



# LIGHT IN THE DARKNESS

By H. E. Georgina Kessel Martínez

*Minister of Energy, Mexico*

*Ladies and Gentlemen...*

Mexico is honored to host the 12th International Energy Forum and 4th International Energy Business Forum. We especially thank our co-hosts Germany and Kuwait, as well as the IEF Secretariat, whose help has been invaluable in organizing these events. We hope that the work conducted in Cancun will bear fruit and that it helps in setting a comprehensive platform to strengthen the global energy dialogue, in order to further our understanding of the myriad challenges confronting the energy sector.

The global financial crisis and the ensuing economic slowdown, coupled with the roller-coaster ride in oil prices that, at their height, were five times those of 2004, have created a unique set of risks for the energy sector. As a result of reduced cash flow, leading companies in the global oil and gas sector have announced cutbacks in capital spending, as well as over a hundred project delays and cancellations. According to estimates by the International Energy Agency, these decisions cut 2009 global upstream oil and gas investment budgets by 19% compared with 2008 – a reduction of \$ 90 billion dollars. If prolonged, such downturn in investment threatens to constrain capacity growth in the medium term, particularly for long lead-time projects. This will eventually pose a

risk of supply shortfalls. The Organisation of the Petroleum Exporting Countries has already projected that this downturn will mean that crude runs will not recover to 2007 levels until 2015. As a consequence, low refinery utilization and poor refining economics will besiege the sector for an extended period of time.

Complicating this scenario, for a large segment of the world population access to energy remains a promise yet unfulfilled, while the relationship between energy and climate change has become increasingly intricate. Currently 2.5 billion people lack access to modern fuels for cooking and heating, and given concurring estimates by leading aid agencies, under current policies that number will increase to 2.6 billion by 2020... more than one third of the world's population. Furthermore, according to the Organisation for Economic Cooperation and Development, the climate change picture remains bleak: the atmosphere contains long-lived greenhouse gases at a concentration 455 per million of carbon dioxide equivalent, which is 60% above pre-industrial era levels. This number far exceeds the natural range over the last 650,000 years. Average global temperatures are currently 0.76°C higher than pre-industrial levels and continue rising.

Considering this situation, it is not surprising that the international dialogue between producing and consuming countries has been very intense in the past few years; and that it has expanded to address energy security, the dilemmas of energy poverty, and the global concern for sustainability and environmental protection. All of these subjects will be open for discussion when we meet in Cancun.

I think it is fair to say that no Minister participating in this coming Meeting can ignore the crossroads we now face, nor can any of us shirk the responsibilities we share. In order to promote coordinated confidence-building measures, we must discuss how to build a more focused producer-consumer dialogue, based on a greater degree of trust and openness. Our list of priorities is extensive: identifying the causes and consequences of price spikes, assessing the uncertainties affecting future supply and demand outlooks, unlocking the barriers holding back investment, encouraging increased cooperation and partnership among national and international companies, broadening energy access, and advancing clean technologies.

This International Energy Forum provides the occasion and structure to substantially strengthen the architecture of the global energy dialogue. Enhancing awareness of the links that need to be established between governments, international financing bodies, corporations, and assistance agencies is equally crucial. In an important sense, most people involved in the energy sector agree that we are running against the clock in terms of energy poverty and climate change, as well as with regards to the remaining avenues available to us if we are to successfully turn the tide.

Given our sector's makeup, it may be more than a little ironic to cast the challenge before in these words, but symbolically speaking we are in a struggle pitting light against darkness. The sheer scale of this mandate is monumental, and it can only be met through a broad-minded, collaborative effort across the globe. This effort must encompass each level of government, and all possible partners in the industry, financial, and aid communities, all striving together to uncover, fund, and deploy new measures to lead the way into a prosperous future.

*We look forward to welcoming you in Cancun!*

Georgina Kessel Martínez



# THE MATURING PRODUCER CONSUMER DIALOGUE



By Noé van Hulst

*Secretary General, IEF*

As we approach the 12th IEF Ministerial Meeting in Cancun (29-31 March 2010), it is appropriate to look back at the accomplishments of the last two years. Based on the guidance by Energy Ministers at the 11th IEF Ministerial Meeting in Rome (April 2008), the programme of work of the IEF Secretariat was developed along three main strands of activity; investment, transparency and sustainability, all under the overriding theme of energy security.

Within each strand, we focused on activities in which our convening power and the unique perspective of the producer-consumer dialogue could be leveraged to best deliver productive events and tangible results. These activities included the organisation of regional training workshops (for oil statisticians), symposia (on Technology, Human Resources, CCS and Energy Poverty), fora (on Gas and NOC-IOC cooperation), the commission of research and analysis (on biofuels and investment uncertainty) and together with our partner organisations (APEC, Eurostat, IEA, OLADE, OPEC and UNSD) advancing the flagship of our work on transparency, the Joint Oil Data Initiative (JODI).

This comprehensive programme of work was designed to deliver concrete recommendations and action-oriented input to the 12th IEF Ministerial in Cancun. In the execution of the programme, we were assisted by a number of esteemed partners including the International Gas Union (IGU), the Global CCS Institute and the IFP. Governments of IEF participating countries, as well as hundreds of experts from industry and research institutes were also instrumental to our work. The rising importance of the IEF producer-consumer dialogue on the global energy scene was underlined by the IEF Secretariat's contribution to the two ad-hoc Energy Ministerial Meetings in Jeddah (June 2008) and London (December 2008), as well as in the 3rd Asian Ministerial Roundtable in Tokyo (April 2009) and in the G8 Meeting of Energy Ministers in Rome (May 2009).



We are pleased to say that these collective efforts have produced an impressive body of focused recommendations and suggested actions for both government and industry. These will inform the 12th IEF Ministerial meeting in Cancun and facilitate discussion on concrete issues, thus serving to facilitate a better mutual understanding of the diversity of views on key topics. The increasing maturity of the dialogue is demonstrated by our in-depth discussions on focused topics such as the advancement of CCS in conjunction with EOR or the promotion of best practices in NOC-IOC cooperation. This broadening and deepening of the process, on an ongoing basis, demonstrates the interest in and need for the dialogue, not only at Ministerial and CEO levels, but also at operational and expert levels. With the support of IEF Ministers and industry leaders it underpins a broader and richer dialogue process, encourages co-operation, improves understanding, and builds the trust which is fundamental to ensuring a sustainable energy future.

What milestones do we expect on the road to the 13th IEF in Kuwait in 2012? The cooperation between the IEF and the Global CCS Institute, the IGU Ministerial Gas Forum and the NOC-IOC Forum have the potential to improve investment conditions, transparency in oil and gas markets and environmental sustainability. We will work to further improve JODI in our role as coordinator, working together with IEA, OPEC and other JODI partner organisations (APEC, EUROSTAT, OLADE, UNSD). The JODI performance of countries has already improved dramatically since the IEF in Rome, but further effort and political commitment is required to enhance the transparency in the physical oil market, in particular in the area of oil stock data. In addition, we will step up our work on the extension of JODI to collect

more monthly oil data. The extension of JODI to cover monthly natural gas data is forthcoming and the extension to annual data on upstream and downstream capacities and expansion plans is now in development.

The level of uncertainty in today's energy sector is unprecedented and so are the scale and complexity of the challenges we face. Fortunately, growing awareness of our inherent interdependence is fostering a collective mindset that understands the importance of meeting these challenges with solutions based on cooperation. As a follow-up to the ad-hoc Energy Ministerial Meetings in Jeddah and London, a High Level Steering Group was established to oversee the work of an independent Expert Group and provide recommendations to the 12th IEF for strengthening the producer-consumer dialogue through the IEF and for reducing volatility in energy markets. The resulting set of recommendations constitute an excellent basis for the future. The unique composition of the IEF positions it ideally for an enhanced role as a neutral facilitator of the global energy dialogue. Accounting for more than 90% of global oil & gas supply and demand, IEF participants include the key producer and consumer countries of OPEC and IEA, as well as major producers outside their memberships in addition to the key transit countries. The IEF Secretariat, as the administrative arm of the Forum, will actively guide and support IEF countries in their efforts to develop better mutual understanding and trust.

