disclosure of which it determines to be contrary to its essential security interests; or
- (b) to preclude a Party from applying measures that it considers necessary for the fulfillment of its obligations with respect to the maintenance or restoration of international peace or security, or the protection of its own essential security interests.<sup>2</sup>

#### **Article 22.3: Taxation**

1. Except as set out in this Article, nothing in this Agreement shall apply to taxation measures.

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<sup>1</sup> This Article is without prejudice to whether digital products should be classified as goods or services.

<sup>2</sup> For greater certainty, if a Party invokes Article 22.2 in an arbitral proceeding initiated under Chapter Ten (Investment) or Chapter Twenty-One (Dispute Settlement), the tribunal or panel hearing the matter shall find that the exception applies.



2. Nothing in this Agreement shall affect the rights and obligations of any Party under any tax convention. In the event of any inconsistency between this Agreement and any such convention, that convention shall prevail to the extent of the inconsistency. In the case of a tax convention between two or more Parties, the competent authorities under that convention shall have sole responsibility for determining whether any inconsistency exists between this Agreement and that convention.

3. Notwithstanding paragraph 2:

- (a) Article 2.2 (National Treatment) and such other provisions of this Agreement as are necessary to give effect to that Article shall apply to taxation measures to the same extent as does Article III of the GATT 1994; and
- (b) Article 2.11 (Export Taxes) shall apply to taxation measures.

4. Subject to paragraph 2:

- (a) Article 11.2 (National Treatment) and Article 12.2 (National Treatment) shall apply to taxation measures on income, capital gains, or on the taxable capital of corporations that relate to the purchase or consumption of particular services, except that nothing in this subparagraph shall prevent a Party from conditioning the receipt or continued receipt of an advantage relating to the purchase or consumption of particular services on requirements to provide the service in its territory; and
- (b) Articles 10.3 (National Treatment) and 10.4 (Most-Favored-Nation Treatment), Articles 11.2 (National Treatment) and 11.3 (Most-Favored-Nation Treatment), and Articles 12.2 (National Treatment) and 12.3 (Most-Favored-Nation Treatment) shall apply to all taxation measures, other than those on income, capital gains, or on the taxable capital of corporations, taxes on estates, inheritances, gifts, and generation-skipping transfers,

except that nothing in the articles referred to in subparagraphs (a) and (b) shall apply:

- (c) any most-favored-nation obligation with respect to an advantage accorded by a Party pursuant to any tax convention;
- (d) to a non-conforming provision of any existing taxation measure;
- (e) to the continuation or prompt renewal of a non-conforming provision of any existing taxation measure;
- (f) to an amendment to a non-conforming provision of any existing taxation measure to the extent that the amendment does not decrease its conformity, at the time of the amendment, with any of those Articles;

- (g) to the adoption or enforcement of any taxation measure aimed at ensuring the equitable or effective imposition or collection of taxes (as permitted by Article XIV(d) of the GATS); or
- (h) to a provision that conditions the receipt, or continued receipt, of an advantage relating to the contributions to, or income of, pension trusts or pension plans on a requirement that the Party maintain continuous jurisdiction over the pension trust or pension plan.

5. Subject to paragraph 2 and without prejudice to the rights and obligations of the Parties under paragraph 3, Article 10.9 (Performance Requirements) shall apply to taxation measures.

6. Article 10.7 (Expropriation and Compensation) and Article 10.16 (Submission of a Claim to Arbitration) shall apply to a taxation measure alleged to be an expropriation or a breach of an investment agreement or investment authorization. However, no investor may invoke Article 10.7 (Expropriation and Compensation) as the basis of a claim where it has been determined pursuant to this paragraph that the measure is not an expropriation. An investor that seeks to invoke Article 10.7 (Expropriation and Compensation) with respect to a taxation measure must first refer to the competent authorities of the Parties of the claimant and the respondent set out in Annex 22.3 at the time that it gives its notice of intent under Article 10.16 (Submission of a Claim to Arbitration) the issue of whether that taxation measure involves an expropriation. If the competent authorities do not agree to consider the issue or, having agreed to consider it, fail to agree that the measure is not an expropriation within a period of six months of such referral, the investor may submit its claim to arbitration under Article 10.16 (Submission of a Claim to Arbitration).

#### **Article 22.4: Disclosure of Information**

Nothing in this Agreement shall be construed to require a Party to furnish or allow access to confidential information the disclosure of which would impede law enforcement, or otherwise be contrary to the public interest, or which would prejudice the legitimate commercial interests of particular enterprises, public or private.

#### **Article 22.5: Definitions**

For purposes of this Chapter:

**tax convention** means a convention for the avoidance of double taxation or other international taxation agreement or arrangement; and

**taxes** and **taxation measures** do not include:

- (a) a customs duty; or
- (b) the measures listed in exceptions (b) and (c) of the definition of customs duty.

### **Annex 22.3**

#### **Competent Authorities**

For purposes of Article 22.3:

**competent authorities** means

- (a) in the case of Peru, the *Ministerio de Economía y Finanzas*; and
- (b) in the case of the United States, the Assistant Secretary of the Treasury (Tax Policy), Department of the Treasury,

or their successors.

United States-Singapore Free Trade Agreement  
Entered into force on January 1, 2004

## **CHAPTER 2 : NATIONAL TREATMENT AND MARKET ACCESS FOR GOODS**

### **ARTICLE 2.1 : NATIONAL TREATMENT**

Each Party shall accord national treatment to the goods of the other Party in accordance with Article III of GATT 1994, including its interpretative notes. To this end, Article III of GATT 1994 and its interpretative notes are incorporated into and made a part of this Agreement, subject to Annex 2A.

### **ARTICLE 2.2 : ELIMINATION OF DUTIES**

1. Except as otherwise provided in this Agreement, each Party shall progressively eliminate its customs duties on originating goods of the other Party in accordance with Annexes 2B (U.S. Schedule) and 2C (Singapore Schedule).
2. A Party shall not increase an existing customs duty or introduce a new customs duty on imports of an originating good, other than as permitted by this Agreement, subject to Annex 2A.
3. Upon request by any Party, the Parties shall consult to consider accelerating the elimination of customs duties as set out in their respective schedules. An agreement by the Parties to accelerate the elimination of customs duties on an originating good shall be treated as an amendment to Annexes 2B and 2C, and shall enter into force after the Parties have exchanged written notification certifying that they have completed necessary internal legal procedures and on such date or dates as may be agreed between them.

### **ARTICLE 2.3 : CUSTOMS VALUE**

Each Party shall apply the provisions of the Customs Valuation Agreement for the purposes of determining the customs value of goods traded between the Parties.

### **ARTICLE 2.4 : EXPORT TAX**

A Party shall not adopt or maintain any duty, tax or other charge on the export of any good to the territory of the other Party.

### **ARTICLE 2.5 : TEMPORARY ADMISSION**

1. Each Party shall grant duty-free temporary admission for the following goods, imported by or for the use of a resident of the other Party:
  - (a) professional equipment, including software and broadcasting and cinematographic equipment, necessary for carrying out the business activity, trade, or profession of a business person who qualifies for temporary entry pursuant to the laws of the importing country; and

7. Each Party shall relieve the importer of liability for failure to export a temporarily admitted good upon presentation of satisfactory proof to the Party's Customs authorities that the good has been destroyed within the original time limit for temporary admission or any lawful extension. Prior approval will have to be sought from the Customs authorities of the importing Party before the good can be so destroyed.

#### ARTICLE 2.6 : GOODS RE-ENTERED AFTER REPAIR OR ALTERATION

1. A Party shall not apply a customs duty to a good, regardless of its origin, that re-enters its territory after that good has been exported temporarily from its territory to the territory of the other Party for repair or alteration, regardless of whether such repair or alteration could be performed in its territory.

2. A Party shall not apply a customs duty to a good, regardless of its origin, imported temporarily from the territory of the other Party for repair or alteration.

3. For purposes of this Article:

- (a) the repairs or alterations shall not destroy the essential characteristics of the good, or change it into a different commercial item;
- (b) operations carried out to transform unfinished goods into finished goods shall not be considered repairs or alterations; and
- (c) parts or pieces of the goods may be subject to repairs or alterations.

#### ARTICLE 2.7 : IMPORT AND EXPORT RESTRICTIONS

1. Except as otherwise provided in this Agreement, a Party shall not adopt or maintain any prohibition or restriction on the importation of any good of the other Party or on the exportation or sale for export of any good destined for the territory of the other Party, except in accordance with Article XI of GATT 1994, including its interpretative notes, and to this end Article XI of GATT 1994, including its interpretative notes, is incorporated into and made a part of this Agreement.

2. The Parties understand that the GATT 1994 rights and obligations incorporated by paragraph 1 prohibit, in any circumstances in which any other form of restriction is prohibited, export price requirements and, except as permitted in enforcement of countervailing and antidumping orders and undertakings, import price requirements.

3. In the event that a Party adopts or maintains a prohibition or restriction on the importation from or exportation to a non-Party of a good, nothing in this Agreement shall be construed to prevent the Party from:

- (a) limiting or prohibiting the importation from the territory of the other Party of such good of that non-Party; or
- (b) requiring as a condition of export of such good of the Party to the territory of the other Party, that the good not be re-exported to the non-Party, directly or indirectly, without being consumed in the territory of the other Party.

4. Paragraphs 1 through 3 shall not apply to the measures set out in Annex 2A.

5. Nothing in this Article shall be construed to affect a Party's rights and obligations under the WTO Agreement on Textiles and Clothing.

#### ARTICLE 2.8 : MERCHANDISE PROCESSING FEE

A Party shall not adopt or maintain a merchandise processing fee for originating goods.

#### ARTICLE 2.9 : DISTILLED SPIRITS

Singapore shall harmonize its excise taxes on imported and domestic distilled spirits. Such harmonization of the aforesaid excise duties shall be carried out in stages and shall be completed by 2005.

#### ARTICLE 2.10 : BROADCASTING APPARATUS

A Party shall not maintain any import ban on broadcasting apparatus, including satellite dishes.

#### ARTICLE 2.11 : CHEWING GUM

Singapore shall allow the importation of chewing gum with therapeutic value for sale and supply, and may subject such products to laws and regulations relating to health products.

#### ARTICLE 2.12 : TARIFF TREATMENT OF NON-ORIGINATING COTTON AND MAN-MADE FIBER APPAREL GOODS (TARIFF PREFERENCE LEVELS)

1. Subject to paragraphs 3 and 4, the United States shall apply the applicable rate of duty under paragraph 2 to imports of cotton or man-made fiber apparel goods provided for in Chapters 61 and 62 of the Harmonized System and covered by the U.S. categories listed in Annex 2B that are both cut (or knit to shape) and sewn or otherwise assembled in Singapore from fabric or yarn produced or obtained outside the territory of a Party, and that meet the applicable conditions for preferential tariff treatment under this Agreement, other than the condition that they be originating goods.

**ANNEX 2A****APPLICATION OF CHAPTER 2 : NATIONAL TREATMENT AND MARKET ACCESS FOR GOODS**

Articles 2.1, 2.2, and 2.7 shall not apply to:

- (a) controls by the United States on the export of logs of all species;
- (b)
  - (i) measures under existing provisions of the Merchant Marine Act of 1920, 46 App. U.S.C. § 883; the Passenger Vessel Act, 46 App. U.S.C. §§ 289, 292 and 316; and 46 U.S.C. § 12108, to the extent that such measures were mandatory legislation at the time of the United States' accession to the General Agreement on Tariffs and Trade 1947 and have not been amended so as to decrease their conformity with Part II of GATT 1947;
  - (ii) the continuation or prompt renewal of a non-conforming provision of any statute referred to in clause (i); and
  - (iii) the amendment to a non-conforming provision of any statute referred to in subparagraph (b)(i) to the extent that the amendment does not decrease the conformity of the provision with Articles 2.1 and 2.7;
- (c) actions authorized by the Dispute Settlement Body of the WTO.



## CHAPTER 21 : GENERAL AND FINAL PROVISIONS

### ARTICLE 21.1 : GENERAL EXCEPTIONS

1. For purposes of Chapters 2 through 6 (National Treatment and Market Access for Goods, Rules of Origin, Customs Procedures, Textiles, Technical Barriers to Trade), GATT 1994 Article XX and its interpretive notes are incorporated into and made part of this Agreement, *mutatis mutandis*. The Parties understand that the measures referred to in GATT 1994 Article XX(b) include environmental measures necessary to protect human, animal, or plant life or health, and that GATT 1994 Article XX(g) applies to measures relating to the conservation of living and non-living exhaustible natural resources.

2. For purposes of Chapters 8, 9, and 14 (Cross Border Trade in Services, Telecommunications, and Electronic Commerce<sup>21-1</sup>), GATS Article XIV (including its footnotes) is incorporated into and made part of this Agreement, *mutatis mutandis*.<sup>21-2</sup> The Parties understand that the measures referred to in GATS Article XIV(b) include environmental measures necessary to protect human, animal, or plant life or health.

### ARTICLE 21.2 : ESSENTIAL SECURITY

Nothing in this Agreement shall be construed:

- (a) to require a Party to furnish or allow access to any information the disclosure of which it determines to be contrary to its essential security interests; or
- (b) to preclude a Party from applying measures that it considers necessary for the fulfillment of its obligations with respect to the maintenance or restoration of international peace or security, or the protection of its own essential security interests.

### ARTICLE 21.3 : TAXATION

1. Except as set out in this Article, nothing in this Agreement shall apply to taxation measures.
2. Nothing in this Agreement shall affect the rights and obligations of either Party under any tax convention. In the event of any inconsistency between this Agreement and any such convention, that convention shall prevail to the extent of the inconsistency. In the case of a tax convention between the Parties, the competent authorities under that convention shall have sole responsibility for determining whether any inconsistency exists between this Agreement and that convention.

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<sup>21-1</sup> This is without prejudice to the classification of digital products as a good or a service.

<sup>21-2</sup> If GATS Article XIV is amended, this Article shall be amended, as appropriate, after consultations between the Parties.

## 3. Notwithstanding paragraph 2:

- (a) Article 2.1 (National Treatment) and such other provisions of this Agreement as are necessary to give effect to that Article shall apply to taxation measures to the same extent as does GATT 1994 Article III; and
- (b) Article 2.4 (Export Tax) shall apply to taxation measures.

## 4. Subject to paragraph 2:

- (a) Article 8.3 (National Treatment) and Article 10.2 (National Treatment) shall apply to taxation measures on income, capital gains or on the taxable capital of corporations that relate to the purchase or consumption of particular services, except that nothing in this subparagraph shall prevent a Party from conditioning the receipt or continued receipt of an advantage relating to the purchase or consumption of particular services on requirements to provide the service in its territory, and
- (b) Article 15.4 (National and Most-Favored-Nation Treatment), Articles 8.4 (National Treatment) and 8.4 (Most-Favored-Nation Treatment) and Articles 10.2 (National Treatment) and 10.3 (Most-Favored-Nation Treatment) shall apply to all taxation measures, other than those on income, capital gains, or on the taxable capital of corporations, taxes on estates, inheritances, gifts and generation-skipping transfers,

except that nothing in those Articles shall apply:

- (c) to any most-favored-nation obligation with respect to an advantage accorded by a Party pursuant to a tax convention;
- (d) to a non-conforming provision of any existing taxation measure;
- (e) to the continuation or prompt renewal of a non-conforming provision of any existing taxation measure;
- (f) to an amendment to a non-conforming provision of any existing taxation measure to the extent that the amendment does not decrease its conformity, at the time of the amendment, with any of those Articles;
- (g) to the adoption or enforcement of any taxation measure aimed at ensuring the equitable or effective imposition or collection of taxes (as permitted by GATS Article XIV(d)); or
- (h) to a provision that conditions the receipt, or continued receipt of an advantage relating to the contributions to, or income of, a pension trust, fund, or other arrangement to provide pension or similar benefits on a requirement that the Party maintain continuous jurisdiction over such trust, fund, or other arrangement.

5. Subject to paragraph 2 and without prejudice to the rights and obligations of the Parties under paragraph 3, paragraphs 2, 3, and 4 of Article 15.8 (Performance Requirements) shall apply to taxation measures.

6. Article 15.15 (Submission of a Claim to Arbitration) shall apply to a taxation measure alleged to be a breach of an investment agreement or an investment authorization. Articles 15.6 (Expropriation) and 15.15 shall apply to a taxation measure alleged to be an expropriation. However, no investor may invoke Article 15.6 as the basis for a claim where it has been determined pursuant to this paragraph that the measure is not an expropriation. An investor that seeks to invoke Article 15.6 with respect to a taxation measure must first refer to the competent authorities described in paragraph 7, at the time that it gives notice under Article 15.15.2, the issue of whether that taxation measure involves an expropriation. If the competent authorities do not agree to consider the issue or, having agreed to consider it, fail to agree that the measure is not an expropriation within a period of six months of such referral, the investor may submit its claim to arbitration under Article 15.15.4.

7. For purposes of this Article,

(a) **competent authorities** means

- (i) in the case of Singapore, Director (Taxation), Ministry of Finance; and
- (ii) in the case of the United States, the Assistant Secretary of the Treasury (Tax Policy), Department of the Treasury; and

(b) **investment agreement** and **investment authorization** have the meanings ascribed to them in Chapter 15 (Investment).

#### ARTICLE 21.4 : DISCLOSURE OF INFORMATION

Nothing in this Agreement shall be construed to require a Party to furnish or allow access to confidential information, the disclosure of which would impede law enforcement, or otherwise be contrary to the public interest, or which would prejudice the legitimate commercial interests of particular enterprises, public or private.

#### ARTICLE 21.5 : ANTI-CORRUPTION

1. Each Party reaffirms its firm existing commitment to the adoption, maintenance, and enforcement of effective measures, including deterrent penalties, against bribery and corruption in international business transactions. The Parties further commit to undertake best efforts to associate themselves with appropriate international anti-corruption instruments and to encourage and support appropriate anti-corruption initiatives and activities in relevant international fora.

2. The Parties shall cooperate to strive to eliminate bribery and corruption and to promote transparency in international trade. They will look for avenues in relevant international fora to address these issues and build upon the potential anti-corruption efforts in these fora.

## ARTICLE 21.6 : ACCESSION

1. Any country or group of countries may accede to this Agreement subject to such terms and conditions as may be agreed between such country or countries and the Parties and following approval in accordance with the applicable legal procedures of each country.
2. This Agreement shall not apply as between any Party and any acceding country or group of countries if, at the time of the accession, either does not consent to such accession.

## ARTICLE 21.7 : ANNEXES

The Annexes to this Agreement constitute an integral part of this Agreement.

## ARTICLE 21.8 : AMENDMENTS

This Agreement may be amended by agreement in writing by the Parties and such amendment shall enter into force after the Parties have exchanged written notification certifying that they have completed necessary internal legal procedures and on such date or dates as may be agreed between them.

## ARTICLE 21.9 : ENTRY INTO FORCE AND TERMINATION

1. This Agreement shall come into force 60 days after the date when the Parties have exchanged written notification that their respective internal requirements for the entry into force of this Agreement have been fulfilled, or such other date as the Parties may agree.
2. Either Party may terminate this Agreement by written notification to the other Party, and such termination shall take effect six months after the date of the notification.
3. Within 30 days of delivery of a notification under paragraph 2, either Party may request consultations regarding whether the termination of any provision of this Agreement should take effect at a later date than provided under paragraph 2. Such consultations shall commence within 30 days of a Party's delivery of such request.

IN WITNESS WHEREOF, the undersigned, being duly authorized by their respective Governments, have signed this Agreement.

Done at Washington, in duplicate, this sixth day of May, 2003.

FOR THE GOVERNMENT OF THE  
UNITED STATES OF AMERICA:

FOR THE GOVERNMENT OF THE  
REPUBLIC OF SINGAPORE:

## ANNEX B

Containing a list of all countries with indications as to whether each country is a WTO Member or a WTO Observer, and whether the country has a free trade agreement with the U.S.

Country	WTO Member	U.S. FTA	Other
Afghanistan			WTO observer
Albania	X		
Algeria			WTO observer
Andorra			WTO observer
Angola	X		
Antigua and Barbuda	X		
Argentina	X		
Armenia	X		
Australia	X	X	
Austria	X		
Azerbaijan			WTO observer
Bahamas			WTO observer
Bahrain, Kingdom of	X	X	
Bangladesh	X		
Barbados	X		
Belarus			WTO observer
Belgium	X		
Belize	X		
Benin	X		
Bhutan			WTO observer
Bolivia	X		
Bosnia and Herzegovina			WTO observer
Botswana	X		
Brazil	X		
Brunei Darussalam	X		
Bulgaria	X		
Burkina Faso	X		
Burundi	X		
Cambodia	X		
Cameroon	X		
Canada	X	X	
Cape Verde	X		
Central African Republic	X		
Chad	X		
Chile	X	X	
China	X		
Columbia	X		
Comoros			WTO observer
Congo	X		
Costa Rica	X	X	
Cote d'Ivoire	X		
Croatia	X		
Cuba	X		
Cyprus	X		
Czech Republic	X		
Democratic Republic of the Congo	X		
Denmark	X		
Djibouti	X		
Dominica	X		
Dominican Republic	X	X	
Ecuador	X		
Egypt	X		
El Salvador	X	X	
Equatorial Guinea			WTO observer

Country	WTO Member	U.S. FTA	Other
Eritrea			
Estonia	X		
Ethiopia			WTO observer
European Union	X		
Fiji	X		
Finland	X		
Former Yugoslav Republic of Macedonia	X		
France	X		
Gabon	X		
The Gambia	X		
Georgia	X		
Germany	X		
Ghana	X		
Greece	X		
Grenada	X		
Guatemala	X	X	
Guinea	X		
Guinea Bissau	X		
Guyana	X		
Haiti	X		
Holy See (Vatican)			WTO observer
Honduras	X	X	
Hong Kong, China	X		
Hungary	X		
Iceland	X		
India	X		
Indonesia	X		
Iran			WTO observer
Iraq			WTO observer
Ireland	X		
Israel	X	X	
Italy	X		
Jamaica	X		
Japan	X		
Jordan	X	X	
Kazakhstan			WTO observer
Kenya	X		
Kiribati			
Korea, Democratic People's Republic of			
Korea, Republic of	X		
Kosovo			
Kuwait	X		
Kyrgyz Republic	X		
Lao People's Democratic Republic			WTO observer
Latvia	X		
Lebanese Republic			WTO observer
Lesotho	X		
Liberia, Republic of			WTO observer
Libya			WTO observer
Liechtenstein	X		
Lithuania	X		
Luxembourg	X		
Macao, China	X		
Madagascar	X		

Country	WTO Member	U.S. FTA	Other
Malawi	X		
Malaysia	X		
Maldives	X		
Mali	X		
Malta	X		
Marshall Islands			
Mauritania	X		
Mauritius	X		
Mexico	X	X	
Micronesia			
Moldova	X		
Monaco			
Mongolia	X		
Montenegro			WTO observer
Morocco	X	X	
Mozambique	X		
Myanmar	X		
Namibia	X		
Nauru			
Nepal	X		
Netherlands	X		
New Zealand	X		
Nicaragua	X	X	
Niger	X		
Nigeria	X		
Norway	X		
Oman	X	X	
Pakistan	X		
Palau			
Panama	X		
Papua New Guinea	X		
Paraguay	X		
Peru	X	X	
Philippines	X		
Poland	X		
Portugal	X		
Qatar	X		
Romania	X		
Russian Federation			WTO observer
Rwanda	X		
Saint Kitts and Nevis	X		
Saint Lucia	X		
Saint Vincent & the Grenadines	X		
Samoa			WTO observer
San Marino			
Sao Tome and Principe			WTO observer
Saudi Arabia	X		
Senegal	X		
Serbia			WTO observer
Seychelles			WTO observer
Sierra Leone	X		
Singapore	X	X	
Slovak Republic	X		
Slovenia	X		



Country	WTO Member	U.S. FTA	Other
Solomon Islands	X		
Somalia			
South Africa	X		
Spain	X		
Sri Lanka	X		
Sudan			WTO observer
Suriname	X		
Swaziland	X		
Sweden	X		
Switzerland	X		
Syrian Arab Republic			WTO observer
Chinese Taipei	X		
Tajikistan			WTO observer
Tanzania	X		
Thailand	X		
Timor-Leste			
Togo	X		
Tonga	X		
Trinidad and Tobago	X		
Tunisia	X		
Turkey	X		
Turkmenistan			
Tuvalu			
Uganda	X		
Ukraine	X		
United Arab Emirates	X		
United Kingdom	X		
Uruguay	X		
Uzbekistan			WTO observer
Vanuatu			WTO observer
Venezuela	X		
Viet Nam	X		
Yemen			WTO observer
Zambia	X		
Zimbabwe	X		

Total countries listed (including EU)*	197
WTO members as % of total	77%
WTO members & observers as % of total	93%

\*Source: U.S. Department of State

**GENERAL AGREEMENT**  
**ON TRADE IN SERVICES**

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GATS/EL/90  
15 April 1994  
(94-1153)

**UNITED STATES OF AMERICA**

**Final List of Article II (MFN) Exemptions**

(This is authentic in English only)

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## UNITED STATES OF AMERICA - FINAL LIST OF ARTICLE II (MFN) EXEMPTIONS

Sector or subsector	Description of measure indicating its inconsistency with Article II	Countries to which the measure applies	Intended duration	Conditions creating the need for the exemption
Movement of persons	<p>Government issuance of treaty trader or treaty investor non-immigrant visas that extend a special visa category to nationals of treaty partners in executive and other personnel categories engaged</p> <p>! solely to carry on substantial trade, including trade in services or trade in technology, principally between the US and the foreign state of which a natural person is a national, or</p> <p>! solely to develop and direct the operations of an enterprise in which a natural person has invested or is actively in the process of investing a substantial amount of capital</p>	Countries with whom the United States has a Friendship, Commerce and Navigation Treaty (FCN), a Bilateral Investment Treaty (BIT), or certain countries as described in Section 204 of the Immigration Act of 1990	Indefinite	To facilitate trade under FCNs and BITs

**UNITED STATES OF AMERICA** (continued)

All Sectors: Taxation Measures	<p>Restrictions on performance of longshore work when making US port calls by crews of foreign vessels owned and flagged in countries that similarly restrict US crews on US-flag vessels from longshore work</p> <p>Differential treatment under direct tax measures at the federal level</p> <p>Such measures are:</p> <p>! measures under the US Internal Revenue Code (IRC) permitting the residents of countries contiguous to the United States to receive more</p>	<p>Countries that prohibit longshore work by crew members aboard US vessels</p> <p>All</p>	<p>Indefinite</p> <p>Indefinite</p>	<p>Reciprocal restrictions on countries that prohibit longshore work by crew members aboard US vessels</p> <p>Volume of movements across US borders between Canada and the United States and between Mexico and the United States; efficient administration of tax system.</p>
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**UNITED STATES OF AMERICA** (continued)

	<p>favorable treatment and permitting certain US taxpayers to receive more favorable treatment as to their contiguous country operations, and providing any other benefits with respect to contiguous countries;</p> <p>! benefits available under the US IRC with respect to US possessions;</p> <p>! benefits available under the US IRC with respect to Caribbean Basin Initiative (CBI) beneficiary countries;</p>		<p>Coordination of the United States and US possession income taxes; fiscal arrangements for US possessions; and facilitation of economic development in US possessions</p> <p>Facilitation of economic development in certain developing countries</p>
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	! regarding activities covered by the scope of the General Agreement on Trade in Services, reciprocal reduction of taxation on income derived from the international operation of aircraft or of taxation of certain earnings derived from the use of railroad rolling stock;			Prevention of double taxation and proper tax administration
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**UNITED STATES OF AMERICA** (continued)

	! tax exemption for earnings derived from the ownership or operation of a communications satellite system by a foreign entity designated by a foreign government to participate in such ownership if the United States, through its designated entity, participates in such system pursuant to the Communications Satellite Act of 1962;			Facilitation of satellite communications and proper tax administration
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**UNITED STATES OF AMERICA** (continued)

	<p>! denial of statutory reduction of double taxation or deferral of US tax on income earned through controlled foreign corporations, because the country participates in or cooperates with an international boycott, or for similar foreign policy reasons;</p> <p>! measures permitting less favorable taxation for citizens, corporations or products of a foreign country based on discriminatory or extraterritorial taxes, more burdensome taxation, or other discriminatory conduct;</p>		<p>Foreign policy considerations</p> <p>To foster efficient international taxation policies</p>
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**UNITED STATES OF AMERICA** (continued)

	! allow the deduction for expenses of an advertisement carried by a foreign broadcast undertaking and directed primarily to a US market only where the broadcast undertaking is located in a foreign country that allows a similar deduction for an advertisement placed with a US broadcast undertaking;			To encourage the allowance of advertising expenses internationally
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	<p>!in connection with the exclusion of, or deduction relating to, certain foreign earned income from the gross income of individuals, the benefit of a waiver of the required period of stay in a foreign country as determined by the Secretary of the Treasury. The Secretary is empowered to determine that individuals were required to leave a foreign country because of war, civil unrest or similar adverse conditions in such foreign country which precluded the normal conduct of business by such individuals; and</p>			<p>To take into account problems created by adverse conditions within particular countries</p>
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**UNITED STATES OF AMERICA** (continued)

	<p>Sub-federal tax measures affording differential treatment to service suppliers or to services when the differential treatment is based on one of the following criteria:</p> <p>! are performed, consumed, or located within different sub-federal entities;</p> <p>! differ based on the size or income of the service supplier or on the scale or methods (including environmental and health and safety measures) of performance;</p> <p>! differ in the extent of ownership or participation by minority or other disadvantaged groups;</p>	All	Indefinite	To implement fiscal policies of sub-central governments
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**UNITED STATES OF AMERICA** (continued)

	<p>! differ as to the eligibility for non-profit status for pension, profit-sharing or other employee-benefit regimes;</p> <p>! differ based on federal immunity to taxation, for example, exemption from sub-federal tax on US government obligations or contracts; differ based on federal immunity to taxation, for example, exemption from sub-federal tax on US government obligations or contracts;</p> <p>! are performed or located in countries contiguous to the United States; or</p>			
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**UNITED STATES OF AMERICA** (continued)

	! are performed or located in jurisdictions with which sub-federal entities have arrangements for tax cooperation and assistance			
	Sub-federal measures substantively incorporating provisions of federal law subject to an MFN exemption under this agreement	All	Indefinite	To implement fiscal policies of sub-central governments
All Sectors: Land Use	Non-US citizens in Wyoming may not acquire or inherit land unless the country of which they are a citizen extends a reciprocal right to US citizens	All	Indefinite	Lack of reciprocity
All Sectors	Canadian small businesses, but not small businesses of other countries, may use simplified registration and periodic reporting forms with respect to their securities	Canada	Indefinite	Maintenance of established preference

## UNITED STATES OF AMERICA (continued)

Banking and Other Financial Services (excluding Insurance)	Differential treatment of countries due to application of reciprocity measures or through international agreements guaranteeing market access or national treatment	To be determined before the expiry of six months from the entry into force of the WTO Agreement	Pursuant to the Ministerial Decision on Financial Services, the measures described in this exemption will be suspended from the entry into force of the WTO Agreement until the end of a period six months after entry into force. No other measures are subject to this suspension	Need to protect existing activities of US service suppliers abroad and to ensure substantially full market access and national treatment in international financial markets
	A broker-dealer registered under US law that has its principal place of business in Canada may maintain its required reserves in a bank in Canada subject to the supervision of Canada	Canada	Indefinite	Maintenance of established preference
Banking and Other Financial Services (excluding Insurance)	Permission to establish state-licensed branches or agencies, or to own commercial bank subsidiaries, is based on a reciprocity test in the following states: California, Connecticut, Florida, Georgia, Hawaii, Illinois, Kentucky, Louisiana, Massachusetts, Michigan, Oregon, Pennsylvania, Texas, Washington.	All	Indefinite	Need to protect existing activities of US service suppliers abroad and to ensure substantially market access and national treatment in international financial markets

**UNITED STATES OF AMERICA** (continued)

Transport Services: Air Transport Services	Authority to act as a sole trustee of an indenture for a bond offering in the United States is subject to a reciprocity test	All	Indefinite	Need to ensure US financial service suppliers are permitted to provide trustee services in foreign markets
	Designation as a primary dealer in US government debt securities is conditioned on reciprocity	All	Indefinite	Need to ensure US financial service suppliers are afforded national treatment in foreign government debt markets
	Measures which pertain to selling and marketing of air transport services (including sales, other than by airlines, of passenger charters and forwarding of air freight other than by airlines) and to operation and regulation of computer reservation system (CRS) services, as described in the Annex on Air Transport Services. (For transparency purposes, these measures include, but are not limited to, bilateral and multilateral civil aviation agreements, understandings and	All partners with which the United States has active aviation relations (approximately 100 countries) covered by bilateral or other air services agreements and comity and reciprocity regimes. Also concerned are the co-signatories of the Chicago Convention and various other international aviation agreements, undertakings, and understandings to which the United States is a party.	Indefinite	The common policy and practice of exchanging rights, settling disputes, and applying laws and other measures pertaining to the operation of civil aircraft and air transportation differentially, with respect to the activities referred to above, on the basis of mutual agreement and balanced exchanges of rights and responsibilities.



	<p>undertakings and informal comity and reciprocity aviation regimes to which the United States is a party; US laws and regulations, including the International Air Transportation Fair Competitive Practices Act of 1974, as amended, the Federal Aviation Act of 1958, as amended, the International Air Transportation Competition Act of 1979, the International Aviation Facilities Act, as amended, and Title 14, Parts 1 - 399, of the Code of Federal Regulations; and measures of US states and territories and the District of Columbia, and of their agencies and subdivisions).</p>			
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**UNITED STATES OF AMERICA** (continued)

Transport Services: Road Transport	The US government has discretion to limit the issuance of trucking licenses to persons from contiguous countries on the basis of reciprocity. The Bus Regulatory Reform Act of 1982 permits the President to remove or modify in whole or in part the moratorium on a finding that such removal or modification is in the national interest. Domestic and cross-border trucking operations are permitted within designated Interstate Commerce Commission commercial zones. The moratorium was lifted for Canada in October 1982.	Mexico, Canada	Indefinite	Need to have authority to impose a moratorium on the issuance of new licenses for domestic operations within and cross-border operations into the United States on the basis of reciprocity
Transport Services: Pipeline Transport	Pursuant to the Mineral Lands Leasing Act of 1920, aliens and foreign corporations may not acquire rights-of-way for oil or gas pipelines, or pipelines carrying products refined from oil and gas, across on-shore federal lands or acquire leases or interests in certain minerals on on-shore federal lands, such as coal or oil.	All	Indefinite	Lack of reciprocity

**UNITED STATES OF AMERICA** (continued)

	<p>Non-US citizens may own a 100 per cent interest in a domestic corporation that acquires a right-of-way for oil or gas pipelines across on-shore federal lands, or that acquires a lease to develop mineral resources on on-shore federal lands, unless the foreign investors' home country denies similar or like privileges for the mineral or access in question to US citizens or corporations, as compared with the privileges it accords to its own citizens or corporations or to the citizens or corporations of other countries. Nationalization is not considered to be denial of similar or like privileges. Foreign citizens, or corporations controlled by them, are restricted from obtaining access to federal leases on Naval Petroleum Reserves if the laws, customs or regulations of their country deny the privilege of leasing public lands to US citizens or corporations.</p>			
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**UNITED STATES OF AMERICA** (continued)

Transport Services: Space Transportation	Quantitative restrictions and price disciplines in certain bilateral agreements on the launch of satellites in the international commercial space launch market	All	Indefinite	Need to prevent disruption of competition in the international space launch market
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## **THE GENERAL AGREEMENT ON TARIFFS AND TRADE**

The Governments of the COMMONWEALTH OF AUSTRALIA, the KINGDOM OF BELGIUM, the UNITED STATES OF BRAZIL, BURMA, CANADA, CEYLON, the REPUBLIC OF CHILE, the REPUBLIC OF CHINA, the REPUBLIC OF CUBA, the CZECHOSLOVAK REPUBLIC, the FRENCH REPUBLIC, INDIA, LEBANON, the GRAND-DUCHY OF LUXEMBURG, the KINGDOM OF THE NETHERLANDS, NEW ZEALAND, the KINGDOM OF NORWAY, PAKISTAN, SOUTHERN RHODESIA, SYRIA, the UNION OF SOUTH AFRICA, the UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND, and the UNITED STATES OF AMERICA:

Recognizing that their relations in the field of trade and economic endeavour should be conducted with a view to raising standards of living, ensuring full employment and a large and steadily growing volume of real income and effective demand, developing the full use of the resources of the world and expanding the production and exchange of goods,

Being desirous of contributing to these objectives by entering into reciprocal and mutually advantageous arrangements directed to the substantial reduction of tariffs and other barriers to trade and to the elimination of discriminatory treatment in international commerce,

Have through their Representatives agreed as follows:

## **PART I**

### **Article I**

#### *General Most-Favoured-Nation Treatment*

1. With respect to customs duties and charges of any kind imposed on or in connection with importation or exportation or imposed on the international transfer of payments for imports or exports, and with respect to the method of levying such duties and charges, and with respect to all rules and formalities in connection with importation and exportation, and with respect to all matters referred to in paragraphs 2 and 4 of Article III,\* any advantage, favour, privilege or immunity granted by any contracting party to any product originating in or destined for any other country shall be accorded immediately and unconditionally to the like product originating in or destined for the territories of all other contracting parties.

2. The provisions of paragraph 1 of this Article shall not require the elimination of any preferences in respect of import duties or charges which do not exceed the levels provided for in paragraph 4 of this Article and which fall within the following descriptions:

- (a) Preferences in force exclusively between two or more of the territories listed in Annex A, subject to the conditions set forth therein;
- (b) Preferences in force exclusively between two or more territories which on July 1, 1939, were connected by common sovereignty or relations of protection or suzerainty and which are listed in Annexes B, C and D, subject to the conditions set forth therein;
- (c) Preferences in force exclusively between the United States of America and the Republic of Cuba;
- (d) Preferences in force exclusively between neighbouring countries listed in Annexes E and F.

3. The provisions of paragraph 1 shall not apply to preferences between the countries formerly a part of the Ottoman Empire and detached from it on July 24, 1923, provided such preferences are approved under paragraph 5† of Article XXV, which shall be applied in this respect in the light of paragraph 1 of Article XXIX.

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†The authentic text erroneously reads "sub-paragraph 5 (a)".

4. The margin of preference\* on any product in respect of which a preference is permitted under paragraph 2 of this Article but is not specifically set forth as a maximum margin of preference in the appropriate Schedule annexed to this Agreement shall not exceed:

- (a) in respect of duties or charges on any product described in such Schedule, the difference between the most-favoured-nation and preferential rates provided for therein; if no preferential rate is provided for, the preferential rate shall for the purposes of this paragraph be taken to be that in force on April 10, 1947, and, if no most-favoured-nation rate is provided for, the margin shall not exceed the difference between the most-favoured-nation and preferential rates existing on April 10, 1947;
- (b) in respect of duties or charges on any product not described in the appropriate Schedule, the difference between the most-favoured-nation and preferential rates existing on April 10, 1947.

In the case of the contracting parties named in Annex G, the date of April 10, 1947, referred to in sub-paragraph (a) and (b) of this paragraph shall be replaced by the respective dates set forth in that Annex.

## Article II

### *Schedules of Concessions*

1. (a) Each contracting party shall accord to the commerce of the other contracting parties treatment no less favourable than that provided for in the appropriate Part of the appropriate Schedule annexed to this Agreement.

(b) The products described in Part I of the Schedule relating to any contracting party, which are the products of territories of other contracting parties, shall, on their importation into the territory to which the Schedule relates, and subject to the terms, conditions or qualifications set forth in that Schedule, be exempt from ordinary customs duties in excess of those set forth and provided therein. Such products shall also be exempt from all other duties or charges of any kind imposed on or in connection with the importation in excess of those imposed on the date of this Agreement or those directly and mandatorily required to be imposed thereafter by legislation in force in the importing territory on that date.

(c) The products described in Part II of the Schedule relating to any contracting party which are the products of territories entitled under Article I to receive preferential treatment upon importation into the territory to which the Schedule relates shall, on their importation into such territory, and subject to

**CHAPTER ONE**  
**ESTABLISHMENT OF A FREE TRADE AREA AND DEFINITIONS**

**ARTICLE 1.1 : GENERAL**

1. The Parties to this Agreement, consistent with Article XXIV of GATT 1994 and Article V of GATS, hereby establish a free trade area in accordance with the provisions of this Agreement.
2. The Parties affirm their existing rights and obligations with respect to each other under existing bilateral and multilateral agreements to which both Parties are party, including the WTO Agreement.
3. This Agreement shall not be construed to derogate from any international legal obligation between the Parties that entitles goods or services, or suppliers of goods or services, to treatment more favourable than that accorded by this Agreement.

