The Changing Politics of International Energy Investment

Report on the RIIA/BIEE/IAEE London Conference 4 & 5 December

The annual energy conference organized by the Royal Institute of International Affairs in association with the British Institute of Energy Economics and the International Association for Energy Economics differed in several respects from earlier conferences. The emphasis was on provision of the finance needed for worldwide investment rather than the issues of energy policy and economics which provided the themes of earlier conferences. Montreux Energy, a private forum set up in 1990 to examine capital needs and investment issues in the international energy industry, was associated with the organization of the conference. Sponsorship was given by the Global Environmental Facility - an indication of the importance it attaches to the encouragement of environment friendly investment in the energy sector and to its relationships with the private sector. Thanks are also due to ABN AMRO Bank for sponsoring the conference dinner.

The first day of the conference examined some of the main issues around international energy investment. On the second day, the conference broke into parallel sessions - another innovation - to examine some of the problems of transboundary finance in specific regions and projects.

The Driving Forces

The basic message in the opening speeches by George Mallinckrodt, President of Schroders PLC, who gave the keynote speech; David Simon, chairman of British Petroleum; and Jose Goldemberg, former Secretary of State for Science and Technology in Brazil, was that energy investment was a dynamic and rapidly changing activity. Energy demand was likely to grow rapidly in the developing countries - demand which could only be met by huge investment estimated by Mallinckrodt at $50-100 billion a year for the power and petroleum sectors and by Goldemberg, at $745 billion (1989 $) in the 1990s for the power sector alone. The question was how the capital needed for this investment could be provided and what sort of investments would be made. The three speakers were agreed that the old model under which much energy investment in developing countries was financed by governments was no longer viable. Privatization of the energy sector was going forward in much of the world and globalization of the energy market was spreading from the oil industry to electricity and gas.

There were, of course, also differences of emphasis reflecting the background of the speakers.

Mallinckrodt emphasized the importance of increasing use of project finance and of developing local capital markets but also the need for increased saving in the OECD countries where the savings ratio had fallen from 35 percent a quarter of a century ago to about 20 percent now while in the developing countries it had risen to nearly 35 percent. (In volume terms, however, the total savings in France alone is greater than that for South East Asia.) OECD governments need to provide greater incentives for the individual to save, to reduce their social security commitments and to reduce significantly their deficit financing which is crowding out the private sector.

Simon suggested that the international oil industry was moving into a new phase in which new areas of production such as Azerbaijan, Cambodia and Vietnam would be increasingly important. There would be many countries and projects competing for investment. The oil industry would, as in the past, be ready to accept risks but it would need to face new types of risk arising from the fact that many countries were only just moving to market economies. The industry would be likely to stipulate certain conditions before undertaking investment - the existence of appropriate legislation which could be implemented, the prospect of early oil and the involvement of multilateral lending agencies which could encourage policy changes which would provide a favorable environment for private enterprise. Without continuing liberalization, investment in new energy projects was unlikely to be forthcoming.

Goldemberg reminded the conference that governments had responsibilities for security of energy supply, for protection of the environment at local, regional and global levels and towards the disadvantaged sectors of society. Without public investment in the years after the Second World War, many developing countries would be without electricity and other energy inputs. However political interference, widespread corruption and a tendency in some countries for the energy companies to become states within the state had made the public sector utility model unviable. Governments would, in the future, be increasingly restricted to a regulatory role. What and how to regulate was the present challenge. A delicate balance would have to be struck between overregulation which would bring about a lack of interest in new investment and abandonment of social and environmental concerns which could result in a backlash towards excessive state involvement.

Providing the Finance

The conference approached the problem of providing the finance needed for energy investment from three angles: what investors require, how investments could be protected and how energy investment could be put on a sustainable basis.