## KEY RESULTS FROM 11TH IEF IN ROME, APRIL 2008

	INVESTMENT	TRANSPARENCY	SUSTAINABILITY
<b>PLATFORMS FOR DIALOGUE</b>	1st NOC - IOC Forum (Mar 2009)  3rd Asian Ministerial Energy Roundtable (Apr 2009)  Human Resources Symposium (Apr 2009)  2nd NOC - IOC Forum (2011)	1st IEF - IGU Ministerial Gas Forum (Nov 2008)      2nd IEF - IGU Gas Forum (Nov 2010)	IEF / IFP Technology Symposium (Dec 2008)  1st CCS Symposium (Sep 2009)  Energy Poverty Symposium (Dec 2009)  2nd CCS Symposium (Jun 2010)
<b>RESEARCH &amp; ANALYSIS</b>	Unpacking Uncertainties Report (2009-2010)  Biofuels Assessment Report (Q4 2009)		
	Report on Strengthening IEF Dialogue & Reducing Volatility (Q4 2009)		
<b>DATA TRANSPARENCY (JODI)</b>	Assess Extension to Annual Data (Fall 2009)	Assess Extension to Natural Gas (Fall 2009)  7th JODI Conference (Jun 2009)  JODI Training Workshops (Incl. Caspian Nov 2009)	

INPUT TO 12TH IEF MINISTERIAL IN MEXICO, 29-31 MARCH 2010



# SECURING INVESTMENT AND STABILITY IN ENERGY: SUBJECTS FOR FUTURE FORUMS



By H.E. Ali I. Al-Naimi

*Minister of Petroleum and Mineral Resources,  
Kingdom of Saudi Arabia*

When the last International Energy Forum convened in Rome in 2008, Ministers emphasized the critical importance of energy, especially oil, to the global economy, and underscored the necessity of participation by consuming and producing countries. The global energy scene changed dramatically since that meeting: just a few months later, the world was hit by the deepest recession in 80 years – a sharp contrast indeed to the rapid, sustained economic growth witnessed between 2003 and 2007. The economic unraveling that began with the sub-prime mortgage disaster and subsequent banking and credit crises has observed no geographic boundaries.

This global downturn is exerting a profound effect on the entire energy mix, causing a high level of volatility in the energy market and lack of investment capital for projects. Oil is fundamental to the world economy, and as the dominant fuel in the energy mix, the implications of such volatility and lack of liquidity bode ill for economic recovery and future growth. Oil is a long-range industry requiring deep commitments of time and funding to ensure adequate flows of energy not only for economic recovery and growth, but also to meet future energy demand, which will continue to rely on fossil fuels – notably oil – to meet some 80 percent of the world's needs.

The price of this critical commodity has been subject to extreme volatility. Energy market developments in 2008 pushed oil prices to unprecedented highs of near \$150 per barrel by July of that year, before slipping below \$40 in January 2009. Oil prices and securing investment remain at the top of the international agenda as major, long-term challenges. It is to everyone's benefit to explore avenues that can contribute to price stability and foster an investment climate that serves the interests of producers and consumers alike. Demand and supply of oil and energy, as well as price behavior, in general are shared concerns of all stakeholders, as outlined in the Jeddah and London Ministerial Meeting communiqués.

A framework for a common perspective among governments should be the aim of future Forums, to explore factors that have brought oil markets and energy investment to their current state. Efforts should include open discussion of factors and issues that influence energy demand, and can impinge on the willingness and ability of producers to plan long-range investments. Additionally, dialogue must encourage research and development for technologies that can enhance resource recovery, especially in challenging areas, and improve energy efficiency and sustainability. Forums should recommit to greater transparency by

sharing information on policies, statistics and projections, and improving accuracy through support of the Joint Oil Data Initiative. Future Forums must also cover persistent challenges to energy security, such as artificial fear born of pessimism about supplies and production capacity, unfounded by scientific or economic basis. Such harmful negativity must be addressed through the understanding that fossil fuels inescapably and rightly will continue to dominate the energy mix, for the foreseeable future and beyond.

The worldwide recession has slowed industrial growth rates around the world, and the petroleum industry is no exception. However, petroleum, which fuels the world's economic engines, must be ready to drive recovery when it comes, and to meet global energy demand that will continue to grow. By encouraging open and candid dialogue about supply and demand, price issues and the roles of all viable fuels for the future energy mix, the IEF Forums can contribute to this essential readiness and energy's continued service to humankind.

# CANCUN FOR STRENGTHENED GLOBAL DIALOGUE AND LESS VOLATILE ENERGY MARKETS



By H. E. Rainer Brüderle

*Federal Minister of Economics and Technology,  
Germany*

The 12th International Energy Forum (IEF) in Cancun takes place in times of dynamic developments of the global energy markets.

The volatility of the oil price, which in the last few years was extreme at times, has shown us all in a dramatic way the enormous impact of unpredictable energy prices on the world economy. Consuming and producing countries are both interested in a more stable oil price.

This is one reason why the global energy dialogue is more important today than ever before. I am pleased that Germany as co-host of this year's conference in Cancun can contribute to this significant process.

I am convinced that the willingness to cooperate at the international level has further grown in the last few years in view of the high degree of international interdependences. For this reason, we must continue to actively strengthen the international energy dialogue. A better understanding of each other will also require necessary cooperation for example in the fields of energy efficiency and the development of low-carbon and renewable energies as well as the fight against energy poverty. This international cooperation will altogether help to make our energy systems more efficient and climate compatible.

In view of what we have achieved so far within the framework of the IEF, I am very confident that the common understanding of sustainable and functioning oil and energy markets will be further developed. We wish to prevent oil price developments such as those we witnessed in 2008 in the future. Thanks to the initiative that King

Abdullah of Saudi Arabia took in June 2008 and the London Energy Ministers Meeting that was convened by Prime Minister Brown in December 2008, considerable progress has meanwhile been made within the IEF in this regard.

With the process to intensify the energy dialogue and to stabilise the oil price which was adopted at the London Energy Meeting the governments supporting the IEF are on the right track. It will lead to a better common understanding of the necessary preconditions for a healthy energy market.

Meanwhile there is a wide consensus on the existence of a close linkage between oil pricing and the financial markets. We need in particular transparent oil futures markets to guarantee a less volatile oil price that reflects oil market fundamentals.

As regards the endeavours to reach a better understanding of these linkages, we owe a lot to the United States. I have great respect for the efforts made by the US Congress and the US Commodity Futures Trading Commission (CFTC) to enhance transparency on the oil futures markets. The United States has for decades gained experiences in how well-functioning commodity markets should be organised. I believe that other countries can considerably benefit from these experiences.

More transparency on the global energy markets requires close international cooperation. Therefore, an approach supported by all countries is needed to ensure a lastingly stable development of the oil market.

A lot remains to be done to achieve these goals. We have already agreed that we are willing to join forces for this purpose.

I wish to thank in particular Saudi Arabia as Chair and the United Kingdom as Co-Chair of the High-Level Steering Group for their efficient and targeted coordination of the process decided upon in London to intensify the energy dialogue and to reduce excessive volatility of the oil price.

I also would like to thank the IEF Secretariat, the International Energy Agency (IEA) and the Organisation of the Petroleum Exporting Countries (OPEC). An even closer cooperation among these three organisations will be essential for the future of the global energy dialogue.

Germany has supported the IEF right from the beginning and will continue to do so. The reduction of excessive oil price fluctuations is a great challenge, but also a chance for the IEF, in particular after the successful establishment of the JODI database. The success of our cooperation within the framework of the IEF will be to the benefit of both producers and consumers.

Let us jointly meet the challenges of the future. A strong IEF framework can promote our efforts. I am pleased that Germany can contribute to the work of the IEF and wish all of us much success for the future cooperation.





# PRODUCER-CONSUMER ENERGY DIALOGUE IN THE IEF



By H.E. Sheikh Ahmad Abdullah  
Al Jaber Al Ahmad Al Sabah

*Minister of Oil & Minister of Information,  
Kuwait*

From Rome to Cancun, the energy industry has been riding a roller coaster. Amid the economic turmoil, producers and consumers recognised the necessity of working closely in the Jeddah and London meetings to address the grave challenges facing the industry.

The producer-consumer energy dialogue have played a vital role in bringing the global energy community together to face future challenges. In this regard, international coordination and collaborative dialogue between energy producers and consumers contributed to the stability of the energy markets and the world economy. Nevertheless, the main energy challenges remain largely the same; the need for sustained level of investment throughout the energy chain, the challenge of addressing persistent volatility in energy markets, reducing energy poverty in the developing world and mitigating climate change.

Among the themes that rank the highest on the priority list, and to be addressed by producer-consumer energy dialogue in the IEF, is the need to enhance energy security. Energy security is a complex and broad-based issue which is fundamentally linked to the world's prosperity and welfare.

Today, the emphasis should be on ensuring reliable, secure and affordable supplies of energy, facilitating transparent frameworks of investment, development and deployment of energy technologies, promoting diversity, efficiency and flexibility within the energy sector, reducing market volatility, enhancing emergency preparedness, improving oil data sharing for better understanding of market price behavior and enhancing appropriate regulatory responses as well as open and economically efficient markets and predictable consumer energy policies.

When addressing issues of energy security, supply disruptions and adequacy have been the main focus of interest and concern in importing countries. Producers have carried the burden of maintaining surplus capacity in the amount that would ensure the smooth operation of the world oil industry.

However, from the perspective of producers, demand security also merits attention. Investment to expand upstream capacity and maintain spare capacity requires sustained demand growth. However, unlike supply of oil, demand patterns are influenced by government policies that also pursue other objectives.