**ARTICLE 1.2 : GENERAL DEFINITIONS**

For the purposes of this Agreement, unless otherwise specified:

1. **Agreement on Textiles and Clothing** means the *Agreement on Textiles and Clothing*, contained in Annex 1A to the WTO Agreement;
2. **central government** or **central level of government** means:
  - (a) for the United States, the federal government; and
  - (b) for Australia, the Commonwealth government;
3. **covered investment** means, with respect to a Party, an investment in its territory of an investor of the other Party, in existence as of the date of entry into force of this Agreement or established, acquired, or expanded thereafter;
4. **customs duty** includes any customs or import duty and a charge of any kind imposed in connection with the importation of a good, including any form of surtax or surcharge in connection with such importation, but does not include any:
  - (a) charge equivalent to an internal tax imposed consistently with Article III:2 of GATT 1994 in respect of the like domestic good or in respect of goods from which the imported good has been manufactured or produced in whole or in part;
  - (b) antidumping or countervailing duty that is applied pursuant to a Party's law; or
  - (c) fee or other charge in connection with importation commensurate with the cost of services rendered;



**CHAPTER ONE  
INITIAL PROVISIONS AND DEFINITIONS**

**Section A: Initial Provisions**

ARTICLE 1.1: ESTABLISHMENT OF A FREE TRADE AREA

Consistent with Article XXIV of GATT 1994 and Article V of GATS, the Parties hereby establish a free trade area in accordance with the provisions of this Agreement.

ARTICLE 1.2: RELATION TO OTHER AGREEMENTS

1. Each Party affirms its existing rights and obligations with respect to each other under existing bilateral and multilateral agreements to which both Parties are party, including the WTO Agreement.
2. This Agreement shall not be construed to derogate from any legal obligation between the Parties that entitles goods or services, or suppliers of goods or services, to treatment more favorable than that accorded by this Agreement.

**Section B: General Definitions**

ARTICLE 1.3: DEFINITIONS

For purposes of this Agreement, unless otherwise specified:

**Agreement on Textiles and Clothing** means the *Agreement on Textiles and Clothing*, contained in Annex 1A to the WTO Agreement;

**Bahrain** means the Kingdom of Bahrain;

**BIT investment** means “covered investment” as defined in Article 1(e) of the *Treaty Between the Government of the United States of America and the Government of the State of Bahrain Concerning the Encouragement and Reciprocal Protection of Investment*, signed at Washington on September 29, 1999;

**central level of government** means:

- (a) for Bahrain, the government of Bahrain; and
- (b) for the United States, the federal level of government;

**customs duties** includes any customs or import duty and a charge of any kind imposed in connection with the importation of a good, including any form of surtax or surcharge in connection with such importation, but does not include any:

- (a) charge equivalent to an internal tax imposed consistently with Article III:2 of the GATT 1994, in respect of like, directly competitive or substitutable goods of the Party, or in respect of goods from which the imported good has been manufactured or produced in whole or in part;
- (b) antidumping or countervailing duty that is applied pursuant to a Party’s domestic law; and
- (c) fee or other charge in connection with importation commensurate with the cost of services rendered;

## **Chapter One**

### **Initial Provisions**

#### **Article 1.1: Establishment of a Free Trade Area**

The Parties to this Agreement, consistent with Article XXIV of the *General Agreement on Tariffs and Trade 1994* and Article V of the *General Agreement on Trade in Services*, hereby establish a free trade area.

#### **Article 1.2: Objectives**

1. The objectives of this Agreement, as elaborated more specifically through its principles and rules, including national treatment, most-favored-nation treatment, and transparency, are to:
  - (a) encourage expansion and diversification of trade between the Parties;
  - (b) eliminate barriers to trade in, and facilitate the cross-border movement of, goods and services between the territories of the Parties;
  - (c) promote conditions of fair competition in the free trade area;
  - (d) substantially increase investment opportunities in the territories of the Parties;
  - (e) provide adequate and effective protection and enforcement of intellectual property rights in each Party's territory;
  - (f) create effective procedures for the implementation and application of this Agreement, for its joint administration, and for the resolution of disputes; and
  - (g) establish a framework for further bilateral, regional, and multilateral cooperation to expand and enhance the benefits of this Agreement.
2. The Parties shall interpret and apply the provisions of this Agreement in the light of its objectives set out in paragraph 1 and in accordance with applicable rules of international law.

#### **Article 1.3: Relation to Other Agreements**

1. The Parties affirm their existing rights and obligations with respect to each other under the WTO Agreement and other agreements to which such Parties are party.
2. For greater certainty, nothing in this Agreement shall prevent the Central American Parties from maintaining their existing legal instruments of Central American integration, adopting new legal instruments of integration, or adopting measures to strengthen and deepen

these instruments, provided that such instruments and measures are not inconsistent with this Agreement.

**Article 1.4: Extent of Obligations**

The Parties shall ensure that all necessary measures are taken in order to give effect to the provisions of this Agreement, including their observance, except as otherwise provided in this Agreement, by state governments.

## **Chapter One**

### **Initial Provisions**

#### **Article 1.1: Establishment of a Free Trade Area**

The Parties to this Agreement, consistent with Article XXIV of the *General Agreement on Tariffs and Trade 1994* and Article V of the *General Agreement on Trade in Services*, hereby establish a free trade area.

#### **Article 1.2: Objectives**

1. The objectives of this Agreement, as elaborated more specifically through its principles and rules, including national treatment, most-favored-nation treatment, and transparency, are to:

- (a) encourage expansion and diversification of trade between the Parties;
- (b) eliminate barriers to trade in, and facilitate the cross-border movement of, goods and services between the Parties;
- (c) promote conditions of fair competition in the free trade area;
- (d) substantially increase investment opportunities in the territories of the Parties;
- (e) provide adequate and effective protection and enforcement of intellectual property rights in each Party's territory;
- (f) create effective procedures for the implementation and application of this Agreement, for its joint administration, and for the resolution of disputes; and
- (g) establish a framework for further bilateral, regional, and multilateral cooperation to expand and enhance the benefits of this Agreement.

2. The Parties shall interpret and apply the provisions of this Agreement in the light of its objectives set out in paragraph 1 and in accordance with applicable rules of international law.

**Article 1.3: Relation to Other Agreements**

The Parties affirm their existing rights and obligations with respect to each other under the WTO Agreement and other agreements to which both Parties are party.

**Article 1.4: Extent of Obligations**

The Parties shall ensure that all necessary measures are taken in order to give effect to the provisions of this Agreement, including their observance, except as otherwise provided in this Agreement, by state governments.

## **Israel Free Trade Agreement**

Entered into Force August 19, 1985

Agreement on the Establishment of a Free Trade Area between the Government of Israel and the Government of the United States of America

### **[PREAMBLE]**

The Government of Israel and the Government of the United States of America,

Desiring to promote mutual relations and further the historic friendship between them;

Determined to strengthen and develop the economic relations between them for their mutual benefit;

Recognizing that Israel's economy is still in a process of development, wishing to contribute to the harmonious development and expansion of world trade;

Wishing to establish bilateral free trade between the two nations through the removal of trade barriers;

Wishing to promote cooperation in areas which are of mutual interest;

Have decided to conclude this Agreement:

### **ARTICLE 1**

#### **[ESTABLISHMENT OF A FREE TRADE AREA]**

The governments of Israel and the United States of America (the Parties), consistent with Article XXIV (8) (b) of the General Agreement on Tariffs and Trade (GATT), establish hereby between them a Free Trade Area and will in accordance with the provisions of this Agreement eliminate the duties and other restrictive regulations of commerce on trade between the two nations in products originating therein.

\*\*\*

### **ARTICLE 3**

#### **[RELATIONSHIP TO OTHER AGREEMENTS]**

The Parties affirm their respective rights and obligations with respect to each other under existing bilateral and multilateral agreements, including the Treaty of Friendship, Commerce and Navigation between the United States and Israel and the GATT. In the event of an inconsistency between provisions of this Agreement and such existing agreements, the provisions of this Agreement shall prevail.

### **ARTICLE 4**

#### **[NEW RESTRICTIONS ON TRADE]**

New customs duties on imports or exports or any charge having equivalent effect and new quantitative restrictions on imports or exports or any measure having equivalent effect maybe introduced in the trade between the Parties only if permitted by this Agreement or by the GATT as in effect on the date of entry into force of this Agreement and as interpreted by the CONTRACTING PARTIES to the GATT and in so far as not inconsistent with this Agreement.

\*\*\*

**ARTICLE 1: ESTABLISHMENT OF A FREE TRADE AREA AND RELATIONSHIP TO OTHER AGREEMENTS**

1. The Parties to this Agreement, consistent with Article XXIV of the *General Agreement on Tariffs and Trade 1994* ("GATT 1994") and Article V of the *General Agreement on Trade in Services* ("GATS"), hereby establish a free trade area in accordance with the provisions of this Agreement.
2. The Parties reaffirm their respective rights and obligations with respect to each other under existing bilateral and multilateral agreements to which both Parties are party, including the *Marrakesh Agreement Establishing the World Trade Organization* ("WTO Agreement").
3. This Agreement shall not be construed to derogate from any international legal obligation between the Parties that entitles a good or service, or the supplier of a good or service, to treatment more favorable than that accorded by this Agreement.
4. Nothing in Article 17 shall be construed to authorize a Party to apply a measure that is inconsistent with the Party's obligations under the WTO Agreement.

**ARTICLE 2: TRADE IN GOODS**

1. Except as otherwise provided in this Agreement, each Party shall progressively eliminate its customs duties on originating goods of the other Party in accordance with Annex 2.1 and its schedule<sup>1</sup> to Annex 2.1.
2. For purposes of this Agreement, **originating good** means an article described in Annex 2.2.
3. Each Party shall accord national treatment to the goods of the other Party in accordance with Article III of the GATT 1994, including its interpretative notes. To this end, Article III of GATT 1994 and its interpretative notes are incorporated into and made a part of this Agreement, subject to Annex 2.3.
4. A Party may not introduce a new customs duty on imports or a new quantitative restriction on imports in the trade between the Parties, other than as permitted by this Agreement, subject to Annex 2.3.
5. In the event that this Agreement enters into force on a date other than January 1, "year one" for purposes of Annex 2.1 and each Party's schedule to Annex 2.1 shall mean the period from the date of entry into force of this Agreement through the end of the calendar year, and the duty reductions in each Party's schedule to Annex 2.1 shall take effect on such date of entry into force. In such event, the term "January 1 of year one" for purposes of Annex 2.1 and each Party's schedule to Annex 2.1 shall mean the date of entry into force of this Agreement.

**ARTICLE 3: TRADE IN SERVICES**

1. This Article applies to measures by a Party affecting trade in services between the Parties.

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<sup>1</sup> For purposes of this Agreement, "schedule" shall include both the schedule and headnotes.

**CHAPTER ONE**  
**INITIAL PROVISIONS AND DEFINITIONS**

**Section A: Initial Provisions**

**ARTICLE 1.1: ESTABLISHMENT OF A FREE TRADE AREA**

Consistent with Article XXIV of GATT 1994 and Article V of GATS, the Parties hereby establish a free trade area in accordance with the provisions of this Agreement.

**ARTICLE 1.2: RELATION TO OTHER AGREEMENTS**

1. Except as provided in paragraphs three through five, each Party affirms its existing rights and obligations with respect to each other under existing bilateral and multilateral agreements to which the Parties are party, including the WTO Agreement.
2. This Agreement shall not be construed to derogate from any legal obligation between the Parties that entitles goods or services, or suppliers of goods or services, to treatment more favorable than that accorded by this Agreement.
3. Articles VI and VII of the *Treaty Between the United States of America and the Kingdom of Morocco Concerning the Encouragement and Reciprocal Protection of Investments*, with *Protocol*, signed at Washington on July 22, 1985 (the “Treaty”) shall be suspended on the date of entry into force of this Agreement.
4. Notwithstanding paragraph 3, for a period of ten years beginning on the date of entry into force of this Agreement, Articles VI and VII of the Treaty shall not be suspended:
  - (a) in the case of investments covered by the Treaty as of the date of entry into force of this Agreement; or
  - (b) in the case of disputes that arose prior to the date of entry into force of this Agreement and that are otherwise eligible to be submitted for settlement under Article VI or VII.
5. In the event either Party terminates this Agreement in accordance with Article 22.6 (Entry into Force and Termination), Articles VI and VII of the Treaty, to the extent suspended, shall automatically resume operation and shall continue in full force and effect as provided therein.



**PART ONE:**

**NAFTA**

**GENERAL PART**

**CHAPTER ONE: OBJECTIVES**

**Article 101: Establishment of the Free Trade Area**

The Parties to this Agreement, consistent with Article XXIV of the *General Agreement on Tariffs and Trade*, hereby establish a free trade area.

**Article 102: Objectives**

1. The objectives of this Agreement, as elaborated more specifically through its principles and rules, including national treatment, most-favored-nation treatment and transparency, are to:

- a) eliminate barriers to trade in, and facilitate the cross-border movement of, goods and services between the territories of the Parties;
- b) promote conditions of fair competition in the free trade area;
- c) increase substantially investment opportunities in the territories of the Parties;
- d) provide adequate and effective protection and enforcement of intellectual property rights in each Party's territory;
- e) create effective procedures for the implementation and application of this Agreement, for its joint administration and for the resolution of disputes; and
- f) establish a framework for further trilateral, regional and multilateral cooperation to expand and enhance the benefits of this Agreement.

2. The Parties shall interpret and apply the provisions of this Agreement in the light of its objectives set out in paragraph 1 and in accordance with applicable rules of international law.

**Article 103: Relation to Other Agreements**

1. The Parties affirm their existing rights and obligations with respect to each other under the *General Agreement on Tariffs and Trade* and other agreements to which such Parties are party.

2. In the event of any inconsistency between this Agreement and such other agreements, this Agreement shall prevail to the extent of the inconsistency, except as otherwise provided in this Agreement.

**Article 104: Relation to Environmental and Conservation Agreements**

1. In the event of any inconsistency between this Agreement and the specific trade obligations set out in:

**CHAPTER ONE  
INITIAL PROVISIONS AND DEFINITIONS**

**Section A: Initial Provisions**

ARTICLE 1.1: ESTABLISHMENT OF A FREE TRADE AREA

Consistent with Article XXIV of GATT 1994 and Article V of GATS, the Parties hereby establish a free trade area in accordance with the provisions of this Agreement.

ARTICLE 1.2: RELATION TO OTHER AGREEMENTS

1. Each Party affirms its existing rights and obligations with respect to each other under existing bilateral and multilateral agreements to which both Parties are party, including the WTO Agreement.
2. This Agreement shall not be construed to derogate from any legal obligation between the Parties that entitles goods or services, or suppliers of goods or services, to treatment more favorable than that accorded by this Agreement.

**Section B: General Definitions**

ARTICLE 1.3: DEFINITIONS

For purposes of this Agreement, unless otherwise specified:

**Agreement on Textiles and Clothing** means the *Agreement on Textiles and Clothing*, contained in Annex 1A to the WTO Agreement;

**central level of government** means:

- (a) for Oman, the government of Oman; and
- (b) for the United States, the federal level of government;

**covered investment** means, with respect to a Party, an investment, as defined in Article 10.27 (Definitions), in its territory of an investor of the other Party in existence as of the date of entry into force of this Agreement or established, acquired, or expanded thereafter;

**customs duties** includes any customs or import duty and a charge of any kind imposed in connection with the importation of a good, including any form of surtax or surcharge in connection with such importation, but does not include any:

- (a) charge equivalent to an internal tax imposed consistently with Article III:2 of the GATT 1994, in respect of like, directly competitive, or substitutable goods of the Party, or in respect of goods from which the imported good has been manufactured or produced in whole or in part;
- (b) antidumping or countervailing duty that is applied pursuant to a Party's domestic law; and
- (c) fee or other charge in connection with importation commensurate with the cost of services rendered;

**Customs Valuation Agreement** means the *Agreement on Implementation of Article VII of the General Agreement on Tariffs and Trade 1994*, contained in Annex 1A to the WTO Agreement;

**days** means calendar days as reckoned according to the Gregorian calendar;

## Chapter One

### Initial Provisions and General Definitions

#### Section A: Initial Provisions

##### Article 1.1: Establishment of a Free Trade Area

The Parties to this Agreement, consistent with Article XXIV of the GATT 1994 and Article V of the GATS, hereby establish a free trade area.

##### Article 1.2: Relation to Other Agreements

The Parties affirm their existing rights and obligations with respect to each other under the WTO Agreement and other agreements to which such Parties are party.

#### Section B: General Definitions

##### Article 1.3: Definitions of General Application

For purposes of this Agreement, unless otherwise specified:

**central level of government** means:

- (a) for Peru, the national level of government;<sup>1</sup> and
- (b) for the United States, the federal level of government;

**Commission** means the Free Trade Commission established under Article 20.1 (The Free Trade Commission);

**covered investment** means, with respect to a Party, an investment, as defined in Article 10.28 (Definitions), in its territory of an investor of another Party in existence as of the date of entry into force of this Agreement or established, acquired, or expanded thereafter;

**customs authority** means the competent authority that is responsible under the law of a Party for the administration of customs laws and regulations;

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<sup>1</sup> For greater certainty, “regiones” are at the local level of government.

## **CHAPTER 1 : ESTABLISHMENT OF A FREE TRADE AREA AND DEFINITIONS**

### **ARTICLE 1.1 : GENERAL**

1. The Parties to this Agreement, consistent with Article XXIV of GATT 1994 and Article V of GATS, hereby establish a free trade area in accordance with the provisions of this Agreement.
2. The Parties reaffirm their existing rights and obligations with respect to each other under existing bilateral and multilateral agreements to which both Parties are party, including the WTO Agreement.
3. This Agreement shall not be construed to derogate from any international legal obligation between the Parties that entitles goods or services, or suppliers of goods or services, to treatment more favorable than that accorded by this Agreement.

### **ARTICLE 1.2 : GENERAL DEFINITIONS**

For purposes of this Agreement, unless otherwise specified:

1. **Customs Valuation Agreement** means the WTO Agreement on Implementation of Article VII of the General Agreement on Tariffs and Trade 1994;
2. **days** means calendar days;
3. **enterprise** means any entity constituted or organized under applicable law, whether or not for profit, and whether privately-owned or governmentally-owned, including any corporation, trust, partnership, sole proprietorship, joint venture or other association;
4. **enterprise of a Party** means an enterprise constituted or organized under the law of a Party;
5. **GATS** means the General Agreement on Trade in Services;
6. **GATT 1994** means the General Agreement on Tariffs and Trade 1994;
7. **goods of a Party** means domestic products as these are understood in GATT 1994 or such goods as the Parties may agree, and includes originating goods of that Party;
8. **government procurement** means the process by which a government obtains the use of or acquires goods or services, or any combination thereof, for governmental purposes and not with a view to commercial sale or resale, or use in the production or supply of goods or services for commercial sale or resale;
9. **measure** includes any law, regulation, procedure, requirement or practice;

## EXHIBIT C

# CAMERON PARISH PLANNING & DEVELOPMENT

District 6  
Kirk Burleigh  
President

Ernest Broussard, Jr., AICP/CEcD  
Executive Director

District 4  
Thomas McDaniel  
Vice President

June 29, 2010

Chairman Joe Wellinghoff  
FERC  
888 First Street NE  
Washington, DC 20426

Robert Corbin  
DOE  
1000 Independence Avenue Southwest  
Washington, DC 20585-0001

Gentlemen:

On behalf of the Cameron Parish Police Jury and the West Cameron Port Harbor & Terminal District, we take this opportunity to express our support of Cheniere's expansion facility in Cameron, La. Cheniere has been a long standing partner, ally, and major employer to the Cameron Parish area, the region and the State.

It is our understanding that this project includes the addition of liquefaction equipment and utilizes the existing 5 LNG tanks and marine berth. The project is located on industrial property that was previously reviewed and approved for siting by the Federal Energy Regulatory Commission.

This project is key to the parish because it would result in significant new employment and investment in an area that has a litany of generational recovery projects underway, not to mention the Housing initiative, which is projected to re-populate the Parish. It is also important to the State of Louisiana retaining jobs and potentially expanding employment in the exploration and production sectors.

The previous review of the site and the ongoing oversight by the federal agencies should shorten the required time for permitting. We have instructed state and local agencies to give this project high priority. Because of the importance and urgency of this project for the state, we implore the FERC (DOE) to begin the permitting process immediately and expedite all required permits so that construction can commence within a year.

We thank you for the consideration and we look forward to having Cheniere LNG continue to conduct business in Cameron Parish.

Sincerely submitted,



Kirk Burleigh, President  
Cameron Parish Police Jury



Cliff Cabell, President  
West Cameron Port Harbor & Terminal District

cc: Commissioner Marc Spitzer  
Commissioner John R. Norris  
Commissioner Phillip D. Moeller

P.O. Box 1271 Cameron, LA 70631 Phone (337) 775-5206 Fax (337) 542-4129

District 1  
Magnus McGee

District 2  
Chris Racca

District 3  
Charles Precht III

District 5  
Scott Trahan

District 7  
Darryl Farque



**WILLIE L. MOUNT**  
State Senator



Health & Welfare  
Chairwoman

**SENATE**  
**STATE OF LOUISIANA**

July 1, 2010

Department of Energy  
1000 Independence Avenue Southwest  
Washington, DC 20585-0001

Dear Commissioners:

Cheniere Energy is proposing an expansion at their liquefied natural gas (LNG) facility in Cameron Parish, LA, Sabine Pass LNG. The project includes the addition of liquefaction equipment and utilizes the existing 5 LNG tanks and marine berth. The project is located on industrial property that was previously reviewed and approved for siting by the Federal Energy Regulatory Commission. We fully support the proposed expansion.

This project is important to Calcasieu parish because it would result in new jobs and significant investment in an area that has yet to fully recover from hurricanes Rita and Ike. The State of Louisiana would greatly benefit by retaining jobs and potentially expanding employment in the exploration and production sectors.

Because of the importance and urgency of this project for the state, we implore the Department of Energy to begin the permitting process immediately and expedite all required permits so that construction can commence within a year.

As always, thank you for interest and consideration.

Yours very truly,

Handwritten signature of Willie L. Mount in blue ink.

Willie L. Mount  
State Senator

Handwritten signature of Dan W. Morrish in blue ink.

Dan W. Morrish  
State Senator

Handwritten signature of Mike Danahay in blue ink.

Mike Danahay  
State Representative

Handwritten signature of A.B. Franklin in blue ink.

A.B. Franklin  
State Representative

Handwritten signature of Brett Geymann in blue ink.

Brett Geymann  
State Representative

Handwritten signature of John E. Guinn in blue ink.

John E. Guinn  
State Representative

Handwritten signature of Chuck Kleckley in blue ink.

Chuck Kleckley  
State Representative

# LOUISIANA HOUSE OF REPRESENTATIVES

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**JONATHAN "J. P." PERRY**  
**State Representative**  
**District 47**

Governor's Task Force on DWI  
- Vehicular Homicide

The Energy Council

Ways and Means

Administration of Criminal Justice

Agriculture, Forestry, Aquaculture,  
and Rural Development

Joint Legislative Committee on  
Capital Outlay

Acadiana Delegation

Louisiana Rural Caucus

July 15<sup>th</sup>, 2010

Dear Sir:

I am writing today to express our support for the announced further expansion of the Cheniere Energy facility in Cameron Parish, Louisiana. Cheniere has been a long-standing partner to the Cameron Parish area, the larger region, and the state. I am grateful for the role your agency had in managing the regulatory process that allowed Cheniere's initial \$2.5 billion investment in local energy infrastructure to proceed.

As you likely are aware, Cheniere is proposing an expansion at their liquefied natural gas (LNG) facility in Cameron Parish, LA, Sabine Pass LNG. The project includes the addition of liquefaction equipment that utilizes the existing marine berth and five LNG tanks. The project is familiar to FERC staff as it is located on industrial property that was previously reviewed and approved for the import terminal project by the Commission.

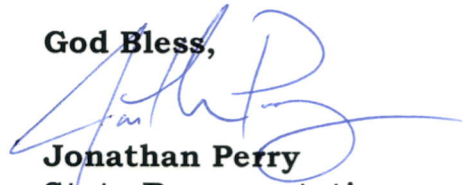
Cameron Parish and the State of Louisiana are very excited about this project, which is important to the parish because it would result in significant new employment and investment in an area that has yet to recover from hurricanes Rita and Ike. It is also important to the State of Louisiana as it provides demand for the unconventional gas that is being explored and produced in the northern part of the state thus retaining jobs and sustaining employment and investment in the production sectors. I am hopeful that FERC's familiarity with the project, Cheniere's proven track record, and the ongoing oversight by FERC and other relevant federal agencies should allow for an expedited permitting process.



As a state elected office holder, I have requested our own state and local agencies to give this project high priority and be ready to work constructively with all federal agencies handling the expansion permits. Because of the importance and urgency of this project for the state, I am asking that the FERC and the Department of Energy understand the degree of local interest and support for this endeavor, and to expedite the process for all required permits so that this further investment and construction can commence in Cameron Parish.

As always, thank you for interest and consideration.

**God Bless,**



**Jonathan Perry**  
**State Representative**  
**Cameron & Vermilion Parish**

# State of Louisiana



SCOTT A. ANGELLE  
LIEUTENANT GOVERNOR

POST OFFICE BOX 44243  
BATON ROUGE, LA 70804-4243

## OFFICE OF THE LIEUTENANT GOVERNOR

July 21, 2010

Mr. Jon Wellinghoff  
Chairman  
Federal Energy Regulatory Commission  
888 First Street NE  
Washington, DC 20426

Re: Cheniere Energy LNG Liquefaction expansion at Sabine Pass LNG

Dear Chairman Wellinghoff:

Cheniere Energy is proposing an expansion at its liquefied natural gas (LNG) facility in Cameron Parish, LA, Sabine Pass LNG. The project includes the addition of liquefaction equipment and utilizes the existing 5 LNG tanks and marine berth. It is my understanding that the project is located on industrial property that was previously reviewed and approved for siting by the Federal Energy Regulatory Commission. I write to express my support of the proposed expansion.

This project is important to Cameron Parish and the entire Southwest Louisiana region because it would result in significant employment and investment in an area that has yet to fully recover from hurricanes Rita (2005) and Ike (2008). Additionally, the expansion is also important to the State of Louisiana because it would retain jobs and potentially expand employment in the exploration and production sectors.

Because the project location site has previously been reviewed by your agency and because there has been ongoing oversight by federal agencies, I trust that you will give the permitting process every appropriate consideration and hope that FERC's familiarity with the project would allow for an accelerated turnaround time. Because of the importance and urgency of this development for the state, I implore the FERC (DOE) to begin the permitting process immediately and expedite all required permits so that construction can commence within a year.

Very truly yours,

Scott A. Angelle  
Lieutenant Governor

SAA:RJG:rjg

cc: Commissioner Philip Moeller  
Commissioner Marc Spitzer  
Commissioner John R. Norris  
Commissioner Cheryl LaFleur



**Congress of the United States**  
**Washington, DC 20515**

July 26, 2010

The Honorable Dr. Steven Chu  
Secretary of Energy  
1000 Independence Ave., SW  
Washington, DC 20585

The Honorable Jon Wellinghoff  
Federal Energy Regulatory Commission  
888 First Street, NE  
Washington, DC 20426

Dear Secretary Chu and Chairman Wellinghoff:

President Barack Obama recently announced a much welcomed vision for doubling U.S. exports over the next five years. We support the President's goal and the premise that exports create U.S. jobs across many sectors. The recent development of plentiful new natural gas finds here at home allows the U.S. the ability to be a partner in providing clean natural gas to nations in our Hemisphere and in Europe.

As such, we are writing today to express our support for the announced further expansion of the Cheniere Energy facility in Cameron Parish, Louisiana. Cheniere has been a long-standing partner in our state. We are grateful for the role both the Department of Energy (DOE) and the Federal Energy Regulatory Commission (FERC) played in allowing Cheniere's initial \$2.5 billion investment in local energy infrastructure to be built in Louisiana.

As you likely are aware, Cheniere is proposing an expansion at their Sabine Pass liquefied natural gas (LNG) facility to allow for the export of natural gas. The project includes the addition of liquefaction equipment that utilizes the existing marine berth and five LNG tanks. The project is familiar to technical staff at DOE and FERC as well other federal agencies involved in permitting, as it is located on industrial property that was previously reviewed and approved for the import terminal project.

We are excited about this project, which will result in significant new employment and investment in a region that has yet to fully recover from the 2005 hurricanes. It is also important to the state as it provides demand for the unconventional gas that is being explored and produced in Northern Louisiana - thus retaining jobs and sustaining employment and investment in the production sectors which are important to overall economic health and employment statewide.

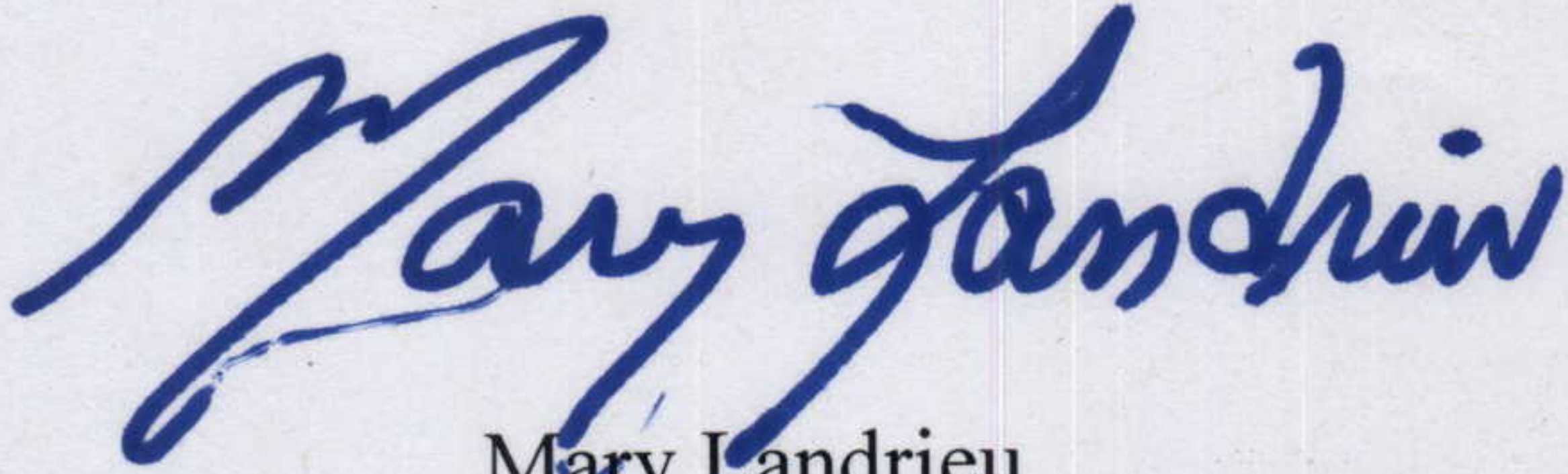
We are hopeful that familiarity with the project across the relevant federal agencies, Cheniere's proven track record, and ongoing oversight at the federal level will allow for an expedited permitting process. The Sabine Pass expansion enjoys broad local support and we encourage FERC and DOE to work with Cheniere to quickly acquire the needed permits to allow this important project to move forward.



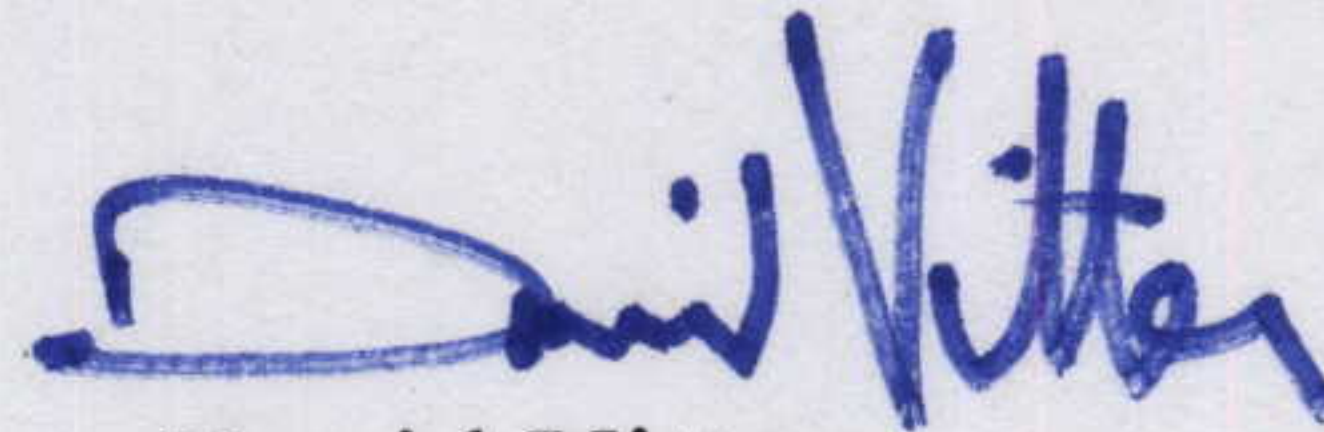
We are excited for Louisiana to help lead the President's export initiative, and not only provide new jobs in the production, manufacturing, and construction industries, but also to be a partner in promoting clean natural gas energy in this hemisphere and Europe.

Thank you for your consideration.

Sincerely,



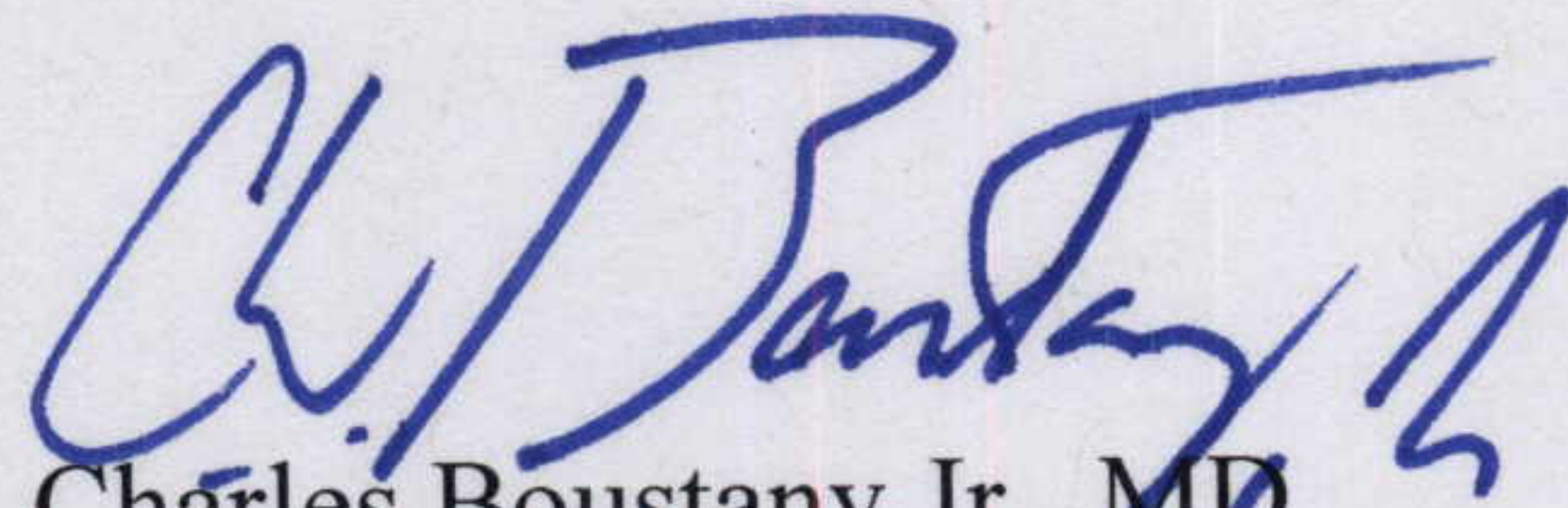
Mary Landrieu  
U.S. Senator



David Vitter  
U.S. Senator



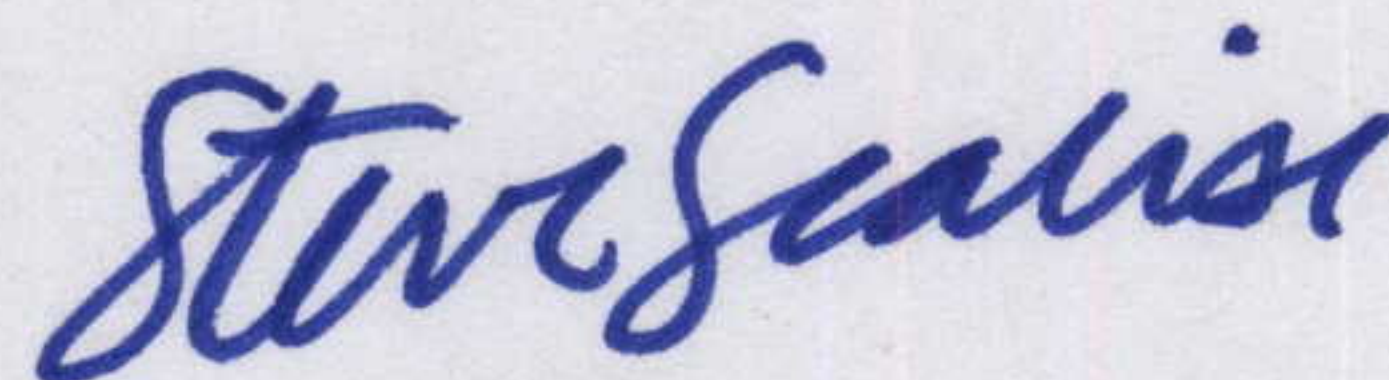
Rodney Alexander  
Member of Congress



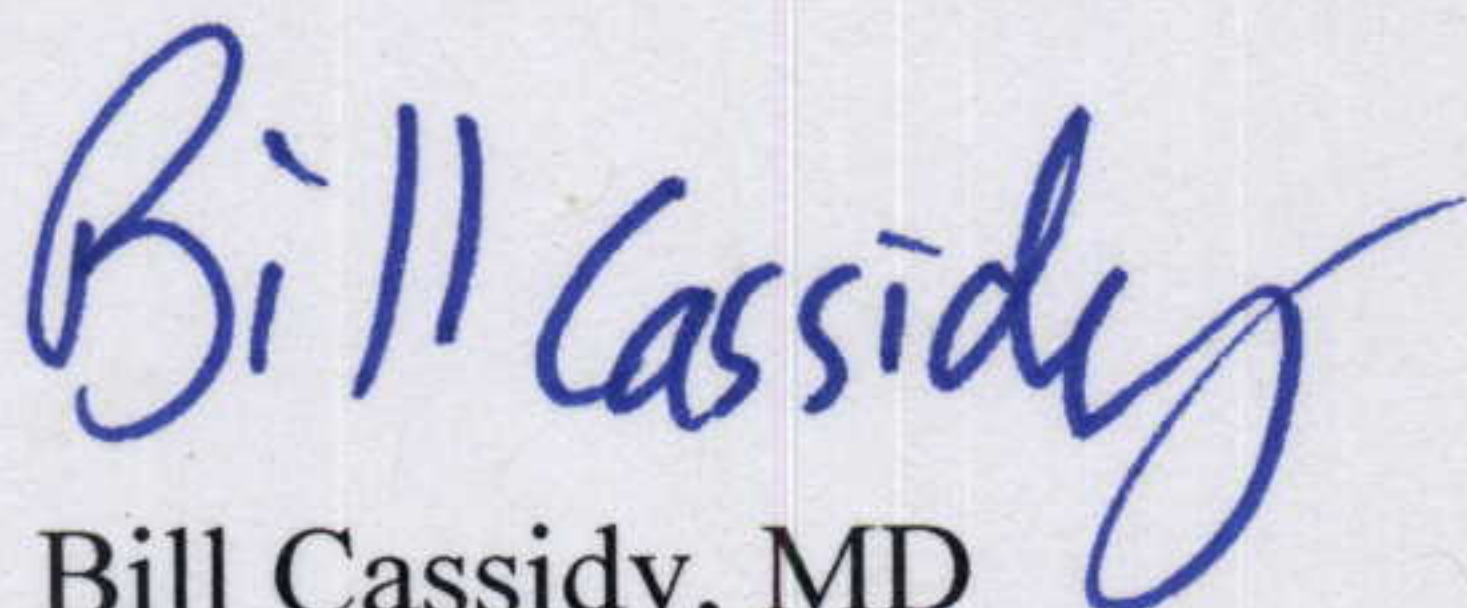
Charles Boustany Jr., MD  
Member of Congress



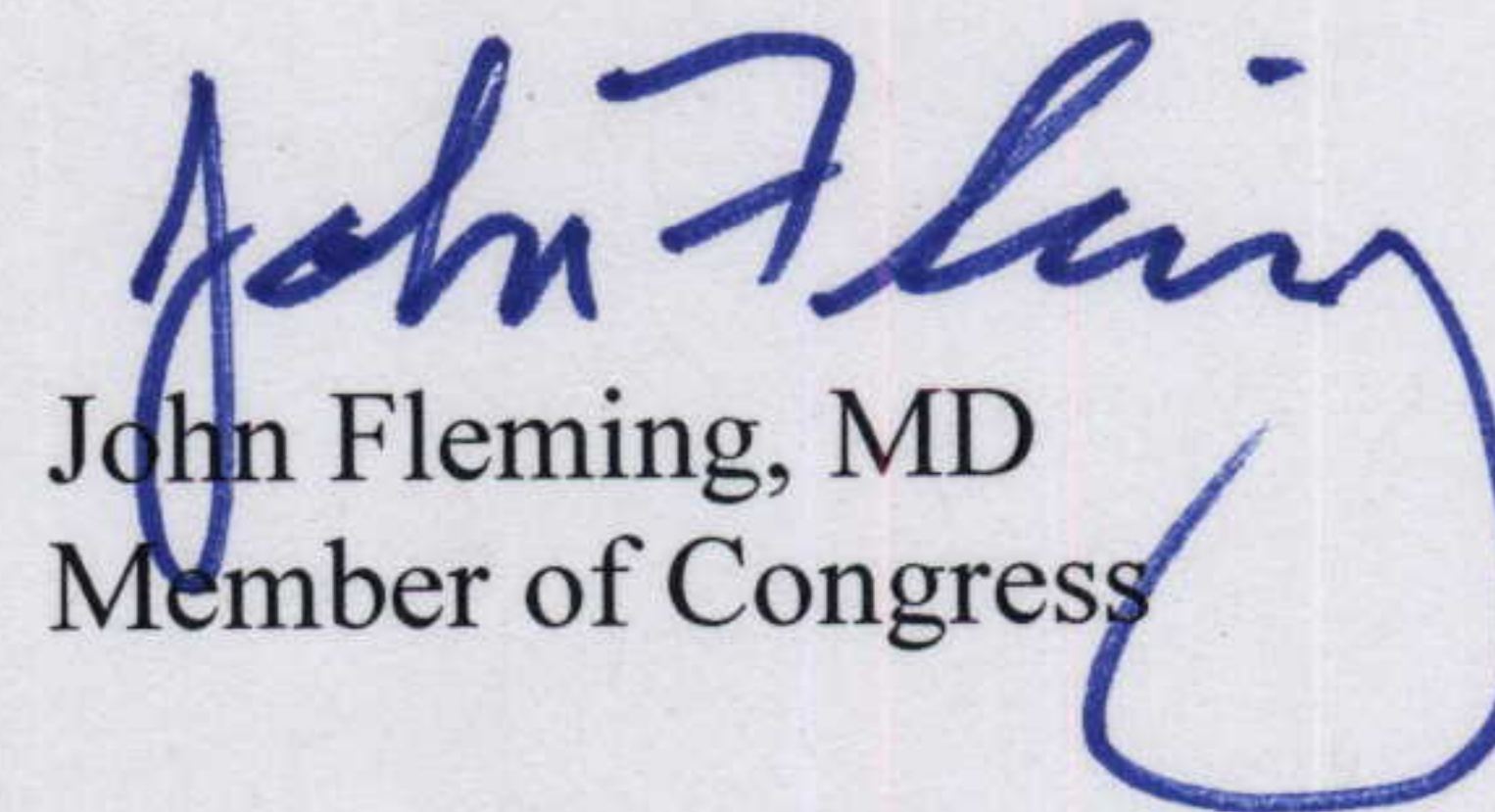
Charlie Melancon  
Member of Congress



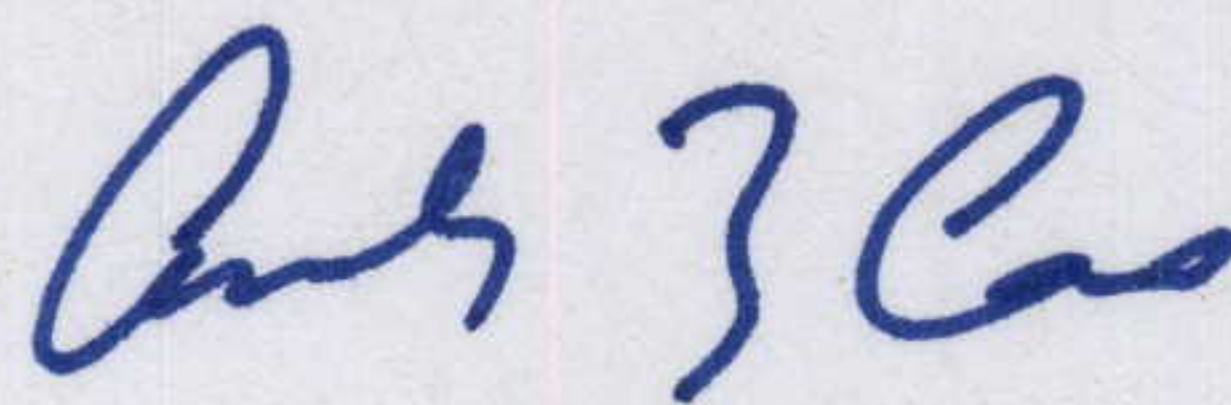
Steve Scalise  
Member of Congress



Bill Cassidy, MD  
Member of Congress



John Fleming, MD  
Member of Congress



Anh "Joseph" Cao  
Member of Congress

Cc: FERC Commissioner Philip Moeller  
FERC Commissioner Marc Spitzer  
FERC Commissioner John Norris  
FERC Commissioner Cheryl LaFleur



## EXHIBIT D



# **U.S. NATURAL GAS RESOURCES AND PRODUCTIVE CAPACITY**

Prepared for:  
**CHENIERE ENERGY**  
Houston, Texas

Prepared by:  
Vello A. Kuuskraa  
Tyler Van Leeuwen  
**ADVANCED RESOURCES INTERNATIONAL, INC.**  
Arlington, VA USA

August 26, 2010



**Advanced Resources  
International, Inc.**

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## INTRODUCTION

This report has been prepared by Advanced Resources, a geology, engineering and economics consulting firm formed in 1970. The firm has been at the forefront of unconventional gas appraisal and development since its formation. In 1978, the company (then called Lewin & Associates) published the three volume report entitled “Enhanced Recovery of Unconventional Gas”, which provided the foundation for the U.S. Department of Energy’s and Gas Research Institute’s (GRI) investments in unconventional gas research and technology. This report, prepared during a time when the “conventional wisdom” was that the nation was running out of natural gas supplies and curtailments existed on gas use for power generation, helped reverse both the outlook and policies for natural gas.