What Investors Require

In the session on what investors require, Terence Cryan from Paine Webber Inc. and Otto Steinmetz from Deutsche Bank AG provided the somewhat different perspectives of a merchant and a global bank. Both speakers brought out the growing importance of project finance although Steinmetz stressed that it was not a substitute for equity - the two were complimentary. Cyran distinguished two categories of equity investors in energy projects - sponsors who were buying business and financial investors who were buying a stream of cash flows. Sponsors had a mandate to fulfill and a disposition to put their people to work. They therefore accepted relatively low rates of return. Financial investors looked for higher rates of return but they increasingly took a broader view of the prospects of a project. The growth of capital market financing in the last two years had altered the landscape for funding. Financial investors were increasingly willing to accept political risk in the belief that the need for continuing access to capital markets would inhibit governments from actions prejudicial to major projects. Equity in the 1990s would not be confined to shorter term projects and the surplus of capital would force down returns. Steinmetz put more emphasis on risks. Banks attached great importance to the standing of sponsors. They would seek to mitigate completion risks by external cover, market risks by long term take or pay contracts, political and environmental risks by involvement of the multilateral lending agencies and financial risks by careful analysis of the economics of a project and their sensitivity to changes, by guarantees against exchange rate fluctuations and by the hedging of risks. Technological risks were however notably absent from his presentation.

David Herbert of ING Baring looked at privatization as a means of raising funds for investment. Since 1993, about $12 billion had been raised from privatization in the energy sector (mainly of oil companies) in the emerging markets. Planned emerging market privatizations in the energy sector (excluding petrochemicals) might total $60 billion over the rest of the decade. Strategic investors might provide over half these funds. International institutional investors would be looked to for the balance. They would be concerned with the track record and prospects of the company being privatized, its size, whether it has a focused strategy, the professionalism of its management, the existence of globally competitive assets and/or location advantages, a benign regulatory environment and a commitment to creating and sustaining shareholder value. Few privatizations had met all these criteria. The launching of YPF in Argentina in 1993 was an exception. At the other end of the spectrum, international investors are currently wary of Russian stocks because of the absence of a clear legal and regulatory framework for energy company operations, uncertainties about the future policies and actions of the government and fears that management will ignore the interests of passive minority shareholders. There are however signs that Russia is accommodating to the requirements of international investors and that prospects are much brighter. In general, future winners in the race for international investment funds are likely to be those best attuned to market criteria. Governments trying to privatize without yielding control or permitting rationalization would run an increased risk of being unsuccessful.

Another aspect of the situation in Russia was discussed by Peter Hobson of the International Institute for Energy Conservation speaking for the European Bank for Reconstruction and Development. In the former Soviet Union, according to U.S. analysis, energy savings of 20 to 25 percent of current use were possible in the short term with pay back periods of two years or less. In the longer term, savings of 40 percent were possible with pay back periods of three years or less. These were much better and quicker returns than on supply side investment. They presented a great opportunity for international investors but the response had been disappointing. There were a number of obstacles to demand side investment – the fact that the savings to finance loans were generated among a large number of consumers; the transaction costs involved in arranging investment in small tranches; shortage of skills and expertise; and the lack of laws and regulations to encourage energy saving. There had been some exciting initiatives such as the development of energy service companies. The EBRD was seeking to encourage such initiatives. In general, however, western investors needed to take risks to try and unlock the enormous commercial potential of energy saving investment in the former Soviet Union. Energy efficiency should be given a higher priority in the drafting of energy laws and regulations. Key players in the reform process must recognize the need for sustainable growth and to avoid too much emphasis on the expansion of energy supply. Interestingly in a later session, many of these points were made in similar terms and on the basis of practical commercial experience by Catharina Nystedt-Ringborg of ABB (Asea Brown Boveri).

Protection of Investments

Two speakers covered the role of intergovernmental organizations in providing protection for foreign investors. Andres Hernandorena of the International Finance Corporation discussed the role of the multilateral lending agencies in the changing world financial market. The IFC had been founded in 1956 as part of the World Bank group to promote private sector investment in the developing countries. Its involvement in highly political infrastructure projects provided a measure of additional comfort both to foreign investors and to host governments. The IFC could also help to ensure that power projects met acceptable environmental standards by requiring that projects it supported complied with World Bank standards and local legislation. These were continuing roles but with the growth of world capital markets the IFC was increasingly involved in the mobilization of capital – even a small IFC participation gave significant protection against arbitrary government action – and the provision of advice. The IFC was now looking at the problem of investment in small scale projects such as renewable energies. Clive Jones, Secretary General to the Energy Charter Conference described the development and role of the Energy Charter, a development subsequently set in its political context in the dinner speech of Dr. Ruud Lubbers, former Prime Minister of the Netherlands and "founding father" of the Charter. The Charter itself, signed in December 1994, was a political declaration. The Charter Treaty, signed in December 1995, was a legally binding Treaty with provision for binding international arbitration on disputes. It was a multilateral investment protection agreement which went beyond anything yet agreed for other sectors. The basic concept was that of national treatment under which participating governments were required to treat investors from other charter signatories at least as well as their own nationals. Negotiations were now under way to extend national treatment to the right to invest. All signatories to the Treaty were to be treated for trade in the energy sector as if they were members of the GATT. Negotiations were under way to incorporate other results of the Uruguay Round, notably extension to services and service companies. Rights of transit were provided across the territories of signatory countries. The Treaty had now been signed by all the countries of Western and Eastern Europe (except Serbia-Montenegro) and the former Soviet Union, Australia, New Zealand and Japan. Canada was likely to sign soon. The United States had not signed which could only be to the disadvantage of U.S. companies. Ratification, particularly by Russia, was vital but the signs were good. There was, however, a need to fund an information program about the Charter. In the words of Ruud Lubbers, the Charter Treaty is important not just to promote reform in the former Soviet Union but as an example of how