We believe that, what producer-consumer energy dialogue needs in order to be more effective, is not radical change, but inevitable evolution to enhance understanding of the energy markets and promote market transparency, stability and efficiency, as well as predictability of energy policies.

The IEF should move forward towards becoming a more result-oriented forum with an enhanced framework and a precise, comprehensive and action-oriented agenda for the producer-consumer dialogue while retaining the informality of the dialogue. Simultaneously, it should allow for a greater commitment by the members to expand IEF Secretariat resources, strengthen collaboration with relevant multilateral organisations and research institutions and improve energy market stability, sustainability and transparency.

In this regard, the adoption of the Expanded High Level Steering Group (EHL SG) recommendations and plan of implementation will serve as an important step in signaling a stronger political commitment of both producers and consumers to the international dialogue and the IEF's goals and objectives.

Current efforts and discussions reveal the strong support for enhancing the global energy dialogue and we look forward to the culmination of these efforts in an agreement to adopt the recommendations in Cancun, Mexico and the start of a new era in international energy cooperation.

In conclusion, it is our firm belief that only through dialogue, cooperation and partnership, can real progress be achieved in addressing such challenges facing the global energy sector.

# STRENGTHENING THE DIALOGUE REINFORCING COMMITMENT



By H. E. Waldemar Pawlak

*Deputy Prime Minister,  
Minister of Economy,  
Poland*

The international energy sector is facing a number of challenges. High demand for final energy, interdependence in supplies of natural gas and crude oil, as well as commitments on environmental protection compel us to take decisive actions. In the aftermath of financial crisis and its impact on the petroleum sector, energy demand dropped sharply and the puzzling instability of the oil prices jeopardised a global recovery. Although wide divergences exist among many countries or international organisations as to the underlying reasons for volatility on the market, global community shall address those uncertainties which affect crude oil and natural gas sectors, either on the national level or in the form of concerted international cooperation, as is assured by the International Energy Forum.

Let me briefly elaborate on the new “Energy Policy of Poland until 2030” that presents the strategy of the State, aiming to address the most important challenges that the Polish power industry must face. The main objective of energy policy in the field of crude oil and the liquid fuels is to ensure energy security by enhancing the diversification of supply sources (diversification of suppliers, regions of supply and the use of alternative transport routes). Construction of crude oil and liquid fuels storage tanks with the capacity to ensure continuity of supplies, particularly in emergency situations is also a case in point.

Poland’s energy security will be based on domestic fuel and energy resources, especially hard coal and lignite. The percentage share of coal in energy supply is decreasing, yet the demand for coal in Poland still remains relatively high. The use of coal in the energy industry by application of efficient and low-carbon emission technologies, including coal gasification and processing into liquid or gas fuels is one of the specific objectives in this field.

One of the objectives of energy policy in the field of natural gas is to ensure Poland’s energy security through diversification of sources and directions of natural gas supplies including the extension natural gas resources, gas extraction capacity, directions of natural gas supplies in Poland, transmission and distribution system as well as natural gas storage capacities. Improvement of energy efficiency aims at 20% decrease in energy consumption by 2020. Poland made a significant progress in this respect as within the last 10 years DGP energy intensity declined by 30%. It is also vital to develop renewable energy: achievement of 15% shares of RES in final energy consumption by 2020, a 10% share of biofuels of the market of transport fuels, and increase the use of second-generation biofuels.

A new field of activity is the introduction of nuclear power in Poland. In addition to the advantages in terms of zero CO<sub>2</sub> emissions, this method of energy production will improve Poland’s energy mix and this enhance Poland’s energy security.

International Energy Forum, the world’s largest gathering of energy ministers plays a very unique role in global energy dialogue, as it is the only organisation open to both producers and consumers and its membership includes the International Energy Agency and the Organisation of the Petroleum Exporting Countries. Concrete areas of cooperation to enhance the producer and consumer dialogue shall therefore include the shared analysis of energy outlooks and financial / physical markets’ linkages in the area of energy market regulation. The notion of the continuing commitment to working on JODI, including ongoing work on possible extension to natural gas is also attractive in order to meet the evolving demands of the data transparency challenge. Taking into consideration the fact that there is a need to reinforce the commitment of producer and consumer states to the dialogue it is necessary to lead the International Energy Forum towards a more result-oriented form and I’m deeply convinced that the discussion in Cancun is going to provide its participants with the impetus to strengthening the dialogue.



# GLOBAL ENERGY MARKETS: REDUCING VOLATILITY & UNCERTAINTY



*By H.E. Massoud Mirkazemi*  
*Minister of Petroleum, Iran*

Crude oil market witnessed price increases from 2002 to 2008. However, in the period of July 2007 to July 2009, that volatility was extreme i.e. in mid-July 2008, the WTI benchmark reached \$147 per barrel, and by winter of 2008-2009 the prices dropped to their lowest level of \$ 30 per barrel and then rose back up to \$80s per barrel by November 2009. The extreme volatility, in general, raised concerns among both major consumer and producer countries. In our opinion, identifying the factors involved in crude oil market volatility is much more important than market volatility itself. It is noteworthy that producer countries did not play the main role in causing market fluctuations. On the contrary, they did their best to stabilize the market. However, some factors affecting the market are beyond the producer countries' control.

As a founding member of OPEC and as an active member of IEF, with a hundred-year record in the petroleum industry, Iran has always been striving to mitigate volatility in the market, out of the conviction that market volatility is no good for either group of producer and consumer countries. We also believe that as a consequence of collaboration among the two parties, volatility can be mitigated and/or controlled. In line with this opinion, we took practical steps in the early 1990s to invite major producers and consumers for a meeting in Isfahan, Iran, to converge their views as much as possible. In order to reduce oil price swings, some major points can be taken into consideration as follows:

- It is our strong belief that political stability is a prerequisite for security of energy supply, which can bring about stability in the market and prevent volatility, especially in regions like the Middle East and Persian Gulf, which play a major role in the production trend.
- Constant flow of investment in producing countries can lead to the establishment of their long term development plans which can surely prevent unnecessary oil price swings. In the meantime, we are of the opinion that the issue of investment should not be dealt with politically.
- Attempts are being made by some consumers to channel funds for alternative energy sources without due consideration to their economic viability which can enhance the concerns of producers about surplus capacity expansion in the short term and can lead to price volatility and crude oil shortage in mid and long term.
- We are of the opinion that low oil prices will constrain the flow of investments required by the industry to ensure stable oil supplies.
- Providing the market with feedbacks could play an important role in stabilizing oil prices by increasing the visibility of the feedbacks.
- The role of non-commercial players in the oil market is recommended to be taken into consideration, with a watchful eye on necessary adjustments, especially in light of improved market data.
- The utilization of alternative energy technologies, which are being pursued by major consumers, is the legitimate right of all countries. Due to its young population and the high rate of its energy intensity, Iran has to inevitably utilize all accessible forms of energy including nuclear energy. As it has been realized by all energy players, our approach toward this issue is non-political. As a result of replacing alternative sources of energy with fossil fuels in producing countries, more crude oil can be supplied which in its own turn can lead to reducing volatility in the market.



# ENABLING INTEGRATED SOLUTIONS WITH TEAMWORK



By Rex Tillerson

*CEO, ExxonMobil*

## Exxon

ExxonMobil is the world's largest publicly traded international oil and gas company. ExxonMobil explores for oil and natural gas on six continents, and operates facilities and markets products around the world.

## Highlights

In 2009, ExxonMobil's proven reserves increased to 23.3 bboe, divided between liquids and gas, 51% liquids, 49% gas. ExxonMobil added 2.9 bboe in 2009.

ExxonMobil has exploration and production acreage in 38 countries and production operations in 23 countries around the world. ExxonMobil also has interest in 37 refineries, and fuels and lubes marketing activities around the world, making it the largest global refiner.

As we look to how we can meet our future energy challenges, it is clear that dialogue and understanding between all participants in the energy sector - producers, consumers and policymakers - will be critical to our success.

The scale of the challenge is immense. Energy demand is expected to be about 35 percent higher by 2030 than it was in 2005, driven by population and economic growth in the developing world. The sheer size and scope of the world's increasing energy needs requires a thoughtful, long-term approach to how participants in the energy sector can work together to meet these needs.

In addition to the fundamental need for more energy to enable economic and social progress, we must also address another critical aspect of the energy challenge: reducing the impact of energy use on the environment. Greater energy use worldwide is expected to result in about a 25 percent increase in global carbon dioxide emissions from 2005 to 2030.

It will take national energy companies, international energy companies, governments and citizens all working together to solve these dual energy challenges. There is no one source of energy, technology, course of action, or policy approach that will deliver the answer. It will take an integrated set of solutions, made possible by technological innovation, to meet our energy and environmental needs.

One of the actions we must take is to expand access to all economic energy sources. Oil, natural gas and coal will continue to meet the majority of our energy needs for the foreseeable future, and technology is continually expanding

the horizons of what can be discovered and produced. For example, technology advancements in the Gulf of Mexico helped expand the estimated resource base from 9 billion barrels of oil in 1987 to 45 billion barrels in 2006. We can explore and develop those resources safely thanks to advanced seismic and drilling technologies. We must continue creating partnerships that will allow the industry to invest in large-scale projects to find and develop these resources.