Advanced Resources was the support contractor on the GRI Team that changed coalbed methane from a scientific curiosity to a major source of gas supply. Advanced Resources’ basin studies and its *COMET3* reservoir simulator are still the benchmark tools for optimizing CBM resources. Advanced Resources was the pioneer in bringing CBM expertise and technologies to countries such as Australia, China, and India among others.

The firm participated in the appraisal of Mitchell Energy’s Stella Young #1 well that lead to a revised view of the resource potential offered by the Barnett Shale. In the May 25, 1998, *Oil and Gas Journal*, Advanced Resources presented the rationale as to why the Barnett Shale resource was at least ten times larger than held by “conventional wisdom”. In the mid-1990s the U.S. DOE Energy Information Administration (EIA) asked Advanced Resources to build the unconventional gas supply module within the larger National Energy Modeling System (NEMS). EIA continues to use this modeling structure but in recent years has begun to incorporate its own resource assessments and development assumptions.

Advanced Resources assists a select group of domestic and international clients identify the highly productive “core areas” of emerging unconventional gas plays in the U.S. and worldwide. The firm incorporates its internal resource appraisal, well performance and economic data, assembled for 104 of the major U.S. unconventional gas plays, in its outlook and projections for unconventional gas productive capacity. Mr. Kuuskraa, a founder of the firm and the lead author of this report, is on the Boards of Southwestern Energy (SWN) and the Research Partnership to Secure Energy for America (RPSEA).



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## EXECUTIVE SUMMARY

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The introduction and aggressive development of unconventional gas, particularly gas shales, has dramatically changed the outlook for U.S. natural gas - - from “fears of impending shortages” at the beginning of this decade to “expectations of plenty” today.

- Instead of declining as predicted by many, domestic natural gas production increased during the past decade, from 53 Bcfd in 2000 to 59 Bcfd this year.
- Increased production of unconventional gas more than countered declines in onshore and offshore conventional gas. Today, unconventional gas, at 36 Bcfd, provides over 60% of domestic natural gas production, up from 16 Bcfd at the start of this decade.
- Gas shales provide 12 Bcfd today (20% of domestic natural gas production), up from 1 Bcfd in 2000 and account for much of the 20 Bcfd of unconventional gas production growth during this past decade.

The domestic natural gas resource is large, equal to nearly 2,600 Tcf. This resource number combines our firm’s internal assessments of unconventional gas resources with EIA’s assessments for conventional gas. The major deep gas shale basins, such as the Barnett, Haynesville and Marcellus, account for over a quarter of this resource base. Other studies, such as the recent work by the Potential Gas Committee, support our view that the domestic natural gas resource base is large and growing.

This report provides independent projections for natural gas productive capacity to the year 2035. We base our unconventional gas projections on our internal resource data base and supply model (MUGS). Our conventional gas projections are from EIA’s Annual Energy Outlook 2010 (AEO 2010). We use the AEO 2010 Reference Case for the natural gas price track in our report.

Based on this approach, we project significant increases in U.S. unconventional and total natural gas productive capacity in the coming years:

- We project near-term unconventional gas productive capacity to increase by 13 Bcfd, from 36 Bcfd today to 49 Bcfd by 2020, with gas shales accounting for essentially all of this growth.
- Given its large resource base, we project continuing growth in unconventional gas productive capacity, reaching 69 Bcfd by 2035 for a gain of 20 Bcfd for the 15 years from 2020 to 2035. Approximately half of the increase in unconventional gas productive capacity is expected to occur in the Mid-Continent/Gulf Coast Corridor, accessible to the LNG export facilities planned at Sabine Pass.
- Combining our projections for unconventional gas with EIA's projections for conventional gas (in AEO 2010), the overall domestic natural gas productive capacity reaches 69 Bcfd in 2020 and nearly 93 Bcfd in 2035, up from about 59 Bcfd today.

When we compare U.S. natural gas productive capacity with projected net consumption (defined as total consumption less net imports and supplemental supplies), we foresee potential for a significant surplus of productive capacity, reaching 15 Bcfd in 2020 and increasing to 24 to 29 Bcfd in 2035 (depending on the availability of the Alaska natural gas pipeline).

Additional discussion and the details of our analysis are provided in the attached full report.

## I. CHANGING OUTLOOK FOR U.S. NATURAL GAS SUPPLY

---

The outlook for U.S. natural gas supply has changed dramatically during the past decade, particularly in the past five years. Much of this change in outlook has been caused by the introduction of the large natural gas resources held in gas shales.

At the start of this decade, “fears of impending shortages” was the conventional wisdom for natural gas supplies. We were advised that only massive investments in LNG import facilities would avert a crisis and save the day<sup>1</sup>. Natural gas reserves and production had been flat for the past decade, the large conventional gas fields were in decline, and notable analysts were skeptical about our ability to add new natural gas production<sup>2</sup>.

Today, we realize that, instead of LNG, it was domestic unconventional gas that “saved the day”. Benefitting from science and technology investments in the 1980s and 1990s, increases in unconventional gas production more than countered the declines in conventional onshore and offshore natural gas.

- Instead of declining, domestic natural gas production (dry) actually increased - - from 53 Bcfd in 2000 to 59 Bcfd in mid-2010. The 20 Bcfd increase in unconventional gas production more than overcame the 14 Bcfd decline in conventional (onshore and offshore) gas production, **Figure I-1**.
- After two decades of essentially no growth, proved reserves of natural gas (dry) began to increase steadily from 177 Tcf (end of 2000) to 245 Tcf (end of 2008), **Figure I-2**. Further increases in proved natural gas reserves are expected for 2009 and 2010, based on our review of annual reports and presentations by companies active in unconventional gas.

---

<sup>1</sup> Numerous remarks by the Federal Reserve Chairman, Alan Greenspan, helped promote aggressive investments in LNG.

<sup>2</sup> A series of CERA analytical reports including “Can We Drill Our Way Out of the Supply Shortage?” and “Diminishing Returns” provided the foundation for “fears of scarcity”.

Figure I-1. Unconventional Gas Has Become the Dominant Source of U.S. Natural Gas Supply

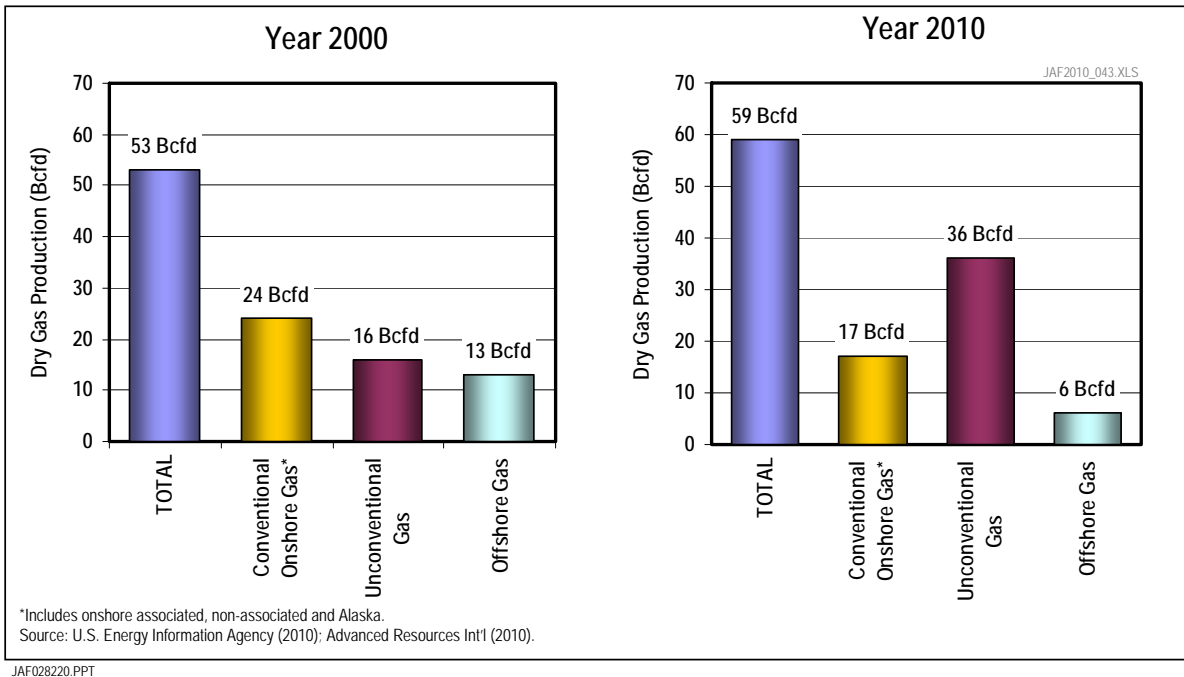
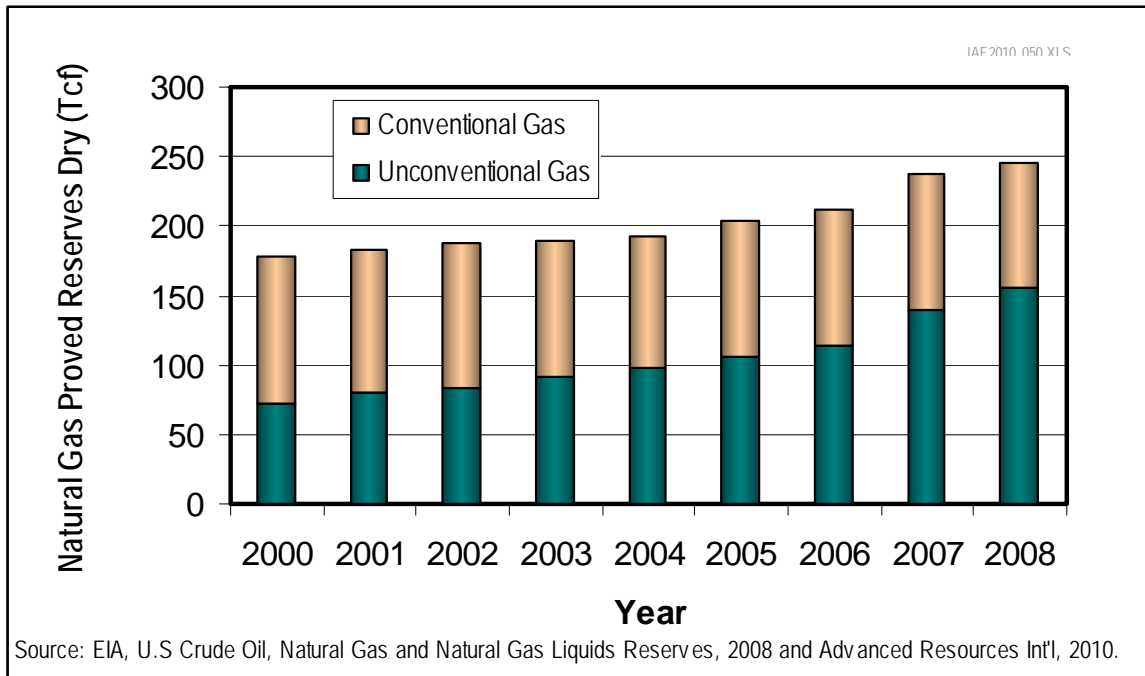


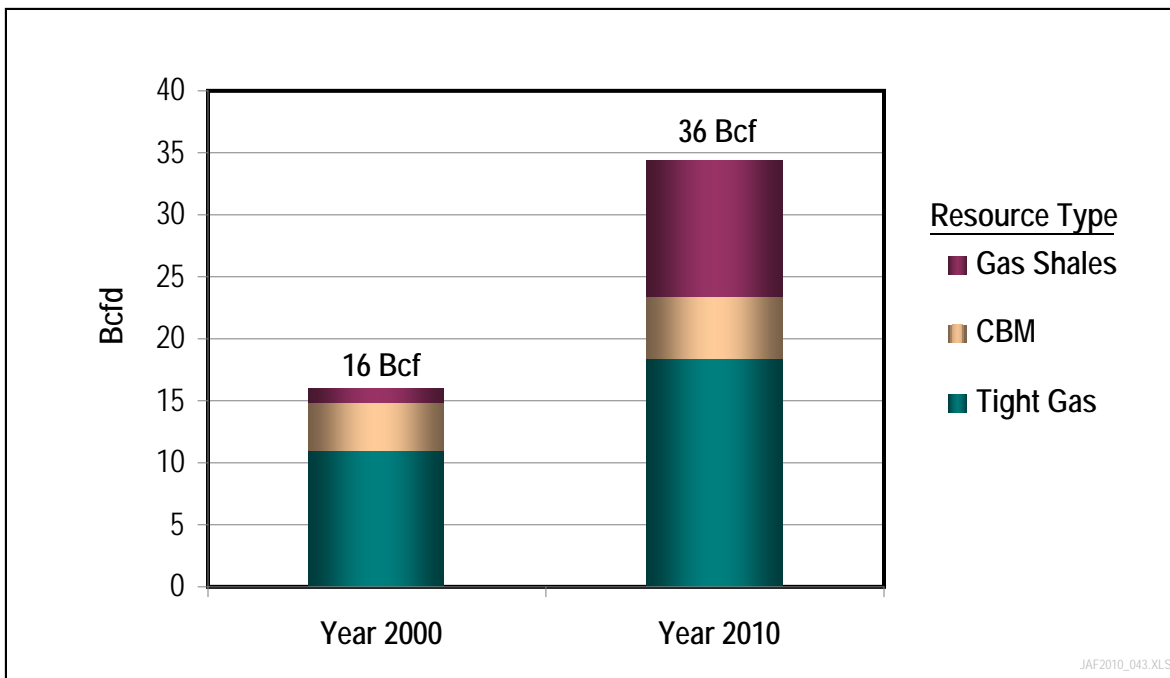
Figure I-2. A Decade of Increases in Domestic Natural Gas Proved Reserves



A closer look at the data helps illustrate the contribution that unconventional gas has made during this decade:

- Unconventional gas is now the dominant source of proved reserves increasing from 56 Tcf (end of 2000) to 156 Tcf (end of 2008).
- Production of tight gas sands, coalbed methane and gas shales increased by 20 Bcf, from 16 Bcf in 2000 to 36 Bcf in 2010. **Figure I-3.**

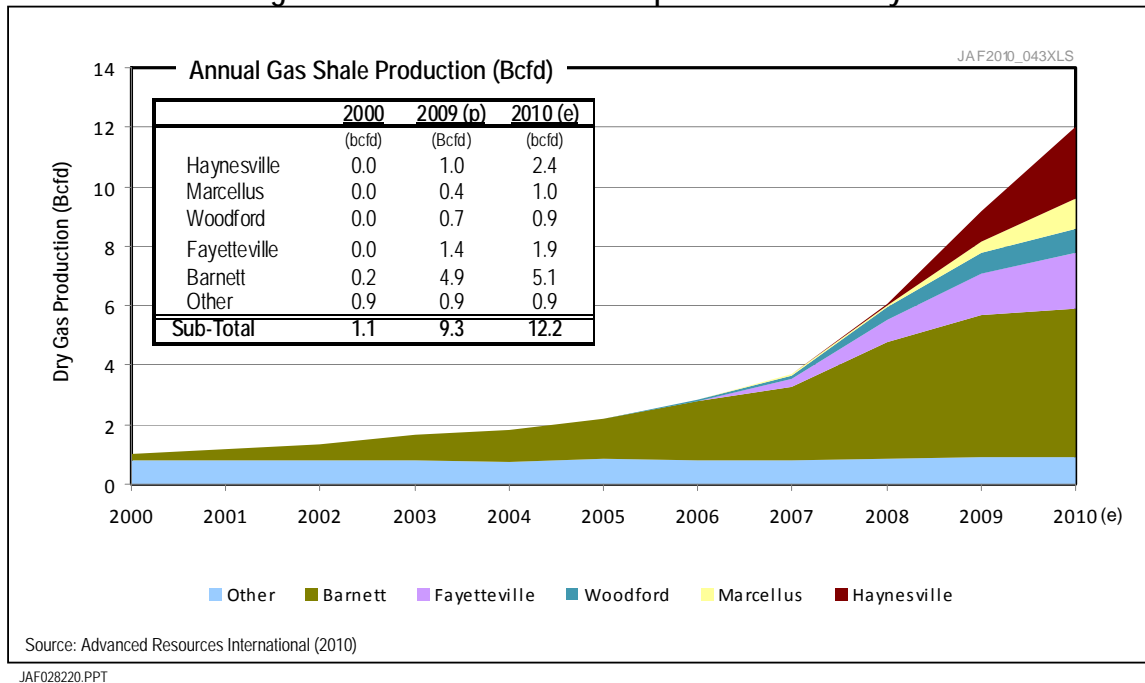
Figure I-3. Changes in Unconventional Gas Production by Resource Type



- Gas shales, currently producing at 12 Bcf, have provided more than half of the 20 Bcf of growth in unconventional gas production during the past decade. Further increases are anticipated, particularly from the “magnificent seven” U.S. gas shale plays - - Barnett, Haynesville, Fayetteville, Marcellus, Woodford, Eagle Ford and Bossier, **Figure I-4.**



Figure I-4. Gas Shales Drive “Expectations of Plenty”



Clearly, the outlook for natural gas supplies and domestic production is radically different today than at the start of this decade. With the discovery and development of the major gas shale plays, we have moved from “fears of impending shortages” to “expectations of plenty” in our projections for natural gas supplies.

Today there is a surplus of natural gas supply, with available gas storage filled to the brim, thousands of shut-in gas wells, deferred completions of already drilled wells and depressed wellhead gas prices. Still the critical question that needs to be addressed is:

*What will be the status of U.S. natural gas supply and productive capacity in five, ten and twenty five years from now?*

Answering this challenging question will require that we first delve into a series of more fundamental topics that, to a large extent, will determine the level of future U.S. and North American natural gas supply:

- With the addition of the new gas shale basins, just how large is the domestic natural gas resource base?
- How much of this domestic natural gas resource base can be converted to productive capacity at currently projected natural gas prices?
- Will the economically viable natural gas productive capacity meet expected domestic demand for natural gas, as well as support LNG exports of domestic natural gas production?
- To what extent will continued progress in technology further increase the size of the natural gas resource base and the volume of economically feasible gas supply?

In the following chapters of this report, we will address these questions. We then conclude the report with a more in-depth look at the accessible gas resources and supplies in the Mid-Continent/Gulf Coast corridor available for LNG export from the Sabine Pass terminal.

## II. THE DOMESTIC NATURAL GAS RESOURCE BASE

The domestic natural gas resource base is large, equal to 2,585 Tcf overall and 2,286 Tcf in the Lower-48, including undiscovered/inferred resources and proved natural gas reserves, for both conventional and unconventional gas. Our assessment of the U.S. natural gas resource base includes independent work by Advanced Resources<sup>3</sup> on unconventional gas resources plus data from EIA (AEO 2010)<sup>4</sup> on onshore and offshore conventional gas resources, as shown below in **Table II-1**.

Table II-1. Technically Recoverable U.S. Natural Gas Resources as of 1/1/2009 (Tcf)

	Proved Reserves	Undiscovered/ Inferred Resources	Total Recoverable Resources***
<b>LOWER-48</b>			
<b>Conventional Gas</b>			
'Onshore Non-Associated	53	430	483
Offshore Non-Associated	8	284	292
Associated	21	117	138
<b>Subtotal Conventional Gas</b>	<b>82</b>	<b>831</b>	<b>913</b>
<b>Unconventional Gas*</b>			
Gas Shales**	39	660	700
Tight Gas Sands	96	471	567
Coalbed Methane	21	85	106
<b>Subtotal Unconventional Gas</b>	<b>156</b>	<b>1,216</b>	<b>1,373</b>
<b>TOTAL LOWER-48</b>	<b>238</b>	<b>2,047</b>	<b>2,286</b>
<b>ALASKA</b>	8	291	299
<b>TOTAL US</b>	<b>246</b>	<b>2,338</b>	<b>2,585</b>

\*A number of the smaller tight gas plays are not yet included in unconventional gas reserves and resources.

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\*\*Our proved reserves values for Appalachian gas shales are larger than tabulated by EIA for end of 2008.

\*\*\*Totals may differ slightly due to rounding

<sup>3</sup> Advanced Resources Internal Data Base (2010).

<sup>4</sup> U.S. Energy Information Administration, Annual Energy Outlook 2010, Report #:DOE/EIA-0383(2010), May 11, 2010.

Today, unconventional gas dominates the domestic natural gas resource base, for both proved reserves (156 Tcf) and for undiscovered/inferred recoverable resources (1,216 Tcf). Gas shales, with 700 Tcf of proved reserves plus recoverable resources, have become the largest of the unconventional gas resources. However, conventional onshore and offshore natural gas fields still hold large resources, accounting for 913 Tcf in the Lower-48 plus 299 Tcf in Alaska.

It is useful to recognize that the size of the unconventional gas resource base is not static (fixed for all time), but rather grows with progress in technology. (See discussion in Chapter IV on how technology progress influences the growth of the resource base.) For example, ultimate recoverable gas shale resources, which at the beginning of 2009 were assessed at 711 Tcf (including 11 Tcf of past production), increase steadily to 853 Tcf by year 2035 due to modest but steady improvements in well performance and other factors.

Other studies also support the view that the domestic natural gas resource base is large and increasing over time. For example, the Potential Gas Committee's (PGC) most recent (end of 2008) estimate for the U.S. natural gas resource base is 1,836 Tcf for undeveloped resources. Of this, 616 Tcf is the PGC's estimate for gas shales and 163 Tcf is the estimate for coalbed methane<sup>5</sup>. Proved natural gas reserves of 245 Tcf (end of 2008) would bring the overall total to 2,081 Tcf. Compared to its prior (year-end 2006) report, the latest PGC natural gas resource estimate is 556 Tcf larger (including 41 Tcf produced during the intervening two year period).

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<sup>5</sup> Potential Gas Committee, "Potential Supply of Natural Gas in the United States", December 31, 2008.

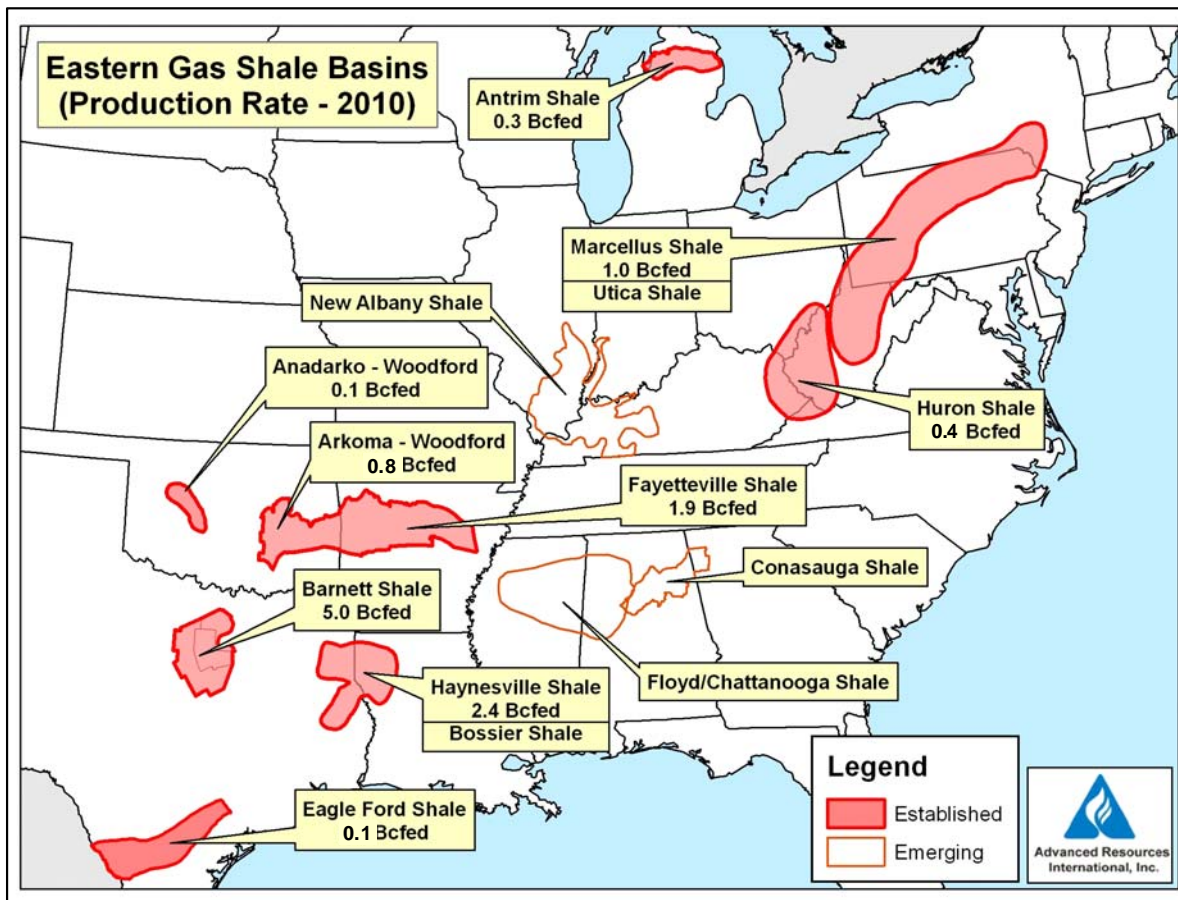
## II.1 GAS SHALES

### II.1.1 Recoverable Resources

Based on our updated resource assessments, we estimate 39 Tcf of proved reserves and 660 Tcf of undeveloped technically recoverable resource (as of 1/1/2009) for gas shales in 35 established plays, **Figure II-1**.

- The Marcellus Shale, the Haynesville Shale and the Fayetteville Shale account for significant portions of the undeveloped gas shale resource.
- We recently added the emerging Cretaceous-age Eagle Ford liquids-rich shale play in South Texas and the Jurassic-age Bossier Shale in Louisiana and East Texas to our gas shale resource base.

Figure II-1. Production From Established U.S. Gas Shale Basins



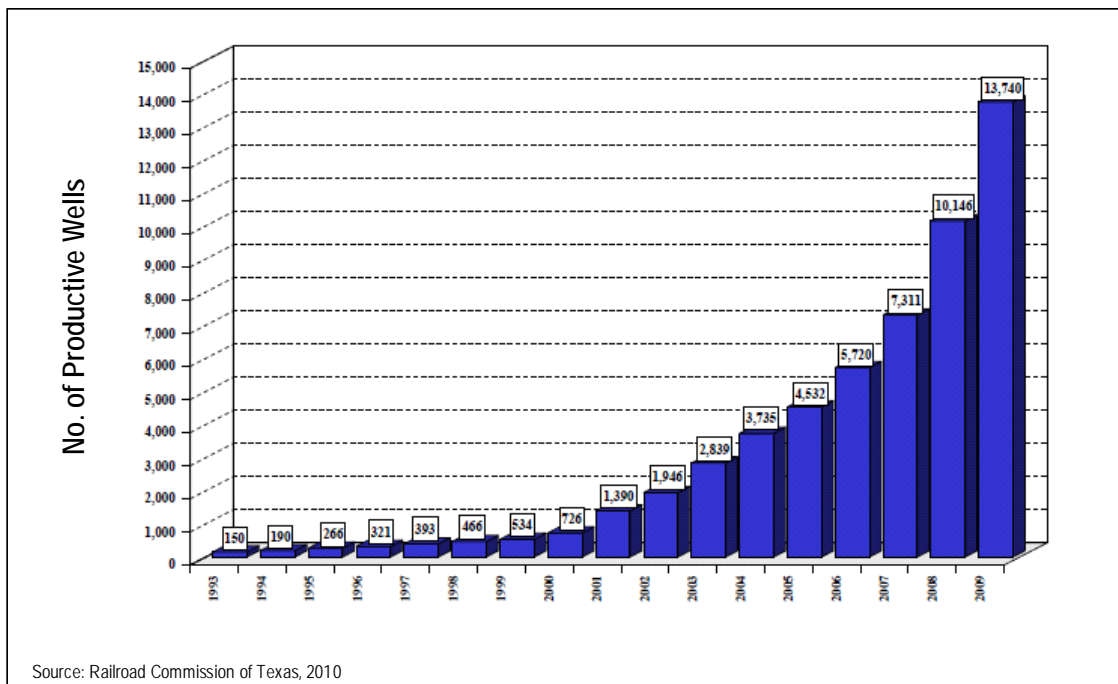
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The emerging and unproven gas shale basins and plays of the Rockies (Mancos, Baxter, Niobara, etc.) are not yet included in our gas shale resource data base, nor are the Utica or the other emerging gas shale plays in the east. As these unproven gas shale basins are explored and defined, we will incorporate these resources into our overall natural gas resource base.

### II.1.2 Development

Gas shale drilling and development has increased many fold in recent years, from about 1,800 new wells placed on production in 2001 to over 6,000 new wells in 2008. Because a significant number of the wells drilled in 2008 were late to be completed and “tied in”, the number of new gas shale wells placed on production in 2009 was 7,400, including nearly 3,600 new Barnett Shale wells, **Figure II-2**. During this time, proved gas shale reserves increased from 4 Tcf to 39 Tcf (end of 2008) and further growth in proved gas shale reserves to an estimated 47 Tcf (end of 2009).

Figure II-2. Cumulative Number of Producing Barnett Shale (Newark East) Wells



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While the number of gas shale wells placed on production is expected to decline

somewhat in 2010, these wells are being drilled in the more highly productive gas shale basins enabling gas shale reserves and productive capacity to continue to grow.

### **II.1.3 Production**

In line with increases in well drilling and growth in proved reserves, production from gas shales has also increased - - from 1 Bcfd in 2000 to over 9 Bcfd in 2009. With continued active drilling and increased in wells placed on-line, gas shales production is expected to exceed 12 Bcfd in 2010, **Table II-2**.

Table II-2. U.S. Gas Shale Production

Year	Bcfd
2000	1.1
2008	6.1
2009	9.3
2010 (Preliminary)	12.2

Continued progress in well drilling and completion technology and the incorporation of additional gas shale plays support expectations for higher rates of production from gas shales in future years.

## **II.2. TIGHT GAS SANDS**

### ***II.2.1 Recoverable Resources***

We estimate 96 Tcf of proved reserves and 471 Tcf of undeveloped technically recoverable resource (as of 1/1/2009) for tight gas sands in 54 established plays.

- The Piceance Basin, Bossier Sands, and Granite Wash/Atoka in the Anadarko Basin provide important portions of the undeveloped tight gas sand resource. Numerous other Gulf Coast, Permian and Rockies plays account for the rest.
- We recently updated our resource assessments, well performance and economics for the Piceance (Mesaverde), Uinta (Tertiary, Mesaverde), Green River (Lance) and East Texas (Bossier and Cotton Valley) basins and added the emerging Granite Wash/Atoka horizontal well play in Oklahoma and West Texas to MUGS.

Significant increases in recoverable resources for tight gas sand are possible by using closer well spacing, massive multiple completions and horizontal well drilling.

### ***II.2.2 Development***

Tight gas sand drilling and development have grown significantly in recent years, from about 5,000 new wells placed on production in 2001 to nearly 15,000 new wells in 2008. During this time, proved tight gas sand reserves increased from 48 Tcf to 96 Tcf (as of 1/1/2009). In 2009, tight gas drilling declined to about 8,000 new wells and is expected to decline further in 2010 as many of the available well drilling rigs have been moved to gas shale plays.

Despite the decline in well drilling, we anticipate that tight gas sand proved reserves will grow as industry continues to shift their focus to greater use of horizontal wells and higher productivity plays such as the Granite Wash.



### II.2.3 Production

With the nearly two-fold increase in proved reserves, tight gas production increased from 11 Bcfd in 2000 to nearly 18 Bcfd in 2008. We expect tight gas sand production to increase in 2010, **Table II-3**.

Table II-3. U.S. Tight Gas Sand Production

Year	Bcfd
2000	10.9
2008	17.8
2009	17.8
2010 (Preliminary)	18.9

Improved Rockies basis differentials and new well drilling and production technologies (e.g., multi-stage stimulation and horizontal wells) provide the basis for a “bullish” outlook for future tight gas sand production.

## **II.3 COALBED METHANE RESOURCES**

### ***II.3.1 Recoverable Resources***

We estimate 21 Tcf of proved reserves and 85 Tcf of undeveloped technically recoverable resource for coalbed methane in 29 established plays.

- The San Juan Basin and the Powder River Basin account for the bulk of the undeveloped CBM resource as well as much of the proved CBM reserves.
- We recently updated our resource assessments, well performance and economics for the San Juan (Fruitland) and Powder River (Ft. Union) CBM basins.

Much of the CBM resource in-place is in deep, low permeability formations in the Piceance (80 Tcf) and Greater Green River basins (300+Tcf) and thus these basins are not yet included in our estimates for recoverable resources. Significant advances in well completion technology will be required to enable these deep CBM resources to contribute to domestic natural gas supplies in future years.

### ***II.3.2 Development***

Coalbed methane drilling and development has been relatively steady from 2001 to 2008, at about 5,000 wells per year. During this time, proved CBM reserves increased from about 16 Tcf to 21 Tcf (as of 1/1/2009).

In 2009, the number of CBM wells placed on production declined to about 2,000 wells and is expected to drop further in 2010 as the rig count has plummeted. Furthermore, many of the CBM wells in the Powder River Basin are shut in. Based on the drop in well drilling, proved CBM reserves are expected to decline in 2010.

### II.3.3 Production

CBM production has increased moderately, from 4 Bcfd in 2000 to above 5 Bcfd in 2009. Even with the recent decline in CBM well drilling, we expect CBM production to remain relatively stable at about 5 Bcfd in 2010, but to decline in future years, **Table II-4**. Breakthroughs in deep CBM well completions and enhanced coalbed methane technology could provide some “upside” to future projections of CBM production.

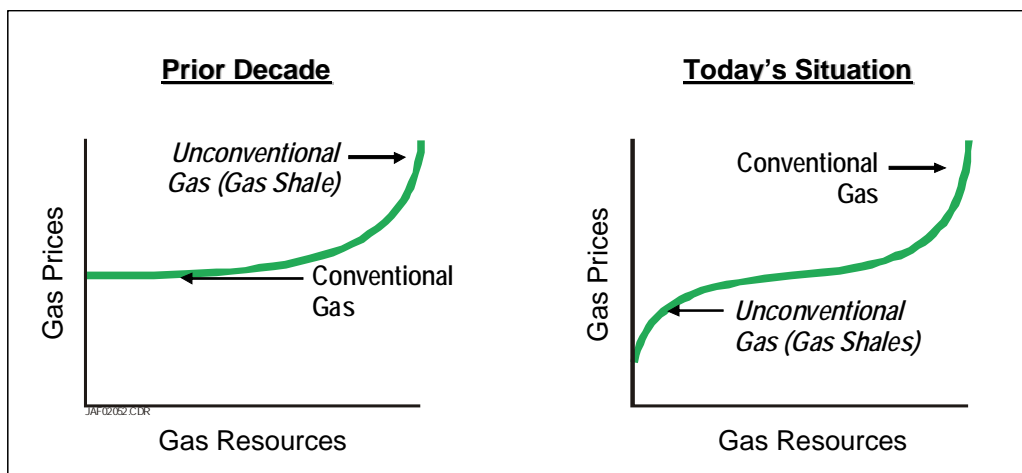
Table II-4. U.S. Coalbed Methane Production

Year	Bcfd
2000	4.0
2008	5.4
2009	5.2
2010 (Preliminary)	5.2

### II.4 PRICE-SUPPLY CURVE FOR DOMESTIC NATURAL GAS

Our analysis shows that unconventional gas resources, particularly the higher quality gas shales, make up the low cost portion of the domestic natural gas price-supply curve. **Figure II-3** captures the shift that has occurred in the relative economics of conventional and unconventional gas in the past decade.