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RIIA/BIEE/IAEE Conference *(continued from page 11)*

to secure improvements in the international economic system.

The other speakers in this session dealt with insurance against political and environmental risks respectively - Daniel Riordan of the U.S. Overseas Private Investment Corporation from the point of view of a government insurer and Richard Turrin of AIG Risk Management from that of a private sector insurer. Riordan explained in some detail the operations of OPIC which had been established as a U.S. government agency 25 years ago to assist U.S. citizens and companies. It provided insurance against political risk, project finance, investment funds and services to U.S. investors with funds to invest overseas. It was not involved in military projects or in certain "non-virtuous" projects such as tobacco, alcohol and casinos. OPIC has provided $3.1 billion of assistance to power projects since 1990. However, perhaps the main value of OPIC to U.S. investors was that U.S. diplomatic muscle was likely to be brought to bear in a dispute with the host government. Turrin, in an interesting technical presentation, showed how insurance, combined with other financial mechanisms, could offer companies a lower cost means of reducing their environmental liabilities than purely physical programs, although good physical programs were needed to keep provisions low. However, it would always be difficult to insure against liabilities from long past events. A significant but unknown portion of liabilities from existing sites and past operations was inevitable whereas insurance was designed to deal with events which were not inevitable but not impossible. Innovations in the United States to develop various insurance and financing instruments were likely to spread in the world insurance and financial markets. However, as was pointed out in discussion, it remains to be seen how effective insurance will be in dealing with qualitatively new kinds of risk - an area where its record was, not surprisingly, poor.

Investment and Sustainable Growth

The final session of the first day dealt with the financing of energy investment in ways consistent with the wider objectives of society and government. Richard Emerton of Arthur Andersen started from the point that over the last half century, the oil industry by its massive contributions to hard currency earnings and government revenues and by the provision of employment had helped governments in the oil producing countries to resolve conflicts between their economic, social and political objectives. A series of changes in the oil world - the shift from central planning to market economics, fierce competition, rapid technological changes, environmental pressures and lowish oil prices - had now made it impossible for governments to use the oil industry to balance their main objectives. Governments either chose or were forced to privatize. This required a clear process:

Master Plan > Industry Restructuring > Corporatization >
Commercialization > Privatization

Commercialization was the key. Companies must be free to think about economics rather than volumes and people. Privatization would only succeed if governments concentrated on the commercial objective, relinquished control and allowed restructuring.

The other three speakers dealt more directly with the promotion of investment which advanced environmental objectives. Mohamed El-Ashry, Chairman of the Global Environmental Facility described the efforts of the GEF with limited funds - a few hundred million dollars a year - to influence energy investment in developing countries running at about $100 billion a year by joining its resources and skills with the World Bank, UNDP and UNEP and by using relatively small grants to leverage wider flows of investment in ways consistent with environmental and particularly climate change objectives. With the completion of its three-year Pilot Phase and the negotiations on governance restructuring, the GEF had a $2 billion replenishment and was now moving into its full operational phase in support of the global environmental conventions. The GEF Council set out in October 1995 an operational strategy for assisting eligible countries towards meeting the objectives of the Framework Convention on Climate Change and its sister Convention on Biological Diversity.