In meeting the world's growing need for energy, we must mitigate emissions by pursuing fuels such as cleaner-burning natural gas, nuclear energy, and renewable sources when and where they are economically feasible. In addition, with further research and development, technologies such as carbon capture and storage have the potential to make a significant contribution to mitigating emissions.

Beyond the need to expand energy supplies, it is essential that we use energy in the most efficient manner possible. Efficiency technologies have the power to extend energy supplies and save emissions by reducing the amount of energy we use in our homes, cars, businesses and manufacturing. For example, advanced technologies exist for engines, transmissions, vehicle bodies and tires that could improve the efficiency of today's conventional vehicles by about 35 percent - saving significant amounts of fuel and emissions in the process. Further efficiency gains are possible through the development of hydrogen technologies for transportation.

These integrated solutions - expanding supplies, mitigating emissions and promoting efficiency with technology - are already proving effective. But deploying them on a global basis to meet long-term goals will require investment, teamwork and international cooperation on a sustained scale.

National and international energy companies must work together to apply their technological and business strengths to bring more resources to worldwide markets. The world's oil and gas resources are found in increasingly challenging locations, and it will take the expertise of a wide range of industry participants to recover these much-needed supplies.

At the same time, businesses and governments must work together to build energy policies that maximize the use of markets, encourage free trade, protect contracts and uphold the rule of law. The International Energy Agency estimates that the industry will need to invest more than \$25 trillion in the world's energy supply infrastructure by the year 2030 to meet growing demand. Energy companies must have sound and stable tax, legal and regulatory policies that enable this long-term planning and investment to take place.

The International Energy Forum plays a valuable role in bringing together those who have a keen interest in meeting the world's energy challenges. Moving forward, the dialogue must not only address the range of solutions at our disposal, but also the cooperation necessary to put those solutions to work. By working together, we can meet our energy and environmental challenges and create greater opportunity for all.



# CANCUN SUSTAINING INVESTMENT TO FOSTER GLOBAL ENERGY SECURITY



By Paolo Scaroni

CEO, ENI

#### Eni

Eni operates in the oil and gas, electricity generation and sale, petrochemicals, oilfield services construction and engineering industries. Eni is active in 70 countries with a staff of about 79,000 employees.

#### Highlights

Oil and natural gas production was up 1.7% in the fourth quarter of 2008, to 1.89 million barrels per day. Preliminary 2009 year-end proved reserves was estimated at 6.57 bboe.

In these difficult days, the energy sector is in the storm, but the oil industry is at the eye of the storm. Oil is being questioned and challenged as never before, even though it will continue to satisfy more than a third of the world's total energy needs for decades. The well-known concerns are widely debated: energy security, diversification, geo-political risk, carbon emissions, and even the ungrounded worry that physical supply will run out - disproved by the almost continuous growth of the world's resource base.

But this is only a part of the story. Nowadays, the nature of oil as a commodity is no longer confined to its physical nature. It has also become a key element as a financial asset in the world's financial portfolio. Consequently, the structural cyclicity of the oil industry has been exacerbated, as suggested by the large swings in oil price experienced in the recent boom and bust cycles: from less than \$40 in 2004, to as high as roughly \$150 in July 2008, then down to \$30 in December 2008, and now back around \$70. Such oil price fluctuations are of course not new. Big swings like this occurred back in the 1980s. But the deep uncertainty they generate upsets the entire energy system, blocking investments both in traditional and alternative sources (including nuclear, renewables and climate change solutions), again as it has done in the past, so preparing the way for the next cycle of instability.

*But the oil price doesn't just impact the energy industry.*

Oil price instability hurts economic growth – particularly in the most vulnerable countries – weakens the promotion of a sustainable development, undermines global energy security and complicates the fight against climate change.

If high and low oil prices each bring their own problems, unexpected sharp movements in world crude prices are the worst of all worlds. Volatility reduces energy planners' ability to make vital long-term investments decisions – for oil infrastructure but also for alternative energy sources. The consequences are not limited only to a lower energy production capacity, but lead directly to weaker and delayed investment in the development of more efficient energy technologies. Seen in this way, the goal of oil price stability at a

“reasonable” price would be beneficial not only for oil producers and consumers but for sustainable global development as well – a double gain!

eni has long highlighted the need for a new cooperation paradigm to reduce oil-price volatility, to ensure stable investment conditions and consequently to promote sustainable development. So eni has developed a few ideas on ways to stabilise oil prices and presented them at the G8 meeting in Rome last May, in the hope of sparking off a lively and constructive debate in the industry.

eni believes that this new cooperation could be advanced with a tighter coordination between producers and consumers, and which could in turn be developed from existing institutions such as the International Energy Forum. Under this perspective, a stronger mandate to IEF could evolve into a Global Energy Agency. Establishing a more co-ordinated and formalised structure on these lines would go hand in hand with the improvement and the extension of information on the oil market and on energy supply and demand patterns in general - which would contribute to the transparency and predictability of the oil market – and the identification and realization of mechanisms to support oil price stability.

Steering the world's biggest commodity market, towards more stability when there are so many different vested interests in the price, is not an easy task.

However, a more solid foundation of trust and a stronger consensus on objectives and on the means to realize them, resting on better cooperation between consumers and producers, and indeed between all industry players, would certainly help reduce the extreme kind of volatility we have experienced, and by calming oil price fluctuations would bring benefits not just to the global economy today, but to future generations as well.

# PRIORITIES TO BE ADDRESSED BY PRODUCER-CONSUMER ENERGY DIALOGUE



By Sarthak Behuria

*Chairman, IOC*

## Indian Oil Corporation Ltd

Indian Oil Corporation Ltd. is currently India's largest company by sales for the 2008-09 fiscal year. IndianOil is the 18th largest petroleum company in the world. IndianOil has over 31,700 employees.

## Highlights

During the 2008-09 fiscal year, the IndianOil Group sold 62.6 million tonnes of petroleum products, including 1.7 million tonnes of natural gas, and exported 3.64 million tonnes of petroleum products. The Indian Oil Group of companies also owns and operates 10 of India's 20 refineries, with a combined refining capacity of 60.2 million metric tonnes per annum (MMTPA, or 1.2 million barrels per day).

1. The petroleum sector is currently experiencing high price volatility exacerbated by severe economic slow down and a banking crisis, weakening oil demand and reduced availability of credit. The oil and gas industry is facing many key challenges in such volatile market and uncertain times, which needs to be addressed on priority. IEF umbrella covers over 70 countries and they in turn cover more than 90% of global oil and gas production and consumption. Energy security is important to both consuming and producing countries. While energy consumers think of security of supply and energy producers think of it as security of demand. This calls for many partnerships between energy consumers and producers to safeguard the interest of both sides.

2. In order to stabilize international oil markets and reduce crude oil price volatility, exchange of information and development of knowledge plays a vital role. Concerted efforts in recent years to improve the availability of market data should be sustained, most notably with the Joint Oil Data Initiative(JODI) coordinated by IEF.

3. Skilled personnel shortage in the petroleum industry was one of the causes behind cost escalation in recent years. This is also identified as one of the factors delaying expansions and other project plans. Perceptions of the oil industry as a 'sunset' sector, misconception about the approach to environmental concerns and competition from other high tech industries have combined with cutbacks in technical programs in university. Job security is a major concern among students more than ever. Industry's reputation for vulnerability to boom and bust cycles presents a major obstacle to recruitment from an increasingly limited pool of resources. The result is ageing workforce. A recent survey indicates average age of professionals at around 50 years. It is likely that 50% of the industry's current workforce will be lost to natural attritions through retirement within next 10 years as junior recruits comprise barely 15% of the resources base. There is a great need to promote a worldwide campaign in consuming / supplying countries aimed at improving the image and rewards.

4. In some areas of Asia, energy demand is expected to increase and energy supply likely to decrease over the medium to long term. Adequate and continuous investments throughout the energy value chain are essential to balance supply demand in future. Efforts to improve the investment environment will be an important element for ensuring continuous investments. Assurance from producers to supply sufficient oil & gas and to engage in investment that will respond to anticipated future demand in Asia will help in mitigating future concerns about supply-demand. IEF member country Governments must set clear and stable energy policy frameworks; since unpredictable and frequently changed policies contribute to uncertainty and have an adverse impact on volatility. Hydrocarbon projects investment plans must be maintained as much as possible to cope with decline of production from existing fields and meet future demand.

5. Excessive fluctuations in oil prices are undesirable both for energy producers and consumers. Financial markets have an impact on oil price formations. There is a need for strengthening financial supervision and regulations. Regarding transparency of commodity markets and supervision on 'Over The Counter' (OTC) markets, national authorities are required to undertake further harmonized actions such as introduction of position limits.