Figure II-3. Today's Domestic Natural Gas Price/Supply Curve



Several factors account for the radical shift that has taken place in the price-supply curve for domestic natural gas:

- First, the application of horizontal wells has enabled gas shales to deliver high rates of gas production, often in excess of 20 MMcfd from gas shale plays such as the Haynesville and Bossier, enabling these resources to have low finding and development (F&D) costs per unit of production.
- Second, several of the gas shale and tight gas sand plays are liquids rich, such as the Eagle Ford gas shales and the Granite Wash tight gas sands. Extraction and sale of these liquids (oil, condensate and NGLs) provide considerable additional revenues given the relatively high current price for oil.
- Third, as presented earlier, the size of the unconventional gas resource base is large and exists in numerous basins. Each of these basins has a highly productive “core area” with much lower F&D costs than for the basin or play as a whole. Industry’s ability to identify and then preferentially develop these special “core areas” establish the low cost portion of the price-supply curve for domestic natural gas.

### III. OUTLOOK FOR U.S. NATURAL GAS PRODUCTIVE CAPACITY

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#### III.1 BACKGROUND

In this section of the report, we discuss the use of our unconventional gas resource base and economics model (MUGS) to provide independent projections for unconventional gas productive capacity. Then, we combine our estimates for unconventional gas productive capacity with projections of conventional gas production in EIA's AEO 2010 to provide an overall outlook for U.S. natural gas productive capacity to year 2035.

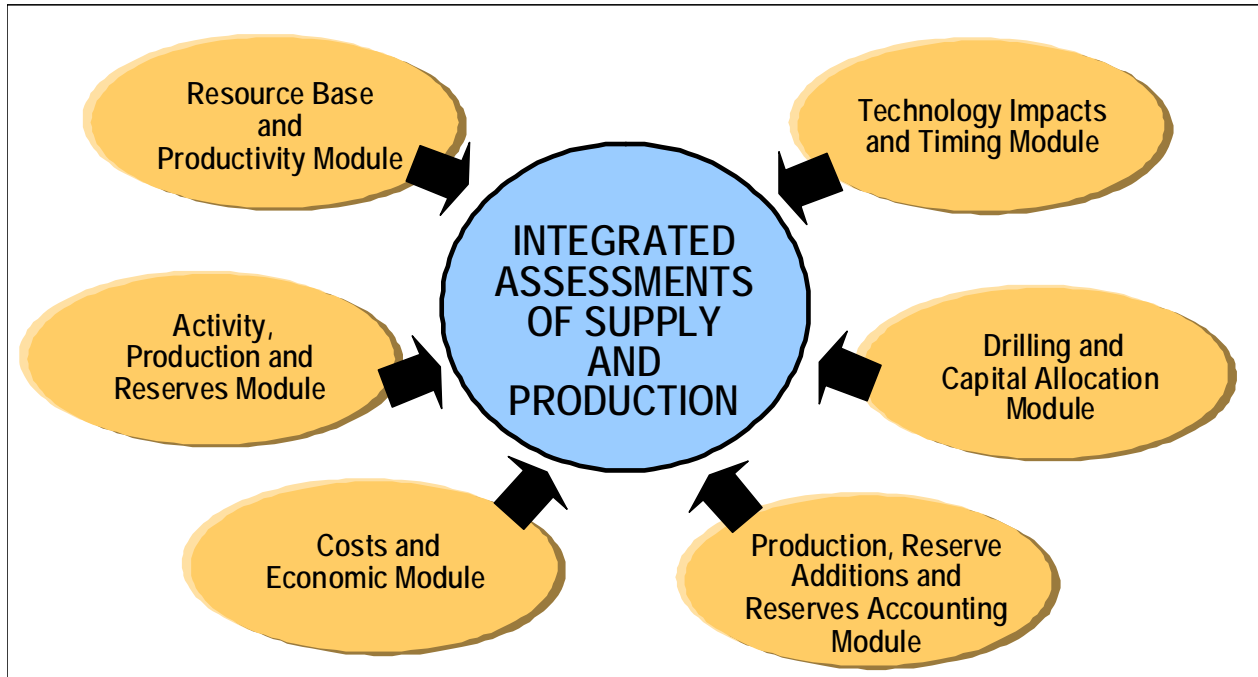
It is important to note that the report presents natural gas productive capacity, not projected production.

- Available natural gas productive capacity is the volume of natural gas that could be economically produced at a particular gas price track, given a defined natural gas resource base, established costs of production and expected returns on investment.
- Projected natural gas production is the volume of natural gas that would be produced at market equilibrium between supply (plus changes in gas storage) and net demand. (Net demand is total demand less net imports.)
- If the available natural gas productive capacity, at a given gas price track, is less than projected demand, then either additional imports and/or higher gas prices are required to balance supply and demand.
- If available natural gas productive capacity, at a given gas price track, is more than projected demand, a variety of responses could occur. Producers could shut in wells or defer completing already drilled wells. There could be reductions in gas imports or increases in gas exports. Or, excess supply could drive down gas prices to reach market equilibrium.

### III.2. OVERVIEW OF ADVANCED RESOURCES' MUGS MODEL

The key components of Advanced Resources' Technology Model of Unconventional Gas Supply, MUGS are illustrated in **Figure III-1**. Additional discussion of the model, as adopted into the Oil and Gas Module of EIA's National Energy Modeling System, is available in the Methodology for AEO 2009.<sup>6</sup>

Figure III-1. The Advanced Resources' Unconventional Gas Supply And Technology Model (MUGS)



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MUGS contains a series of cost-price factors that relate costs to changes in natural gas prices. Some of these cost factors are directly related to price, such as production taxes and fuel use. Other cost factors, such as well completing and operations, are indirectly related to price through unit costs such as steel for well casing and salaries for operating staff.

<sup>6</sup> U.S. Department of Energy, Energy Information Administration, Annual Energy Outlook 200, DOE/EIA-0383(2009) March 2009.

### III.3 OVERVIEW OF INPUTS FOR PROJECTING PRODUCTIVE CAPACITY

#### III.3.1 Price Track

To ensure our projections of unconventional gas productive capacity are comparable with the EIA's projections of natural gas production, we use the price track provided by the EIA in AEO 2010 for the Reference Case, (Henry Hub, 2008 dollars per million Btu), **Figure III-2**.

- In the near-term, from 2010 to 2020, natural gas prices rise from \$4.50/MMBtu to \$6.64/MMBtu.
- In the longer-term, from 2021 to 2035, natural gas prices rise from \$6.74/MMBtu to \$8.88/MMBtu.

#### III.3.2 Basis Differentials

In the past, we and others have used historical data to set basis differentials. The historical data approach is reasonable when pipeline transportation and regional supply remain relatively stable. With the massive completion of new natural gas pipelines in the past few years, we now expect much lower basis differentials than shown by historical data, **Figure III-3**.

- The historical data (for 2004-2008) show a basis differential of 24% between the Rockies Hub and NYMEX, compared to a basis differential of 5% for forward prices. Assuming a NYMEX price of \$6 MMBtu, the Rockies basis differential would shrink from \$1.44/MMBtu in the past to \$0.30/MMBtu in the future, providing a potential gain of \$1.13/MMBtu to producers.
- Similar, though smaller, reductions in basis differentials are also expected for the Mid-Continent, San Juan and the AECO Hub in Alberta, Canada.

We have incorporated these reduced basis differentials into MUGS (our unconventional gas model) to evaluate future available natural gas productive capacity.



Figure III-2. Reference Case Natural Gas Prices, AEO 2010

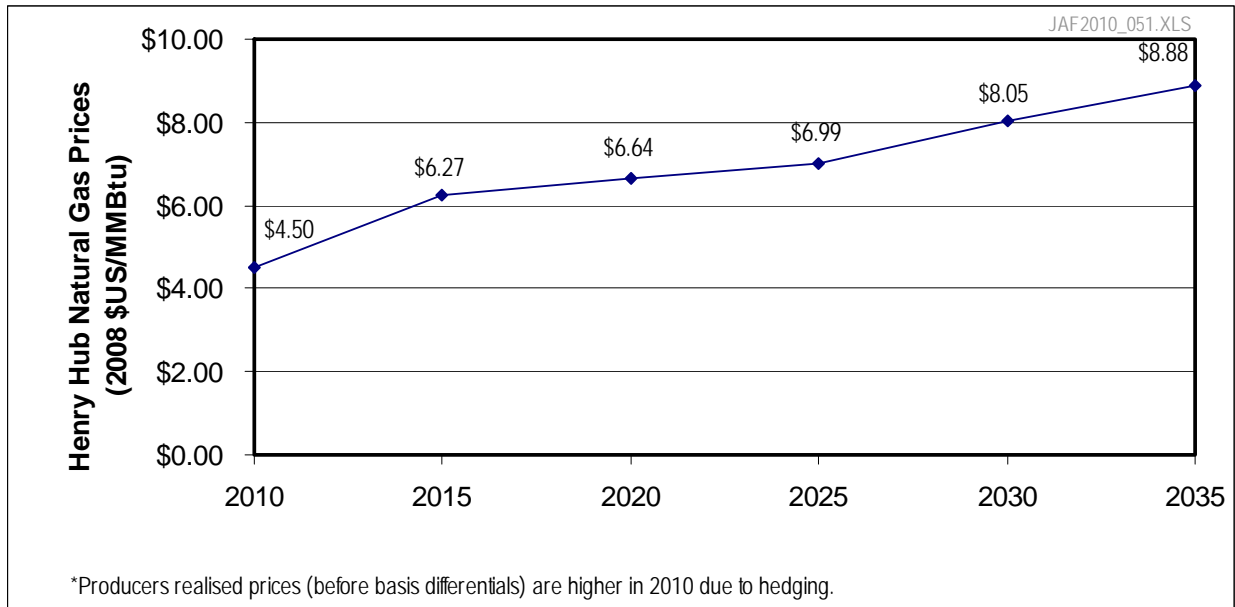
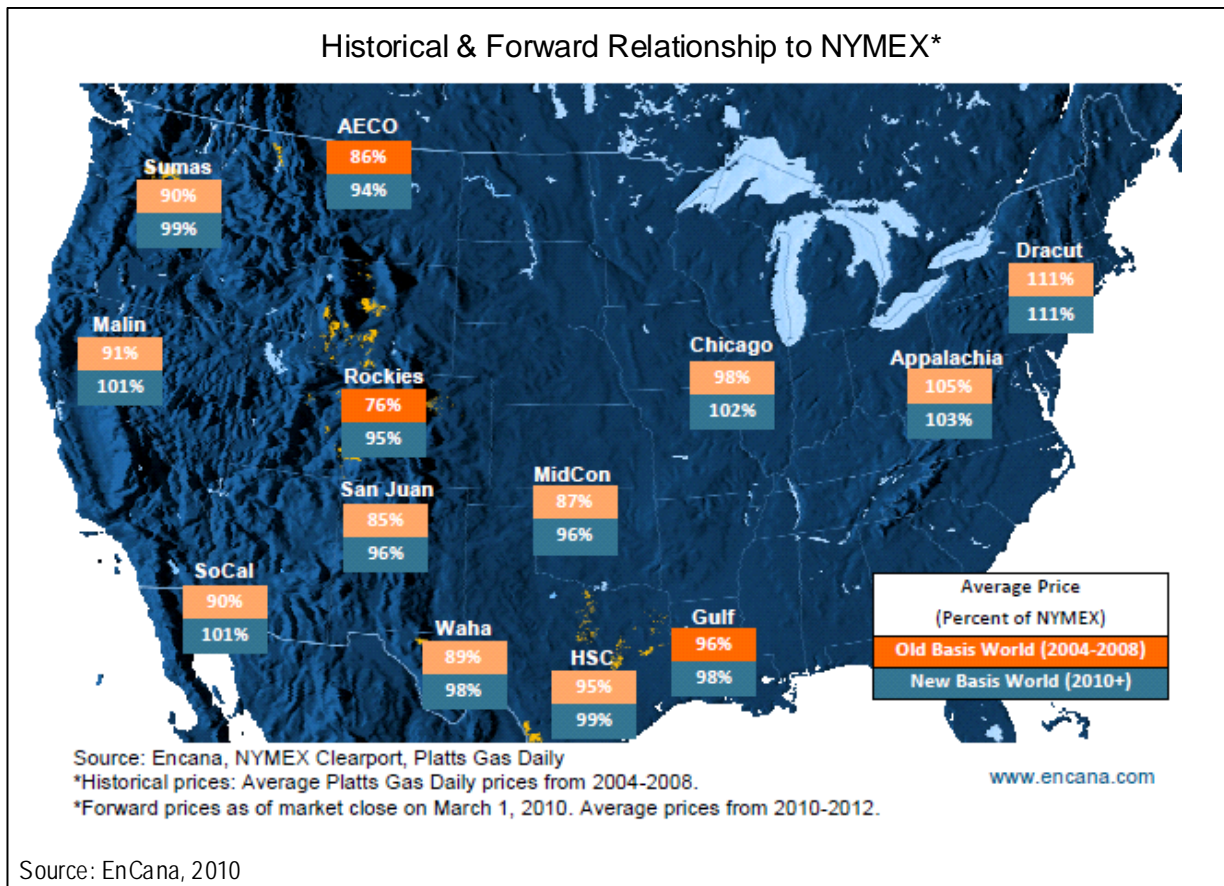


Figure III-3. Increased Transportation Outlets Have Reduced Basis Differentials



### ***III.3.3 Resource Base and Proved Reserves***

For undeveloped resources, we use as input into MUGS our independently assessed unconventional gas resource base, discussed in Chapter II. In addition, we input our internal estimates of proved reserves (1/1/2010) into MUGS by updating EIA's proved reserves for end of 2008 based on well drilling and well performance in 2009.

### ***III.3.4 Cost and Well Performance Data***

We have play-specific capital and operating costs and well performance data for 104 distinct unconventional gas plays in MUGS, including 29 gas shale plays, 46 tight gas sand plays and 29 coalbed methane plays. For example, we partition the large Marcellus Shale play of the Appalachian Basin into 6 distinct plays reflecting difference in geology, resource access and well performance.

### ***III.3.5 Economic Considerations***

In addition to basic Capex and Opex, MUGS incorporates a variety of economic factors, including accounting for the value of co-produced liquids and higher or lower than standard Btu content in the produced gas, for royalties and state production taxes, for lease costs, dry holes and seismic. The model specifically addresses oil and NGLs produced from the liquids-rich shales such as the Eagle Ford and Granite Wash, among others. The value of producing and selling liquids (oil/condensate) as well as the value (and costs) of producing NGLs are credited against overall costs, enabling produced natural gas from liquids-rich shales to have considerably lower break-even costs. The economic model incorporates a 15% return on investment, before tax, to establish the minimum required Henry Hub price for each play.

### ***III.3.6 Other Considerations***

As further discussed in Chapter IV, the model incorporates a variety of technology progress, environmental, infrastructure and development constraint levers that influence the timing and costs of unconventional gas production.

## IV. PROJECTED TOTAL U.S. NATURAL GAS PRODUCTIVE CAPACITY

### IV.1 SUMMARY OF RESULTS

We project total U.S. natural gas productive capacity to increase from 59 Bcfd in 2010 to 69 Bcfd in 2020 and further to nearly 93 Bcfd in 2035 under the EIA 2010 Reference Case natural gas price track, **Table IV-1**. Should the Alaska natural gas pipeline be delayed beyond 2035, the U.S. natural gas productive capacity in 2035 would be about 4.5 Bcfd less, at 88 Bcfd.

Table IV-1. Total U.S. Natural Gas Productive Capacity

	U.S. Conventional Dry Natural Gas Production		PLUS: Unconventional Gas Productive Capacity		U.S. Total Dry Natural Gas Productive Capacity	
	(EIA STEO 2010; Ref Case AEO 2010)		(ARI, 2010)		(Combined EIA/ARI, 2010)	
	(Tcf)	(Bcfd)	(Tcf)	(Bcfd)	(Tcf)	(Bcfd)
2009* (Actual)	9.3	25.4	11.8	32.3	21.5	57.7
2010* (Preliminary)	8.4	23.0	13.2	36.3	21.4	58.6
Near -Term						
2012	8.0	21.8	14.1	38.5	22.0	60.2
2015	7.5	20.5	15.8	43.4	23.3	63.9
2020	7.2	19.8	18.1	49.3	25.3	69.1
Longer-Term						
2025	8.4	22.9	20.2	55.4	28.6	78.3
2030	8.3	22.8	22.4	61.3	30.7	84.1
2035	8.7	23.7	25.2	69.0	33.8	92.7

\* Data for 2009 and 2010 is from Short Term Energy Outlook (July 2010) and from AEO 2010 for years 2012 through 2035 for total U.S. dry gas production.

\*\*Conventional gas production is the difference between U.S. total dry natural gas production (from STEO (July 2010) and AEO 2010) and EIA's projections for unconventional gas.

## IV.2 U.S. NATURAL GAS PRODUCTIVE CAPACITY VERSUS NET DEMAND

Our analysis, using EIA data for conventional gas and Advanced Resources' data for unconventional gas, shows a steady growth in U.S. natural gas productive capacity by year 2020, continuing to year 2035, **Table IV-2**.

When we compare total productive capacity with projected net consumption, we see a potential for a significant surplus of productive capacity of 14 Bcfd in 2020, increasing to 29 Bcfd in 2035. (Net consumption (demand) is defined as total consumption less gas supplies provided by supplemental natural gas and net pipeline and LNG imports.) Even after subtracting the 4.5 Bcfd expected from the Alaska natural gas pipeline (scheduled to come online in 2023 and reach capacity by 2024), surplus productive capacity would still exceed 24 Bcfd in 2035.

Table IV-2. Projections of Surplus U.S. Dry Natural Gas Productive Capacity

	U.S. Dry Natural Gas Productive Capacity (AEO 2010 and ARI 2010)	U.S. Natural Gas Consumption (AEO 2010)*			Surplus U.S. Dry Natural Gas Productive Capacity	
		Total	Less: Other**	Net	Unadjusted (Bcfd)	Adjusted*** (Bcfd)
	(Bcfd)	(Bcfd)	(Bcfd)	(Bcfd)		
2009 (Actual)	57.4	62.5	6.6	55.9	1.5	0.1
2010 (Preliminary)	58.6	64.7	7.4	57.3	1.3	-0.1
Near-Term						
2012	60.2	59.6	7.3	52.3	7.9	7.5
2015	63.9	59.5	6.7	52.9	11.0	11.0
2020	69.1	61.8	7.2	54.6	14.5	14.5
Longer-Term						
2025	78.3	64.6	6.1	58.5	19.9	15.4
2030	84.1	66.6	5.2	61.4	22.7	18.2
2035	92.7	68.1	4.2	63.9	28.7	24.2

\* U.S. natural gas production and consumption data are from EIA Short Term Energy Outlook (July 2010) for 2009 and 2010 and from AEO 2010 for 2012 and beyond.

\*\*Other supplies include: (1) supplemented natural gas; (2) net imports; and (3) change in inventory (2009 & 2010).

\*\*\* After subtracting projected production from the Alaskan Natural Gas Pipeline (4.5 Bcfd in 2025 and beyond) and supply/demand balance discrepancies reported in the STEO for 2009, 2010 and in AEO 2010 for year 2012.

### IV.3 CONVENTIONAL NATURAL GAS PRODUCTION

To estimate conventional natural gas production, we subtracted EIA's projections of unconventional gas production from its projections for total U.S. natural gas production in the Reference Case of AEO 2010, **Table IV-3**.

Table IV-3. U.S. Conventional Natural Gas Production

	EIA Reference Case Gas Supply (AEO 2010)							
	U.S. Total Dry Natural Gas Production		Less: EIA Unconventional Gas Production		U.S. Conventional Gas Production		NOTE: Alaska Natural Gas Production	
	(Tcf)	(Bcfd)	(Tcf)	(Bcfd)	(Tcf)	(Bcfd)	(Tcf)	(Bcfd)
<b>Near-Term</b>								
2012	19.3	52.7	11.3	30.9	8.0	21.8	0.30	0.8
2015	19.3	52.8	11.8	32.4	7.5	20.5	0.29	0.8
2020	20.0	54.6	12.7	34.8	7.2	19.8	0.27	0.7
<b>Longer-Term</b>								
2025	21.3	58.4	12.9	35.4	8.4	22.9	1.88	5.2
2030	22.4	61.3	14.1	38.5	8.3	22.8	1.88	5.1
2035	23.3	63.8	14.6	40.0	8.7	23.7	1.87	5.1

While data were provided in AEO 2010 for gas shale and coalbed methane production, the volumes for tight gas sand production were not provided. As such, we used the tight gas sand production values reported in AEO 2009 for EIA's tight gas production projections in AEO 2010.

## IV.4 UNCONVENTIONAL GAS PRODUCTIVE CAPACITY

**IV.4.1 Summary Projection.** Advanced Resources projects unconventional gas productive capacity to increase from 36.3 Bcfd in 2010 to 49.3 Bcfd in 2020 and 69 Bcfd in 2035, **Table IV-4**. These projections use the EIA AEO 2010 natural gas price track for the Reference Case.

Table IV-4. Unconventional Gas Productive Capacity

	Annual Production	
	(Tcf)	(Bcfd)
2009 (Actual)	11.8	32.3
2010 (Preliminary)	13.2	36.3
Near-Term		
2012	14.1	38.5
2015	15.8	43.4
2020	18.0	49.3
Longer-Term		
2025	20.2	55.4
2030	22.4	61.3
2035	25.2	69.0

While the projected growth of unconventional gas productive capacity of 13 Bcfd in the next ten years may seem aggressive, it is less than the 20 Bcfd of growth achieved by these resources in the past decade. Additional discussion of the feasibility of achieving these increases in unconventional gas productive capacity is provided in Section IV-7: Benchmarks and Comparisons of this report.

**IV.4.2 Detailed Projections.** In our unconventional gas model (MUGS), gas shales account for the great bulk (13 Bcfd) of near-term growth in unconventional gas productive capacity, from year 2010 to year 2020. Small increases in tight gas counter small losses in CBM in near-term productive capacity, **Table IV-5** and **Figure IV-1**. Gas shales also provide the great bulk of the longer-term growth in productive capacity, increasing by 14 Bcfd from year 2020 to 2035, **Table IV-5** and **Figure IV-2**.

Table IV-5. Unconventional Gas Productive Capacity by Resource

	Annual Production			
	Gas Shales	Tight Gas Sands	CBM	Total
	(Bcfd)	(Bcfd)	(Bcfd)	(Bcfd)
<b>2009 (Actual)</b>	9.3	17.8	5.2	32.3
<b>2010 (Preliminary)</b>	12.2	18.9	5.2	36.3
<b>Near-Term</b>				
2012	14.7	19.2	4.6	38.5
2015	19.1	19.5	4.8	43.4
2020	25.1	19.3	4.9	49.3
<b>Longer-Term</b>				
2025	30.3	19.9	5.2	55.4
2030	34.6	21.2	5.5	61.3
2035	39.1	23.8	6.0	69.0

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Figure IV-1. Mid-Term Expectations for Unconventional Gas Productive Capacity

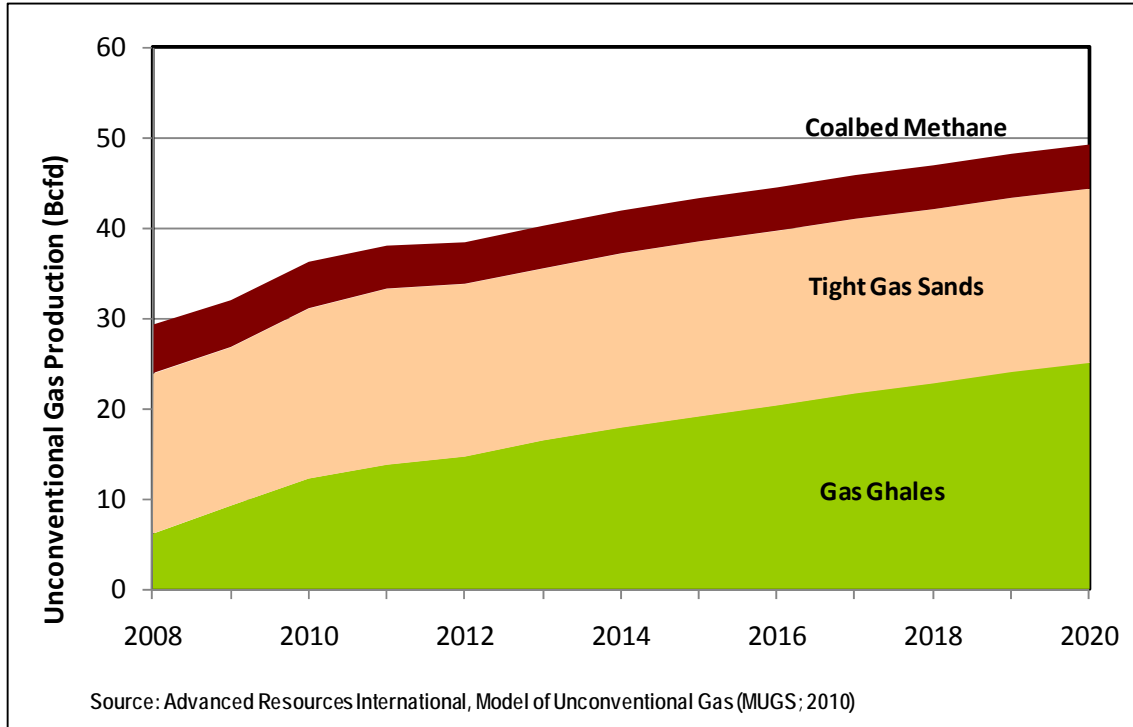
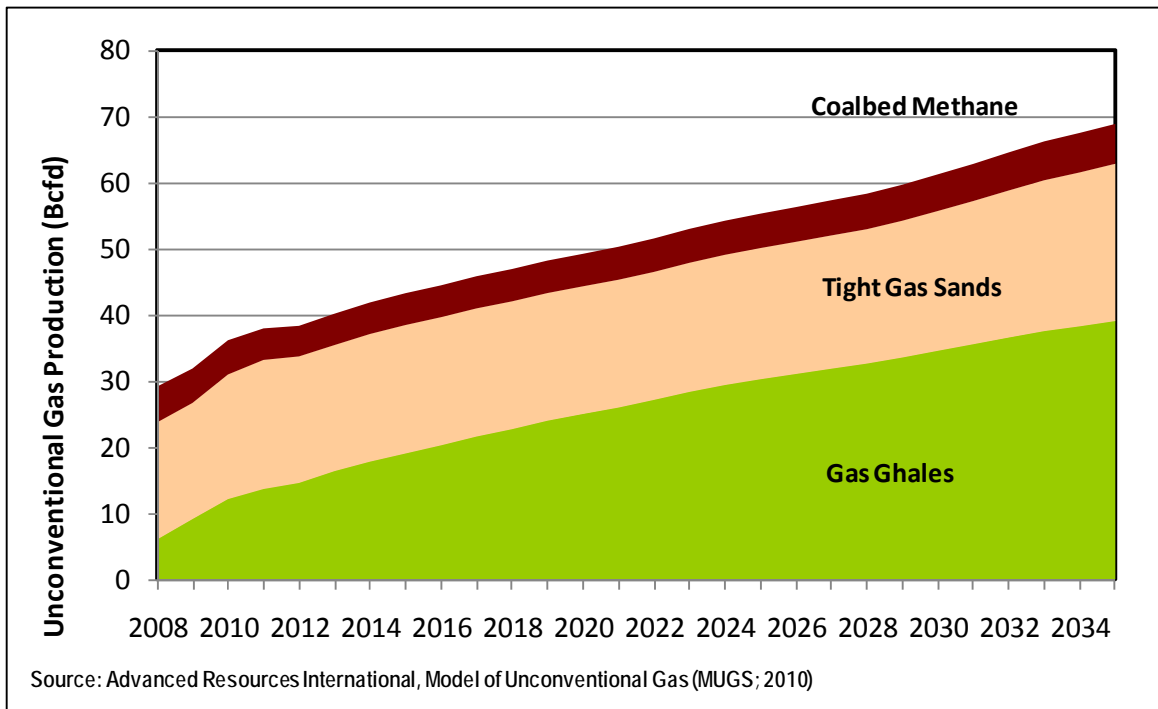


Figure IV-2. Longer-Term Expectations for Unconventional Gas Productive Capacity



## IV.5 COMPARISON OF ADVANCED RESOURCES' AND EIA'S PROJECTIONS FOR UNCONVENTIONAL GAS

**Table IV-6** compares Advanced Resources' (2010) and EIA's (AEO 2010) Reference Case projections for unconventional gas.

- For the near-term, Advanced Resources projects unconventional gas productive capacity to increase from 36 Bcfd (in 2010) to 49 Bcfd (in 2020). In comparison, the EIA's projections for unconventional gas production start at 31 Bcfd (in 2010) and reach only 35 Bcfd in 2020.
- For the longer-term, Advanced Resources projects unconventional gas productive capacity to reach 69 Bcfd in 2035 compared with 40 Bcfd by EIA. Shale gas production in our analysis reaches 39 Bcfd in 2035, compared to 16 Bcfd in the EIA AEO reference case.

It is useful to note that Advanced Resources' projections are for productive capacity (at the EIA price track); EIA numbers are for actual production integrated with demand (at the EIA price track).

Table IV-6. Comparison of Advanced Resources' and EIA's Projections for Unconventional Gas

	Advanced Resources Int'l, Inc. (2010)				EIA AEO 2010			
	Total	Gas Shales	Tight Gas Sands	CBM	Total	Gas Shales	Tight Gas Sands	CBM
	(Bcfd)	(Bcfd)	(Bcfd)	(Bcfd)	(Bcfd)	(Bcfd)	(Bcfd)	(Bcfd)
2009 (Actual)	32.3	9.3	17.8	5.2	30.6	6.5	18.1	6.0
2010 (Preliminary)	36.3	12.2	18.9	5.2	30.6	7.5	17.4	5.7
<b>Near-Term</b>								
2012	38.5	14.7	19.2	4.6	30.9	9.0	16.7	5.3
2015	43.4	19.1	19.5	4.8	32.4	10.5	16.7	5.2
2020	49.3	25.1	19.3	4.9	34.8	12.3	17.4	5.1
<b>Longer-Term</b>								
2025	55.4	30.3	19.9	5.2	35.4	13.5	17.0	4.8
2030	61.3	34.6	21.2	5.5	38.5	15.1	18.4	5.1
2035	69.0	39.1	23.8	6.0	40.0	16.4	18.3	5.3

Differences in the size of the shale gas resource base underlie much the disparity in the two outlooks for unconventional gas. ARI calculates 700 Tcf of technically recoverable resources for gas shale plays which is 404 Tcf larger than used by EIA. A significant portion of this difference occurs in the Northeast region, the location of the Marcellus, Devonian-age Huron, and Antrim gas shales, **Table IV-7**.

Table IV-7. Comparison of Advanced Resources' and EIA's Gas Shale Resources

Technically Recoverable Resources	ARI (Tcf)	EIA (Tcf)	Difference (Tcf)
<b>National*</b>	700	296	404
<b>Northeast Region</b>	243	79	164

\* Excludes gas shale resource in the Rocky Mountain and West Coast Regions, which are not yet included in ARI's gas shale resource base

## IV.6 A MORE DETAILED LOOK

This section of the report provides a more detailed look at the sources of our projected increases in unconventional gas productive capacity.

- **Gas Shales.** Gas shales account for 13 Bcfd of the increase in productive capacity by 2020 and 27 Bcfd by 2035. Three gas shale plays - - the Marcellus, the Haynesville/Bossier, and the Eagle Ford - - provide essentially all of this increase. These three gas shale plays also account for about half of today's active natural gas rigs.

	# of Natural Gas Rigs (Mid-2010)	Productive Capacity (Bcfd)		
		2010	2020	2035
Marcellus	127	1.0	5.4	11.6
Haynesville/Bossier	173	2.4	7.6	11.9
Eagle Ford	82	0.1	2.3	5.2
<b>Sum</b>	<b>382</b>	<b>3.5</b>	<b>15.3</b>	<b>28.7</b>

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In contrast, we project gas production from the Barnett Shale to decline, after reaching a peak of 5.1 Bcfd in 2010, (includes associated gas production from Barnett oil wells).

- **Tight Gas Sands.** Tight gas sands provide little increase in productive capacity by 2020 but, with the higher EIA natural gas price track after 2020, contribute 5 Bcfd increased capacity by 2035. The three tight gas basins that account for much of the projected increase - - Anadarko, Green River and Uinta-Piceance - - have seen their natural gas rig count climb to 192 from 124 a year ago.

	# of Natural Gas Rigs (Mid-2010)	Productive Capacity (Bcfd)		
		2010	2020	2035
Anadarko*	111	1.2	2.6	4.3
Green River**	33	4.1	4.0	4.2
Uinta-Piceance	48	2.3	3.1	5.1
<b>Total</b>	<b>192</b>	<b>7.6</b>	<b>9.7</b>	<b>13.6</b>

\*Includes the emerging Granite Wash and other tight gas plays.

\*\*Includes the Pinedale/Jonah, Lance and Mesaverde plays.

A number of the more mature tight gas sand plays, such as the Gulf Coast Wilcox/Lobo and the Arkoma Atoka, are projected to be in decline.

- **Coalbed Methane.** Coalbed methane productive capacity declines somewhat by 2020 but then increases moderately by 2035 as gas prices increase. Higher natural gas prices stimulate increased development of the lower productivity, extension areas of the maturing CBM basins and plays.

## IV.7 BENCHMARK AND COMPARISONS

**IV.7.1 Benchmark Questions.** It is useful to review natural gas production projections with a variety of “benchmark” questions. Because gas shales become the dominant source of unconventional gas production, we will target most of the benchmark questions to this resource base.

- **Is the Recoverable Resource Base Sufficient?** For the 25 year period (2010-2035), gas shale production equals 248 Tcf. With 700 Tcf of remaining recoverable gas shale resource (as of the beginning of 2009) and further growth of the resource base (as discussed in Chapter II), the gas shale resource base is far from being mature or depleted by 2035.
- **Will There Be Sufficient Rig Capacity?** The well drilling requirements in the years after 2010 do not exceed gas shale well drilling projected for 2010.
- **Will There Be Sufficient Investment Capital?** Given that the future well requirements for gas shale do not exceed projected 2010 drilling and that gas

prices increase, we do not anticipate capital constraints for gas shale development. The entry of the majors (e.g., Shell, BP, ConocoPhillips and ExxonMobil) as well as global E&Ps (Reliance, Statoil, Mitsui) into gas shale development further argues that capital will likely be sufficient.

- ***Is There Precedent for Such a Large Increase in Unconventional Natural Gas Supply?*** Our analysis shows that unconventional natural gas productive capacity is projected to increase by 13 Bcfd in the coming decade (from 36.3 Bcfd in 2010 to 49.3 Bcfd in 2020). While this is a large increase, it is considerably less than the actual results from the past decade (2000 to 2010), when unconventional gas production increased by 20 Bcfd, from 16 Bcfd in 2000 to 36 Bcfd today. Continued technological improvements (discussed below) and the pursuit of new unconventional gas plays, such as the Granite Wash tight gas sand and the Eagle Ford and Bossier gas shales, provide support that a 13 Bcfd production increase is realistic for the upcoming decade.

**IV.7.2 Comparison Projections.** As a comparison projection, we have included the recent work provided by EnCana on the outlook for North American gas shale and total natural gas production.

- EnCana projects gas shale production of 43 Bcfd in year 2020 for North America, **Figure IV-3**. Taking out 8 Bcfd for the Canadian Horn River and Montney, EnCana's projections for U.S. gas shale production is 35 Bcfd in year 2020. Our projections for year 2020 U.S. gas shale production from MUGS is less, at 25 Bcfd, indicating that our projection for gas shale productive capacity is more conservative than EnCana's.
- EnCana projects total North American gas production to reach 85 Bcfd in 2020, up from 70 Bcfd in 2010, a growth of 15 Bcfd, **Figure IV-4**. Our combined conventional gas (from EIA) and unconventional gas projections for year 2020 are 69 Bcfd for the U.S., up from 59 Bcfd in 2010, for an overall U.S. growth of 10 Bcfd. Assuming EnCana has expectations of growth on the order of 5 Bcfd in

Canadian natural gas production, these two projections would be reasonably comparable.

Figure IV-3. Shale Gas Production Forecast

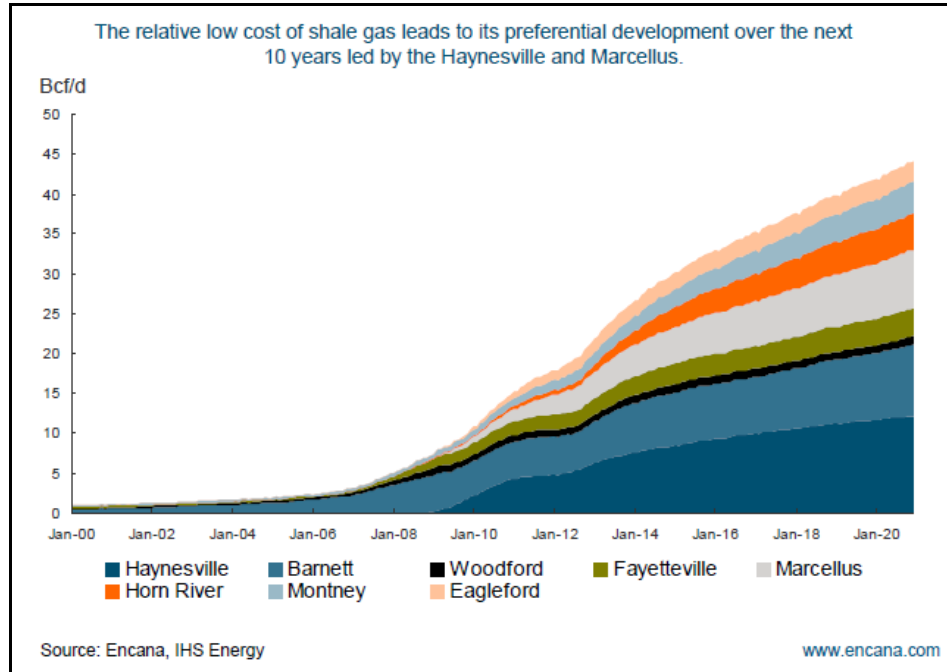
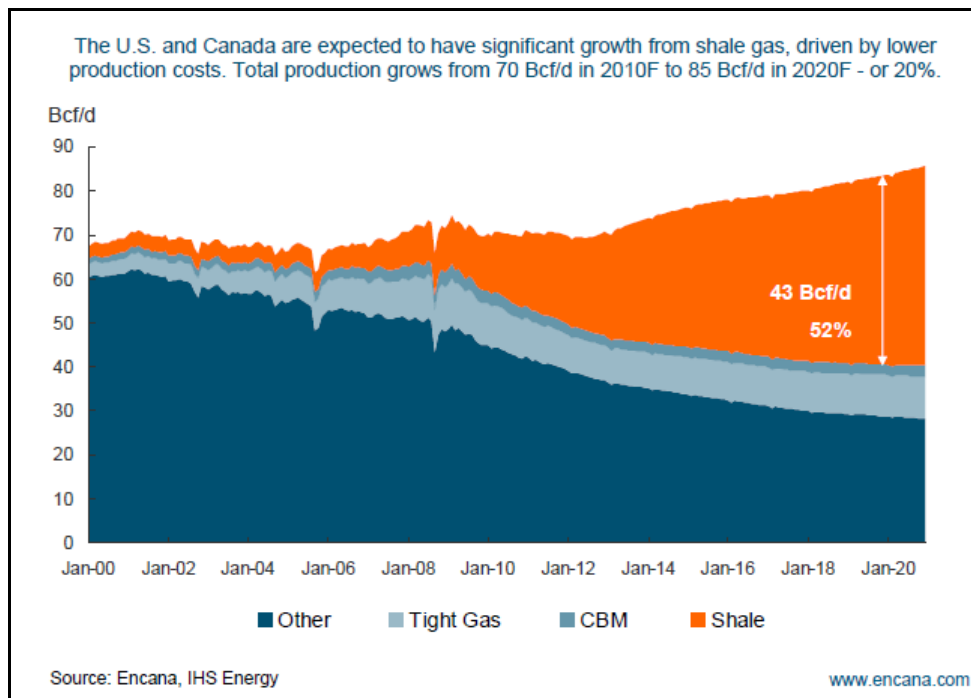


Figure IV-4. North American Gas Production Forecast





## V. IMPORTANCE OF PROGRESS IN TECHNOLOGY FOR NATURAL GAS SUPPLY

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The “conventional wisdom” a year ago was that lower natural gas prices would crater rig utilization. Low prices would, in turn, reduce productive capacity and lead to a strong price rebound - - the saying was, “low gas prices would cure low gas prices”:

- The initial decline in rig utilization appeared to support the “conventional wisdom”. Natural gas rig utilization declined from a peak of 1,585 in September, 2008 to a low of 675 in July, 2009.
- Since then, rig utilization has rebounded to 982 active natural gas rigs (July, 2009) with the majority of these being horizontal rigs with large gains in Texas, Oklahoma, Louisiana and Pennsylvania, states with active gas shale plays.