The GEF had adopted novel arrangements for translating the program priorities of the two Conventions into action - a double majority voting system on the Executive Council under which the 18 recipient countries and 14 donor nations represented shared responsibility for decisions and the admission of nongovernmental organizations as observers to Council meetings. GEF placed emphasis on building indigenous capacity (including people) for climate change management and on long term policies to remove barriers to energy conservation, to promote renewable energies and to reduce the long term costs of lower greenhouse gas emission technologies. It was developing methods of cooperation with the private sector. El-Ashry was able to quote some successful projects but perhaps inevitably they appeared small in relation to the scale of the problem.

Two private sector speakers completed the session. William Schmidt of Advent International plc described a number of sources of funds for environmentally benign investment - charitable bodies particularly the MacArthur and Rockefeller Foundations, ethical investment funds, various investment funds raised with government help or under government pressure such as the Envirotech Investment Fund raised by U.S. utilities and independent venture capital funds like Advent. Again the impression was of useful but small scale work in face of the sometimes high costs and risks of the new technologies compared with conventional alternatives and the long time scale for their introduction. Catharina Nystedt-Ringborg spoke of the problems of promoting energy efficiency in Russia - referred to above. More generally she argued that the world was rolling in capital but much of it was short term and volatile - a dangerous mix as shown by the Mexican debt crisis. There was too little long term capital corresponding to real development needs. The question was whether rapidly rising energy demand in the developing countries resulting from rising population and changes in lifestyle would be met in the same way as it had been in the old world or by adaptation to reduce the environmental impact. The latter course might well require substantial government funding to private sector investment.

Transboundary Finance – Regions and Projects

Regions

Parallel sessions examined problems and prospects in the dynamic growth and the exporter regions. The speakers on the dynamic growth regions focused on southern and eastern Asia. For all of them the central questions, both political and economic, surrounded China. Jean-Pierre Lehmann of the European Institute of Japanese Studies in Stockholm emphasized that the awakening of China was taking the world into uncharted territory. A transfer of political and economic power from Japan to China was in prospect comparable to the transfer from the United Kingdom to the United States earlier in the century. Indeed it was likely to be more fundamental. Japan had integrated into the world system largely on western terms, protecting its national interest. China saw itself as a civilization and would integrate on its own terms. Moreover, it was not just a nation with a capital in Beijing but an economy operating through Chinese populations abroad. At the same time, China faced sharp internal tensions with massive unemployment and the booming maritime areas increasingly disparate from the rest of the country. The relationship with Japan was fragile and there was the potential for major disputes with the west over Hong Kong and Taiwan. Nevertheless, the prospect of the reawakening of China should be seen as a very exciting one for the west. Keun-Wooh Paik of Aberdeen University Petroleum and Economic Consultants highlighted China's move from oil exporter to rapidly growing importer. This was raising concerns about energy security in the whole region. The region had a major interest in developing the Russian gas resources in the Sakhalin, Yakutsk and Irkutsk regions. Given their huge scale, such projects could only proceed on the basis of multilateral cooperation with a wide range of investors and with gas supplied to several countries. Development of a regional pipeline grid would be needed to realize the full benefits of the projects. As a first step Paik called for the development of a regional energy forum to bring interested parties together and devise ways forward. In contrast Fereidun Fesharaki of the East-West Center in Hawaii was skeptical about Asian pipeline projects. They were not economic and therefore would not happen. There was also a lack of incentive to develop the hydrocarbon resources of the Russian Far East as Moscow would take any profits of development. Global warming was seen as the rich man's problem and would play little role in the development of the Asian energy sector outside Japan. East Asian dependence on Middle East oil was likely to rise and coal would continue as a major energy source.

Three of the speakers in the session on exporting regions dealt with the interlinked problems of the Middle East, Russia and Central Asia. Rosemary Hollis of the Royal Institute of International Affairs noted that the Middle East attracted a paltry 3 percent of total direct foreign investment in 1993. There were intrinsic problems - lack of skilled labor, dominance of the public sector, inefficient and corrupt bureaucracies and insufficient protection for foreign investors – but also political problems. However these problems were not peculiar to the Middle East. The region was made special by the social problems of providing education and jobs for fast growing populations when it was difficult to increase oil income, by the absence of political mechanisms for the expression of popular discontent within the existing systems and by interstate problems among which Kuwait stood out. Three states were under varying degrees of embargo. That on Libya at its present level was not a serious problem and European states were unlikely to agree to an oil embargo. The embargo on Iraq was likely to hold despite the anxiety of France and Russia to recoup debt.