6. Natural gas plays an increasing and essential role in enhancing energy security and mitigating climate change. There is a need for ensuring supply demand balance and developing production and usage technologies.

7. Fossil fuels will continue to be a dominant part of energy mix for the future. To address environmental concerns associated with use of fossil fuels, collaborative efforts are required to promote investments in technologies for energy efficiency improvement, renewable energy resources and carbon capture and storage. There is urgent need for setting goals and action plans for these activities. Due importance should also be given to nuclear power, particularly in view of the environmental issues and energy security concerns associated with fossil fuels. At the same time there is a need to ensure nuclear non-proliferation safeguards, nuclear safety and security. Making nuclear energy eligible for the 'Clean Development Mechanism' (CDM) will promote investment in nuclear power.



# PERSEVERING THROUGH UNCERTAINTY



By John Watson

*Chairman and CEO, Chevron Corp*

## Chevron

Chevron is the second-largest integrated energy company in the United States and among the largest corporations in the world, based on market capitalization as of December 31, 2008. Chevron is engaged in every aspect of the crude oil and natural gas industry, including exploration and production, manufacturing, marketing and transportation, chemicals manufacturing and sales, geothermal, and power generation. Chevron is active in more than 100 countries and employs approximately 62,000 people and about 5,000 service station employees.

## Highlights

In 2009, Chevron's net proved reserves grew 1% to 11.3 bboe, split between liquids and gas, 62% liquids, 38% gas. In 2009, Chevron produced 2.53 million barrels of net oil-equivalent per day in 2008, 75% of which occurred outside the United States. Chevron had global refining capacity of more than 2 million barrels of oil per day in 2008.

Today, discussions about the future are dominated by uncertainty. The question behind that anxiety and the great challenge facing the world is how to sustain a fragile recovery that will rebuild the global economy. No matter how that effort unfolds, the energy industry has critical roles to play. We must deliver the energy supplies that will both underpin growth in the Organisation for Economic Cooperation and Development countries and sustain progress in the developing world. Experience teaches us that long-term stability will depend, as much as anything else, on affordable energy.

Energy is a primary factor behind sustained growth in employment, productivity and wealth. Central to stable energy supplies is the understanding and partnership between producing and consuming countries. In this area, IEF and the dialogue it fosters provide a vital conduit for cooperation. To meet future needs, this must expand, building greater trust, engagement and partnerships.

Despite the recent period of fluctuating energy prices, we have to think decades ahead and stay focused on the fundamentals, to meet vast global needs. And we must meet the challenge together. Worldwide, we use nearly 50 percent more energy than we did only 20 years ago. And 20 years from now, demand will have risen by another 40 percent or so.

Within any major developed country you will find a petroleum-based economy. Try to change that fact overnight, with overly restrictive policies, and you will get a weaker economy and all that comes with it. Supplying the energy needs of the world requires time and money – lots of both. Indeed, the energy system we have right now is the product of more than a hundred years of investment. We have to think about the next energy system we are heading toward as another hundred years of investment. This will involve massive commitments of people, capital and time.

To meet future demand, companies will need to make major investments in large-scale, extremely complex projects. From the perspective of international energy company, we also need to see the right conditions in place to ensure that those investments can be responsibly made. Three elements are needed.

First, we need access to promising resources that can support commercial rates of return. Opportunities must balance benefits to the resource holders with fair returns to resource producers to support increased investment.

Second, we need a sound investment climate – financial stability and contract sanctity combined with an equitable governance model.

Finally, it takes time and collaboration to develop and build enormously complex energy projects. A typical effort requires 15 years from concept to production. Project operating life-spans are similarly measured in decades. Successful project development, like energy efforts generally, depends on partnership.

Our responsibility as both producers and consumers is to work together to meet the world's future energy supply needs. The fuel mix will eventually change with renewables playing an increasing role, as time, technology and investment allow them to begin contributing at scale. We will need all the energy we can get from every available source – wind, coal, solar, nuclear, renewables and a significant contribution from oil and natural gas for many years. Those coming demands on our industry require a strategic response: an unprecedented level of cooperation and unified effort. Fortunately, that is the spirit behind the IEF and it forms the foundation of our success as an industry.



# THE EVOLVING ROLE OF THE IEF



By Dr Mohammed S. Barkindo

*Group Managing Director,  
NNPC & Nigerian Governor to OPEC*

## Nigerian National Petroleum Corporation

The Nigerian National Petroleum Corporation (NNPC) is responsible for upstream and downstream development, which entails exploiting, refining, and marketing Nigeria's crude oil. The NNPC, through the National Petroleum Investment Management Services (NAPIMS), supervises and manages government investment in the Oil and Gas Industry.

Nigeria has 5000 kilometres of pipeline network, twenty-one storage depots and nine LPG depots. The Downstream plants under the NNPC include the four refineries with a total installed capacity of 445,000 barrels per day; two in Port Harcourt (210 000b/d), one each in Warri and Kaduna (125,000b/d and 110,000b/d respectively) refineries.

The International Energy Forum (IEF) has come a long way from its inception in 1991 when it provided the platform for dialogue between producers and consumers of crude oil. Prior to the establishment of the IEF, and to some extent, even at certain periods during its existence, the world has witnessed players on opposite sides of the energy divide trading blames as to which party was responsible for oil price volatility and the perceived lack of global energy security.

The IEF deserves a lot of commendation for providing the platform for Nations with seemingly divergent interests to sit together and employ dialogue to address global energy challenges in a manner devoid of rancour. It is no mean feat to get consumers and producers of energy, developed and developing countries, OPEC and non-OPEC countries to sit together to dialogue on the energy market with a view to moderating volatility and ensuring energy security which is crucial to sustainable human development and prosperity. The IEF, in a nutshell, is a testimony to the inter-dependence of nations in meeting the challenges faced by humanity in providing its energy needs in a collaborative and win-win manner.

There is no doubt that fossil fuels would continue to contribute the largest share of the energy mix for the foreseeable future. The IEF, in cooperation with the IEA and OPEC, is expected to carry out informed analysis and spearhead efforts aimed at closely monitoring global crude oil activities (global oil demand and supply, level of investment, storage facilities, inventory levels, etc) with a view to understanding the dynamics of the energy

market and thereby providing useful and timely advice to avert potential disruptions in the global energy market. The IEF is, in particular, expected to focus on the role and impact of equity and other financial instruments on the oil market and come up with policy recommendations that its member countries could pursue to minimize oil price volatility.

While emphasizing the leading role of crude oil in the global energy mix, the IEF should not be oblivious of the increasing importance of gas (natural and unconventional) and other renewable resources of energy in a world keen on moving in the direction of low carbon emissions. The IEF should, therefore, show interest in monitoring the pace of development and utilization of environment-friendly sources of energy such as gas, wind, solar, nuclear and biofuel.

Technology will play a key role here, both for fossil fuels and renewable sources of energy. Are our innovative scientists and engineers going to come up soon with cost-effective technologies that would clean up fossil fuels, such as crude oil and coal and thereby removing our concerns about CO<sub>2</sub> emissions and climate change? Or, is the global desire for a sustainable environment so compelling that technologies would be developed and deployed and policies put in place to encourage the use of renewable energy sources, especially in the developed world, to the disadvantage of crude oil which abound in many developing countries whose economic growth depend, substantially, on the sale of this commodity?

As new technological development scenarios unfold, hopefully in the near to medium term, the role of IEF in promoting dialogue for a better understanding of the changing future energy mix and preventing sudden or rapid disequilibrium in the energy and economic fortunes of nations would be vital. To be able to play this role and contribute effectively to the global energy dialogue, IEF would need to be populated by highly skilled manpower that reflects, among other things, the geographical, regional, political, and economic, organisational and energy-resource diversity of its member nations.

As Ministerial delegations of various countries, CEOs and delegates of NOCs and IOCs and other organisations, prepare to meet in Cancun, Mexico between 29th – 31st March 2010 for the 12th IEF and 4th IEBF in what is rightly described as the world's largest recurring gathering of Energy Ministers, I wish to commend the laudable role played by the IEF so far and to advise that more is expected from the organisation in continuing to provide the platform, superb ideas and enlightened discourse needed to assure the world that, through enhanced dialogue and sincerity of purpose, the goals of reduced market volatility, global energy security and economic prosperity of nations are not unattainable.





# LOOKING TO CANCUN: TRANSPARENCY, DIALOGUE AND COOPERATION



By Nobuo Tanaka

*Executive Director*

*International Energy Agency*

Since the beginning of the producer-consumer dialogue in the 1990s, the IEA has been a strong supporter and an active participant. In those early years the agency ran a series of Energy Expert Meetings to prepare for the biennial Ministerial conferences which were the forerunners of the International Energy Forum. We have always valued the informality of the dialogue both at the political and the technical level.