The “conventional wisdom” for natural gas supply turned out to be wrong because of three aspects of progress in technology - - increased use of horizontal well drilling in tight gas sands and gas shales; reductions in well costs from learning and increased rig efficiencies; and steady improvements in well productivity.

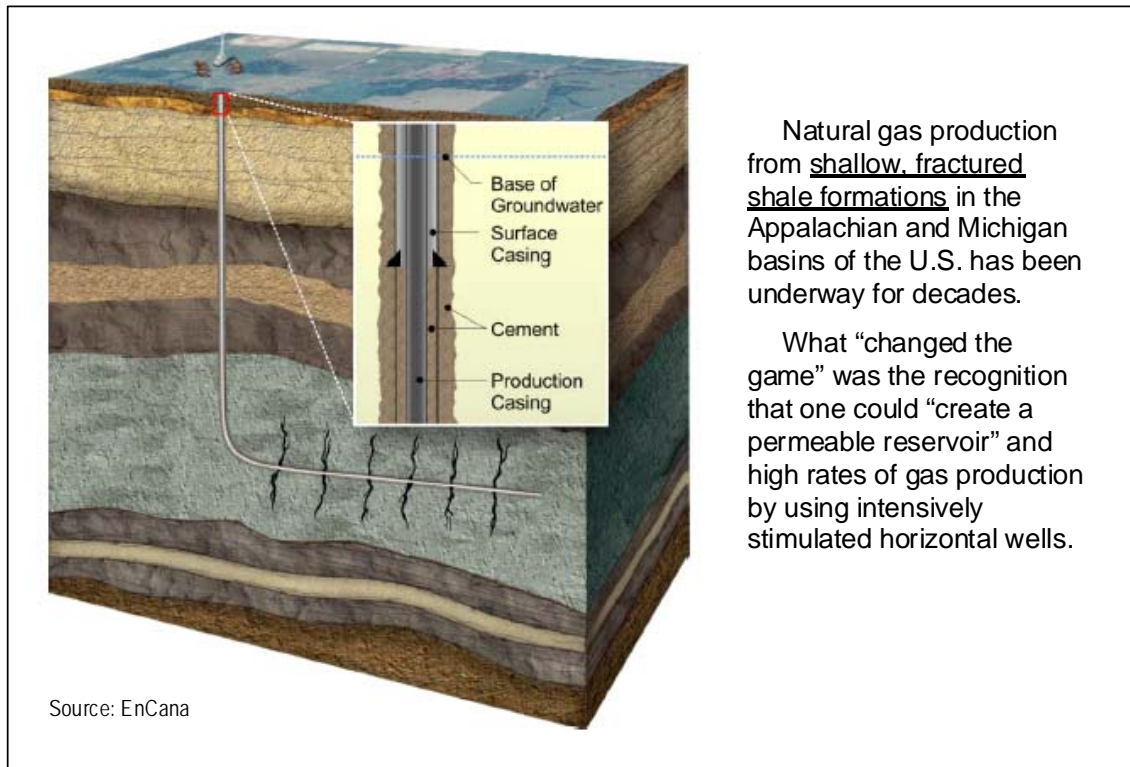
### V.1 EXAMPLES OF PROGRESS IN TECHNOLOGY

#### *V.1.1 Increased Use of Horizontal Rigs and Wells*

The use of intensively stimulated horizontal wells with their high rates of gas production enabled the deep, ultra-low permeability gas shale formations to be economically developed, **Figure V-1**. As operators have gained experience with horizontal drilling and completions, the lengths of the horizontal laterals have increased as have the number of frac stages, **Figure V-2**.

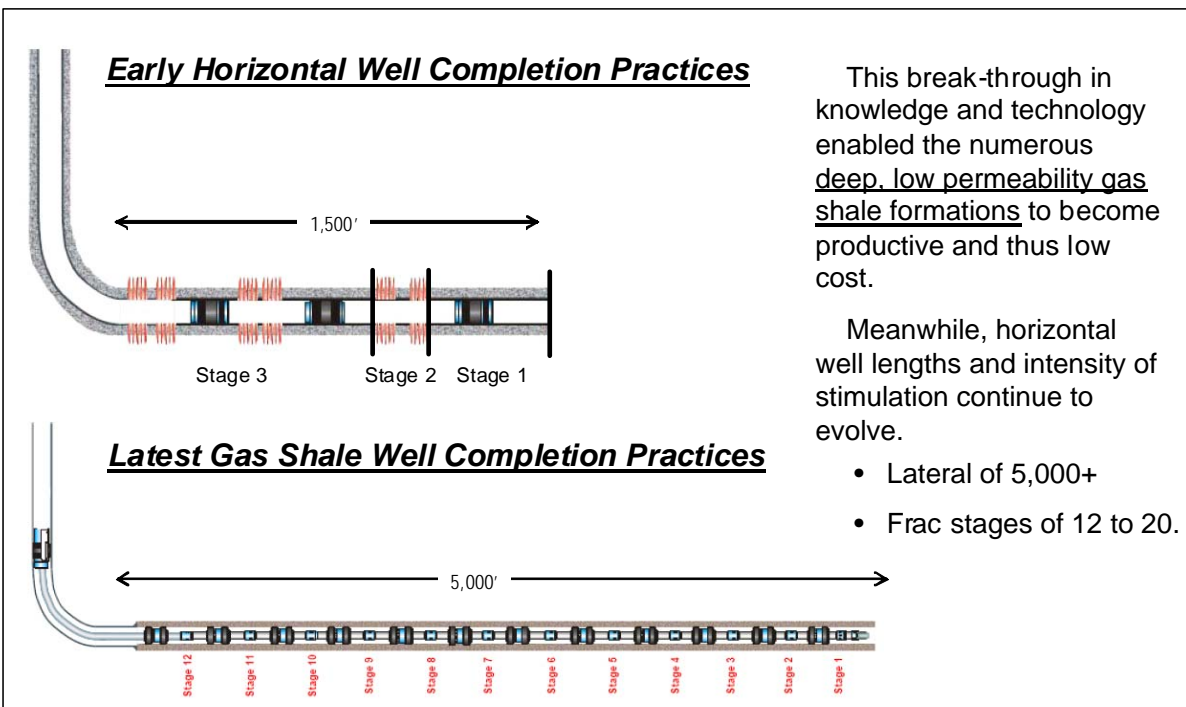
Today, the utilization of horizontal rigs is at an all time high of 858. These rigs now make up more than half of the 1,557 active U.S. rigs and an estimated 80% of active natural gas rigs.

Figure V-1. Horizontal Well with Multi-Stage Fracturing



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Figure V-2. Changes in Well Completion Practices



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In spite of increased use of horizontal rigs to drill horizontal wells (which take longer to drill), natural gas rig efficiencies, measured in terms of wells drilled per rig year, have remained high, **Table V-1**.

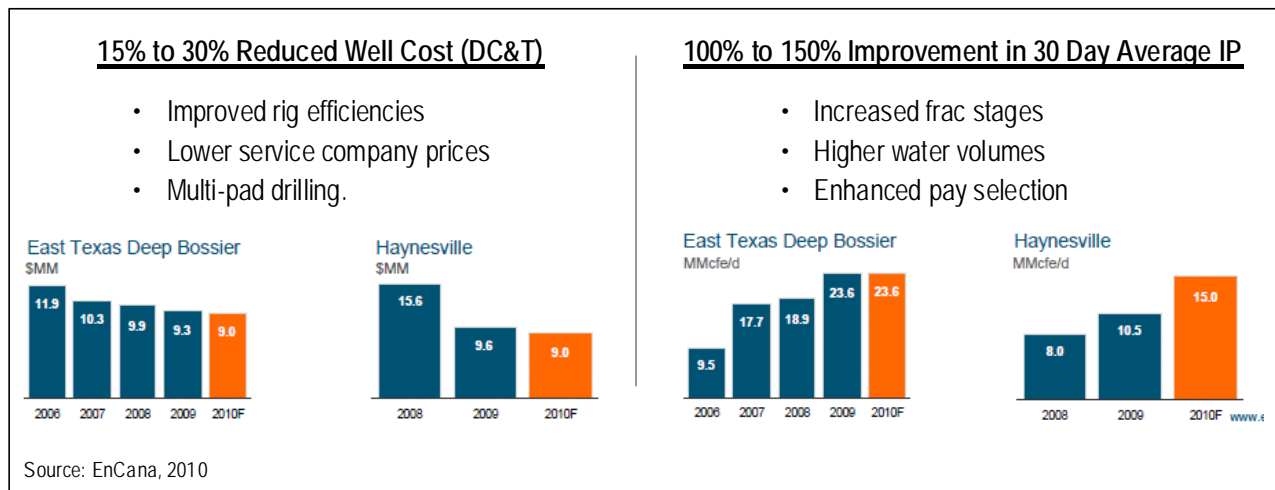
Table V-1. Natural Gas Rig Efficiencies

Year	Natural Gas Wells	Natural Gas Rig-Yrs.	Natural Gas Wells/Rig-Yr.
2007	33,093	1,466	22.6
2008	33,544	1,491	22.5
2009	19,194	801	24.0
2010 (6 months)	10,739	460	23.3

### V.1.2 Reduced Well Costs and Improved Wells

In response to lower natural gas prices, industry has worked hard to lower its costs and to improve well performance. The experience of EnCana (the second largest North American natural gas producer) in two of the high impact natural gas plays - - Deep Bossier tight gas and Haynesville Shale - - illustrates this trend, **Figure V-3**.

Figure V-3. Changes in Well Costs and Performance for Two Major Unconventional Gas Plays

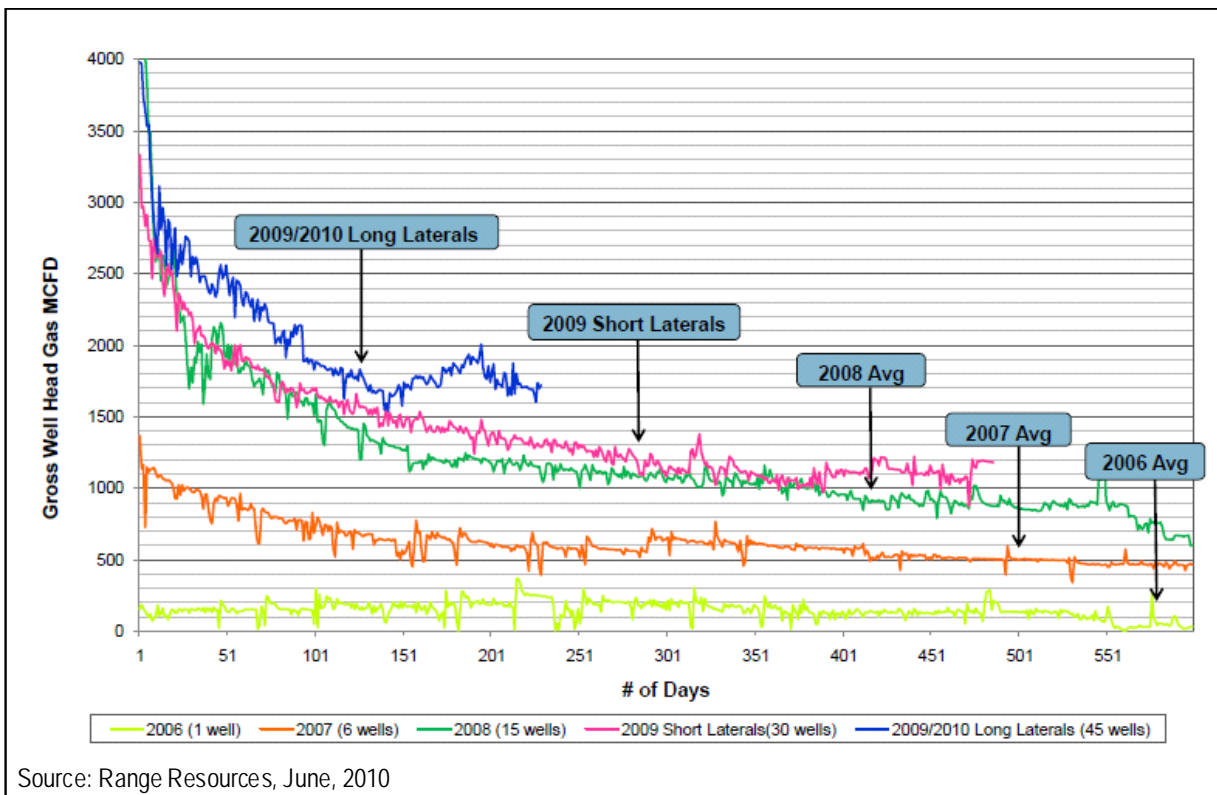


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- Use of multi-pad drilling, improved rig efficiencies and lower hydraulic fracturing costs have helped EnCana reduce well costs (drilling, completion and tie-in) in the East Texas tight gas play and in the Haynesville Shale play by 15% to 30%.
- The use of higher volume hydraulic fractures, increased frac stages and more intensive pay selection in these two major natural gas plays have led to 100% to 150% improvements in initial (30 day) gas production rates.

Similar improvements in well performance are being achieved in other major gas shale plays. For example, **Figure V-4** shows the progression of improvements in well performance achieved by Range Resources in the Marcellus Shale of the Appalachian Basin from 2006 through 2009.

Figure V-4. Improvements in Shale Well Performance: Range Resources



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An even more striking example of the impact of progress in technology is provided by Southwestern's Fayetteville Shale wells. Application of longer lateral horizontal wells, use of more frac stages/perforation clusters to contact the reservoir, and use of 3-D seismic to improve well locations have led to nearly three-fold improvements in initial well production rates since early 2007, **Table V-2**.

**Table V-2. Improvements in Fayetteville Shale Well Performance: Southwestern Energy**

Time Frame	Wells on Production	Average IP Rate (Mcf/d)	30th Day Rate	60th Day Rate	Average Lateral Length
1st Qtr 2007	58	1,260	1,070	960	2,100
2nd/3rd/4th Qtr 2007	197	1,770	1,490	1,290	2,500-3,190
1st Qtr 2008	75	2,340	2,150	1,940	3,300
2nd/3rd/4th Qtr 2008	254	2,920	2,480	2,200	3,560-3,850
1st Qtr 2009	120	3,000	2,370	1,880	3,870
2nd/3rd/4th Qtr 2009	326	3,650	2,710	2,400	4,180
2nd Qtr 2010	143	3,450	2,610	2,430	4,530

## **V.2 INCORPORATION OF TECHNOLOGY PROGRESS IN THE NATURAL GAS SUPPLY MODEL (MUGS)**

A primary objective of Advanced Resources construction of their unconventional gas model (MUGS) in 1996 was to incorporate the impacts that progress in technology would have on future natural gas supply. We recognized that unconventional gas was a “technology play” and that significant advances in E&P technology would be essential for unlocking this vast resource.

As set forth in our documentation of the MUGS model in 1996, we anticipated the introduction of horizontal wells in gas shales, expected steady progress in the ability of geophysical methods to delineate the “sweet spots” (core area) of unconventional gas plays, and set forth other expectations for technology progress.\*

### ***V.2.1. Technology Levers***

Within MUGS, certain “levers” allow the user to incorporate technology progress in well performance and influence the timing of a play’s development.

The Technology Performance levers in MUGS include:

- Improved Well Performance. This technology lever enables the model to increase unconventional gas well performance (estimated ultimate recovery (EUR)) over time, based on continuing advances in exploration and production technology. Currently, this technology lever improves well performance by 0.5% per year, equal to 10% over 20 years.
- Improved Ability to Identify Higher Productivity “Sweetspots”. This technology lever enables the model to improve its discrimination among the high, average and low productivity areas within an unconventional gas play.
- Dry Hole Rate Improvement. This technology lever enables the model to increase the well drilling success rate of a gas play now by 0.5% per year up to a maximum of 95% (unless actual performance is higher). After a play is mature (over 50% developed), the success rate begins to decline, as new wells seek to define the outer limits of the play.

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\* See methodology for AEO 2009.

The Technology Timing levers in MUGS include:

- Pace of Development in Emerging Basins. This technology lever captures the ability to use geologic characterization and seismic to lower the risks and accelerate the development pace in emerging basins.
- Availability of Hypothetical Plays. This technology lever schedules the time of development for plays classified as “hypothetical”.
- Pipeline Constraints. This technology lever limits the pace of development in basins with inadequate pipeline capacity.
- Environmental Constraints. This technology lever excludes areas of a play or basin designated as wilderness or precluded from development for other reasons. It also limits access and thus restricts the pace of development in environmentally sensitive basin areas.



## VI. ACCESSIBLE NATURAL GAS RESOURCES AND SUPPLIES IN THE MID-CONTINENT/GULF COAST CORRIDOR

A likely area of LNG exports is the Gulf Coast. As such, it is useful to examine the unconventional gas resources and supplies that might be reasonably accessible and available to this area from the Mid-Continent/Gulf Coast corridor. **Table VI-1** and **Figure VI-1** show the unconventional gas plays that are located in this corridor.

Table VI-1. Unconventional Gas Plays in the Mid-Continent/Gulf Coast Corridor

Gas Shale Plays	Tight Gas Sands Plays	Coalbed Methane Plays
Woodford	East Texas	Mid-Continent
Fayetteville	Arkoma	Warrior
Barnett	Anadarko	Cahaba
Haynesville	Gulf Coast	
Eagle Ford		
Bossier		

The Gulf Coast/Mid-Continent Corridor contains all the major shale plays except the Marcellus and three of the largest tight gas sands plays – the East Texas, Anadarko and Gulf Coast plays. As such, the unconventional gas productive capacity in this corridor represents a major portion of the U.S. total. Our analysis shows that, in 2010, about half of U.S. unconventional productive capacity (19 Bcfd) is from this corridor, **Table VI-2**. This trend continues through our near and longer-term projections.

Figure VI-1: Location of Unconventional Gas Plays in the Gulf Coast/Mid-Continent Corridor

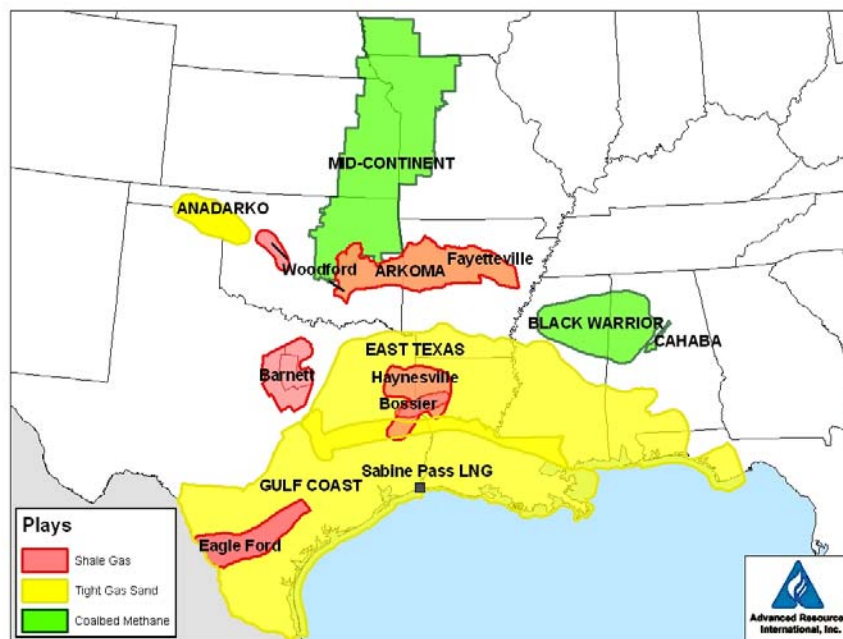


Table VI-2. Unconventional Gas Productive Capacity in the Mid-Continent/Gulf Coast Corridor and for Total U.S.

	Annual Productive Capacity				
	Gulf Coast Corridor				Unconventional Gas Total U.S.
	Tight Gas Sands	CBM	Gas Shales	Total	
	(Bcfd)	(Bcfd)	(Bcfd)	(Bcfd)	
2009 (Actual)	7.9	0.6	7.9	16.3	32.3
2010 (Preliminary)	8.3	0.6	10.4	19.4	36.3
Near-Term					
2012	8.0	0.5	11.8	20.3	38.5
2015	7.8	0.5	15.0	23.3	43.4
2020	8.1	0.5	18.5	27.1	49.3
Longer-Term					
2025	8.7	0.4	21.6	30.7	55.4
2030	9.3	0.5	23.7	33.5	61.3
2035	10.3	0.6	25.9	36.8	69.0

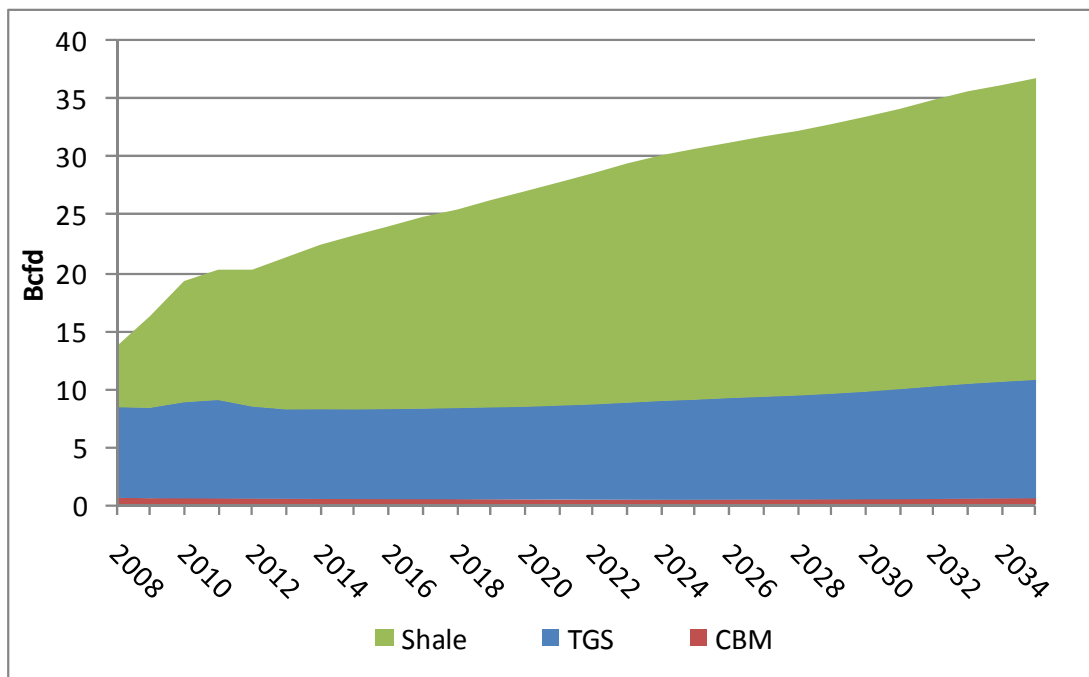
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The majority of the productive capacity in this corridor exists in the shale gas plays, **Figure VI-2**. In 2020, gas shales provide over 18 Bcfd of supply, 68% of the corridor total. In the short term, the Barnett shale provides the bulk of this supply. As the Barnett matures, its declining production is more than offset by growth in the Haynesville, Eagle Ford, Bossier and Fayetteville Shales. Shale gas' resilience in the face of low natural gas prices suggests that supply in this region could remain robust even with continued low gas prices.

Tight gas sand plays provide most of the remaining supply in this corridor, over 8 Bcfd in 2020. The East Texas tight gas basin provides the majority of the gas from this resource type, and continues to grow robustly through 2035. Supported by associated condensate production, the Anadarko Basin Granite Wash plays can provide a significant amount of gas supply by 2020.

The Mid-Continent and Warrior CBM basins provide a moderate amount of gas supply, at 0.5 to 0.6 Bcfd through 2035.

Figure VI-2: Unconventional Gas Productive Capacity in the Mid-Continent/Gulf Coast Corridor



## APPENDIX – Case Studies

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To provide some additional background and support for our assessment of U.S. natural gas resources and productive capacity, particularly for unconventional gas, we have prepared Case Studies for three firms that have been, and are expected to remain, at the forefront of unconventional gas development.

- Chesapeake Energy, the dominant lease holder in the Marcellus, Haynesville, Bossier and Eagle Ford gas shale plays and currently the most active natural gas driller in the U.S.
- Devon Energy, the dominant producer in the Barnett Shale, pioneering the use of horizontal wells for unlocking the deep gas shale resource.
- Southwestern Energy, the dominant producer in the Fayetteville Shale, demonstrating that other deep gas shale plays could be unlocked with proper well drilling and completion practices.

**CASE STUDY #1: CHESAPEAKE ENERGY CORP.**

**Background.** Chesapeake Energy (CHK) has been a leader in developing unconventional gas, particularly gas shales. A brief look at their recent activities and future plans provides valuable perspective on how the efforts of one company are changing the outlook for domestic natural gas supplies.

- CHK is currently the most active driller in the U.S., with 133 operated rigs and responsible for 1 out of 8 gas wells drilled in the U.S. It is also the second largest natural gas producer in the U.S., producing 2.5 Bcfd of natural gas (2.8 Bcfd natural gas and liquids) in mid-2010.
- Essentially all of CHK's rigs are dedicated to unconventional resources, with 80% of the rigs active in natural gas shales and the bulk of the remainder in liquids-rich shale and tight gas plays.
- Chesapeake has been successful in attracting a number of major oil and gas companies, such as BP and Statoil, into joint ventures for financing the development of the major gas shale basins of the U.S.

**Resources and Development.** In a relatively short time, Chesapeake has built its unconventional gas resource base (defined as unrisks unproven resources plus proved reserves) for natural gas to 219 Tcfe (May 2010). Its risks resources are 96 Tcf including proved reserves of nearly 16 Tcf.

Chesapeake has a publically announced objective of adding 2.5 to 3.0 Tcfe per year of new proved reserves (after replacing production) for the next several years and has announced aggressive objectives for increasing unconventional gas production.

The table below provides a snapshot of Chesapeake's unconventional gas resources, (unrisked and risked) its current level of gas production and its active operated rigs.

Status of Chesapeake Energy's Unconventional Gas Activities

	Unrisked Resource*	Risked Resource*	Current Production	Operated Rigs
	(Tcf)	(Tcf)	(MMcfd)	
<b>1. Gas Shales</b>				
Haynesville	32	23	615	36
Barnett	7	6	535	22
Fayetteville	12	9	370	8
Marcellus	67	27	130	26
Bossier	10	4	-	-
Eagle Ford	11	2	-	5
<b>2. Other Unconventional</b>				
Granite Wash	8	6	280	12
Other	72	19	860	24
<b>Total</b>	<b>219</b>	<b>96</b>	<b>2,790</b>	<b>133</b>

\*Includes proved reserves

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## CASE STUDY #2: DEVON ENERGY

**Background.** Devon is the fourth largest natural gas producer in North America, producing 966 Bcf (2.65 Bcfd) of natural gas in 2009. It is the leading producer of natural gas from the Barnett Shale and the pioneer in applying horizontal well drilling in gas shales. Recently, Devon sold its domestic offshore and international oil and gas assets (proceeds of about \$10 billion) to concentrate on North American onshore natural gas.

**Resources and Development.** Devon has accumulated a large resource and reserve base for natural gas, particularly in U.S. gas shales:

Basin		Unrisked Resource*	Risked Resource*	Risked Well Locations
		(Tcf)	(Tcf)	(#)
Barnett Shale		37	18.0	7,500
Haynesville Shale		27	7.4	1,600
Woodford Shale				
	Anadarko	12	7.0	3,500
	Arkoma	3	1.6	2,150
TOTAL		79	34	14,750

\*Includes proved reserves

**Barnett Shale.** Devon severely restricted its activity in the Barnett Shale during 2009, reducing its operated rig count in this play by 75%. As a result, its Barnett Shale gas shale production declined from 1.2 Bcfd at the end of 2008 to 1.1 Bcfd at the end of 2009. In 2010, Devon has slowly increased its activity in this play, with plans for drilling 370 wells (up from 336 in 2009) and rebuilding its gas production to 1.2 Bcfd. Devon reports three notable achievements for the Barnett Shale:

- Reserve revisions, due to improving well performance, have added over a Tcf of proved reserves during the past five years.



- Well performance has remained constant, even as its acreage has become maturely developed.
- Stimulation costs per well have declined by a third during the past two years.

**Other Gas Shale Plays.** After an extended period of geological evaluation and delineation drilling, Devon is ramping up its activity in the Haynesville Shale, planning to drill 25 wells in 2010 up from 9 in 2009.

Devon is a “first mover” in the emerging Anadarko (Cana) Woodford Shale play and has plans to drill 81 wells in this play in 2010, up from 40 wells in 2009. During its first quarter of 2010, Devon’s net production in this play was 73 MMcfd. It also is increasing its activity in the Arkoma Woodford Shale play, planning to drill 85 wells in 2010, up from 61 in 2009. Its first quarter 2010 net production in this play was 88 MMcfd.

**Other Unconventional Gas.** Devon plans to increase the development pace of its Washakie (Green River Basin, Wyoming) tight gas sands by drilling 115 wells in 2010, up from 94 wells in 2009 and of its Powder River Coalbed Methane by drilling 35 wells in 2010, up from 15 wells in 2009. In contrast, it is slowing the pace of development in its East Texas tight gas plays (Carthage and Groesbeck) with plans to drill 40 wells in 2010, down from 49 wells in 2009.

### CASE STUDY #3: SOUTHWESTERN ENERGY

**Background.** Southwestern Energy (SWN) is the leading developer of the second deep gas shale play to emerge in the U.S., the Fayetteville Shale.

**Investment, Reserves and Production.** Southwestern's natural gas production has grown significantly in the past four years:

- Annual natural gas production has grown steadily from 0.03 Bcfd (12 Bcf) in 2006 to an expected 0.93 Bcfd net (340 Bcf) in 2010. Similarly, proved reserves have increased from 0.2 Tcf at the end of 2006 to 3.1 Tcf at the end of 2009 and are expected to further increase in 2010.

SWN's Investment and Results for Fayetteville Shale

Year	Capital Investment	Wells Drilled	Proved Reserves	Annual Production	
	(Billion)	(Number)	(Tcf)	(Bcf)	(Bcfd)
2006	n/a	300	0.2	12	0.03
2007	\$1.0	415	0.7	54	0.20
2008	\$1.2	604	1.5	134	0.37
2009	\$1.3	570	3.1*	244	0.67
Projected 2010	\$1.2	~600	n/a	340	0.93

\*Represents about 85% of SWN's proved reserves.

- SWN reports encouraging initial results from placing over 400 wells on closer spacings of 10 to 12 wells per section. The data from the closer spaced wells indicate interference of only 5 to 8%. SWN is testing even closer well spacing of 40 acres (and less) per well as part of its 2010 drilling program. Should these closer well spacing tests be successful, the technically recoverable resources from this play would increase materially.

**Well Performance and Costs.** Southwestern's Fayetteville Shale well performance has increased steadily, as measured by initial productivity (IP). The improvement, from 1.7 MMcfd in 2007 to 3.5 MMcfd in 2009, is due, in part, to using longer horizontal laterals and conducting more intensive well stimulations.

Despite drilling longer laterals, well costs have remained stable at \$2.9 to \$3.0 million per well. Improved well drilling efficiencies, from 17 rig-days per well in 2007 to 12 rig-days per well in 2009, have helped hold costs in line.

#### SWN's Well and Cost Performance for Fayetteville Shale

Year	Cost/ Hz Well	Lateral Length	Drilling Time*	Initial Production	F&D Costs
	(Million)	(Feet)	(Days)	(MMcfd)	(\$/Mcf)
2007	\$2.9	2,657	17	1.7	\$2.54
2008	\$3.0	3,620	14	2.8	\$1.53
2009	\$2.9	4,100	12	3.5	\$0.86

\*Re-entry to re-entry.

Southwestern's gross Fayetteville gas shale production is at 1.5 Bcfd, up from 1.0 Bcfd a year ago. It plans to drill about 600 shale wells this year using 24 rigs (16 Hz rigs).

## EXHIBIT E

## Domestic Hydrocarbon Liquids Production from Gas Shales and Other Unconventional Gas Resources

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### Introduction

The U.S. produces significant volumes of hydrocarbon liquids called condensate and natural gas liquids (NGLs). These lighter hydrocarbon liquids (such as propane and natural gasoline) are usually combined with crude oil and categorized under the term domestic “oil” production. Data from the U.S. DOE Energy Information Administration show that domestic condensate and natural gas liquids consistently account for 2.3 million barrels per day, equal to a third of the “oil” produced during the past three years, Table 1.

Table 1. Domestic Liquids (“Oil”) Production

Liquids Type	Annual Production (Million B/D)		
	2006	2007	2008
<b>Crude Oil</b>	4.53	4.63	4.58
<b>Lease Condensate</b>	0.50	0.50	0.47
<b>Natural Gas Liquids (NGLs)</b>	1.72	1.78	1.83
<b>TOTAL</b>	6.75	6.91	6.88
<b>% Condensate/NGLs</b>	33%	33%	33%

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These lighter hydrocarbon liquids are produced from both oil and natural gas production wells.

- Condensate (usually called lease condensate) is primarily produced by natural gas wells.\* Often combined with oil production statistics, condensate is a liquid hydrocarbon at atmospheric pressure and is generally captured at the lease site.

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\* For example, in 2008 Texas produced 7,074 Bcf of natural gas and 52.5 million barrels of condensate from gas wells out of 19,066 Bcf of non-associated (wet) natural gas and 173 million barrels of condensate production for the total U.S.

- Natural gas liquids, produced from both gas and oil wells, are usually extracted cryogenically in a natural gas plant to provide ethane, propane, butane and other hydrocarbon products for the chemical industry and for residential fuel.

With the emergence of liquids-rich gas shales (such as the Eagle Ford Shale) and tight gas sands (such as the Granite Wash), the production of domestic hydrocarbon liquids (“oil”) is becoming an increasingly important and valuable by-product of unconventional gas production.

Under today's market conditions, the productive capacity of the liquids-rich gas shale and tight gas plays is projected to exceed market demand, constraining the potential for increasing domestic liquids production. This paper examines the volumes of domestic hydrocarbon liquids that would accompany increased production of U.S. unconventional gas, particularly as additional markets for gas production are created by increased exports of natural gas.

## **Study Methodology and Perspective**

Advanced Resource's unconventional gas model MUGS (Model of Unconventional Gas Supply) incorporates the volumes and value of co-produced liquids and higher than standard Btu content in the produced gas. The value of producing and selling (oil/condensate) and the net value (revenues less costs) of producing NGLs are credited against overall costs of producing natural gas, enabling natural gas from unconventional gas plays with associated liquids to have lower “break-even” costs.

Today, with domestic oil prices of \$75 per barrel (equal to \$12.50 per million Btu) and natural gas prices at \$4.50 per million Btu, domestic unconventional gas producers are increasingly pursuing liquids-rich gas shale and tight gas plays. In addition, operators are sending more of their high Btu gas to gas plants to extract NGLs rather than sell the higher Btu gas production directly to a pipeline.

For example, a barrel of NGLs extracted from a high Btu gas stream (with a Btu content of 3,600 Btu per barrel) has a market price of about \$7.50 per million Btus, compared to \$4.50 per million Btus when sold as natural gas (at Henry Hub spot prices). While NGL extraction can add to plant operating costs, the differences in oil and natural gas prices in effect today make extraction of NGLs from even a moderately high Btu gas stream favorable.

## Productive Capacity of Liquids from Unconventional Gas

**1. Growth of Liquids Production.** Two of the unconventional gas supply sources, gas shales and tight gas sands, often provide high Btu gas and sometimes lease condensate (oil). Coalbed methane in general does not contain significant volumes of higher Btu gas.

- The Barnett Shale provides a notable example of the increasing volume of oil, lease condensate and NGL production provided by gas shales. Production data from the Texas Railroad Commission shows that the volume of oil/lease condensate produced from the Barnett Shale has increased steadily in the past three years, Table 2:

Table 2. Natural Gas and "Oil" Production from Barnett Shale Gas and Oil Wells

Type of Well	Production Streams	Annual Production		
		2007	2008	2009
<b>Gas Wells</b>				
	Natural Gas (Bcfd)	2.39	4.42	4.86
	Oil/Lease Condensate (B/D)	2,860	6,970	6,620
<b>Oil Wells</b>				
	Casing Head Natural Gas (Bcfd)	0.02	0.02	0.06
	Oil/Lease Condensate (B/D)	2,070	4,670	5,100
<b>Total</b>				
	<b>Natural Gas (Bcfd)</b>	<b>2.41</b>	<b>4.44</b>	<b>4.92</b>
	<b>Oil/Lease Condensate (B/D)</b>	<b>4,930</b>	<b>11,640</b>	<b>11,720</b>

The Texas Railroad Commission does not publish data on NGLs produced from the Barnett Shale oil and gas production. (Our independent estimate of NGL production from the Barnett Shale in 2009 is 208,000 barrels per day.)

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- EOG, one of industry's leaders in pursuing liquids-rich gas shales, expects to significantly increase its production of oil, lease condensate and NGLs from the Barnett Shale and particularly from its "Combo" sub-play, Table 3:

Table 3. EOG Resources: Net Production of Natural Gas, Lease Condensate and NGLs from the Barnett Shale

Production Streams	2009	2010	2011	2012
Natural Gas (MMcfd)	400	407	412	417
Oil/Lease Condensate (B/D)	10,000	16,000	27,000	33,000
NGLs (B/D)	3,000	11,000	24,000	32,000

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- Chesapeake Energy, today's most active natural gas driller, has set a goal of achieving, by year 2012, a 50/50 allocation of their capital investment to liquids-rich resource plays and unconventional gas plays, up from a 10/90 allocation (liquids/gas) in 2009.

**2. Projected Volumes of Domestic Liquids Production Capacity from Liquids-Rich Gas Shales and Tight Gas Sands.** Three low cost, liquids rich/high Btu unconventional gas plays in the Mid-West/Gulf Coast Corridor which would benefit from natural gas exports from the Gulf Coast are the Barnett Shale, Eagle Ford Shale and Granite Wash tight gas sands. These are some of the largest new gas shale and tight gas plays and constitute a significant portion of the undeveloped recoverable unconventional gas resource.

We anticipate significant growth of natural gas production from these three plays, particularly increased near-term liquids production from the Barnett Shale "Combo" sub-play along the northern portion of the Barnett Shale field area, being pursued by EOG Resources (discussed above), Table 4.

Table 4. Natural Gas Oil/Lease Condensate and NGL Productive Capacity from Barnett Shale, Eagle Ford Shale and Granite Wash Tight Gas Sand Plays

		Annual Productive Capacity		
		Natural Gas (Bcfd)	Oil/ Lease Condensate (B/D)	NGLs (B/D)
<b>2010 (Preliminary)</b>		6.0	25,000	233,000
<b>Near Term</b>				
	<b>2012</b>	6.2	51,000	240,000
	<b>2015</b>	7.4	121,000	287,000
	<b>2020</b>	8.8	211,000	341,000
<b>Longer Term</b>				
	<b>2025</b>	10.1	275,000	378,000
	<b>2030</b>	11.1	318,000	403,000
	<b>2035</b>	12.2	353,000	425,000

### Removing Constraints on Increased Production of Domestic Liquids

If the full unconventional gas productive capacity in the above three unconventional gas plays could be produced and marketed, domestic liquids production would increased by about 552,000 barrels per day in 2020 and 778,000 barrels per day in 2035, Table 4. (As a point of reference the combined domestic production of condensate and NGLs in 2008 was 2.3 million barrels per day from both oil wells and natural gas wells.)

The primary constraint to increased production of domestic liquids from unconventional gas plays is lack of market for the produced natural gas. One approach to removing this constraint is to increase the size of the market for natural gas, particularly for liquids-rich unconventional gas, by exporting domestically produced natural gas using LNG. For this, we assume that exports of natural gas from the Gulf Coast would provide market outlets for the lowest cost, nearest to market liquids-rich unconventional gas plays, namely the Barnett and Eagle Ford shales and the Granite Wash tight gas sands, discussed above.

## **Projected Increases in Domestic Liquids Production**

Based on the above, we would anticipate that LNG exports of 2 Bcfd from the Gulf Coast would increase domestic liquids (condensate and NGL) production by about 128,000 barrels per day in 2020 and 126,000 barrels per day in 2035.

However, because of continuing expectations of higher values for liquids than for natural gas (per MMBtu), operators may choose to “take a deeper cut of NGLs” from their gas stream by reducing the Btu content of the treated gas to 950 to 970 Btu/cf rather than the standard 1,000 Btu/cf used in our analysis. This would lead to somewhat higher volumes of liquids production estimated at about 150,000 barrels per day of condensate and NGLs. Doing so would slightly reduce (“shrink”) the volume of dry natural gas production when converted to a standard 1,000 Btu/cf basis.