In the long term, with or without Saddam Hussein, economic prospects in Iraq should be good. The U.S. embargo on Iran was unilateral and the cause of serious differences with the EU. In practice it had created a negative mood for third country investors. U.S. policy on the embargoes was driven partly by domestic politics but it also worked to the interest of U.S. allies in the region, particularly Saudi Arabia. It created a situation in which U.S. companies were in a strong position to compete for military and other business in Saudi Arabia while European countries were circumscribed in their ability to compete in Saudi Arabia and to exploit alternative opportunities in Iran or Iraq.

Fred Halliday of the London School of Economics argued that some of the worst fears at the time of the break-up of the Soviet Union had not been realized. The nuclear proliferation issue had been resolved. Although the frontiers of the newly independent states were arbitrary they were not a major issue for the moment. There were no strong Islamic movements except in Tadjikstan. Russia had accepted the independence of the new states and the problems of the Russian population in them were being resolved by emigration. Russia was, however, determined to maintain its economic influence as was shown by its stand on the hydrocarbon resources of the Caspian. The Central Asian republics were ruled by ex-Communist elites which were sometimes inefficient and corrupt and which maintained authoritarian regimes. Oppositions were likely to emerge in due course but they had not done so yet.

A bleaker picture of the situation in Russia was drawn by Michael Sturmer of the Research Institute for International Affairs in Germany. The political and economic situation inside the country was unclear but there was a long road still to travel to the establishment of a state of law and an effective infrastructure. The recycling in the west of large amounts of Russian dollars was corrupting Western societies. There were a number of contentious issues between Russia and the west and there had so far been no major western investment in Russia outside the energy sector. The primary western interests were in cooperation in such areas as Bosnia, the fight against terrorism and potentially the containment of China and in Russia becoming a "status quo" country where civil society had a chance. This might imply some partial restrictions on democracy.

An interesting example of the way in which political reform could clear the way for possible economic cooperation was discussed in the fourth paper by Thulani Gcabashe of the South African electricity company Eskom. Gcabashe described ideas for the eventual development of an African electricity grid. The first step would be the establishment of a loose power pool based on cooperation in planning and cost minimization. Agreements which would provide a framework for conduct between members were due to be signed by a number of utilities on 8 December. The grid would be made up incrementally by smaller projects, starting with the

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IAEE International Conferences

The next three IAEE International Conferences will be held in Hungary in 1996, India in 1997 and Canada in 1998. Council has received proposals to have future IAEE International Conferences in Germany in 1999, Korea in 2000 and Russia in 2001, though there has been no Council decision relative to these years. The Council encourages the local affiliates to continue their work in planning future conferences and to submit proposals to the Vice President for Conferences.

Planning for the 19th IAEE International Conference in Budapest, Hungary, 27th-30th May 1996, is well under way under the capable management of General Conference Chair, Tamas Jaszay (Fax 36-1-463-3273). The program has been worked out by the program committee and the first draft has been sent to members. The general conference theme is: *Global Energy Transitions*. This is the first time in the organization's history that we have arranged an international conference in Eastern Europe. This gives us a unique opportunity to meet in Budapest and discuss topics of mutual interest. In addition to a very interesting program and a very impressive list of speakers, the beautiful city of Budapest will add to the general flavor of a successful conference. The Hungarian organization has, however, a challenge to raise sponsor funding for the meeting. Members are encouraged to support Tamas Jaszay and contact him directly regarding sponsor funding!

Assuming satisfactory budget details can be worked out, the 20th IAEE International Conference will be 22nd to 24th January 1997, in New Delhi, India. The conference theme is: *Energy and Economic Growth: Is Sustainable Growth Possible?* The General Conference Chair is Dr. R.K. Pachauri (Fax 91-11-462-1770). The conference will be hosted jointly, by the Indian Association for Energy and Environmental Economics (IAEEE) and the Tata Energy Research Institute (TERI). At TERI, both Dr. Pachauri and Dr. Leena Srivastava are instrumental in the organization of the conference. TERI has a very good research staff and the infrastructure to make our 1997 conference a great success. Any support and ideas, and specifically sponsor funding, are welcome and can be forwarded directly to Dr. Pachauri.

