HIGHLIGHTS OF CEE\(^1\) EXPERIENCE IN ENERGY SECTOR RESTRUCTURING

The Center for Energy Economics (CEE) is engaged in research, teaching/training and outreach activities directed toward energy sector reform initiatives worldwide. CEE activities are funded through corporate and government grants and contracts, with participation by major foundations currently under development. The Center is a member of the PA Consulting team for the new worldwide energy/environment IQC sponsored by USAID.

MAJOR PROJECT AREAS

- **New Era in Oil, Gas and Power Value Creation**

  The *New Era* program is serving to link all of the CEE’s research outputs with training in order to create feedbacks between research and practice, expand data collection and enhance information distribution. This is especially important with respect to the knowledge base for energy restructuring efforts worldwide. In 1997 and 1998 the CEE hosted small, invitational workshops, *International Colloquium on Energy Sector Reform*, to focus on emerging trends in specific countries and regions of interest. The Colloquium served as a launch pad for development and implementation of *New Era* and is now part of the annual two-week schedule as the closing seminar. *New Era* is supported by the U.S. Department of Energy-Office of Fossil Energy and U.S. Department of State, Agency for International Development (USAID) and sponsoring energy companies. Case studies developed for *New Era* are listed in our **Critical Milestones**.

- **North America (Launched 1991)**

  The CEE continuously monitors and investigates energy sector development on the North American continent. Our emphasis is on the natural gas value chain (upstream resource development to the electric power burnertip), regulatory and policy frameworks to facilitate continued development of competitive markets and integration between competitive frameworks and the North American Free Trade Agreement regime. We are also establishing a study effort on emerging trends in the U.S. natural gas market and deliverable supply. **Key Products:** *North American Energy Integration: The Prospects for Regulatory Coordination and Seamless Transactions of Natural Gas and Electricity* (UH Shell Interdisciplinary Scholars Program, SISP, 1998; second edition scheduled for release Summer 2001). Ongoing presentations and written commentary on North American gas/power integration. For detail on Mexico program, see below. Establishment in 2003 of a new research, education consortium for liquefied natural gas (LNG), *Commercial Frameworks for LNG in North America*.

- **Texas (Launched 1997)**

  The CEE is actively involved in the energy sector of our home state. The CEE is monitoring implementation of Senate Bill 7, passed in May 1999 by the Texas Legislature to restructure the state’s electric power industry and participating in stakeholder work sessions for network policy design. **Key Products:** *Guide to Electric Power in Texas* (with the Center for Global Studies, Houston Advanced Research Center, 1997, 1999 and 2003). Sponsorship of

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\(^1\) The listed activities have been undertaken by the Center for Energy Economics as the UH Natural Gas Project (1991-1995), the Energy Institute (1995-2001), and Institute for Energy, law & Enterprise at the UH Law Center (2001-2005).

**Mexico Case Study (Launched 1991)**

The CEE has been engaged in research and forums on energy sector restructuring in Mexico (see our brief, *Experience in Mexico*). Our focus is principally on natural gas sector reorganization and increasingly on electric power reform. Much of our work is undertaken in collaboration with researchers at Instituto Tecnologico y Estudios Superiores de Monterrey.

**Key Products:** Since 1991, numerous white papers and commentary in U.S., Mexican and European industry trade publications, academic journals, newspapers and business publications on natural gas industry restructuring, including "The Economics of Natural Gas in Mexico – Revisited," commissioned by *The Energy Journal* for a special edition, *North American Energy After Free Trade* (1993). *LPG Markets in Mexico* with implications for natural gas development (1997). Executive roundtables and a major conference on Mexico’s restructuring and emerging North American continental markets. Training programs (refer to brief on *Professional Training Programs at the Energy CEE*). The CEE also hosted a private roundtable discussion on natural gas regulatory policy in Mexico at the request of Mexico’s Comisión Reguladora de Energía, with federal, state and provincial regulators and energy ministry officials from the U.S., Canada, Mexico (May 1995). Thirteen participants attended the *New Era* program, representing CRE, Comisión Federal de Electricidad, PEMEX and other organizations.

**Other Latin America (Launched 1996)**

The CEE has undertaken activities to gain insights on energy sector restructuring elsewhere in Latin America. Future efforts will emphasize Colombia, Brazil and Venezuela, for their dominance in resource position and, in the case of Brazil, market size and potential depth.