## EXHIBIT F



# **MARKET ANALYSIS FOR SABINE PASS LNG EXPORT PROJECT**

**Prepared for:**

**Sabine Pass LNG, L.P.**

**FERC Docket Nos. CP04-47, CP05-396, PF10-24**

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**Disclaimer:** This report was prepared by Navigant Consulting, Inc. for the benefit of Cheniere Energy in its application to the Federal Energy Regulatory Commission for a license to manufacture and export liquefied natural gas at its Sabine Pass facility. This work product involves forecasts of future natural gas demand, supply, and prices. Navigant Consulting applied appropriate professional diligence in its preparation, using what it believes to be reasonable assumptions. However, since the report necessarily involves unknowns, no warranty is made, express or implied.

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## Summary of Assignment

This report supports Sabine Pass Liquefaction, L.L.C.'s application to the Department of Energy and the Federal Energy Regulatory Commission for a proposed natural gas liquefaction and export project in Cameron Parish, Louisiana. The proposed liquefaction and export facility would be a modification of existing import, storage, and vaporization facilities which were constructed pursuant to authority granted under FERC Dockets No. CP04-47-000 (Sabine Pass LNG and Pipeline Project or Phase I facilities) and CP05-396-000 (Sabine Pass LNG Phase II Project or Phase II facilities), with further FERC processing under Docket No. PF10-24-000.

For the purposes of Sabine Pass Liquefaction, L.L.C.'s application, Navigant Consulting Inc. was asked to provide our independent assessment of the potential impact of the proposed liquefaction and export project on supply availability and natural gas prices in North America. This report draws from our experience and knowledge of the North American gas resource base, as well as our technical modeling and scenario analysis capabilities. In this report summarizing our analysis and modeling, Navigant Consulting provides a high-level forward-looking view of natural gas market dynamics in North America, covering supply, demand, price trends, and significant factors likely to affect the gas market from the year 2015 through 2035. Following that discussion, the heart of the report discusses the results of our gas market modeling and scenario analysis that we performed using the GPCM Natural Gas Market Forecasting System (licensed from RBAC, Inc.) to analyze the potential impacts of liquefying and exporting approximately 2.0 Bcf per day (730 Bcf per year, net of fuel used and inerts removed during liquefaction) of domestically-produced gas at the Sabine Pass facility from 2015 through 2035.

The analysis includes the development and analysis of five gas market scenarios, based on two reference cases. The particular scenarios were selected to bookend a reasonable range of supply/demand scenarios against which the addition of LNG exports could be tested. The first set of cases assumes the U.S. Energy Information Administration's demand numbers (shown in blue, below). The EIA's gas demand numbers account only for the influence of greenhouse gas (GHG) laws and regulations actually in force as of the present. The second set assumes Navigant Consulting's higher demand (shown in yellow, below). Navigant Consulting's gas demand numbers account for the increased role of natural gas particularly as an electric generation fuel in a carbon-constrained future. Descriptions follow.

<i>Case Name</i>	<i>Description</i>
<b>GHG As-Is</b>	The <b>GHG As-Is Case</b> is based on NCI's Spring 2010 Forecast of June 2010. The Spring 2010 Forecast incorporates NCI's extensive work done on North American gas shale supply resources. The GHG As-Is Case modifies the Spring 2010 Forecast by substituting the gas demand from the Energy Information Agency's 2010 AEO Reference Case for the higher NCI Spring 2010 Forecast demand. The EIA's demand numbers were developed by the EIA by assuming that only existing GHG-related laws and regulations will be in place throughout the study timeframe.
<i>Moderate Export</i>	The <b>GHG As-Is, Moderate Export Case</b> 'forces' exports from Sabine Pass LNG of <b>1.0 Bcfd</b> beginning 2015 . Otherwise the case is the same as the GHG As-Is Case. The effects on prices are the specific focus.
<i>High Export</i>	The <b>GHG As-Is, High Export Case</b> 'forces' exports from Sabine Pass LNG of <b>2.0 Bcfd</b> beginning 2015. Otherwise the case is the same as the GHG As-Is Case. The effects on prices are the specific focus.
<b>GHG Plus</b>	The <b>GHG Plus Case</b> uses the same infrastructure assumptions as the GHG As-Is Case, but demand is increased in two ways. First, demand is taken straight from the NCI Spring 2010 Forecast, which incorporates the demand- and supply-increasing effects of U.S. carbon policy at the state and federal level. Second, it incorporates demand for natural gas as a vehicle fuel from the U.S. EIA's Annual Energy Outlook 2010, <i>2027 Phaseout With Expanded Market Potential</i> , which is almost ten times higher than vehicle demand in the EIA's Reference Case. (The "phaseout" refers to the timing of terminating government incentives for NGV development.)
<i>High Export</i>	The <b>GHG Plus, High Export Case</b> is based on the same assumptions as the GHG Plus case but in addition 'forces' exports from Sabine Pass LNG of LNG to 2.0 Bcfd beginning 2015. The effects on prices are the specific focus.

## Executive Summary / Key Takeaways

Navigant Consulting (NCI) modeled five scenarios to examine the possible price effects of manufacturing and exporting approximately 2.0 billion cubic feet per day (Bcfd) of liquefied natural gas from the Sabine Pass LNG facility in Cameron Parish, Louisiana. All dollar figures are average annual monthly prices in “real” (2009) dollars per MMBtu.

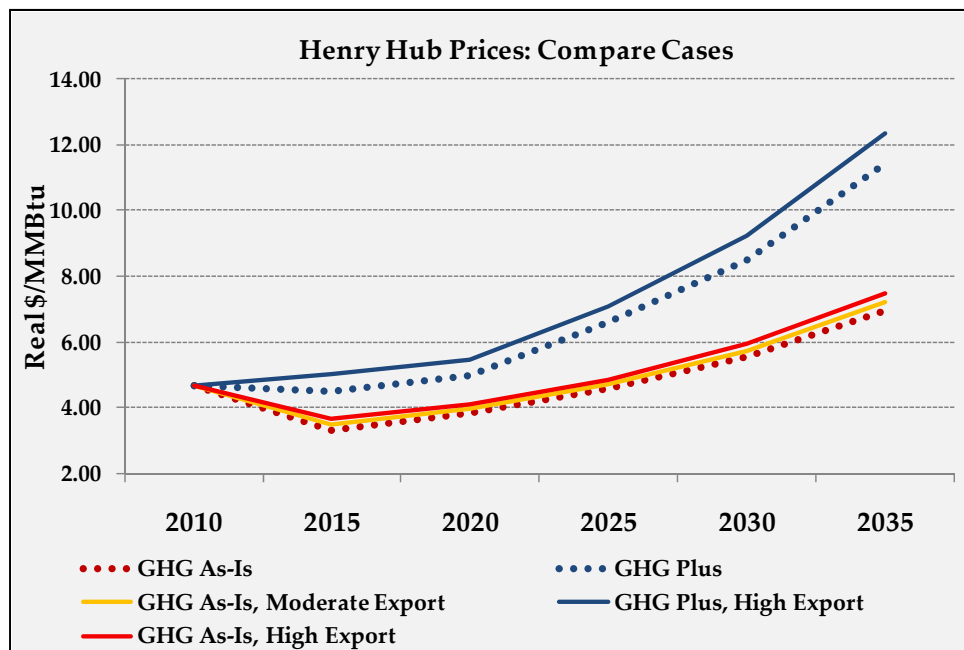
Based on the U.S. Energy Information Agency’s demand forecast for natural gas, which includes growth in natural gas vehicle fuel to 0.5 Bcfd by 2035 (the *GHG As-Is* Cases), NCI modeling showed the forward price curve for the period 2015-2035 to rise from \$3.29 per MMBtu to \$6.97 per MMBtu, assuming no exports of LNG at Sabine Pass. The addition of 1.0 Bcfd of LNG exports at Sabine Pass increases Henry Hub forward prices by only \$0.20 per MMBtu (6.1%) in 2015, and by only slightly more, \$0.23 per MMBtu (3.3%), in 2035, compared to the no-export GHG As-Is Case. The addition of 2.0 Bcfd of liquefaction demand increases Henry Hub prices by \$0.35 per MMBtu (10.6%) in 2015 and \$0.49 per MMBtu (7.0%) in 2035, compared to the no-export GHG As-Is Case, a fairly moderate impact on prices in the market.

Using Navigant Consulting’s demand assumptions, which assume higher natural gas demand in response to greenhouse gas reduction goals, plus a client-specified increase in natural gas vehicle fuel demand that reaches 4.7 Bcfd by 2035 (the *GHG Plus* Cases), the forward price curve starts in 2015 at \$4.50 per MMBtu and moves up to \$11.43 per MMBtu by 2035, assuming no LNG exports. The addition of 2.0 Bcfd of LNG exports at Sabine Pass moves Henry Hub forward prices by \$0.52 per MMBtu (4.0%) in 2015, and \$0.90 per MMBtu (7.9%) in 2035, compared to the no-export GHG Plus Case.

Significantly, the analysis shows that, on a percentage basis, the increases in price associated with the addition of liquefaction demand are similar across all cases. In other words, in the lower demand GHG As-Is Case, the percentage increases in prices were very similar to the price increases in the high demand cases. All test cases in both demand scenarios produced single-digit percentage increases except Year 2015 in the GHG As-Is, High Export Case, which yielded a 10.6 percent move.

Year	Metric	GHG As-Is Base	GHG As-Is Moderate	GHG As-Is High	GHG Plus Base	GHG Plus High
2015	Price (MMBtu)	\$3.29	\$3.49	\$3.64	\$4.50	\$5.02
	Diff. from Base		\$0.20	\$0.35		\$0.52
	% Increase		6.1%	10.6%		4.0%
2035	Price (MMBtu)	\$6.97	\$7.20	\$7.46	\$11.43	\$12.33
	Diff. from Base		\$0.23	\$0.49		\$0.90
	% Increase		3.3%	7.0%		7.9%

**Table 1: Summary of Prices from Test Cases**



**Figure 1: Henry Hub Prices: Compare Cases**

We also examined whether any price effects in the Sabine Pass region translated into price effects in the capacity-constrained Northeast markets, represented by Transco Zone 6-New York, Dominion South Point in Ohio/West Virginia, and Texas Eastern M-3 in Pennsylvania. Our findings were that none of the export scenarios have a significant impact on Northeast market prices relative to prices in the Gulf Coast region. The largest difference in basis<sup>1</sup> caused by an export scenario occurs at Dominion South Point in 2035 for the GHG Plus Case. The addition of 2.0 Bcfd of export gas (plus 0.2 Bcfd for plant fuel consumption) yields a basis at that time and location that is 6.6 cents per MMBtu weaker than in the GHG Plus Case. All other changes in basis values are smaller. We view the effects on regional Northeast prices from the export of up to 2.0 Bcfd of LNG from Sabine Pass as negligible.

In all of the scenarios in the analysis, the model draws from existing gas fields and production curves identified in NCI's Spring 2010 base model of North America. The model also is based upon existing North American pipeline and LNG terminal infrastructure, augmented by planned expansions that have been publicly announced and that are likely to be built based upon the best publicly available information. Some projects, notably the proposed Mackenzie Pipeline in northern Canada, were excluded from the model because they were judged to be too uncertain at this time for inclusion in the model. No unannounced infrastructure projects were introduced into the model.

In developing the gas supply assumptions, Navigant Consulting has attempted to be conservative in its estimates of supply growth potential. In focusing upon only existing gas shale resource developments, we have not accounted for any additional plays that are yet to be identified and

<sup>1</sup> "Basis" is the difference between the cash price at a given physical trading location and the price of the Henry Hub NYMEX contract. Basis plus NYMEX equals the price at the physical location.

developed. The recent history of resource discovery and the sharp growth in estimated reserves of shale gas indicate that additional new shale resources will in all likelihood be developed in the forecast timeframe to 2035.

The likelihood of shale gas development is further reinforced by the fact that many shale formations also contain natural gas liquids (NGLs), which strengthens the economic prospects of shale. For example, several energy companies including Enbridge, Enterprise Products Partners, Buckeye Partners, Kinder Morgan, and Dominion have recently announced plans to build or enhance NGL gathering and transmission systems in the Marcellus shale formation; the Eagle Ford formation in Texas is being developed as an NGL play as much as a natural gas play. The additional economic value of NGLs from these plays was not considered in NCI's modeling, which further reinforces the conservative nature of future shale growth estimates used in this study.

The continued strong development of shale gas appears to be a logical assumption, given the existing mapped resources that possess the geologic structure to contain gas shale, and other information available concerning gas shale. Additional supply from resources beyond what has been modeled would only tend to dampen the upward price response modeled by the addition of 2.0 Bcfd of exports at Sabine Pass. In light of this, we view the price outcomes of our modeled analysis at the two different demand levels as establishing the upper range of impacts that exports from the Sabine Pass LNG project might have on natural gas prices.

We furthermore are of the view that, based upon our knowledge of the North American resource base, the size of the gas resource in North America is more than adequate to serve all forecast domestic demand through the study period to 2035 as well as the demand added by Cheniere's proposed liquefaction facility.

## Overview of Proposed Export Operations at Sabine Pass LNG

### Existing Regasification Facility

Cheniere Energy's Sabine Pass LNG facility is located in Cameron Parish, Louisiana, on the Sabine River, which separates Texas from Louisiana.



**Figure 2: Sabine Pass LNG Location Map**

The facility was initially constructed to import LNG. It sits on the Sabine River Navigation Channel, 3.7 nautical miles from the Gulf of Mexico. The channel is maintained at a depth of 40 feet and is not subject to tidal limitations. The terminal's two docks are recessed so that no part of an LNG vessel protrudes into the open waterway while docked.

Phase 1 of Sabine Pass LNG began service in 2008. The first stage of the Phase 2 expansion was completed in 2009. With a total send-out capacity of 4.0 Bcfd and 16.8 Bcf of on-site storage capacity, the Sabine Pass terminal is the largest LNG receiving terminal in the world, as measured by regasification capacity. It is capable of receiving and unloading approximately 400 LNG vessels each year.

In June 2010, Cheniere received approval from the U.S. Department of Energy to re-export foreign-sourced liquefied natural gas from the Sabine Pass terminal. With the Federal Energy Regulatory Commission's earlier approval, the facility is now fully authorized to re-export imported LNG.



## Proposed Liquefaction Facility

Subsequent to the approval to re-export imported LNG, Cheniere announced on June 3, 2010, its intent to build the first LNG liquefaction plant in the United States in 40 years, based on the projected growth of domestic gas resources, driven by the dramatic increase in the accessibility of shale gas. (The only other natural gas liquefaction plant in the U.S. is the Kenai plant, in Alaska, owned by ConocoPhillips and Marathon Oil.)

Cheniere's preliminary plans call for up to four LNG production trains, each with the capacity to produce approximately 3.5 million tonnes (183 Bcf) per year of LNG. Two trains would be built by 2015, for an annual liquefaction and export capacity of 366 Bcf (about 1.0 Bcfd), with further expansion based on customer interest. The liquefaction project has received initial interest from LNG buyers as well as from domestic gas producers who are potentially interested in committing supply.

The proposed liquefaction facilities would be located on approximately 120 acres of the existing 853-acre Sabine Pass LNG site, and utilize the existing Sabine Pass LNG marine facilities. The liquefaction facilities would be designed to process a peak daily intake<sup>2</sup> of approximately 2.4 Bcfd of domestically-produced natural gas (including fuel and inerts) delivered from the Cheniere Creole Trail Pipeline and, potentially, the Kinder Morgan Louisiana Pipeline. LNG would be exported by LNG carriers via marine transit through the Sabine Pass Channel. The facility would be operated as a bidirectional facility and have the simultaneous capability to liquefy for export and to import and regasify.

## Rationale for Exporting Domestically Produced LNG

As we understand, the Sabine Pass import facility was designed when supply-demand projections indicated that domestically produced natural gas would be inadequate to meet future demand growth. In 2008, Navigant Consulting and other industry observers identified the rapidly expanding development of natural gas from shale. While geologists and natural gas production companies had always been aware of shale-based gas resources, such resources were regarded as uneconomic to recover in most instances.

Natural gas prices increased substantially in the first decade of this century compared to the previous decade, and culminated in significantly higher prices in 2007-2008. These higher prices supported the development of new techniques in shale gas recovery. Most notably, horizontal drilling and hydraulic fracturing techniques were refined and systematized in ways that dramatically increased efficiencies and reduced costs.

In the few short years since 2007 or 2008, the outlook for natural gas production in North America has reversed from an expectation of supply deficit, in which LNG would have to be imported to meet demand, to an expectation of supply surpluses, in which domestic gas resources are more than adequate to satisfy projected demand. To a less dramatic extent, demand projections have also been increased as new markets are seen to be developing for natural gas as a result of its inherent qualities of supply abundance and sustainability, and its low carbon content, which positions it as a key

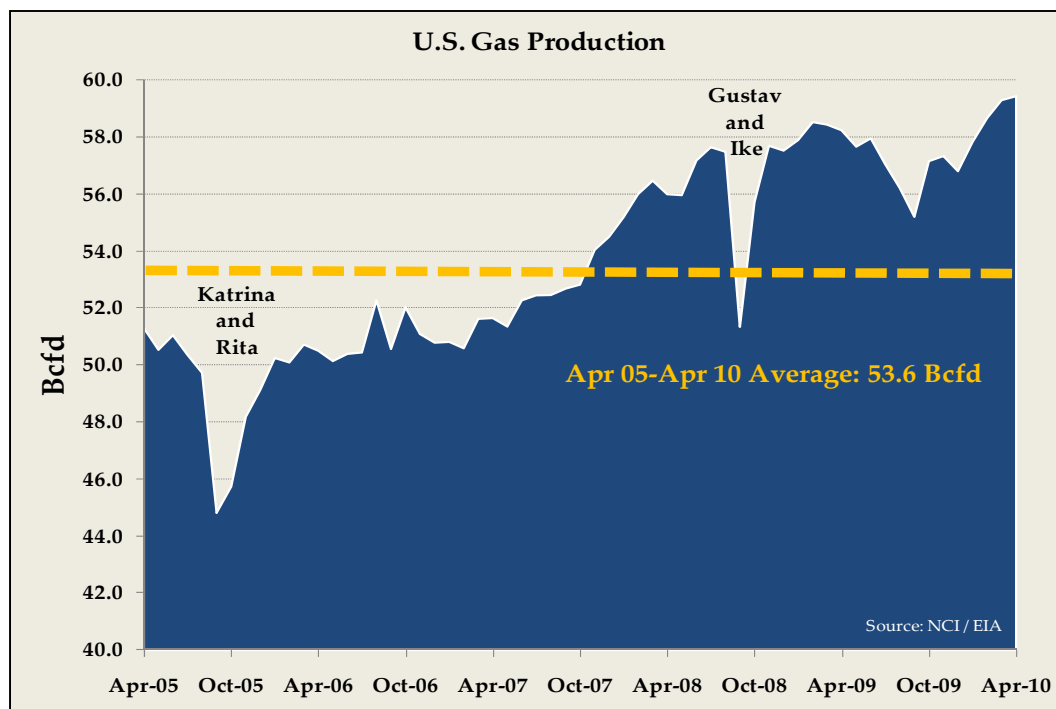
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<sup>2</sup> The liquefaction trains will be capable of producing more LNG for export at times since the liquefaction process uses gas fired turbines and air cooled heat exchangers, both more effective in colder weather.

contributor to the low-carbon economy of the future. This demand potential has been muted at present due to the lingering effects of one of the most significant recessions in modern history.

### Size of the Shale Gas Resource

To illustrate the size of the shale gas resource and its rapid development, consider the following. U.S. natural gas production increased from about 51.3 Bcfd in April 2005 to about 59.4 Bcfd in April 2010, even as overall rig counts fell from 1,163 to 959. (See **Figure 3: U.S. Gas Production.**) This is an increase of 16 percent in five years. The increase in production has been driven by shale, as evidenced by the increase in horizontal drill rig counts and the decrease in vertical (conventional) rig counts. (See **Figure 4: U.S. Gas Rig Type Shift** and **Figure 5: Five-Year Rig Count and Gas Production.**)



**Figure 3: U.S. Gas Production History**

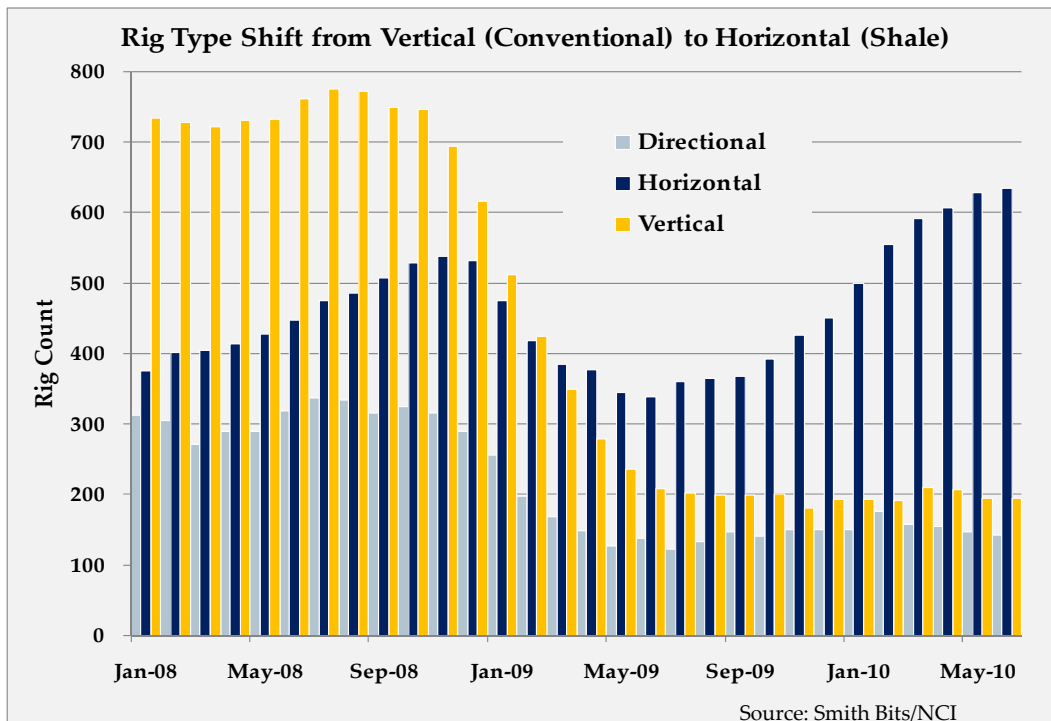


Figure 4: U.S. Gas Rig Type Shift

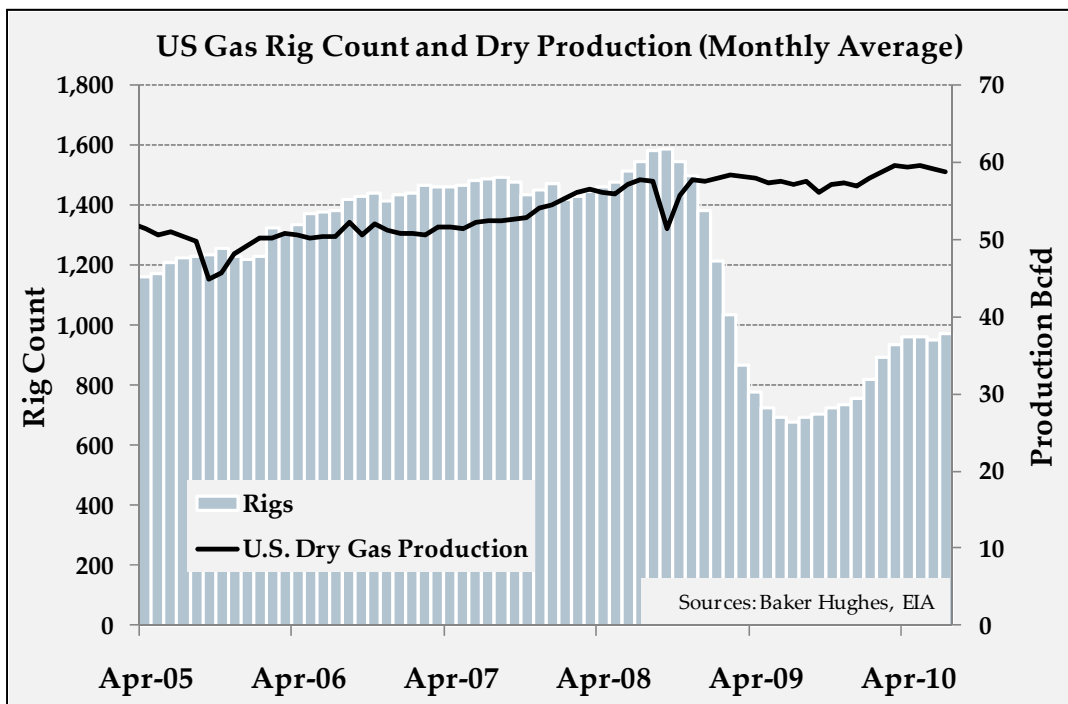
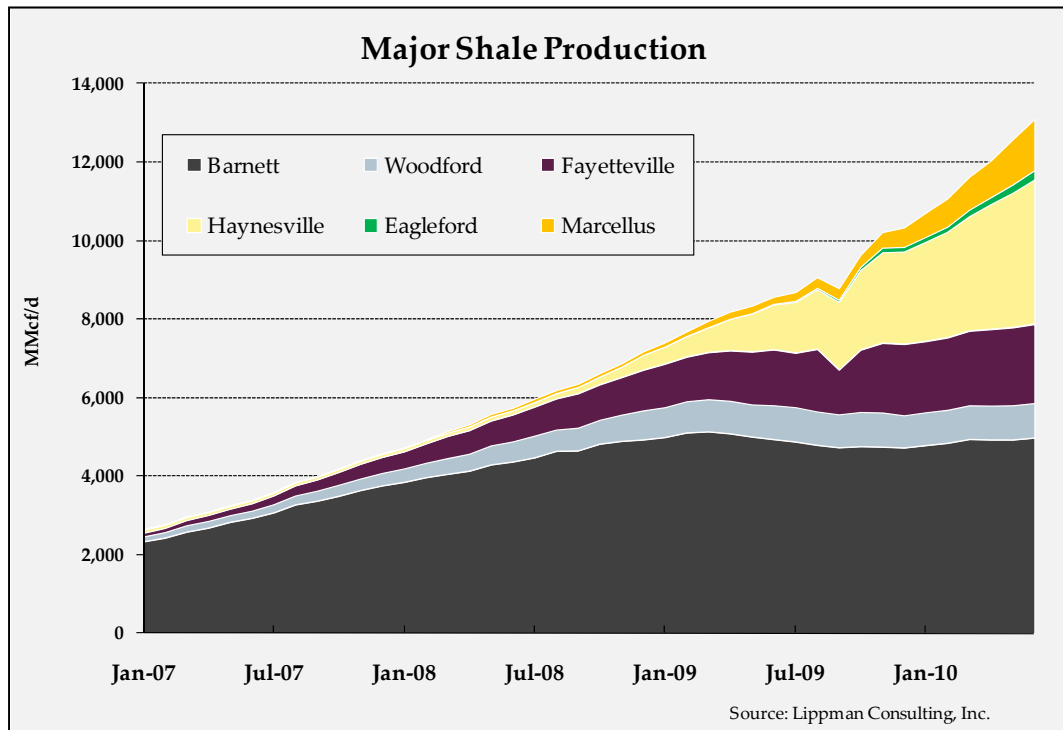


Figure 5: Five-Year Rig Count and Gas Production

The growth in shale gas production in just the past three years has been phenomenal, as shown in the graph in **Figure 6: Shale Production 2007-2010**. Shale output from six major basins under development grew from 2.6 Bcfd in January 2007 to 13.1 Bcfd in June 2010, an increase of more than 400 percent in a period of less than three and a half years.



**Figure 6: Shale Production 2007-2010**

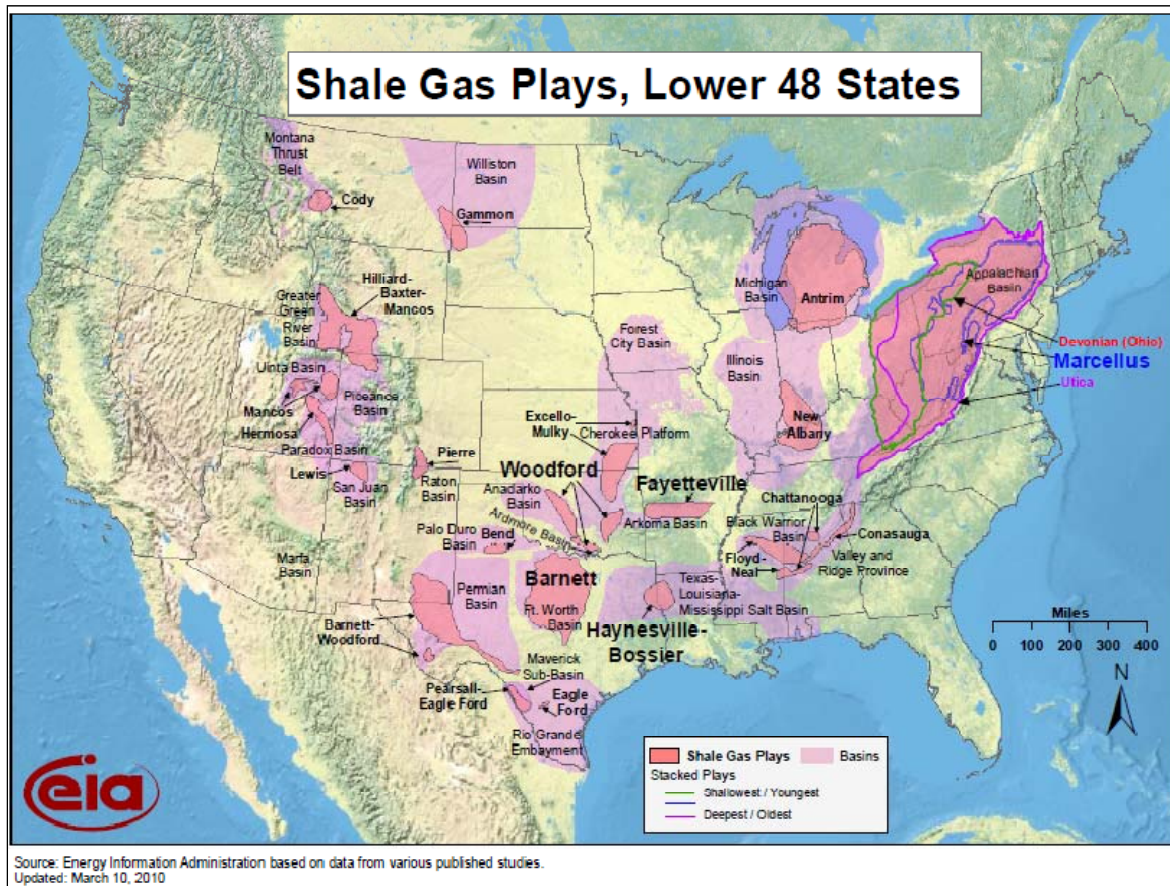
In Navigant Consulting's estimation, the size of the shale gas resource in North America is more than adequate to serve all forecast domestic demand through the study period to 2035 as well as the demand added by Cheniere's proposed liquefaction facility, likely without significantly affecting North American and regional prices. But this conjecture was what was to be tested through our scenario modeling exercise for the Cheniere LNG project.

The geographic scope of the U.S.'s shale gas resource can be seen in the following map from the Energy Information Administration. In Navigant Consulting's groundbreaking study on the subject of emerging shale gas resources, we estimated the maximum recoverable reserves from shale to be 842 trillion cubic feet (Tcf), boosting the maximum recoverable reserves for all of the U.S. to 2,247 Tcf.<sup>3</sup>

Several of these shale formations have yet to be exploited in any meaningful way. Additionally, North America is in an early phase of discovery for this resource. For example, the Marcellus Shale formation was virtually unheard of in 2007. Recently, Dr. Terry Engelder of Penn State University

<sup>3</sup> *North American Natural Gas Supply Assessment*, by Navigant Consulting for American Clean Skies Foundation, July 4, 2008, available at <http://www.cleanskies.org/pdf/navigant-natural-gas-supply-0708.pdf>

estimated that the Marcellus has a 50 percent chance of containing 489 Tcf of recoverable gas.<sup>4</sup> Currently, the entire United States uses about 23 Tcf per year, or less than 5 percent of the Marcellus's potential production.<sup>5</sup> Another recent study by Penn State estimates that production from the Marcellus will grow from 327 million cubic feet per day during 2009 to 13.5 billion cubic feet per day by 2020.<sup>6</sup>



**Figure 7: EIA Lower-48 Shale Play Map**

In its recently published study, *The Future of Natural Gas*, the Massachusetts Institute of Technology stated that “The current mean projection of the recoverable shale gas resource [in the U.S., excluding Canada] is approximately 650 Tcf ... approximately 400 Tcf [of which] could be economically developed with a gas price at or below \$6/MMBtu at the well-head.”<sup>7</sup> The Potential Gas Committee of

<sup>4</sup> Basin Oil & Gas magazine, August 2009, pg 22, available at

<http://www.geosc.psu.edu/~engelder/references/link155.pdf>

<sup>5</sup> EIA, Natural Gas Consumption by End Use, annual table, release date 7/29/2010, available at

[http://www.eia.gov/dnav/ng/ng\\_cons\\_sum\\_dcunus\\_a.htm](http://www.eia.gov/dnav/ng/ng_cons_sum_dcunus_a.htm)

<sup>6</sup> Penn State University, *The Economic Impacts of the Pennsylvania Marcellus Shale Natural Gas Play: An Update*, May 24, 2010, page 19.

<sup>7</sup> MIT, *The Future of Natural Gas*, Executive Summary, pg xii.

the Colorado School of Mines estimates that the recoverable shale gas resource in North America is 2,074 Tcf—enough to supply domestic needs at 2009 usage rates (62.6 Bcfd) for 90 years. Of this total, 616 Tcf is shale gas.

### Character of the Shale Gas Resource

The character of the shale gas resource reinforces its future growth potential. Finding economically producible amounts of conventional gas has historically been expensive due largely to geologic risk. Dry or quickly depleted wells are not uncommon in the conventional gas world. Conventional gas is trapped in porous rock formations, typically sandstone, under an impermeable layer of cap rock. It is produced by drilling through the cap into the porous formation, liberating the gas. Despite advances in technology, finding and producing conventional gas still has a large component of exploration risk, with the possibility that a well will be a dry hole or “duster” with no deliverability or production following drilling.

In unconventional shale gas, geologic risk is significantly reduced. Many large shale resource plays in the U.S. and Canada have been identified, and with new technology have become much more certain to be produced in commercial quantities. The reliability of discovery and production has led shale gas development to be likened more to a manufacturing process rather than an exploration process with its attendant risk.

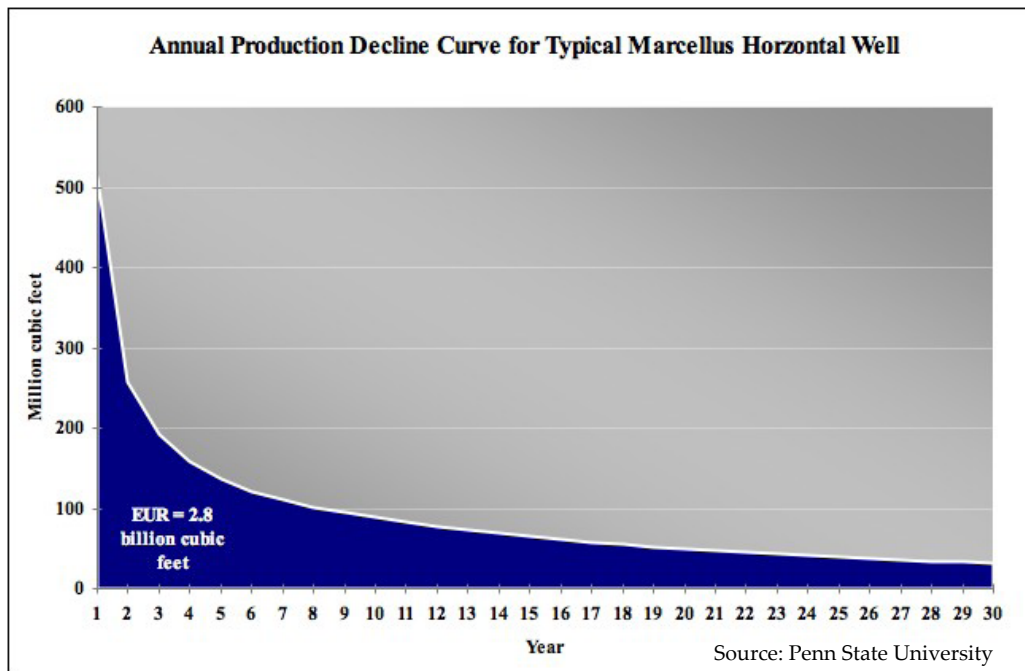
Gas in a shale formation is entrained in the shale itself. It does not accumulate in pockets under cap rock. It tends to be distributed in consistent quantities over great volumes of the shale. Often, drilling techniques allow a single drill rig to drill multiple horizontal wells up to two miles in length into a given formation. Each bore has the potential to produce gas. Since the shale plays can be dozens or even hundreds of miles long and often several hundred feet thick, the risk of not finding a producible formation is low.

The horizontal well, once it is properly located in the targeted formation, is then enabled to produce volumes large enough to be economic through the use of hydraulic fracturing (“fracking”). Water, sand, and a small amount of chemicals are injected at high pressure to fracture the shale so that it releases the gas. As is the case with most shale wells, initial production (IP) rates are high, but drop off steeply within the first two years. However, once a well has declined to 10-20 percent of initial production, the expectation of many scientists in the industry are that it should produce at that lower rate with a very slow decline for many years. The graph below typifies a shale well decline curve.<sup>8</sup>

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<sup>8</sup> *The Economic Impacts of the Pennsylvania Marcellus Shale Natural Gas Play: An Update*, Considine, Watson, and Blumsack, Penn State University, May 24, 2010, page 16, available at <http://www.energyindepth.org/wp-content/uploads/2009/03/PSU-Marcellus-Updated-Economic-Impact.pdf>





**Figure 8: Shale Gas Well Decline Curve**

The certainty of production allows shale gas production to be managed in response to demand. If demand is growing, additional shale wells can be drilled to meet it and mitigate the IP decline from the initial well. If demand however subsides, drilling rates can also be reduced or drilling discontinued completely in response.

The likelihood of shale gas development is further reinforced by the fact that many shale formations also contain natural gas liquids (NGLs), which strengthens the economic prospects of shale. For example, several energy companies including Enbridge, Enterprise Products Partners, Buckeye Partners, Kinder Morgan, and Dominion have recently announced plans to build or enhance NGL gathering and transmission systems in the Marcellus shale formation; the Eagle Ford formation in Texas is being developed as an NGL play as much as a natural gas play.

### **Assumed LNG Production for Sabine Pass LNG Exports**

For purposes of this study, the Sabine Pass LNG export facility is assumed to have an export capacity of 2.0 Bcfd net of fuels and inerts removed during liquefaction (i.e., all four trains constructed and operating at maximum capacity) starting in January, 2015. This level of export would require 2.2 Bcfd of supply, assuming that the liquefaction process consumes natural gas as a fuel at the rate of 10 percent.

Gas would be brought to the plant via the Creole Trail Pipeline and the Kinder Morgan Louisiana Pipeline. These two pipelines would in turn access domestic shale gas supplies from the Barnett Shale and Haynesville Shale Basins as well as other gas sources.



Specific export destinations and pricing were not modeled. The design intent of this analysis is to assess the supply, demand, and price effects on domestic supply of exporting as much as 2.0 Bcfd of supply (plus fuel) regardless of overseas market economics.

## Basic Modeling Assumptions

### About Navigant Consulting's Spring 2010 Forecast

Twice a year, Navigant Consulting issues a forecast of gas prices, demand, and supply. The forecast incorporates NCI's extensive work done on North American unconventional gas supply including the rapidly growing gas shale supply resources. It projects natural gas forward prices and monthly basis differentials at 92 market points, and pipeline flows throughout the entire North American grid, through 2035. Price projections for purposes of this report focus on Henry Hub, which is the underlying physical location of the natural gas NYMEX futures contract, and is in Louisiana, not far from Sabine Pass LNG. Additional price points in the Northeast are included to demonstrate the effect of supply and demand on key markets that have exhibited very volatile prices.

The forecast models supply by state or region, imports and exports (including LNG by terminal), storage, and sectoral demand on a monthly basis.

The NCI forecast accounts for changes in gas demand driven by government policy regarding greenhouse gas (GHG) reductions. NCI believes that such policies are inevitable, and that they will favor growth in natural gas usage because of gas's lower GHG content relative to other fossil fuels, particularly coal. This is evidenced by ongoing public policy steps being taken and programs already in existence such as California's AB 32 (the Global Warming Solutions Act of 2006) and the Regional Greenhouse Gas Initiative (RGGI) in the Northeast, and various renewable performance standards (RPS) and other initiatives.