The 21st IAEE International Conference will be 13th-16th May 1998, in Quebec City, Canada. The theme will deal with the broad energy issues in the policy environment which will be relevant at the time. Canada is both a large consumer and producer of energy. All major energy sources are traded with their southern neighbor, the U.S.A. It is a natural place to debate energy issues in an international context. The general conference chairman is Jean-Thomas Bernard (Fax 418-656-7412) and the program chair is Andre Plourde (Fax 613-562-5999). Quebec City offers a unique European experience in North America.

In addition to the Council's decisions regarding the 19th, 20th and 21st IAEE International Conferences, it has received a proposal to host the 22nd IAEE International Conference in 1999, in Berlin, Germany, at the occasion of the 10th anniversary of the fall of the iron curtain. This proposal has been submitted by Professor Georg Erdmann (Fax 49-30-314-21779/23222) on behalf of the German IAEE affiliate. Further, Council has received a proposal from Dr. Jeong-Shik Shin (Fax 82-343-238984/224958) on behalf of the Korea Resource Economics Association to host the 23rd IAEE International Conference in Seoul in 2000. The Council has also received a proposal from Vassily R. Okorokov (Fax 812-5356720/5526086), Tatiana Lisochkina (Fax 7-812-552-6086), and Anatoly Dmitrievsky (Fax 7-095-1358876/2003937) to arrange an IAEE International conference in St. Petersburg, Russia in 1999 or 2000. Council is very pleased by these active proposals and encourages these affiliates to continue their efforts for future conferences. Council has, however, not made any formal decision regarding these conferences.

The Council will discuss future IAEE International Conferences beyond 1998 at its next Council meeting in Budapest, 27th May 1996. Any affiliate interested in organizing a future conference is welcome to submit its proposal to the Vice President for Conferences before 15th April 1996.

The IAEE is collaborating on a forthcoming International Conference on *Energy, Economy and Environment*, June 25th-27th, Osaka, Japan, organized by the Japanese Society of Energy and Resources (JSER) and the International Institute for Applied Systems Analysis (IIASA). For further information please contact Professor Yutaka Suzuki (Fax: 81-6-879-7832).

The IAEE is further collaborating on a Regional IAEE Conference on *Transport, Energy and Environment*, 3rd-4th October 1996, Marienlyst, Elsinore, Denmark. Deadline for submission of abstracts is 15th April 1996. For further information please contact Dr. Hans Larsen (Fax: 45-4675-7101).

The IAEE collaborated on an East-European Workshop, 4th October 1995 in Minsk, Belarus, during the Belarusenergia International Congress 3rd-6th October. Both Professor Padalko and Professor Ulf Hansen were instrumental in the success of this very interesting workshop.

The annual International Conference convened on 4th-5th December 1995, in London by the Royal Institute of International Affairs in association with the British Institute of Energy Economics, Montreux Energy and IAEE was very successfull. The general conference theme was *The Changing Politics of International Energy Investment*.

In addition to these conferences, we also enjoyed a very interesting Regional Conference in Rome, in April 1995, organized by our Italian affiliate and an extremely well organized and interesting IAEE International Conference, 4th-7th July 1995 in Washington, DC.

All of these events and plans for future conferences show a very high level of conference activity within the IAEE organization. We encourage affiliates to continue their active work for future conferences. The general Principles for IAEE International Conferences and the Principles for IAEE Joint Meetings, Seminars and Conferences can be obtained by contacting the Vice President for Conferences or Executive Director David Williams at IAEE Headquarters. The IAEE Headquarters will provide management and consulting support to the IAEE conferences. It is an IAEE policy to actively involve IAEE Headquarters in the organization of the Annual International Conference.

Arild N. Nystad
Vice President for Conferences

!!! Mark Your Calendar - Plan To Attend !!!

Energy Policy Formulation in the New Political Environment

United States Association for Energy Economics / National Capital Area Chapter, USAEE
In cooperation with the School of Advanced International Studies

March 11, 1996
Kenney Auditorium, Paul H. Nitze Building, Johns Hopkins University

Overview

If you're concerned about the new direction of energy policy in the U.S., this is one seminar you certainly don't want to miss. The Washington Energy Policy Seminar will examine how energy policy is being shaped within the new political environment, the changing direction of energy policy, where its effect will be felt and how it dovetails with other national and regional interests. The fast paced but authoritative sessions in this full day seminar will give you a better sense of where energy policy in Washington is headed.

