Presentation by Judd Swift Coal Working Group Acting Co-Chair and DOE Deputy Assistant Secretary For International Affairs To The

Energy Dialogue Steering Committee April 4, 2008

Let me begin by first extending my appreciation to Foreign Affairs Joint Secretary Menon and Under Secretary Albright for providing their leadership and vision to the Energy Dialogue; your energy has helped to ensure our success this week.

With regard to the Coal Working Group, I would also like to recognize Additional Secretary Seth and his staff for the excellent support that he and his organization has provided not only this week, but on an ongoing basis to maintain the momentum of the Coal Working Group.

When the Coal Working Group was first established one of the first accomplishments was the development of a plan of action. This plan of action established a roadmap for the CWG and I am proud to report, based on this week's discussions, that we are making significant progress on our journey.

Our accomplishments are in three major categories: (1) technical exchange visits; (2) workshops and conferences; and (3) actual projects.

With regard to Technical Exchange Visits:

The Coal Working Group has sponsored several site visits to India and the United States for delegates from both countries to better understand operations and best practices associated with: coal beneficiation; waste coal utilization; surface and underground mining operations; coal mine safety; overburden slope stability; steep seam extraction; and mine reclamation.

With regard to Workshops and Conferences:

The CWG has supported workshops for technical and policy experts from the US and India governments and private sectors that focused on regulatory and technical issues associated with:

- O Producing and using clean coal in India to meet increased demands for clean and sustainable energy;
- O Exploring and enhancing the commercial viability of underground coal gasification in India for the production of syngas and use in thermal power generation, chemical feedstocks and liquid fuel production; and
- O Looking to the future, we have invited CWG representatives from the Ministry of Coal and Coal India Ltd, to attend the upcoming Coal Prep Exhibit in the US in which hundreds of US technology providers will have their coal cleaning equipment on display.

Lastly, let me focus on actual projects that are either underway or in the planning stages. Examples include:

- o The CWG has developed three coal beneficiation R&D project proposals that are being considered for funding by Coal India Ltd, with an approval for implementation expected in the next several weeks. The projects address: (1) Development of a coal beneficiation plant simulator to determine optimal operational conditions for coal washing; (2) Establishing a cost effective technology and pilot plant for beneficiation and recovery of fine coal; and (3) Establishing beneficiation technology and pilot plant for low volatile coking coal.
- USTDA provided a \$360,000 grant to Neyveli Lignite Corporation in an effort to improve mining operations and costs using alternate mining technology.
- O In a public-private partnership, USTDA provided approximately \$256,000 for a feasibility study for evaluating the efficiency and cost advantages of Binana Cement Ltd's use of alternate mining technology in the development of a captive mining concession supporting its cement plant in Rajasthan.
- O In another public-private partnership, USTDA provided a \$506,000 grant to partially fund the costs of technical assistance to Reliance Industries on the Sohagpur Coal Bed Methane Project for assessing the technical, economic and financial viability of the commercial development of CBM in Madhya Pradesh, India.
- O The Ministry of Coal, and the Ministry of Petroleum and Natural Gas, have signed an MOU with US Environmental Protection Agency and the USTDA to establish and support a CBM Clearinghouse and to assist India in promoting methane emission reductions and sustainable energy development.

Our Future Plans Also Include:

• The CWG has identified several areas of mutual interest at the recent CWG meeting, and draft proposals have been developed by the US side and provided to the Ministry of Coal and Coal India for their evaluation and funding consideration. Topics include: dry coal beneficiation; underground coal gasification; and waste coal utilization for power generation. Detailed project proposals will be developed where appropriate.

- Several potential areas were identified for potential collaboration between
 India's Central Institute for Mining and Fuel Research (CIMFR) and US
 DOE's National Energy Technology Laboratory (NETL). In the weeks ahead,
 development and approval of an MOU between the two laboratories will be
 explored.
- At our meeting, the Indian delegation identified several additional areas for possible collaboration including: addressing issues related to lignite coal including UCG and coal bed methane development, dump slope stability, and seepage water control in overburden reaches; examining innovative and accelerated techniques for coal resource characterization with an emphasis on geo-physical methods; coal liquefaction; developing a model approach to increase usable energy from indigenously mined coal; and assessing approaches for reviving selected abandoned mines in Coal India Ltd. companies.
- USTDA is reviewing funding for consideration of a coal-to-liquid proposal in public-private partnership. The proposed cost-shared feasibility study and pilot testing could involve co-processing of lignite and refinery bottoms to produce high-grade liquid fuels in Gujrat.

And in the area of cross-cutting collaboration across the Energy Dialogue working groups...

- The CWG will be working with representatives from the Confederation of Indian Industries (CII), USAID and NETL to explore the possibility of including coal processing technology providers in the proposed fall workshop for US service providers in India.
- Several additional cross-cutting issues have been identified by the CWG that are common to other working groups such as: (1) coal bed/coal mine methane; and (2) underground coal gasification. And we will look forward to assisting in the efforts to identify appropriate mechanisms for effective coordination on these and other cross cutting activities.

In summary, the Coal Working Group has made significant progress, and this weeks' meeting has helped lay the groundwork for maintaining our momentum into the future.

Thank you.