I am very much looking forward to a lively and productive discussion at Cancun. The agenda covers a number of important issues of current interest: energy security and sustainability, energy and human development, and energy markets and volatility. This last remains a concern to many governments both producers and consumers. The IEA has been looking at this closely, and together with the Japanese government have organised an expert workshop in Tokyo this spring bringing together market participants, regulators and other government and business representatives. We will be able to report on this to the IEF in Cancun.

Meanwhile, we have outlined a programme of cooperation with OPEC and the IEF Secretariat which will take forward work

in this and other areas, strengthening the producer-consumer dialogue. This will represent an important part of our work in the future and we look forward to working with our counterparts on a regular basis.

Although oil prices have been relatively stable over the past year, an element of volatility will always remain. But we should do everything we can to avoid the huge price swings we saw in 2007 and 2008. There will be demand for oil (and gas) for many decades to come, and markets will need to be reassured that investment is in place to supply them. The role of JODI has been influential in improving the transparency of markets and we are pleased to contribute to this initiative alongside our partner organisations and the IEF. We welcome the steps that have been taken to extend the initiative to gas and the consideration being given to including data on upstream investment. Producers and consumers can often have a different perspective on energy markets; but dialogue in the IEF framework is one important way to increase mutual understanding.

Combating energy poverty must be a priority. By our estimates 1.5 bn people still lack regular access to energy supply, mainly in rural Africa and South Asia. Universal access could be achieved with USD35 billions per annum of additional investment – only about 6% of global annual power-sector investment on current plans. We welcome the role which the World Bank and other development agencies can play in meeting this challenge, and we are happy to contribute our energy expertise including the data and analysis we have acquired in this area and our experience in capacity building.

We meet in Cancun only weeks after the landmark conference on climate change in Copenhagen. Governments are now addressing the targets they will need to set and the actions they will need to take to avoid catastrophic global warming later in the century. The energy sector will be critical in this, and our World Energy Outlook 2009 sets out how energy policies might be adapted to achieve stabilisation of CO<sub>2</sub> equivalent concentrations in the

atmosphere at 450 ppm, limiting the global temperature increase to 2 degrees C. It is a huge task – but feasible, if we act now.

All of these pressing energy challenges share common elements: the costs are high, but the sooner we start the more manageable they will be, while many of the steps we need to take have wider economic benefits. Even so, in any likely scenario demand for oil and gas will continue to grow, at least until 2030. Our analysis suggests that investment in new supplies by the established oil producers will pay off even if ambitious efficiency measures and alternative fuel and vehicle technology programmes are put in place in consuming countries.

It is also likely that both producers and consumers will increasingly find common interests: in promoting energy efficiency; diversifying into renewable energies and nuclear power; and investing in enhanced oil recovery to optimise production, while developing carbon capture and storage strategies to mitigate greenhouse gas emissions. International oil companies and national oil companies can collaborate on many of these technologies, while consumer governments and producer governments work together on policy.

## IEA

The International Energy Agency (IEA) is an intergovernmental organisation which acts as energy policy advisor to 28 member countries in their effort to ensure reliable, affordable and clean energy for their citizens.

## Member Countries

Australia	Republic of Korea
Austria	Luxembourg
Belgium	The Netherlands
Canada	New Zealand
Czech Republic	Norway
Denmark	Poland
Finland	Portugal
France	Slovak Republic
Germany	Spain
Greece	Sweden
Hungary	Switzerland
Ireland	Turkey
Italy	United Kingdom
Japan	United States

# OPEC PRIORITIES IN THE IEF'S PRODUCER - CONSUMER ENERGY DIALOGUE



By Abdalla S. El-Badri

*Secretary General*

*Organisation of the Petroleum Exporting Countries*

## OPEC

The Organisation of the Petroleum Exporting Countries (OPEC) is a permanent, intergovernmental Organisation. OPEC's objective is to co-ordinate and unify petroleum policies among Member Countries, in order to secure fair and stable prices for petroleum producers; an efficient, economic and regular supply of petroleum to consuming nations; and a fair return on capital to those investing in the industry.

## Member Countries

Algeria, Angola, Ecuador, Iran, Iraq, Kuwait, Socialist Peoples Libyan Arab Jamahiriya, Nigeria, Qatar, Saudi Arabia, United Arab Emirates, Venezuela.

Since the last International Energy Forum (IEF) meeting in April 2008, there has been unprecedented turbulence in oil markets. Prices have been volatile, demand has fallen and the industry has had to face the widespread adverse impacts of the global financial and economic crisis. It has been a challenging time. While the world seems to be emerging from the crisis, and the oil market is exhibiting more signs of stability, it is important to remember that challenges remain. We need to guard against complacency.

More than ever before, the past two years have also demonstrated the interconnected nature of today's world and the value of coordinated actions in tackling global challenges. This is particularly true for an industry such as oil, which reaches to all corners of the globe. With this in mind, there are some issues that OPEC considers priorities for all stakeholders to discuss, and act on.

**First, ensuring market stability & minimizing uncertainty.** One feature of the period before and during the financial turbulence of 2008 and 2009 were the price extremes witnessed across many asset classes, including oil. Such volatility is not conducive to investments and is detrimental to the market stability we all seek. Oil producers and consumers should further examine the link between speculative financial activities and broader market instability. It is important to

consider new regulations and trading limits, as has been suggested by the Commodity Futures Trading Commission. By enhancing regulation, sharing market data, increasing transparency and creating greater awareness of speculative activities, all stakeholders can benefit.

In addition, efforts are required to reduce demand uncertainty for the benefit of the industry's investment plans and the world's future energy supplies. This includes the need for consuming countries to be clearer about the impact of energy and environmental policies, particularly those pushing subsidies for alternative fuels, on future oil consumption levels and overall energy demand.

**Second, responding to environmental challenges.** With fossil fuels expected to make up 80% of the global energy mix for the foreseeable future, it is essential that the research, development and deployment of technology continues to push the boundaries so that the industry can continue to develop, produce, transport, refine and deliver oil to end-users in an ever more efficient, timely, sustainable and economic manner.

Of particular note in this regard is the proven technology of carbon capture and storage. While developed countries, having the financial and technological capabilities, should take the lead in moving these types of technologies forward, it will also be

important for National Oil Companies and International Oil Companies to find ways to cooperate and work together in this regard.

**Third, having the necessary human resources.** The petroleum industry needs more people as the future clearly points to growth - as well as growing and more complex technical challenges.

However, in recent years, concerns regarding the adequacy of the human resource skills base have increasingly come to the fore. It is essential that the industry continue to find new ways to find, hire, train and keep talented people. An industry-wide deficit of skilled employees represents a critical bottleneck.

**Finally, strengthening the foundations of dialogue.** Much has been achieved in fostering dialogue among producers and consumers under the banner of the IEF. We are deeply committed to the IEF and are encouraged to see the dialogue process continue to progress between all the various industry actors. More, however, still needs to be achieved. Successful, open dialogue needs to increasingly be turned into shared, collective efforts - especially as we jointly face the unprecedented global challenges of the 21st century.



# SOLVING ENERGY AND CLIMATE ISSUES TOGETHER



## Steven Chu

*US Secretary of Energy*

*delivers speech at IEF Headquarters*

On 22 February 2010, Dr. Steven Chu, Secretary of Energy for the United States of America, visited the IEF headquarters in Riyadh and delivered a speech on the importance of “solving energy and climate issues together” for a big audience of members of the diplomatic community, industry executives and journalists.

IEF Secretary General, Noé van Hulst expressed his pleasure at the deepening of the United States’ engagement in the global producer-consumer dialogue through the IEF and noted the historic nature of Dr. Chu’s first visit to IEF Headquarters.

Dr. Chu, a distinguished scientist and co-winner of the Nobel Prize for Physics (1997) has devoted his recent scientific work to the search for new solutions to our energy challenges and the mitigation of climate change, a mission he continues with even greater urgency as Secretary of Energy.

Dr. Chu presented the consequences of anthropogenic climate change, and argued for a realistic, cooperative and global response. Mitigating climate change will require higher energy efficiency, more renewable and nuclear energy, as well as cleaner production and use of fossil fuels. “Fossil fuels will remain an important part of the energy mix, due to their high energy density”, said Dr. Chu. The US Secretary of Energy stressed the importance of diversification of the energy mix and the key role of science and technology in securing a cleaner, more sustainable energy future.

The US Secretary of Energy noted the adverse effect excessive energy market volatility can have on investment in all forms of energy, both conventional and alternative, and applauded the contribution that the Joint Oil Data Initiative (JODI) has made to global energy market transparency.

In thanking him for his impressive presentation, IEF Secretary General, Noé van Hulst welcomed Dr. Chu’s support and acknowledgement of the importance of the ongoing dialogue in the IEF between producers and consumers.



Dr. Steven Chu speaking at the IEF headquarters, February 2010

# IEF - MOVING FORWARD ON COMMON GROUND



By Guy Caruso

*Senior Advisor, CSIS*

*Former Administrator, EIA*

Energy ministers will be meeting in Cancun at the International Energy Forum (IEF) after having witnessed two years of volatile energy prices in the midst of a weak global economy and a fragile global financial system. Energy and the environment issues continue to demand ministers' attention in the aftermath of the Copenhagen Accord because much work remains to be done.

