



Carbon Sequestration Leadership Forum

Stakeholder Panel: Priority Issues for Industry

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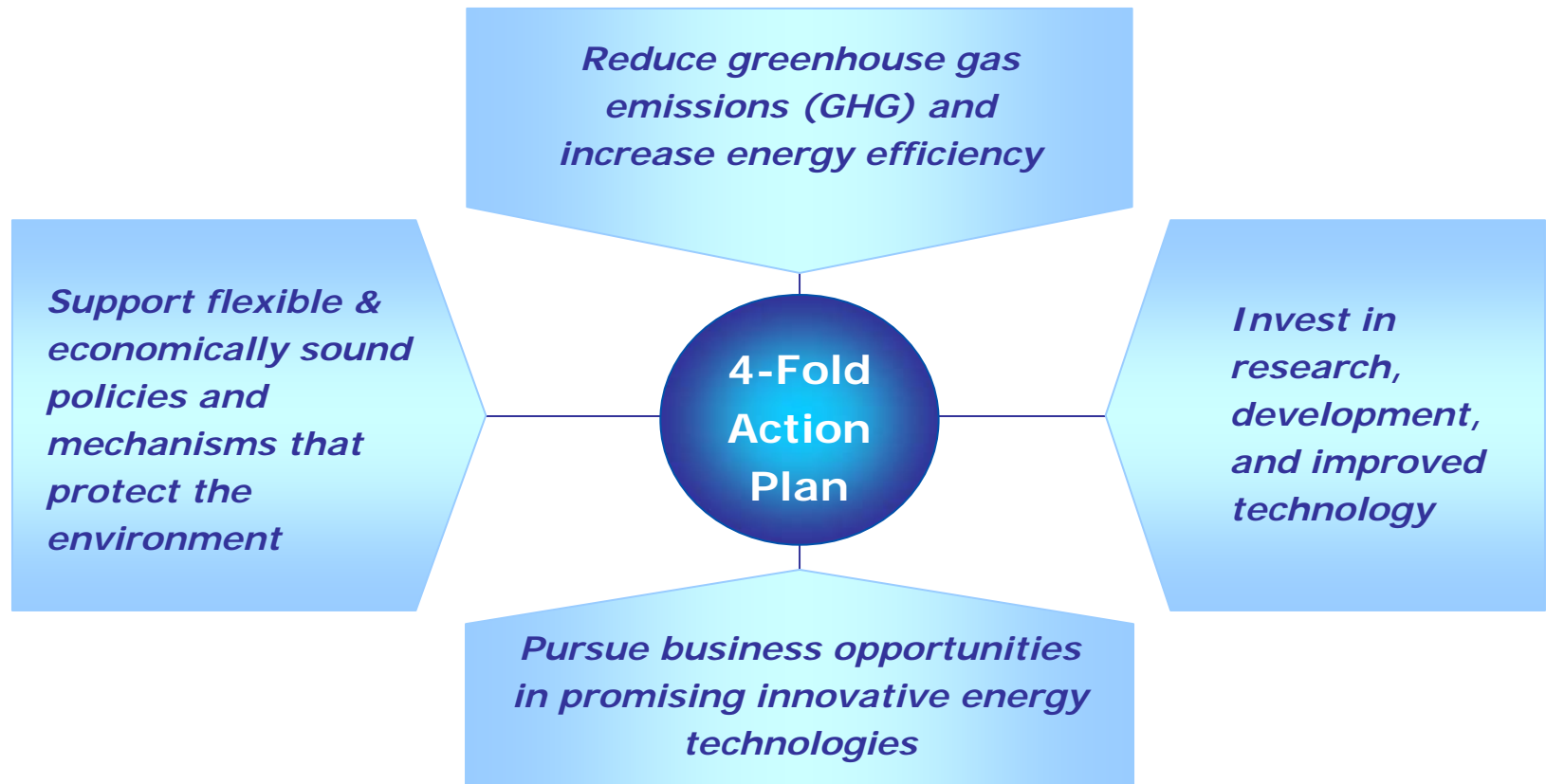
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Chevron's Climate Change Position and Action Plan



Position: We at Chevron Corporation are responding to increasing climate change concerns by integrating an action-based approach into our business strategy