To reflect these GHG reductions in the forecast, we assume a reduction of coal-fired generation output of 1.0 percent per year starting in 2015, continuing through 2035. This coal-fired capacity is replaced by an equivalent amount of gas generation that is translated into gas volumes using an average heat rate of 7,079 Btu per kilowatt-hour. Additionally, we assume a carbon tax adder starting in 2015 at \$20.10 per ton (\$1.26 per MMBtu),<sup>9</sup> increasing to \$54.40 per ton (\$3.41 per MMBtu) in 2035, based on recent analysis from the EPA of the proposed American Power Act of 2010.<sup>10</sup> We assume this adder will impact the electric generation sector starting in 2015, the industrial sector starting in 2017, and the residential and commercial sectors starting in 2019.

The level of reduction in coal generation assumed as a result of carbon emission limits and the coincident increase in gas demand are somewhat arbitrary. However, we believe they are conservative in light of the generally discussed goal of reducing carbon dioxide emissions by 80% of 2005 levels by 2050, and that our assumptions reflect the likely effect that such initiatives are apt to have.

Using these assumptions, electric generation gas consumption in the Spring 2010 Forecast grows at an average rate of 2.4 percent from 2010 through 2035.

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<sup>9</sup> Assumes 125 lbs per MMBtu

<sup>10</sup> EPA's analysis can be found at <http://www.epa.gov/climatechange/economics/economicanalyses.html>

Industrial gas demand continues to decline at a modest average rate of -0.3% for the entire forecast period due to effects of higher gas prices and an ongoing structural shift of certain industries offshore.

Residential/Commercial demand is relatively flat.

All scenarios in this report are ultimately derived from NCI's Spring 2010 Forecast. Each scenario is described separately, and the modifications from the Spring 2010 Forecast are made clear.

The following assumptions remain constant for all cases.

### **Infrastructure**

Modeling used existing pipeline and LNG terminal infrastructure, augmented by planned expansions that have been publicly announced and that are likely to be built. Pipelines are assumed to have sufficient capacity to move gas from supply sources to demand centers. Some local expansions have been assumed and built into the model in future years to relieve expected bottlenecks. In these cases, supply availability has been vetted to provide reasonable comfort that it will be available.

Some proposed projects have been excluded from the model, most notably the Mackenzie Pipeline in northern Canada, which we believe to be uneconomic and facing significant environmental challenges. No unannounced infrastructure projects were introduced into the model. The Alaska Gas Pipeline project is assumed to be online in 2025 at 4.5 Bcfd, with available supply phased in up to 2029. Other notable regional pipelines assumed to be operational by 2015 include Bison, Golden Pass, Fayetteville Express, Ruby, and Tiger. See Appendix A for a list of future pipelines and projected capacity levels that are included in the model.

LNG import capacity is assumed to be 18.5 Bcfd from 2015 onward. The load factor of each facility is solved by the model as a function of domestic supply and demand.

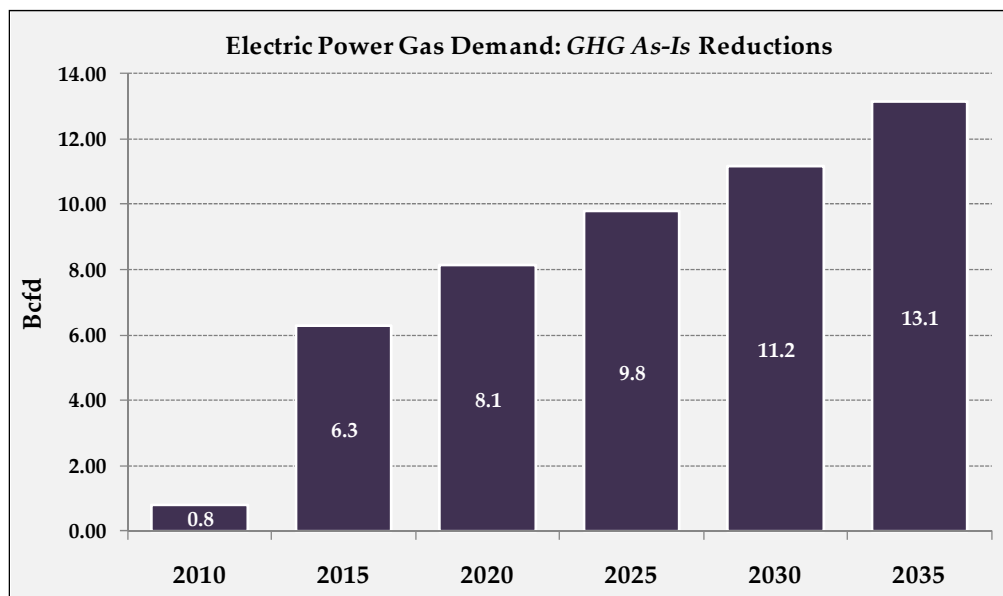
### **Supply Basins**

All supply in NCI's model comes from currently established basins. The forecasts assume no new resource discoveries beyond gas fields already identified as of Spring 2010 in North America. Estimates of production capacity are based on empirical production data. Assumptions for production capacity are the same for all cases; no production adjustments are made on a forecast-by-forecast basis. No additional basins are assumed to come online in the study period timeframe. This should be regarded as a conservative assumption, given the rate at which new shale resources have been identified over the past few years and existing estimates of the North American natural gas resource base.

## GHG As-Is Case

The **GHG As-Is Case** is derived from NCI's Spring 2010 Forecast of June 2010, modified as described below.

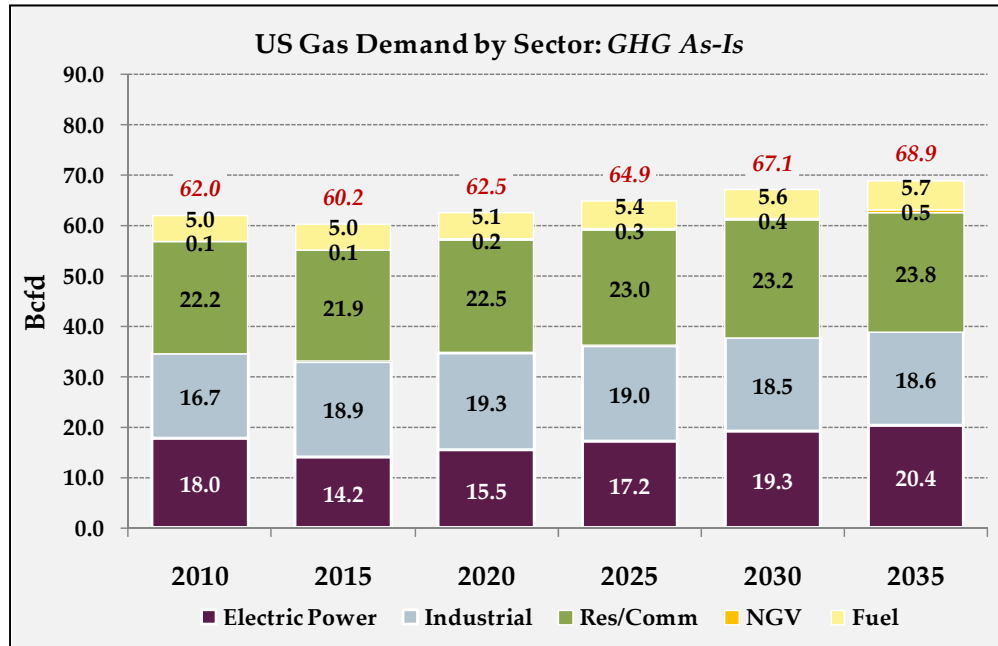
The GHG As-Is Case substitutes the gas demand from the EIA's *2010 Annual Energy Outlook Reference Case* for the higher Spring 2010 Forecast demand. The EIA's *Reference Case* assumes that only existing GHG-related laws and regulations will be in place throughout the study timeframe. (Thus the name "As-Is.") Most significantly, electric generation demand in the GHG As-Is Case is substantially lower than in NCI's Spring 2010 Forecast, as shown in the graph below.



**Figure 9: GHG As-Is Case, Reductions in Gas Demand for Electric Power**

All other inputs and assumptions, including supply sources and infrastructure, remain the same as in the Spring 2010 Forecast.

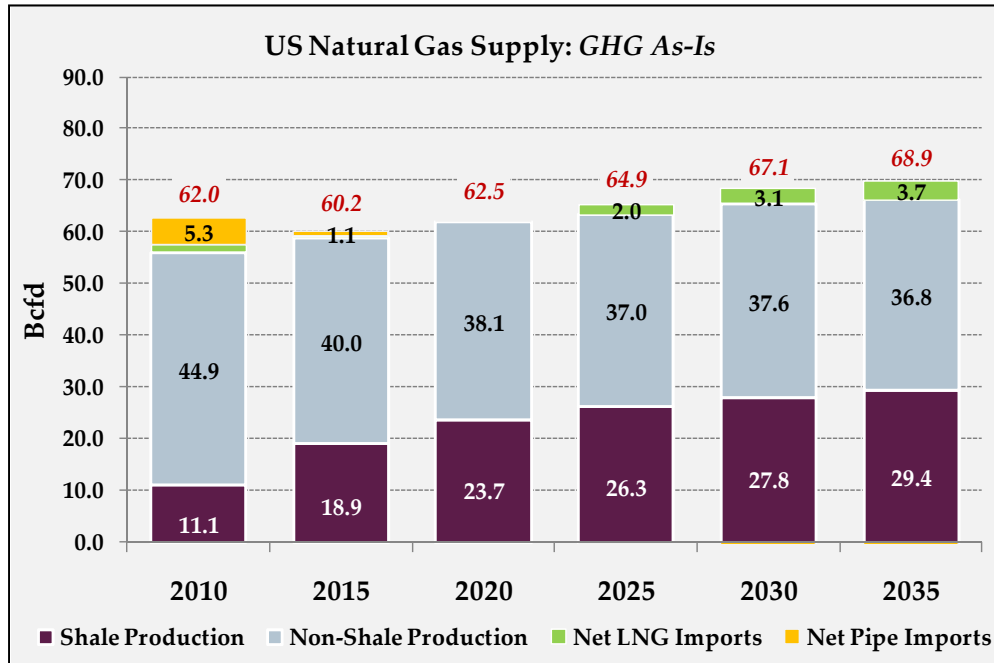
## Demand



**Figure 10: GHG As-Is Demand**

In the EIA's AEO 2010 demand scenario, rapid installation of renewables between 2010 and 2015 displaces some natural gas baseload electric generation; hence, a decline in demand. The EIA assumes that gas-fired electric generation will be the marginal supply, and that coal will be cheaper and thus tend to have a greater share of baseload generation. Electric generation demand resumes its growth trajectory after 2015.

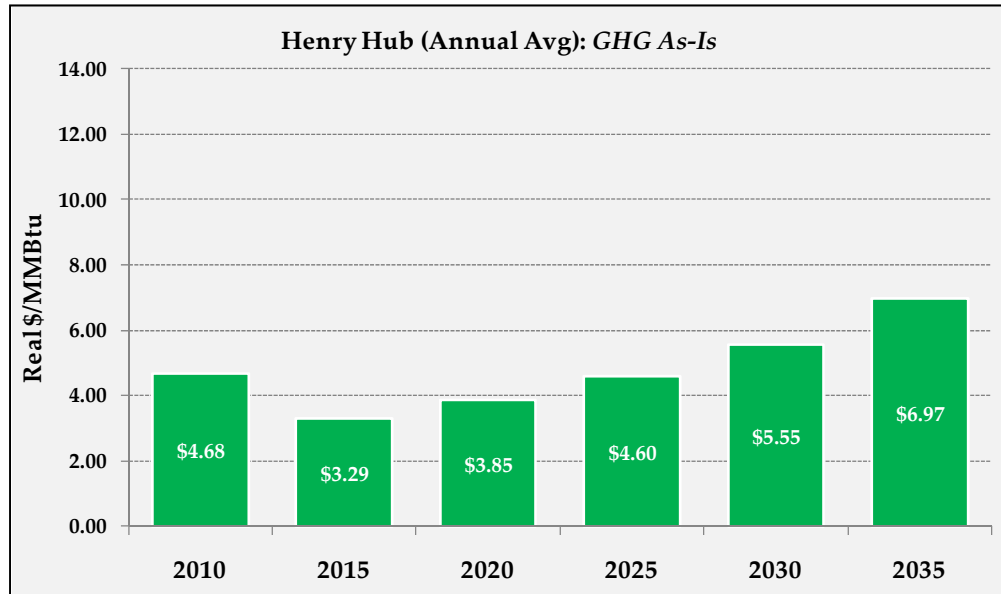
## Supply



**Figure 11: GHG As-Is Supply**

In the GHG As-Is Case, shale supply grows from 18.9 Bcfd in 2015 to 29.4 Bcfd in 2035. Overall demand growth moves from 60.2 Bcfd in 2015 to 68.9 Bcfd in 2035. Pipeline imports from Canada decline as conventional supply in that country continues to decline and, to a lesser extent, supply in general is absorbed increasingly by increasing domestic demand in Canada including demand from the oil sands in Alberta. LNG imports rise slightly, to 3.7 Bcfd by 2035, as it is able to compete on price at the margin with domestic production.

## Resultant Gas Prices



**Figure 12: GHG As-Is Resultant Gas Prices**

Prices remain weak through 2020, due to aggressive shale gas growth outstripping the assumed low EIA demand, which does not anticipate GHG reductions and coal displacement. The dip in prices shown from 2010 to 2015 is a result of the demand numbers from the EIA's Reference Case. The forecast in 2015 reflects an oversupply relative to demand.

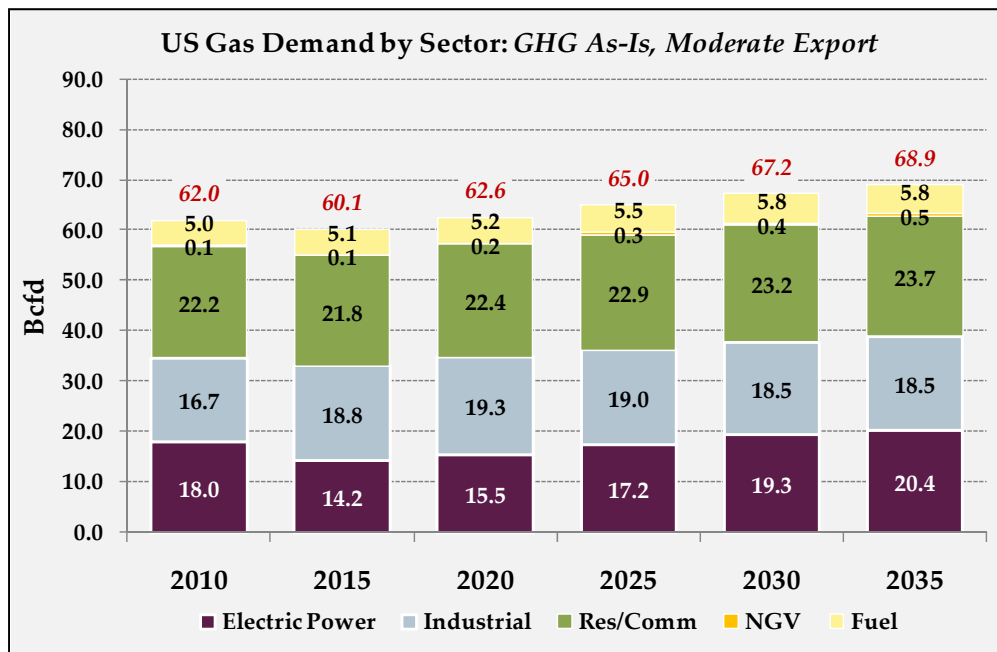


## GHG As-Is, Moderate Export Case

The **GHG As-Is, Moderate Export Case** tests the effects of liquefying and exporting 1.0 Bcfd of domestically-sourced gas from the Sabine Pass facility beginning 2015. All other inputs and assumptions remain the same as in the GHG As-Is Case.

Demand (in the form of feedstock to the liquefaction facility) and supply (in the form of export LNG) both increase by 1.1 Bcfd over the study period, reflecting 1.0 Bcf/d average LNG exports plus facility fuel consumption.. Numbers below are net of these offsetting increases.

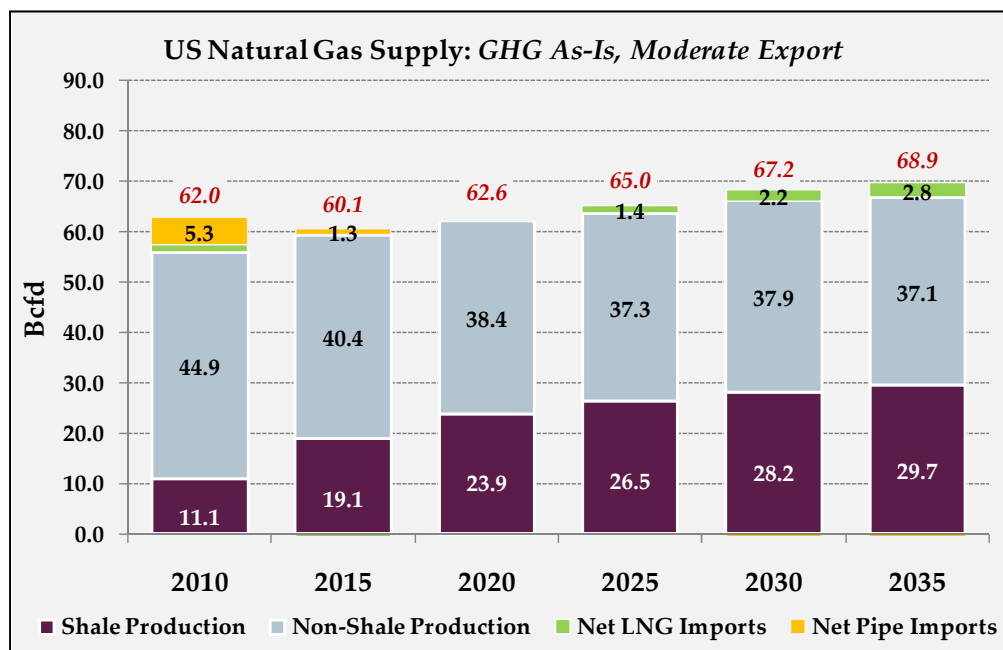
### Demand



**Figure 13: GHG As-Is, Moderate Export Demand**

Adding 1.0 Bcfd at Sabine Pass for export does not alter the demand mix appreciably from the GHG As-Is Case. Fuel usage increases slightly, reflecting an increase in domestic production and fuel usage at the Sabine Pass facility.

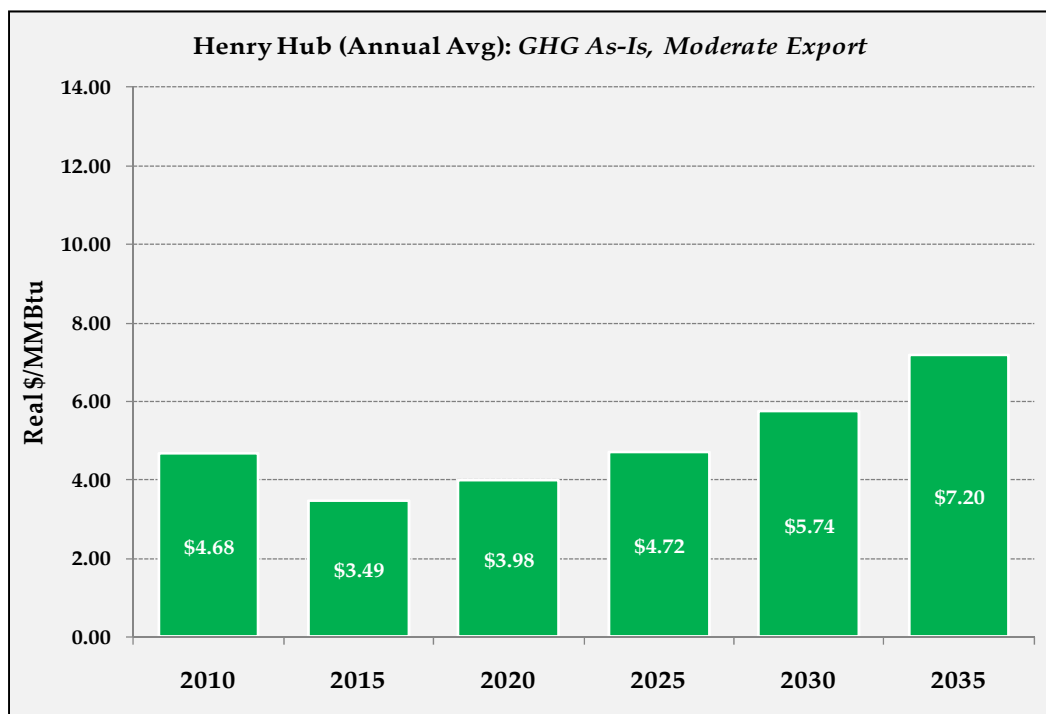
## Supply



**Figure 14: GHG As-Is, Moderate Export Supply**

Adding 1.0 Bcfd at Sabine Pass for export causes net LNG imports to back off by 0.9 Bcfd compared to the GHG As-Is Case. To balance, domestic production increases by 0.7 Bcfd and pipeline imports increase by 0.2 Bcfd.

## Resultant Gas Prices



**Figure 15: GHG As-Is, Moderate Export Prices**

Prices rise slightly in the As-Is, Moderate Export Case, due to the additional demand created by export of 1.0 Bcfd of LNG.

Year	Base As-Is Price	As-Is, Moderate Price	Moderate less Base As-Is
2010	4.68	4.68	0.00
2015	3.29	3.49	0.20
2020	3.85	3.98	0.13
2025	4.69	4.72	0.13
2030	5.55	5.74	0.19
2035	6.97	7.20	0.23

**Table 2: Henry Hub Price Difference, GHG As-Is Moderate Export Case**

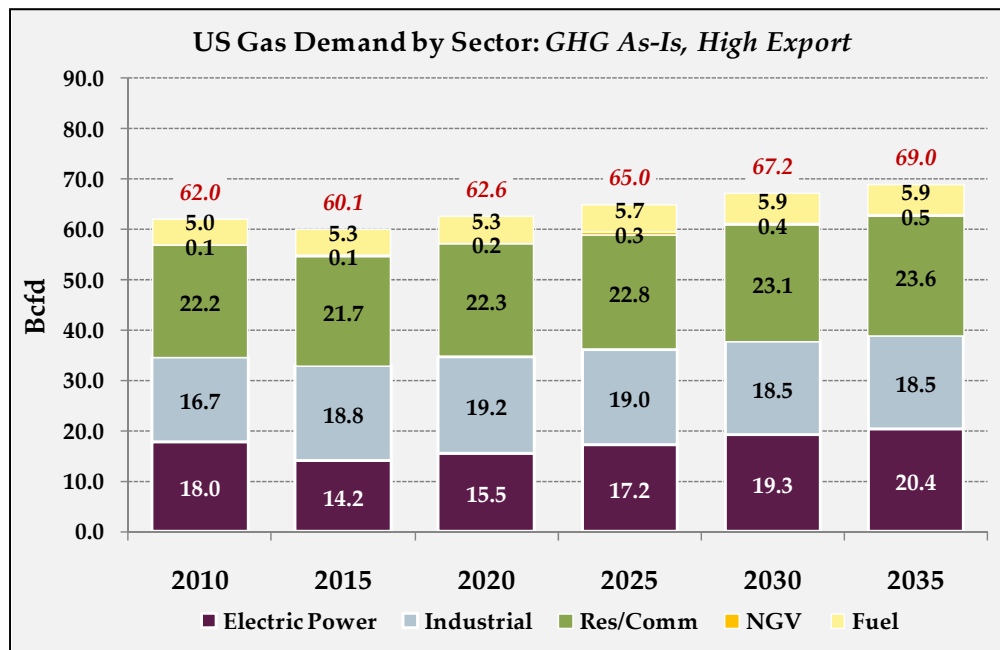
The maximum change in Northeast basis values for the GHG As-Is Moderate Export Case is \$0.011 per MMBtu in 2035, at Dominion South Point. See *Export Effect on Northeast Market Prices* on page 34 for a table of basis price effects.

## GHG As-Is, High Export Case

The **GHG As-Is, High Export Case** tests the effects of liquefying and exporting 2.0 Bcf/d (rather than 1.0 Bcf/d) of domestically-sourced gas from the Sabine Pass facility beginning 2015. All other inputs and assumptions remain the same as in the GHG As-Is Case.

Demand (in the form of feedstock to the liquefaction facility) and supply (in the form of export LNG) both increase by 2.2 Bcf/d over the study period, reflecting 2.0 Bcf/d average LNG exports plus facility fuel consumption. Numbers below are net of these offsetting increases.

### Demand



**Figure 16: GHG As-Is, High Export Demand**

Adding 2.0 Bcf/d of exports slightly changes the distribution of demand in each year beyond 2010. Fuel usage increase slightly, reflecting an increase in domestic production and fuel usage at the Sabine Pass facility. Other demand is reduced.

## Supply

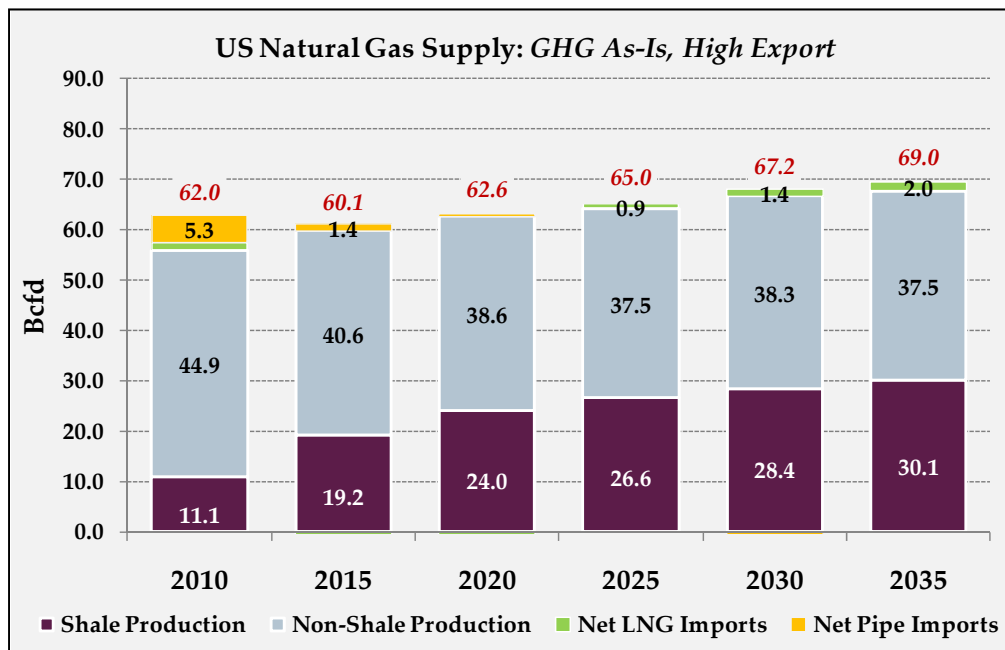


Figure 17: GHG As-Is, High Export Supply

Adding 2.0 Bcf/d of exports at Sabine Pass increases domestic production by 1.4 Bcf/d, net pipeline imports by 0.3 Bcf/d, and 0.3 Bcf/d of LNG imports in 2035.

## Resultant Gas Prices

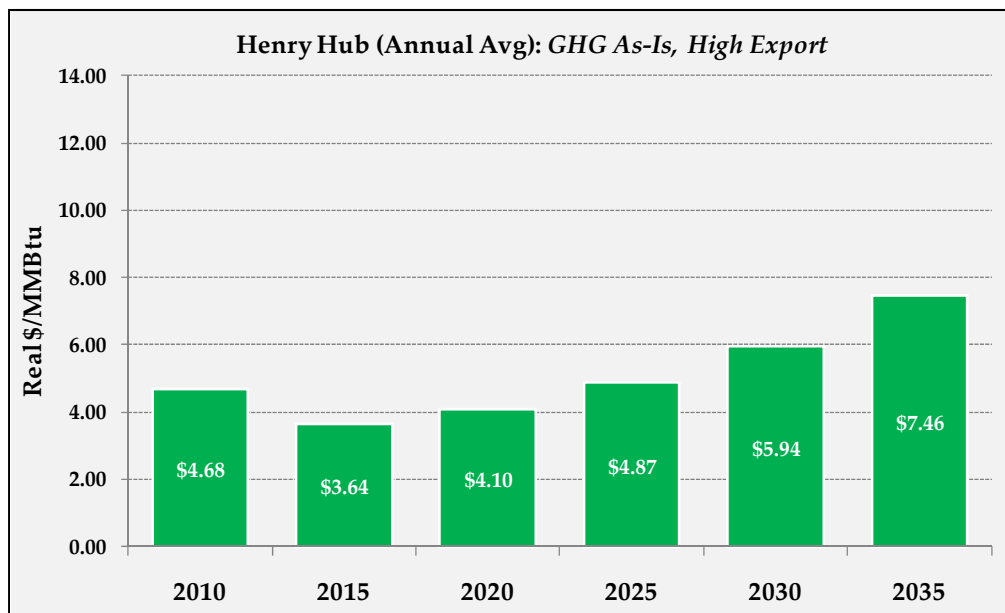


Figure 18: GHG As-Is, High Export Prices

The table below shows that the highest price differential compared to the GHG As-Is Case is \$0.49 per MMBtu, which occurs in 2035. The 2035 price for the As-Is High Export Case is \$0.26 per MMBtu above the price for the As-Is Moderate Export Case.

<b>Year</b>	<b>Base As-Is Price</b>	<b>As-Is, Moderate Price</b>	<b>As-Is, High Price</b>	<b>High less Base As-Is</b>	<b>High less Moderate As-Is</b>
<b>2010</b>	4.68	4.68	4.68	0.00	0.00
<b>2015</b>	3.29	3.49	3.64	0.35	0.15
<b>2020</b>	3.85	3.98	4.10	0.25	0.12
<b>2025</b>	4.69	4.72	4.87	0.27	0.14
<b>2030</b>	5.55	5.74	5.94	0.39	0.20
<b>2035</b>	6.97	7.20	7.46	0.49	0.26

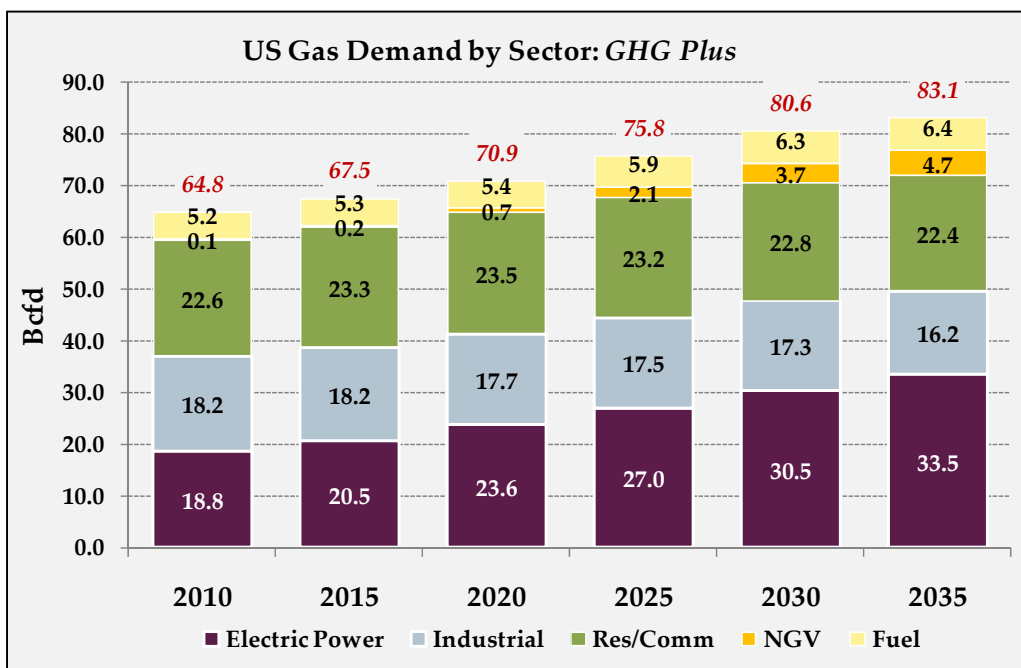
**Table 3: Henry Hub Price Difference, GHG As-Is High Export Case**

The maximum change in Northeast basis values for the GHG As-Is High Export Case is \$0.042 per MMBtu in 2035, at Dominion South Point. See *Export Effect on Northeast Market Prices* on page 34 for a table of basis price effects.

## GHG Plus Case

The **GHG Plus Case** is based upon NCI's Spring 2010 Forecast, which was prepared in June 2010 using the GPCM gas pipeline network modeling software. The NCI Spring 2010 forecast has been modified as described below.

### Demand



**Figure 19: GHG Plus U.S. Natural Gas Demand**

The GHG Plus Case projects overall U.S. natural gas demand to grow from 64.8 Bcfd in 2010 to approximately 83.1 Bcfd by 2035, an increase of 28% over the 20-year period. This growth will be driven primarily by the electric generation sector, which is likely to be impacted by mandated reductions in energy-related GHG emissions.

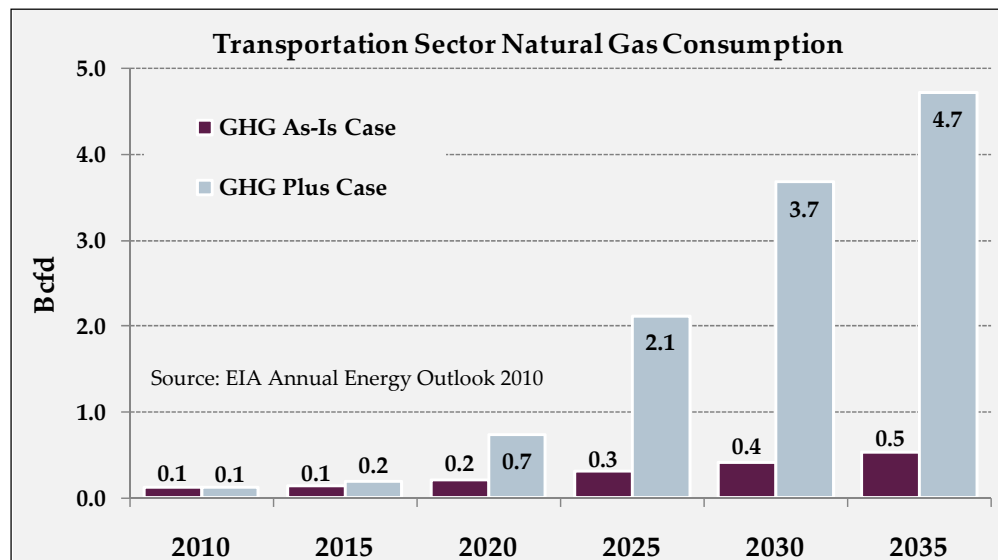
### Natural Gas Vehicle Demand: High Case

The GHG Plus Case includes additional demand assumptions that were used to develop a maximalist outlook for any price sensitivities caused by demand for liquefaction and export. This additional demand comes from the EIA's *2027 Phaseout and Expanded Market Heavy-Duty Vehicle Fuel Use Case*,<sup>11</sup> which puts forward a scenario in which natural gas becomes a preferred vehicle fuel. While NCI's

<sup>11</sup> [http://www.eia.doe.gov/oiaf/aeo/natgas\\_fuel.html](http://www.eia.doe.gov/oiaf/aeo/natgas_fuel.html)



Spring 2010 Forecast assumes an average national consumption of 0.5 Bcfd by 2035 for natural gas vehicles, the EIA 2027 Phaseout Case assumes a much larger volume, 4.7 Bcfd.



**Figure 20: Natural Gas Vehicle Demand, GHG Plus Case Compared to GHG As-Is**

#### The Effect of Carbon Reduction Policies on Natural Gas Demand

In recognition of the high probability that legislation, programs, and policies at both the state and federal level in the U.S. will continue to be enacted to reduce GHGs, our forecast assumes that measures will be adopted to substantially reduce GHG emissions in the future.

Coal demand is expected to be increasingly impacted by concerns over GHG emissions, RPS and other possible GHG and climate change public policy initiatives. These initiatives will tend to favor gas, because gas produces about half the GHGs per kilowatt hour as coal. The introduction of a carbon price, either through a tax or a cap-and-trade system, will further shift electric generation fuel demand from coal to gas.

As a result, the GHG Plus Case retains the projected electric generation demand for natural gas from our Spring 2010 Forecast. Electric generation demand is projected to grow at an average annual rate of 2.4% from 2010 through 2035, based upon coal-to-gas substitution.

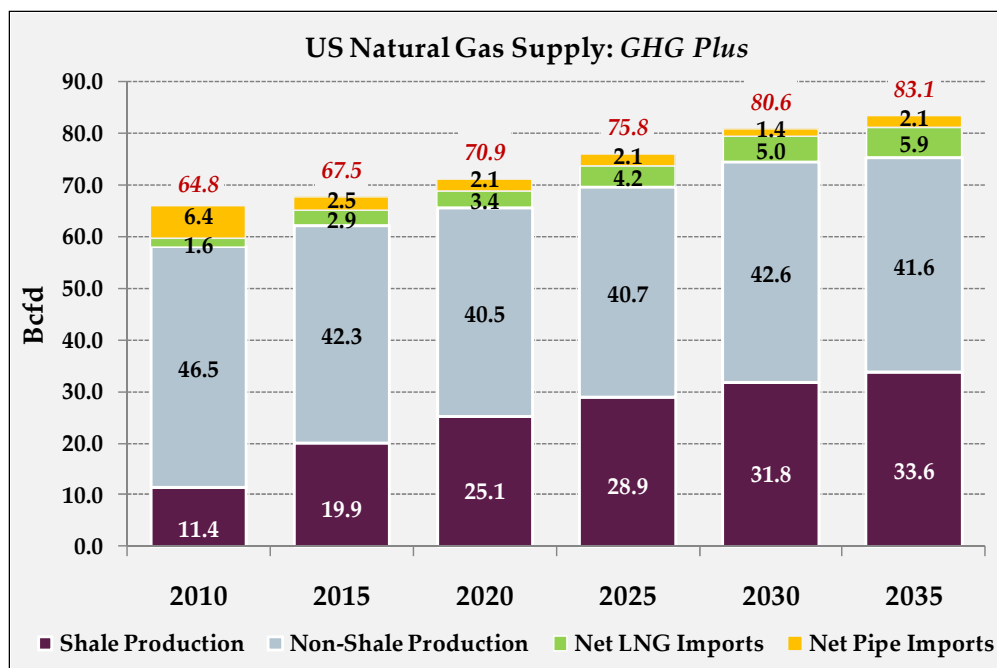
#### Electric Generation Demand in the Southeast under the GHG Plus Case

The following table illustrates the natural gas demand for electric generation fuel projected in the GHG Plus Case in the Southeastern U.S. The Southeast includes the West South Central, East South Central, and South Atlantic census regions.

Year	Southeast (Bcfd)	U.S. (Bcfd)	SE % of U.S.
2010	10.2	18.8	54%
2015	11.1	20.5	54%
2020	12.7	23.6	54%
2025	14.4	27.0	53%
2030	16.1	30.5	53%
2035	17.7	33.5	53%

**Table 4: GHG Plus Case, Southeast Electric Power Demand**

## Supply



**Figure 21: GHG Plus U.S. Natural Gas Supply**

The GHG Plus Case shows a significant increase in supply relative to the GHG As-Is Case. This increase responds to increased demand caused by the preference for lower-carbon natural gas over coal as electric generation fuel, and for increased NGV fuel. By 2035, supply is 83.1 Bcfd, compared to the supply in the GHG As-Is Case of 68.9 Bcfd.