The IEF is uniquely positioned to discuss issues such as energy price volatility, energy and the environment, energy efficiency and energy security. IEF participants represent nearly all of the world's oil and natural gas exports and nearly all of the countries through which these exports transit. The Forum's informal setting provides an ideal opportunity for Ministers to exchange ideas on these thorny policy issues without the pressure of binding negotiations.

Energy market volatility is directly related to lack of information in physical and financial markets. Ministers recognised the need to improve oil market transparency when the Joint Oil Data Initiative (JODI) was launched in 2001. JODI is the product of cooperation and resource commitments of six multi-national organisations (APEC, Eurostat, IEA, OLADE, OPEC and UNSD). Since January 2005 the IEF Secretariat has been charged with coordinating and disseminating the products of the JODI and steady improvement in the data system continues. This represents a concrete example of success in the producer-consumer dialogue process and of the potential for even greater market transparency given the political support voiced by ministers and heads of state in recent meetings of the IEF (including the extraordinary meetings in Jeddah and London), the IEA, the G-8 and G-20. Ministerial discussions in Cancun could give further impetus to supporting and possibly expanding JODI. The expansion of JODI into natural gas has been endorsed by ministers and comes at a propitious time given the surging development of unconventional gas in North America.

On the supply side one of the key oil market indicators is information on available oil productive capacity and projections of changes in capacity in the medium and long-term. Timely and accurate information on productive capacity, reserves and decline rates is largely unavailable for many important producers. The IEF could provide an extremely valuable service in promoting energy market transparency and reducing price volatility by disseminating information about investments in oil production capacity in the upstream and in the downstream. The most important factor would be getting the political and financial commitment from Ministers in Cancun that would enhance the credibility of the investment information. Financial markets capital flowing into commodities almost certainly would be influenced by this information.

Consumer nation governments have expressed concern in previous IEF meetings about the adequacy of investments in productive capacity. Producer nation governments have raised the issue of demand security. Indeed much is happening in consuming countries regarding policy changes and investments related to energy demand. Many of these energy policy changes have been focused on job creation and/or environmental issues such as climate change. Energy market volatility also plays a role that affects demand side policies and investments. The most recent example at the multi-lateral level is the G-20 Leaders' commitment to move toward elimination of subsidies in energy markets. Demand side information on subsidies, energy efficiency and energy R & D spending could provide useful areas for discussion at Cancun.

Ministers gathered in Cancun could use that opportunity to discuss next steps on climate change in the aftermath of Copenhagen.





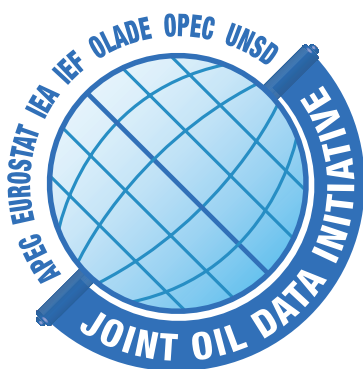
# JODI

## ENHANCING TRANSPARENCY

**“THE JODI MODEL IS  
AN EFFECTIVE ONE  
THAT CAN BE FURTHER  
IMPROVED AND  
ENHANCED TO ACHIEVE  
GREATER MARKET  
TRANSPARENCY”**

As a follow up to calls from the Ad-Hoc Energy Meetings in Jeddah (June 2008) and London (December 2008), the High Level Steering Group (HLSG) was established and its report acknowledged JODI as an effective tool to reduce oil market volatility.

Joining previous calls from Energy Ministers, the HLSG endorsed the idea of extending “the JODI model” to other areas, including monthly natural gas data and data on investment in new capacity in oil and gas in both the upstream and downstream sectors. Following their first meeting on the side of the 11th IEF Ministerial in Rome, Heads of JODI partner organisations (APEC, Eurostat, IEA, IEF, OLADE, OPEC and UNSD) will gather before the 12th IEF Ministerial in Cancun to review the Initiative’s progress since Rome, to explore ways of advancing the commitment and participation of member countries and to discuss plans to collect monthly natural gas and annual investment data.



### JODI TRAINING

The Joint Oil Data Initiative’s primary objective is to reduce oil market volatility through enhanced energy market transparency, and to build data reporting capacity in participating countries which is essential to the Initiative’s success. JODI workshops help non-participating countries, who often do not have the capacity to collect oil data, develop their own monthly oil data collection systems.

During the second half of 2009, JODI partner organisations focused their attention on training workshops designed to benefit those in national administrations or in oil companies who actually process JODI data. The 5th JODI Regional Training Workshop took place in Ankara, Turkey from 18 to 20 November 2009 following similar workshops held in Bangkok (Sep. 2008), Algeria (Oct. 2007), Johannesburg (Feb. 2007) and Caracas (Aug. 2006). The Ankara workshop, which featured expert speakers from IEF, APEC, EuroStat, IEA, OPEC, as well as UN ESCWA, addressed 37 officials in charge of energy and oil data collection from 12 different countries.

In response to a request from the Department of Energy of South Africa for assistance in improving its oil data reporting capacity, an in-house JODI training workshop was held in Johannesburg from 10 to 11 December 2009. The In-House Workshop tailors the regular training workshop to country specific needs to more effectively tackle country specific problems. 17 participants from the country’s oil industry attended the workshop.

To further promote its contribution to transparency, JODI was presented and discussed among 45 participants from 19 countries/economies in the APEC-ASEAN Joint Workshop on Energy Statistics in Kuala Lumpur, Malaysia from 30 November to 4 December 2009.






## JODI EXTENSION

After a two year trial period, the seven JODI partner organisations implemented an extended JODI questionnaire following endorsement by the 7th International JODI conference in Quito. This extended format gives a more complete picture of the market and allows for a more accurate supply and demand assessment.

The exercise for an extension of JODI to natural gas data has also begun. Despite challenges identified by a feasibility study conducted by the IEF, JODI partner organisations expressed their support for the extension. The gas questionnaire format was adopted and trial data collection on natural gas began as of December 2009. The partner organisations have agreed to report their progress to 12th International Energy Forum in Cancun, Mexico.

During the JODI Inter Secretariat meeting in Paris, on 21st November, the IEF presented a possible roadmap for annual data collection on investment in new capacity in oil and gas in both the upstream and downstream sectors. Energy Ministers have called for the extension of the Initiative to cover natural gas as well as annual data on investment in new capacity. The extension was initially advocated during the Ad-Hoc Energy Meeting in Jeddah in June 2008 and then later endorsed by Heads of State at the G8 Summit in L'Aquila (July 2009) and the G20 Summit in Pittsburgh (September 2009). JODI partner organisations recognised that annual data collection would be a challenging and resource intensive process, but agreed to examine feasible means to achieve this Minister-recommended goal.

## PARTICIPATION ASSESSMENT

GLOBAL PARTICIPATION OF 98 COUNTRIES		NUMBER OF SMILEY FACES		
		2009 Jan-Jun	2008 Jan-Jun	IMPROVEMENT (%) 2009 Jan-Jun / 2008 Jan-Jun
<b>SUBMISSION</b>		83	75	10.7%
<b>TIMELINESS</b>		59	53	11.3%
<b>COMPLETENESS</b>		68	60	13.3%

The Initiative's latest participation assessment on data submission, timeliness and completeness in the three evaluation categories, "Good", "Fair" and "Poor", shows continued improvement. In this assessment, 83 countries for data submission, 59 countries for timeliness and 68 countries for completeness obtained a "Good" evaluation. These are year-on-year improvements of 10.7%, 11.3% and 13.3% respectively.

Over the last 6 months, an average of 70 countries have submitted the most up-to-date figures (M-1) compared to only 63 countries during the same period in the previous year. China, India, Russia and Brazil are among those countries which have regularly reported the M-1 data.

As JODI moves to the extended format—with twice as many data points as the original—achieving completeness will be even more challenging. The JODI partner organisations are committed to help participating countries in enhancing capacity to complete their data submissions. As always, the commitment of individual governments will be a key determinant of success.