Program

A top flight program is being assembled. A series of three-person panels of high ranking government officials as well as private/public experts will focus crisply on the critical aspects of U.S. energy policy, leaving plenty of time for questions and answers. Below is an abbreviated version of the program, listing only the speakers who have confirmed participation.

8:00am	Registration and Continental Breakfast	
9:00am	Welcome & Introductory Remarks, Joseph Dukert, Program Chairman	
9:15am	Opening Address, Dan Reicher, Assistant Secretary for Policy, U.S. Department of Energy	
9:45am	"The Energy Policy Process"	- Linda Robertson, Assistant Secretary, Department of the Treasury - Vito Stagliano, Former Principal Deputy Assistant Secretary For Policy, U.S. DOE - Cathy Van Way, House Commerce Committee
11:00am	"Conceptual Perspectives on Energy Policy"	- Llewellyn King, Publisher, *Energy Daily* - Randy Davis, Stuntz and Davis - Ken Malloy, Expert in Utilities Regulation
12:45pm	Keynote Address: Senator J. Bennett Johnston, Committee on Energy & Natural Resources	
1:15pm	"Regional Interests and National Energy Policy"	- Greg Renkes, Chief of Staff, Senate Energy Committee - Christine Hansen, Exec. Secty., Interstate Oil and Gas Compact Commission
2:15pm	"The Energy/Environment Tradeoff in Energy Policy"	- Bill Nitze, Assistant Administrator, EPA - Paul Portney, President, Resources for the Future
3:30pm	"Linking Energy Policy & Foreign Policy"	- Paul D. Wolfowitz, Former Undersecretary of Defense - Bill Martin, Former Deputy Secretary, U.S. DOE - Eric Melby, Former NSC Staff

Who Should Attend . . . And Why

There are many benefits from attending this one day seminar. Attendees will come away with a broad understanding of energy policy and the developments that will help shape the future of the industry. Moreover, challenges within the energy industry and milestones that lie ahead will be addressed. Attendees will also benefit by networking with key industry and governmental leaders. Below is a partial listing of who should attend:

- Energy Policy Analysts
- Managers of Energy Economics
- Governmental Employees in Energy/Resource Planning
- Energy Consultants
- Corporate Planning Economists
- Energy Risk and Derivatives Specialists
- Energy Forecasting Specialists
- Oil and Natural Gas Executives
- Academics Specializing in Energy Policy & Analysis
- Energy Rate Executives
- Electric and Utility Supervisors
- Energy Environmental Analysts

Registration

Registration fees are $75.00 (includes registration materials, lunch and closing reception) for USAEE/NCAC members attending only the March 11th Seminar; $95.00 for non-USAEE/NCAC members attending only the March 11th Seminar. A special rate of $65.00 is extended to NABE members who are either a USAEE or NCAC member and attending both the NABE Policy Seminar and USAEE/NCAC Seminar; $85.00 for non-USAEE/NCAC members attending both the NABE and USAEE/NCAC Seminars.

Registration Form

Energy Policy Formulation in the New Political Environment

March 11, 1996 - Kenney Auditorium, Paul H. Nitze Building, 1740 Massachusetts Avenue, NW, Washington, DC
Johns Hopkins School of Advanced International Studies

___$75.00 USAEE/NCAC Member (attending only USAEE/NCAC Seminar) ___$95.00 Non-USAEE/NCAC Member (Attending only USAEE/NCAC Seminar)
___$65.00 NABE Member attending both the NABE Policy Seminar & USAEE/NCAC Seminar and is a member of either the USAEE or NCAC
___$85.00 NABE Member attending both the NABE Policy Seminar & USAEE/NCAC Seminar who is not a member of either the USAEE or NCAC

Name: ____________________

Title: ____________________

Company: ____________________

Address: ____________________

City/State/Zip: ____________________

Phone: ____________________ Fax: ____________________ E-Mail: ____________________

Please return this form with check payable to "NCAC/IAEE" to: Bernard A. Gelb, Economics Division, Congressional Research Service, Washington, DC 20540-7430. If you have any technical questions regarding the Seminar contact either Bonn Macy of the NCAC at 202-328-3047 or David Williams of the USAEE at 216-464-2785.