Plan: 4-Fold Plan predicated on ***ACTION***





Chevron Corporation Portfolio Actions

Chevron continues to execute its 4-fold action plan since 2001 on climate change, including actions to:

- Expand our leading geothermal energy technology deployment. Chevron is the largest producer of geothermal energy among all oil and gas companies
- Collaborate on a biofuels initiative (E85 pilot program) in California with the State government, General Motors, and Pacific Ethanol
- Continue expansion of hydrogen infrastructure for transportation ("practical hydrogen")
- Continue our strong partnerships in CO₂ capture and storage R&D and policy, in numerous forums e.g., CO₂ Capture Project, Weyburn, MIT, stakeholder in Carbon Sequestration Leadership Forum (CSLF), sponsor of IEA GHG Programme, partner in the joint IEA CSLF workshop.

Chevron invested over \$100 million per year in clean energy and renewable energy development for several years. In 2004 and 2005, our investments have expanded to over \$300 million per year.

Global Oil & Gas Industry Association Held Roundtable in January 2006



CO₂ capture and storage (CCS) technology has the potential to contribute significant emissions reductions in a portfolio of approaches to mitigate greenhouse gas emissions and stabilize their concentrations in the atmosphere. The formation and application of sound regulatory and legal frameworks will be needed if the deployment of CCS as a GHG mitigation option is to be widespread. At the same time, existing regulatory and legal frameworks already exist that govern Enhanced Oil Recovery (EOR) operations and Acid Gas Injection operations.

The International Petroleum Industry Environmental Conservation Association (IPIECA) held a roundtable in January 2006. This roundtable helped to develop consensus within the IPIECA membership regarding CCS regulations. It brought together experts from within the oil and gas industry, including upstream engineers (including those with EOR, Acid Gas Disposal and underground gas storage experience) and regulatory/permitting experts to address the following issues regarding the development CCS regulations:

- Role of policies and regulations in CCS and analogous operations (i.e. EOR and Acid Gas Injection)
- Existing regulations
- Permitting
- Liability
- Monitoring and verification

Key Messages -- Global Oil and Gas Industry Priority Issues



1. Legal/Regulatory Issues

- Classification of CO₂ as a waste
- Long-term liability
- Monitoring

2. Industry Strategies

- Relationship to power industry CO₂ sources
- Potential business model
- Role of IPIECA (e.g, best practices, facilitate gov't. interaction)
- Impact on current operations

3. Incentives (e.g., CDM, crediting, R&D incentives)

4. Transfer knowledge of CCS to policy makers in climate change policy

- What are industry's goals? How does CCS fit into business portfolio?
- Role of CO₂ EOR: Early Opportunities

5. Public acceptance?

Key Messages – Organizational Approaches



Industry can approach the priority issues with any number of approaches or combination of them:

- Individual Company
- Network
- IPIECA Task Force
- Forming an Association
- Working with NGOs and other stakeholders

Key Messages – Global Oil and Gas Industry Association(s) Key Roles



Key strength (such as that of IPIECA) is in the educational and communication roles for member companies, which include:

- Sharing of best practices from projects to build expertise
- Is there alignment between companies? Encourage sharing of perspectives.
- Leveraging of expertise in industry-wide efforts
- Communication of industry information to the UNFCCC, IPCC and other multi-lateral processes

Additional potential roles that a global oil & gas industry association should consider:

- Engage with other industries, e.g., coal-fired generators
- Facilitate the identification of business models that can offset the costs of CCS with economic incentives from CCS, for example, EOR, CDM.

Key Messages – Conundrum and Breakthrough



- There is a potential conundrum for industry and governments.
- Industry is perhaps waiting for the development of policies and regulations before implementing CCS activities, while government is perhaps waiting for industry experience and best practices before it will produce regulations.
- The global oil & gas industry can serve a useful role to advance governments' understanding of industry's experiences and best practices in current and future projects as industry advance these projects.
- The Carbon Sequestration Leadership Forum can act as an agent for facilitating and accelerating this understanding – to help break through the conundrum.



The Strategic Challenge

Carbon Capture and Storage (CCS) may become critical to our industries.

- As a cost-effective way to reduce CO2 emissions.
- The technology is developing.

But:

- Commercial readiness with widespread deployment is a way off, and
- A favorable business climate needs to be in place.

How can a favorable business environment be created?