**NIS and Caspian (Launched 1991)**

During 1997-98, the CEE was a member of the U.S. Agency for International Development/Hagler Bailly Consulting (now PA Consulting) consortium for the NIS, including Central Asia Republics (CAR) and the Caspian region. The consortium provided technical support and in-country training for energy sector reform in oil and gas upstream operations and pipeline transportation. CEE involvement extended to the governments and national energy companies in the republics of Kazakhstan, Uzbekistan, Turkmenistan, Georgia and Ukraine. The CEE is continuing to develop research publications from our consortium activity. The CEE is a member of a second U.S. AID/PA consulting consortium for CAR launched in 2001. Ongoing work with respect to Russian energy developments continues

**• Turkey (Launched 1998)**

In 1998, the CEE established an active involvement in energy sector restructuring in Turkey with regional extensions (Black Sea/Caucasus geographic market, Caspian Basin oil and gas resource supply and transit issues). **Key Products:** *Power Marketization in Turkey* (1998). Private discussion groups on energy sector reform issues, Istanbul and Ankara (July 1998). Review of the proposed Electricity Law and a study on restructuring the natural gas sector in Turkey at the request of a Turkish business organization (1998). Publication of two articles on electricity sector restructuring in Dünya, the daily financial newspaper in Turkey (1998). Co-sponsorship of a half-day roundtable with the Eurasia Group and Energy Intelligence Group on energy demand in Turkey and potential oil and gas export pipelines from the Caspian region, in Houston (December 1998). Outside review of “Legal Battleground in Turkey’s Power Privatization War” for publication in *Utilities Law Review* (1998). Article on energy demand and power privatization efforts in Turkey for *Power Economics* magazine (1999). Background research initiated for a white paper on the Black Sea region with special emphasis on littoral countries Bulgaria, Romania, Ukraine and Georgia, to include structure and regulation of natural gas and electricity markets in the region and potential for an integrated regional market. Turkish delegates have attended the *New Era* programs since May 2003. From late August–December 2004, hosted international study program for Assistant Energy Experts Turkey’s Energy Markets and Regulatory Authority (EMRA). Discussions underway to expand *New Era*-based training for EMRA as well as to provide other technical assistance and training activities.

**• Western Europe (Launched 1998)**


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² During 1991, while CEE was part of the UH Law Center, the UH Law Center undertook the Russian Petroleum Legislation Project with the World Bank and multinational energy companies. Key products: Houston Journal of International Law symposia on the Russian Petroleum Legislation Project, UH Law Center (1993)
• Asia (Launched 1997)

The CEE has specific interest in emerging natural gas and electric power infrastructure developments and regional trade coordination in Asia. **Key Products:** *Asia Oil and Gas Megatrends, Balance and Geopolitics: A Closer Look at China* (1997; second edition scheduled for release Spring 2002). Training programs on energy law and market frameworks (refer to brief on Professional Training Programs at the Energy CEE). Participants from Bangladesh and China have attended the *New Era* program since its launch in 2001. In September 2003 hosted the U.S.-China Oil and Gas Industry Forum IV. In fall 2003, award of USAID/Association Liaison Office (American Association of State Colleges and Universities) grant to assist with *New Era*-based expansion of energy economics and policy training and analysis at Bangladesh University of Engineering and Technology, Petroleum and Mineral Resources Engineering department. In June 2004, assisted with and participated in the U.S.-China Oil and Gas Industry Forum V, Shanghai. Collaboration is underway with the Institute for Energy Economics and Geopolitics at East China Normal University (ECNU), Shanghai.

• Africa (Launched 2003)

The CEE has developed an Africa Initiative designed to focus on energy value chain economics, policy and regulatory frameworks. The initiative links the CEE’s research education consortium on *Commercial Frameworks for LNG in North America*, with upstream initiatives and the *New Era* capacity building program. **Key Products:** Assisted with and participated in the U.S.-Africa Energy Ministerial, Casablanca, Morocco, June 2002. Hosted a roundtable on Africa energy and socioeconomic development issues in March, 2003. Development of concept papers on “smart development pathways” to manage and mitigated socioeconomic impacts and economic development benefits of energy investment in the African region, in particular for oil and gas. Development of content on smart development for inclusion in the *New Era* program. Award in fall 2003 of USAID energy sector governance grant to extend the *New Era* program and smart development concepts into the African region. Participated in USAID People, Energy and Development workshop, Cape Town, South Africa, March 2004.