## Resultant Gas Prices

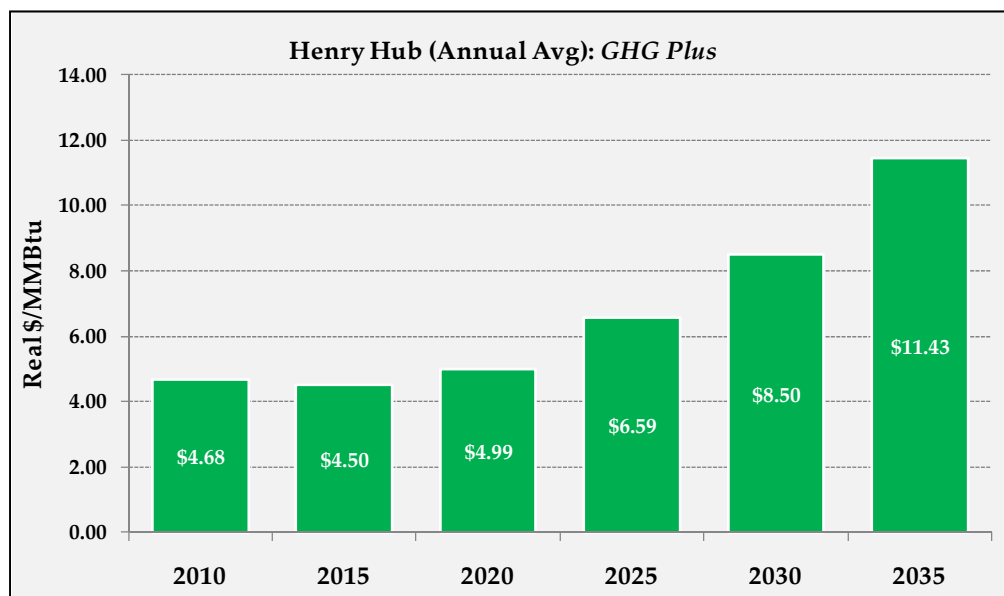


Figure 22: GHG Plus Prices

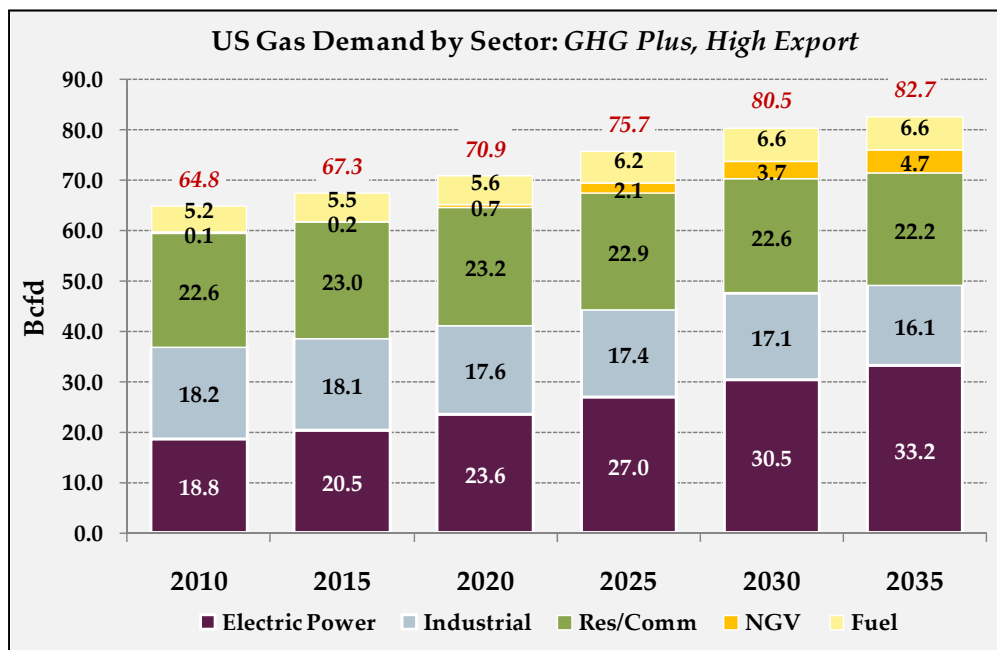
Even with the addition of 8.4 Bcfd in 2020 to the supply/demand balance in the GHG As-Is Case, prices in the GHG Plus Case remain under \$5.00 per MMBtu through that year. After 2020, prices increase steadily, reaching \$11.43 per MMBtu in 2035, when 14.2 Bcfd in additional demand is added.

## GHG Plus, High Export Case

The **GHG Plus, High Export Case** tests the effects of liquefying and exporting 2.0 Bcfd of domestically-sourced gas from the Sabine Pass facility beginning 2015. All other inputs and assumptions remain the same as in the GHG Plus Case.

Demand (in the form of feedstock to the liquefaction facility) and supply (in the form of export LNG) both increase by 2.2 Bcfd over the study period, reflecting 2.0 Bcfd average LNG exports plus facility fuel consumption. Numbers below are net of these offsetting increases.

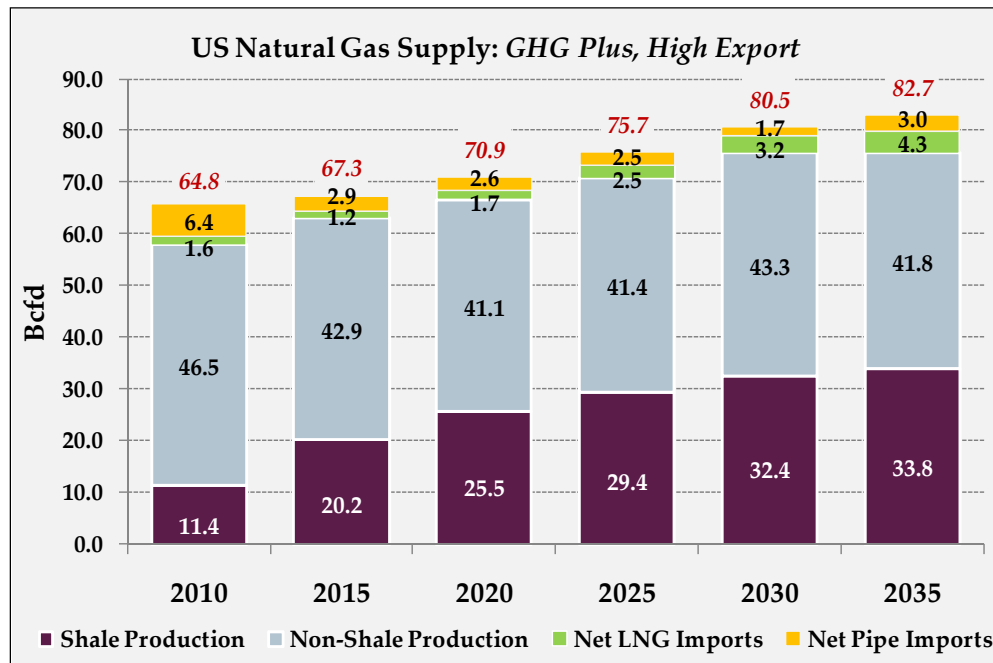
### Demand



**Figure 23: GHG Plus, High Export Demand**

Adding 2.0 Bcfd of exports (plus 0.2 Bcfd for plant fuel consumption) slightly changes the distribution of demand in the study timeframe of 2015-2035. In 2035, overall demand (net of the 2.0 Bcfd exports) is reduced by 0.4 Bcfd due to the modest price increases at the margin caused by the additional 2.0 Bcfd. Electric power, industrial, and residential demand all come off slightly, while fuel use rises in response to increased domestic production and export facility fuel. Reduced net LNG imports account for the overall supply reduction.

## Supply



**Figure 24: GHG Plus, High Export Supply**

Adding 2.0 Bcf of exports at Sabine Pass (plus 0.2 Bcf for plant fuel consumption) increases domestic production by 0.4 Bcf in 2035 compared to the GHG Plus base case. Net pipeline imports increase by 0.9 Bcf. Net LNG imports decrease by 1.6 Bcf. Overall, total supply decreases by 0.4 Bcf compared to the GHG Plus Case.

## Resultant Gas Prices

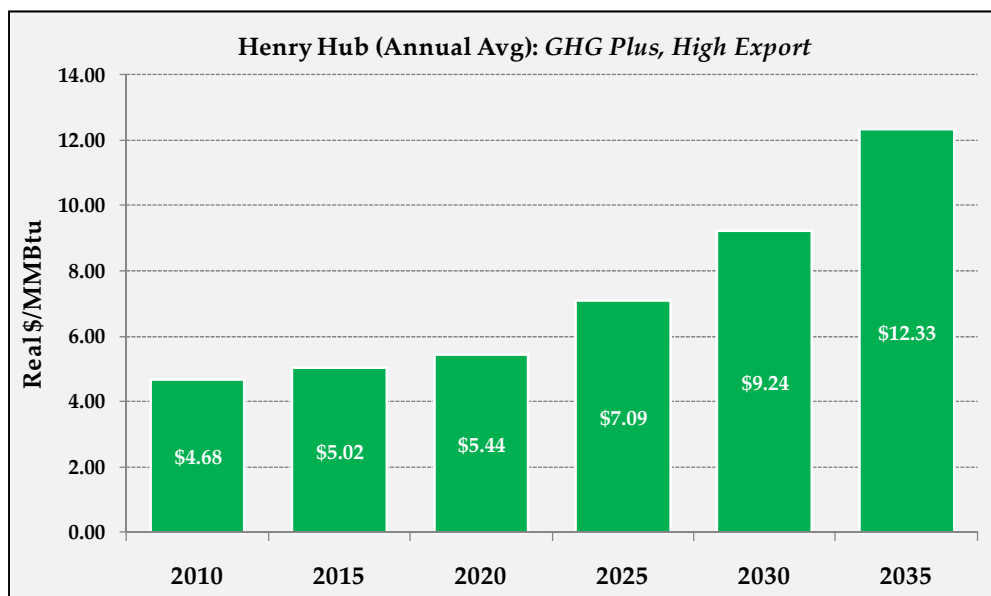


Figure 25: GHG Plus, High Export Prices

The addition of 2.2 Bcfd to the GHG Plus Case causes prices to rise moderately. The increase averages \$0.55 per MMBtu (9.0%) from 2015 through 2030, and \$0.62 per MMBtu (8.6%) from 2015 through 2035. Prices remain under \$6.00 per MMBtu through 2020. After 2020, prices increase steadily, reaching \$12.33 per MMBtu in 2035.

The table below shows that the highest price differential for the GHG Plus, High Export Case compared to the GHG Plus base case is \$0.90 per MMBtu, which occurs in 2035.

Year	GHG-Plus Base Price	GHG-Plus High Price	Plus High less Plus Base
2010	4.68	4.68	0.00
2015	4.50	5.02	0.52
2020	4.99	5.44	0.45
2025	6.59	7.09	0.50
2030	8.50	9.24	0.73
2035	11.43	12.33	0.90

Table 5: Henry Hub Price Difference, GHG Plus High Export Case

The maximum change in Northeast basis values for the GHG Plus High Export Case is \$0.066 per MMBtu in 2035, at Dominion South Point. See *Export Effect on Northeast Market Prices* on page 34 for a table of basis price effects.

## Export Effect on Northeast Market Prices

In addition to assessing the impact of exports from the Sabine Pass facility on prices in the Henry Hub region, Navigant Consulting assessed the impact on basis in the key Northeast market region.

Our findings were that none of the export scenarios have a significant impact on Northeast market prices relative to Gulf Coast prices. As can be seen from the table below, the largest difference in basis<sup>12</sup> caused by an export scenario occurs at Dominion South Point in 2035 for the GHG Plus Case. The addition of 2.0 Bcfd of export gas (plus 0.2 Bcfd for plant fuel consumption) yields a basis at that time and location that is 6.6 cents per MMBtu weaker than in the GHG Plus Case. This is likely due primarily to increased domestic production in the Marcellus shale play in response to increased domestic demand. Also, it may be a response to higher absolute Henry Hub prices in the GHG Plus, High Export Case. In any event, the vast majority of data points for basis in the Northeast show no significant impact. See the following table for detail.

Dominion, South Point - Basis Differentials				Texas Eastern, M-3- Basis Differentials			
Period	GHG Plus less GHG Plus, High Export	GHG As-Is less GHG As-Is, High Export	GHG As-Is less GHG As-Is, Moderate Export	Period	GHG Plus less GHG Plus, High Export	GHG As-Is less GHG As-Is, High Export	GHG As-Is less GHG As-Is, Moderate Export
2010	-0.001	-0.001	-0.001	2010	-0.001	-0.002	-0.002
2015	0.024	0.015	0.008	2015	0.018	0.021	0.010
2020	0.005	0.007	-0.003	2020	0.007	0.015	0.005
2025	0.022	0.019	0.003	2025	0.016	0.016	0.003
2030	0.052	0.033	0.013	2030	0.030	0.018	0.006
2035	0.066	0.042	0.011	2035	0.044	0.026	0.001

Transco, zone 6 N.Y. - Basis Differentials			
Period	GHG Plus less GHG Plus, High Export	GHG As-Is less GHG As-Is, High Export	GHG As-Is less GHG As-Is, Moderate Export
2010	0.000	-0.002	-0.002
2015	0.017	0.021	0.010
2020	0.007	0.017	0.007
2025	0.015	0.015	0.003
2030	0.022	0.018	0.006
2035	0.041	0.023	0.001

**Table 6: Changes in Basis Values in the Northeast**

<sup>12</sup> "Basis" is the difference between the cash price at a given physical trading location and the price of the Henry Hub NYMEX contract. Basis plus NYMEX equals the price at the physical location.



## Appendix A: Future Pipelines in Spring 2010 Forecast Model

Pipeline	Year	New Capacity
LNG Neptune Header	Mar-10	400
Elba Express	Jun-10	1500
Golden Pass Pipe Line	Jul-10	2000
LNG Golden Pass Header	Jul-10	2000
Bison Pipeline	Nov-10	477
Fayetteville Express	Jan-11	2000
LNG Manzanillo Header <sup>1</sup>	Apr-11	500
Ruby	Apr-11	1250
Tiger	Jun-11	2000
LNG Gulf Clean Energy Header	Oct-11	1500
Rockies Connector	Nov-13	870
CrossTex North Texas	Jan-15	750
El Paso (Samalayuca)	Jan-15	312
Florida Gas (Market Panhandle)	Jan-15	500
Florida Gas (Zone 3)	Jan-15	500
Florida Gas (Zone 3 Rcpt)	Jan-15	500
Grasslands Pipeline	Jan-15	200
Gulf Crossing (Delivery)	Jan-15	1000
Gulf Crossing (Throughput)	Jan-15	1000
Gulf Crossing (TX/OK Rcpt)	Jan-15	1000
Teppco OPAL/Pioneer (WY)	Jan-15	600
Texas Gas (Fayetteville)	Jan-15	409
Texas Gas (Fayetteville Rcpt)	Jan-15	409
Wyoming Interstate (Mainline)	Jan-15	225
LNG Manzanillo Header	Apr-15	100
Questar (Fidlar to KRGT)	Jan-18	400

Pipeline	Year	New Capacity
Rockies Express (Z1: Mkr-Wam)	Jan-18	500
Rockies Express (Z1: Opal-Wam)	Jan-18	500
Rockies Express (Z1: Wam Sup)	Jan-18	332
Rockies Express (Z1: Wam-Chey)	Jan-18	500
Rockies Express (Z2 West)	Jan-18	500
Rockies Express (Z3 to Lebanon)	Jan-18	500
White River Hub	Jan-18	500
Wyoming Interstate (Kanda Lat)	Jan-18	400
Kern River (CA)	Jan-20	500
Kern River (Mainline)	Jan-20	500
KM Border Pipeline	Jan-20	300
KM Mexico	Jan-20	425
KM Texas Pipeline (AguaDulce)	Jan-20	250
Mojave (Mojave-Kern Common)	Jan-20	200
Tennessee (Z0 Alamo)	Jan-20	215
Tennessee (Z0 Rio Bravo)	Jan-20	315
Tennessee (Z6 East MA)	Jan-20	285
Tennessee (Z6 West MA)	Jan-20	306
Texas Eastern (S TX Hidalgo)	Jan-20	315
Texas Eastern (S TX Rcpt)	Jan-20	300
Wyoming Interstate (Mainline)	Jan-20	500
Cypress Pipeline	May-20	500
Rockies Express (Z1: Mkr-Wam)	Jan-23	500
Rockies Express (Z1: Wam-Chey)	Jan-23	500
White River Hub	Jan-23	500
Kern River (Opal-Muddy Crk)	Jan-25	440
KM Border Pipeline	Jan-25	300
Transwestern (Topock-Calpine)	Jan-25	80
Alaska (ANGTS / Denali)	Jul-25	4500

<sup>1</sup> Ramps from 90 to 500 from April 2011 to April 2015

Capacity units in MMcfd

## Appendix B: Natural Gas Consumption Tables

U.S. Natural Gas Consumption by End Use (Bcfd) – GHG As-Is Case <sup>13</sup>							
Year	Lease & Plant Fuel	Pipeline & Distribution Use	Res/Comm	Industrial	Vehicle Fuel	Electric Power	Total Consumption
2010	3.1	1.9	22.2	16.7	0.1	18.0	62.0
2011	3.1	1.8	21.7	17.1	0.1	16.7	60.6
2012	3.1	1.8	21.6	17.9	0.1	15.6	60.2
2013	3.1	1.8	21.7	18.6	0.1	13.8	59.2
2014	3.2	1.8	21.8	19.0	0.1	13.3	59.2
2015	3.2	1.8	21.9	18.9	0.1	14.2	60.2
2016	3.2	1.8	22.1	19.0	0.2	14.3	60.6
2017	3.2	1.8	22.1	19.0	0.2	14.7	61.1
2018	3.2	1.8	22.2	19.2	0.2	14.9	61.5
2019	3.2	1.8	22.3	19.3	0.2	15.2	62.0
2020	3.2	1.8	22.5	19.3	0.2	15.5	62.5
2021	3.2	1.8	22.6	19.2	0.2	15.4	62.4
2022	3.2	1.8	22.6	19.1	0.3	15.6	62.7
2023	3.2	1.8	22.7	19.0	0.3	16.1	63.2
2024	3.4	1.8	22.9	19.1	0.3	17.1	64.5
2025	3.6	1.9	23.0	19.0	0.3	17.2	64.9
2026	3.7	1.9	23.0	18.8	0.3	18.0	65.7
2027	3.7	1.9	23.2	18.8	0.3	18.3	66.3
2028	3.7	1.9	23.3	18.7	0.4	18.8	66.8
2029	3.7	2.0	23.3	18.6	0.4	19.2	67.1
2030	3.7	2.0	23.2	18.5	0.4	19.3	67.1
2031	3.7	2.0	23.3	18.5	0.4	19.5	67.4
2032	3.7	2.0	23.4	18.4	0.5	19.8	67.8
2033	3.7	2.0	23.5	18.6	0.5	20.1	68.4
2034	3.7	2.0	23.7	18.5	0.5	20.4	68.7
2035	3.7	2.0	23.8	18.6	0.5	20.4	68.9

<sup>13</sup> In the GHG As-Is Case, the sectoral demand in Navigant Consulting's Spring 2010 Forecast was backed out and a demand based on the EIA's Annual Energy Outlook was substituted. Due to technical reasons, the EIA-based figures above do not tie-out exactly to the EIA source numbers due to model calibration tolerances.



U.S. Natural Gas Consumption by End Use (Bcfd) – GHG As-Is, Moderate Export Case							
Year	Lease & Plant Fuel	Pipeline & Distribution Use	Res/Comm	Industrial	Vehicle Fuel	Electric Power	Total Consumption
2010	3.1	1.9	22.2	16.7	0.1	18.0	62.0
2011	3.1	1.8	21.7	17.1	0.1	16.7	60.6
2012	3.1	1.8	21.6	17.9	0.1	15.6	60.2
2013	3.1	1.8	21.7	18.6	0.1	13.8	59.2
2014	3.2	1.8	21.8	19.0	0.1	13.3	59.1
2015	3.2	1.9	21.8	18.8	0.1	14.2	60.1
2016	3.2	1.9	21.9	18.9	0.2	14.3	60.4
2017	3.2	1.9	22.0	19.0	0.2	14.7	61.0
2018	3.2	1.9	22.1	19.1	0.2	14.9	61.5
2019	3.2	1.9	22.2	19.2	0.2	15.2	62.0
2020	3.3	1.9	22.4	19.3	0.2	15.5	62.6
2021	3.2	1.9	22.5	19.2	0.2	15.4	62.4
2022	3.2	1.9	22.5	19.1	0.3	15.6	62.7
2023	3.3	1.9	22.6	19.0	0.3	16.1	63.2
2024	3.4	2.0	22.8	19.1	0.3	17.1	64.6
2025	3.6	2.0	22.9	19.0	0.3	17.2	65.0
2026	3.7	2.0	23.0	18.8	0.3	18.0	65.8
2027	3.7	2.0	23.1	18.8	0.3	18.3	66.3
2028	3.7	2.1	23.2	18.6	0.4	18.8	66.8
2029	3.7	2.1	23.2	18.6	0.4	19.2	67.1
2030	3.7	2.1	23.2	18.5	0.4	19.3	67.2
2031	3.7	2.1	23.2	18.5	0.4	19.5	67.5
2032	3.7	2.1	23.4	18.4	0.5	19.8	67.8
2033	3.7	2.1	23.4	18.6	0.5	20.1	68.4
2034	3.7	2.1	23.6	18.5	0.5	20.4	68.7
2035	3.7	2.1	23.7	18.5	0.5	20.4	68.9

U.S. Natural Gas Consumption by End Use (Bcfd) – GHG As-Is, High Export Case							
Year	Lease & Plant Fuel	Pipeline & Distribution Use	Res/Comm	Industrial	Vehicle Fuel	Electric Power	Total Consumption
2010	3.1	1.9	22.2	16.7	0.1	18.0	62.0
2011	3.1	1.8	21.7	17.1	0.1	16.7	60.6
2012	3.1	1.8	21.6	17.9	0.1	15.6	60.2
2013	3.1	1.8	21.7	18.6	0.1	13.8	59.2
2014	3.2	1.8	21.8	18.9	0.1	13.3	59.1
2015	3.2	2.0	21.7	18.8	0.1	14.2	60.1
2016	3.3	2.0	21.8	18.9	0.2	14.3	60.4
2017	3.2	2.0	21.9	19.0	0.2	14.7	61.0
2018	3.2	2.0	22.0	19.1	0.2	14.9	61.5
2019	3.3	2.0	22.1	19.2	0.2	15.2	62.0
2020	3.3	2.0	22.3	19.2	0.2	15.5	62.6
2021	3.3	2.0	22.4	19.2	0.2	15.4	62.4
2022	3.3	2.0	22.4	19.1	0.3	15.6	62.7
2023	3.3	2.0	22.6	19.0	0.3	16.1	63.2
2024	3.4	2.1	22.7	19.0	0.3	17.1	64.6
2025	3.6	2.1	22.8	19.0	0.3	17.2	65.0
2026	3.7	2.1	22.9	18.8	0.3	18.0	65.8
2027	3.8	2.1	23.0	18.7	0.3	18.3	66.3
2028	3.8	2.2	23.1	18.6	0.4	18.8	66.8
2029	3.7	2.2	23.1	18.6	0.4	19.2	67.1
2030	3.7	2.2	23.1	18.5	0.4	19.3	67.2
2031	3.7	2.2	23.2	18.5	0.4	19.5	67.5
2032	3.7	2.2	23.3	18.4	0.5	19.8	67.8
2033	3.7	2.2	23.4	18.6	0.5	20.1	68.4
2034	3.7	2.2	23.5	18.4	0.5	20.4	68.8
2035	3.7	2.2	23.6	18.5	0.5	20.4	69.0

U.S. Natural Gas Consumption by End Use (Bcfd) – GHG Plus Case							
Year	Lease & Plant Fuel	Pipeline & Distribution Use	Res/Comm	Industrial	Vehicle Fuel	Electric Power	Total Consumption
2010	3.2	2.0	22.6	18.2	0.1	18.8	64.8
2011	3.3	1.9	22.9	18.3	0.1	19.0	65.5
2012	3.3	1.9	23.0	18.3	0.1	19.2	65.7
2013	3.3	1.9	23.1	18.3	0.1	19.5	66.3
2014	3.3	1.9	23.2	18.3	0.2	19.9	66.7
2015	3.4	1.9	23.3	18.2	0.2	20.5	67.5
2016	3.4	1.9	23.4	18.2	0.2	21.1	68.2
2017	3.4	1.9	23.4	17.9	0.3	21.8	68.7
2018	3.4	2.0	23.5	17.8	0.4	22.4	69.5
2019	3.4	2.0	23.5	17.8	0.6	23.1	70.3
2020	3.4	2.0	23.5	17.7	0.7	23.6	70.9
2021	3.4	2.0	23.5	17.7	0.9	24.3	71.9
2022	3.4	2.0	23.4	17.6	1.2	25.0	72.7
2023	3.5	2.1	23.3	17.6	1.5	25.7	73.6
2024	3.6	2.1	23.2	17.5	1.8	26.3	74.4
2025	3.8	2.1	23.2	17.5	2.1	27.0	75.8
2026	4.0	2.1	23.2	17.5	2.5	27.7	77.0
2027	4.1	2.2	23.1	17.4	2.8	28.4	77.9
2028	4.0	2.2	23.0	17.3	3.1	29.0	78.7
2029	4.1	2.3	22.9	17.3	3.4	29.8	79.8
2030	4.1	2.3	22.8	17.3	3.7	30.5	80.6
2031	4.1	2.3	22.7	17.2	3.9	31.1	81.4
2032	4.1	2.3	22.6	17.0	4.1	31.8	81.9
2033	4.1	2.3	22.6	16.8	4.3	32.4	82.5
2034	4.1	2.3	22.4	16.3	4.5	33.0	82.7
2035	4.1	2.3	22.4	16.2	4.7	33.5	83.1

U.S. Natural Gas Consumption by End Use (Bcfd) – GHG Plus, High Export Case							
Year	Lease & Plant Fuel	Pipeline & Distribution Use	Res/Comm	Industrial	Vehicle Fuel	Electric Power	Total Consumption
2010	3.2	2.0	22.6	18.2	0.1	18.8	64.8
2011	3.3	1.9	22.9	18.3	0.1	19.0	65.5
2012	3.3	1.9	23.0	18.3	0.1	19.2	65.7
2013	3.3	1.9	23.1	18.3	0.1	19.5	66.3
2014	3.3	1.9	23.2	18.3	0.2	19.9	66.7
2015	3.4	2.1	23.0	18.1	0.2	20.5	67.3
2016	3.4	2.1	23.0	18.1	0.2	21.1	68.0
2017	3.4	2.2	23.2	17.8	0.3	21.8	68.6
2018	3.4	2.2	23.3	17.8	0.4	22.4	69.4
2019	3.4	2.2	23.3	17.7	0.6	23.0	70.2
2020	3.4	2.2	23.2	17.6	0.7	23.6	70.9
2021	3.5	2.2	23.2	17.6	0.9	24.3	71.8
2022	3.5	2.2	23.1	17.6	1.2	25.0	72.6
2023	3.5	2.3	23.1	17.5	1.5	25.6	73.6
2024	3.7	2.3	23.0	17.4	1.8	26.3	74.4
2025	3.9	2.3	22.9	17.4	2.1	27.0	75.7
2026	4.1	2.4	22.9	17.4	2.5	27.7	76.9
2027	4.1	2.4	22.8	17.3	2.8	28.4	77.9
2028	4.1	2.4	22.8	17.2	3.1	29.0	78.7
2029	4.1	2.5	22.7	17.2	3.4	29.8	79.6
2030	4.1	2.5	22.6	17.1	3.7	30.5	80.5
2031	4.1	2.5	22.5	16.9	3.9	31.1	81.0
2032	4.1	2.5	22.4	16.6	4.1	31.7	81.4
2033	4.1	2.5	22.3	16.2	4.3	32.3	81.8
2034	4.1	2.5	22.2	16.1	4.5	32.7	82.2
2035	4.1	2.5	22.2	16.1	4.7	33.2	82.7



## Appendix C: U.S. Supply Disposition Tables

U.S. Supply Disposition (Bcfd) – GHG As-Is Case							
Year	Dry Production	NET IMPORTS			Net Storage	Balancing Item	Total Disposition <sup>14</sup>
		Net Pipeline Imports	Net LNG Imports	Total Net Imports			
2010	56.0	5.3	1.5	6.8	0.0	-0.9	62.0
2011	55.8	3.5	1.1	4.6	0.3	0.0	60.6
2012	56.6	3.0	0.6	3.6	0.1	0.0	60.2
2013	56.9	2.2	0.2	2.4	-0.1	0.0	59.2
2014	57.7	1.4	0.2	1.5	-0.1	0.0	59.2
2015	58.9	1.1	0.2	1.2	0.1	0.0	60.2
2016	59.6	0.9	0.2	1.1	0.0	0.0	60.6
2017	60.1	0.7	0.2	1.0	0.0	0.0	61.1
2018	60.6	0.7	0.2	0.9	0.0	0.0	61.5
2019	61.1	0.7	0.3	1.0	0.0	0.0	62.0
2020	61.8	0.2	0.4	0.6	0.1	0.0	62.5
2021	61.9	0.1	0.5	0.6	-0.1	0.0	62.4
2022	62.2	-0.1	0.6	0.5	0.0	0.0	62.7
2023	62.5	-0.2	1.0	0.8	-0.1	0.0	63.2
2024	63.0	-0.4	1.8	1.4	0.1	0.0	64.5
2025	63.3	-0.4	2.0	1.7	0.0	0.0	64.9
2026	63.9	-0.5	2.4	1.9	0.0	0.0	65.7
2027	64.5	-0.8	2.7	1.9	0.0	0.0	66.3
2028	65.0	-1.1	2.9	1.8	0.1	0.0	66.8
2029	65.3	-1.3	3.0	1.8	0.0	0.0	67.1
2030	65.4	-1.3	3.1	1.9	-0.1	0.0	67.1
2031	65.5	-1.2	3.2	2.0	-0.1	0.0	67.4
2032	65.5	-1.0	3.3	2.3	0.0	0.0	67.8
2033	65.8	-0.9	3.4	2.6	0.0	0.0	68.4
2034	66.0	-0.9	3.5	2.7	0.1	0.0	68.7
2035	66.2	-0.6	3.7	3.0	-0.2	0.0	68.9

<sup>14</sup> In EIA tables, this column is labeled “Consumption.”

U.S. Supply Disposition (Bcfd) – GHG As-Is, Moderate Export Case							
Year	Dry Production	NET IMPORTS			Net Storage	Balancing Item	Total Disposition <sup>15</sup>
		Net Pipeline Imports	Net LNG Imports	Total Net Imports			
2010	56.0	5.3	1.5	6.8	0.0	-0.9	62.0
2011	55.8	3.5	1.1	4.6	0.3	0.0	60.6
2012	56.6	3.0	0.6	3.6	0.1	0.0	60.2
2013	56.9	2.2	0.2	2.4	-0.1	0.0	59.2
2014	57.8	1.4	0.2	1.6	-0.2	-0.1	59.1
2015	59.5	1.3	-0.7	0.6	0.2	0.0	60.1
2016	60.1	1.0	-0.7	0.4	0.0	0.0	60.4
2017	60.7	0.9	-0.6	0.3	0.0	0.0	61.0
2018	61.2	0.9	-0.6	0.3	0.0	0.0	61.5
2019	61.7	0.9	-0.5	0.4	0.0	0.0	62.0
2020	62.2	0.4	-0.2	0.3	0.1	0.0	62.6
2021	62.4	0.3	-0.1	0.2	-0.1	0.0	62.4
2022	62.6	0.0	0.1	0.1	0.0	0.0	62.7
2023	62.9	-0.1	0.5	0.4	-0.1	0.0	63.2
2024	63.5	-0.2	1.2	1.0	0.1	0.0	64.6
2025	63.7	-0.1	1.4	1.3	0.0	0.0	65.0
2026	64.4	-0.3	1.7	1.4	0.0	0.0	65.8
2027	65.0	-0.7	2.0	1.3	0.0	0.0	66.3
2028	65.6	-0.9	2.1	1.2	0.0	0.0	66.8
2029	66.0	-1.0	2.2	1.1	0.0	0.0	67.1
2030	66.1	-1.0	2.2	1.2	-0.1	0.0	67.2
2031	66.2	-0.9	2.3	1.4	-0.1	0.0	67.5
2032	66.2	-0.8	2.4	1.6	0.0	0.0	67.8
2033	66.6	-0.7	2.6	1.9	0.0	0.0	68.4
2034	66.7	-0.7	2.7	2.0	0.1	0.0	68.7
2035	66.9	-0.5	2.8	2.3	-0.2	-0.1	68.9

<sup>15</sup> In EIA tables, this column is labeled “Consumption.”

U.S. Supply Disposition (Bcfd) – GHG As-Is, High Export Case							
Year	Dry Production	NET IMPORTS			Net Storage	Balancing Item	Total Disposition <sup>16</sup>
		Net Pipeline Imports	Net LNG Imports	Total Net Imports			
2010	56.0	5.3	1.5	6.8	0.0	-0.9	62.0
2011	55.8	3.5	1.1	4.6	0.3	0.0	60.6
2012	56.6	3.0	0.6	3.6	0.1	0.0	60.2
2013	56.9	2.2	0.2	2.4	-0.1	0.0	59.2
2014	57.8	1.4	0.2	1.6	-0.3	-0.1	59.1
2015	59.8	1.4	-1.4	0.0	0.3	0.0	60.1
2016	60.5	1.2	-1.3	-0.1	0.0	0.0	60.4
2017	61.1	1.1	-1.2	-0.1	0.0	0.0	61.0
2018	61.7	1.0	-1.2	-0.1	0.0	0.0	61.5
2019	62.1	1.0	-1.1	0.0	-0.1	0.0	62.0
2020	62.6	0.6	-0.7	-0.1	0.1	0.0	62.6
2021	62.8	0.5	-0.7	-0.2	-0.1	0.0	62.4
2022	63.0	0.1	-0.4	-0.3	0.0	0.0	62.7
2023	63.3	0.1	0.0	0.0	-0.1	0.0	63.2
2024	63.9	-0.1	0.7	0.6	0.1	0.0	64.6
2025	64.2	0.0	0.9	0.9	0.0	0.0	65.0
2026	64.9	-0.1	1.0	0.9	0.0	0.0	65.8
2027	65.6	-0.4	1.1	0.7	0.0	0.0	66.3
2028	66.2	-0.6	1.2	0.5	0.0	0.0	66.8
2029	66.6	-0.8	1.3	0.5	0.0	0.0	67.1
2030	66.7	-0.7	1.4	0.6	-0.1	0.0	67.2
2031	66.9	-0.7	1.5	0.7	-0.1	0.0	67.5
2032	66.9	-0.6	1.6	1.0	0.0	0.0	67.8
2033	67.3	-0.5	1.7	1.2	0.0	0.0	68.4
2034	67.4	-0.5	1.8	1.3	0.1	0.0	68.8
2035	67.6	-0.3	2.0	1.6	-0.2	-0.1	69.0

<sup>16</sup> In EIA tables, this column is labeled “Consumption.”

U.S. Supply Disposition (Bcfd) – GHG Plus Case							
Year	Dry Production	NET IMPORTS			Net Storage	Balancing Item	Total Disposition <sup>17</sup>
		Net Pipeline Imports	Net LNG Imports	Total Net Imports			
2010	57.9	6.4	1.6	7.9	-0.2	-0.9	64.8
2011	58.4	5.0	1.7	6.7	0.4	-0.1	65.5
2012	59.4	4.4	2.0	6.4	0.0	0.0	65.7
2013	60.1	3.6	2.5	6.2	0.0	-0.1	66.3
2014	61.2	2.8	2.8	5.6	0.0	-0.1	66.7
2015	62.1	2.5	2.9	5.4	0.0	-0.1	67.5
2016	62.9	2.3	3.0	5.3	0.0	0.0	68.2
2017	63.5	2.1	3.1	5.2	0.0	0.0	68.7
2018	64.2	2.1	3.2	5.3	0.0	0.0	69.5
2019	64.9	2.2	3.3	5.5	0.0	0.0	70.3
2020	65.5	2.1	3.4	5.5	0.0	0.0	70.9
2021	66.3	2.1	3.5	5.6	0.0	0.0	71.9
2022	67.1	1.9	3.7	5.6	0.0	0.0	72.7
2023	67.9	1.9	3.8	5.7	0.0	0.0	73.6
2024	68.7	1.7	4.0	5.8	0.0	0.0	74.4
2025	69.5	2.1	4.2	6.3	0.0	-0.1	75.8
2026	70.7	2.0	4.3	6.3	0.0	-0.1	77.0
2027	71.8	1.7	4.5	6.2	0.0	-0.1	77.9
2028	72.7	1.5	4.6	6.1	0.0	-0.1	78.7
2029	73.7	1.3	4.8	6.1	0.0	0.0	79.8
2030	74.4	1.4	5.0	6.3	-0.1	-0.1	80.6
2031	75.0	1.4	5.1	6.5	-0.1	0.1	81.4
2032	75.2	1.5	5.2	6.7	0.0	0.0	81.9
2033	75.5	1.6	5.5	7.1	0.0	0.0	82.5
2034	75.4	1.6	5.7	7.3	0.1	0.0	82.7
2035	75.2	2.1	5.9	8.0	-0.1	0.0	83.1

<sup>17</sup> In EIA tables, this column is labeled “Consumption.”

U.S. Supply Disposition (Bcfd) – GHG Plus, High Export Case							
Year	Dry Production	NET IMPORTS			Net Storage	Balancing Item	Total Disposition <sup>18</sup>
		Net Pipeline Imports	Net LNG Imports	Total Net Imports			
2010	57.9	6.4	1.6	7.9	-0.2	-0.9	64.8
2011	58.4	5.0	1.7	6.7	0.4	-0.1	65.5
2012	59.4	4.4	2.0	6.4	0.0	0.0	65.7
2013	60.1	3.6	2.5	6.2	0.0	-0.1	66.3
2014	61.3	2.9	2.8	5.6	-0.2	-0.1	66.7
2015	63.1	2.9	1.2	4.1	0.2	-0.1	67.3
2016	63.9	2.7	1.3	4.1	0.0	0.0	68.0
2017	64.6	2.7	1.4	4.0	0.0	-0.1	68.6
2018	65.3	2.7	1.4	4.1	0.0	0.0	69.4
2019	66.0	2.7	1.6	4.3	0.0	0.0	70.2
2020	66.6	2.6	1.7	4.3	0.0	0.0	70.9
2021	67.4	2.6	1.8	4.4	0.0	0.0	71.8
2022	68.3	2.4	2.0	4.4	0.0	0.0	72.6
2023	69.1	2.3	2.2	4.5	0.0	0.0	73.6
2024	69.9	2.1	2.4	4.5	0.0	0.0	74.4
2025	70.8	2.5	2.5	5.0	0.0	-0.1	75.7
2026	72.0	2.4	2.6	5.0	0.0	-0.1	76.9
2027	73.1	2.0	2.8	4.8	0.0	-0.1	77.9
2028	74.0	1.8	2.9	4.7	0.0	-0.1	78.7
2029	75.0	1.6	3.1	4.7	0.0	-0.1	79.6
2030	75.7	1.7	3.2	4.9	-0.1	-0.1	80.5
2031	76.0	1.7	3.5	5.1	-0.1	0.0	81.0
2032	76.0	1.8	3.6	5.4	0.0	0.0	81.4
2033	75.9	2.0	3.9	5.9	0.0	0.0	81.8
2034	75.8	2.3	4.1	6.4	0.1	0.0	82.2
2035	75.6	3.0	4.3	7.3	-0.1	0.0	82.7

<sup>18</sup> In EIA tables, this column is labeled “Consumption.”

## Appendix D: Henry Hub Price Forecast Comparison Table

Henry Hub Price Forecast Comparison (2009\$/MMBtu)					
Year	GHG As-Is	GHG As-Is, Moderate Export	GHG As-Is, High Export	GHG Plus	GHG Plus, High Export
2010	\$4.68	\$4.68	\$4.68	\$4.68	\$4.68
2011	\$5.03	\$5.03	\$5.03	\$5.03	\$5.03
2012	\$5.12	\$5.12	\$5.12	\$5.23	\$5.23
2013	\$3.50	\$3.50	\$3.50	\$4.62	\$4.62
2014	\$3.10	\$3.12	\$3.14	\$4.49	\$4.55
2015	\$3.29	\$3.49	\$3.64	\$4.50	\$5.02
2016	\$3.33	\$3.54	\$3.69	\$4.51	\$5.04
2017	\$3.45	\$3.65	\$3.80	\$4.58	\$5.10
2018	\$3.50	\$3.70	\$3.85	\$4.65	\$5.14
2019	\$3.62	\$3.79	\$3.95	\$4.79	\$5.26
2020	\$3.85	\$3.98	\$4.10	\$4.99	\$5.44
2021	\$3.91	\$4.04	\$4.17	\$5.27	\$5.72
2022	\$4.05	\$4.19	\$4.30	\$5.58	\$6.05
2023	\$4.23	\$4.35	\$4.47	\$5.90	\$6.39
2024	\$4.47	\$4.60	\$4.72	\$6.27	\$6.77
2025	\$4.60	\$4.72	\$4.87	\$6.59	\$7.09
2026	\$4.76	\$4.89	\$5.06	\$6.90	\$7.42
2027	\$4.93	\$5.08	\$5.28	\$7.24	\$7.81
2028	\$5.09	\$5.28	\$5.49	\$7.56	\$8.16
2029	\$5.33	\$5.52	\$5.73	\$8.02	\$8.69
2030	\$5.55	\$5.74	\$5.94	\$8.50	\$9.24
2031	\$5.81	\$5.99	\$6.21	\$9.02	\$9.83
2032	\$6.04	\$6.26	\$6.49	\$9.54	\$10.39
2033	\$6.38	\$6.60	\$6.83	\$10.18	\$11.01
2034	\$6.65	\$6.88	\$7.12	\$10.86	\$11.67
2035	\$6.97	\$7.20	\$7.46	\$11.43	\$12.33