# ASSESSMENT OF PARTICIPATION IN JODI

Co-ordinated by the **IEF** in partnership with



ALGERIA	😊	😞	😊
ANGOLA	😊	😊	😊
ARGENTINA	😊	😞	😊
AUSTRALIA	😊	😊	😊
AUSTRIA	😊	😊	😊
AZERBAIJAN	😊	😊	😊
BAHRAIN	😊	😊	😊
BARBADOS	NA	NA	NA
BELGIUM	😊	😊	😊
BOLIVIA	NA	NA	NA
BRAZIL	😊	😞	😊
BRUNEI DARUSSALAM	😊	😊	😊
BULGARIA	😊	😊	😊
CANADA	😊	😊	😊
CHILE	😊	😞	😊
CHINA	😊	😊	😊
CHINESE TAIPEI	😊	😊	😊
COLOMBIA	😊	😞	😊
COSTA RICA	😊	😊	😊
CROATIA	😊	😊	😊
CUBA	NA	NA	NA
CYPRUS	😊	😊	😊
CZECH REPUBLIC	😊	😊	😊
DENMARK	😊	😊	😊
DOMINICAN REPUBLIC	😊	😞	😊
ECUADOR	😊	😊	😊
EGYPT	😊	😞	😊
EL SALVADOR	NA	NA	NA
ESTONIA	😊	😊	😊
FINLAND	😊	😞	😊
FRANCE	😊	😊	😊
GABON	NA	NA	NA
GERMANY	😊	😊	😊
GREECE	😊	😊	😊
GRENADA	NA	NA	NA
GUATEMALA	😊	😞	😊
GUYANA	NA	NA	NA
HAITI	NA	NA	NA
HONDURAS	😊	😞	😊
HONG KONG, CHINA	😊	😊	😊
HUNGARY	😊	😊	😊
ICELAND	😊	😊	😊
INDIA	😊	😊	😊
INDONESIA	😊	😞	😊
IRAN	😊	😊	😊
IRAQ	😊	😊	😊
IRELAND	😊	😊	😊
ITALY	😊	😊	😊
JAMAICA	😊	😞	😊
JAPAN	😊	😊	😊
KAZAKHSTAN	😊	😊	😊
KOREA	😊	😊	😊
KUWAIT	😊	😊	😊
LATVIA	😊	😊	😊
LIBYA	😊	😊	😊
LITHUANIA	😊	😊	😊
LUXEMBOURG	😊	😊	😊
MALAYSIA	😊	😞	😊
MALTA	😊	😊	😊
MEXICO	😊	😊	😊
MYANMAR	😊	😊	😊
NETHERLANDS	😊	😊	😊
NEW ZEALAND	😊	😊	😊
NICARAGUA	😊	😞	😊
NIGERIA	😊	😞	😊
NORWAY	😊	😊	😊
OMAN	😊	😊	😊
PANAMA	😊	😞	😊
PAPUA NEW GUINEA	😊	😞	😊
PARAGUAY	😊	😊	😊
PERU	😊	😞	😊
PHILIPPINES	😊	😊	😊
POLAND	😊	😊	😊
PORTUGAL	😊	😊	😊
QATAR	😊	😊	😊
ROMANIA	😊	😊	😊
RUSSIAN FEDERATION	😊	😊	😊
SAUDI ARABIA	😊	😊	😊
SINGAPORE	😊	😊	😊
SLOVAK REPUBLIC	😊	😊	😊
SLOVENIA	😊	😊	😊
SOUTH AFRICA	😊	😊	😊
SPAIN	😊	😊	😊
SURINAME	NA	NA	NA
SWEDEN	😊	😊	😊
SWITZERLAND	😊	😊	😊
SYRIA	NA	NA	NA
THAILAND	😊	😊	😊
TRINIDAD & TOBAGO	😊	😞	😊
TUNISIA	😊	😞	😊
TURKEY	😊	😊	😊
UNITED ARAB EMIRATES	😊	😊	😊
UNITED KINGDOM	😊	😊	😊
UNITED STATES	😊	😊	😊
URUGUAY	😊	😞	😊
VENEZUELA	😊	😞	😊
VIETNAM	😊	😊	😊
YEMEN	😊	😞	😊

😊 😞 😞 SUBMISSION  
 😞 😞 😞 TIMELINESS  
 😞 😞 😞 COMPLETENESS

😊 GOOD 😞 FAIR 😞 POOR

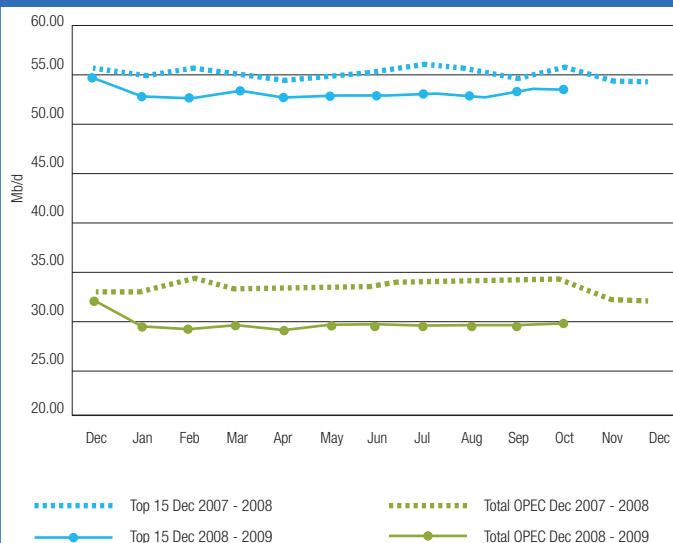
NOT AVAILABLE **NA** WHEN NO SUBMISSION FROM JULY 2008 TO JUNE 2009

CATEGORIES OF PARTICIPATION AS OF THE PERIOD JANUARY - JUNE 2009

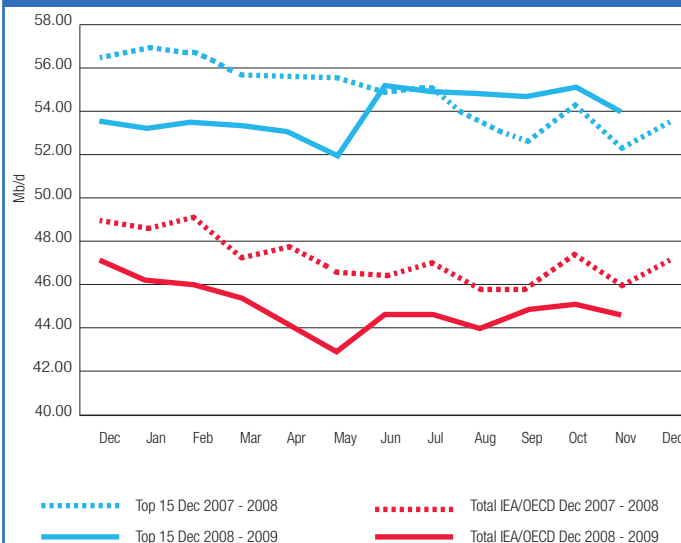
## AN EXTRACT FROM THE JOINT OIL DATA INITIATIVE REPORT

- For the latest February 2010 JODI World Database update, 48 countries reported crude oil production data (representing roughly 66% of the global oil supply\*) and 61 countries reported total oil products demand data (representing roughly 75% of the global oil demand\*) for December 2009, the month before and the same month of the last year.
- Among the 48 countries, crude oil production in December 2009 was 0.9% lower than the previous month and 1.2% lower than December last year.
- Among the 61 countries, total oil products demand in December 2009 was 3.1% higher than the previous month and 3.7% higher than December last year.

### CRUDE OIL<sup>(1)</sup> PRODUCTION



### TOTAL PRODUCTS DEMAND<sup>(2)</sup>



	kb/d	Dec 2009	1 month chg	1 year chg
1	Russia	10084.8	-0.4% ▼	3.2% ▲
2	Saudi Arabia	7945.0	-3.3% ▼	-7.5% ▼
3	USA	5518.8	1.0% ▲	7.7% ▲
4	China	3793.4	-0.8% ▼	2.3% ▲
5	Iran	3560.0	0.3% ▲	-7.9% ▼
6	Venezuela	2582.0	-6.6% ▼	-15.5% ▼
7	Mexico	2568.4	1.5% ▲	-5.0% ▼
8	Iraq	2378.0	0.0% ▲	6.6% ▲
9	Kuwait	N/A	-	-
10	Nigeria	2359.0	6.9% ▲	14.0% ▲
11	UAE	N/A	-	-
12	Norway	2066.5	-2.4% ▼	-3.5% ▼
13	Brazil	N/A	-	-
14	Canada	1892.5	-1.7% ▼	-14.2% ▼
15	Angola	1760.0	0.1% ▲	-9.0% ▼
<b>Total 48**</b>		<b>56711.4</b>	<b>-0.9% ▼</b>	<b>-1.2% ▼</b>

	kb/d	Dec 2009	1 month chg	1 year chg
1	USA	19109.9	3.0% ▲	-0.2% ▼
2	China	7857.6	1.3% ▲	34.7% ▲
3	Japan	5075.9	12.9% ▲	-3.4% ▼
4	India	2919.5	1.6% ▲	11.2% ▲
5	Germany	2305.9	-1.5% ▼	-6.6% ▼
6	Korea	2430.2	5.8% ▲	2.0% ▲
7	Brazil	N/A	-	-
8	Canada	2092.5	-1.0% ▼	3.7% ▲
9	Mexico	2022.8	10.2% ▲	4.8% ▲
10	Saudi Arabia	1591.0	-7.5% ▼	15.1% ▲
11	France	1963.3	14.4% ▲	-4.7% ▼
12	UK	1497.6	-3.2% ▼	-6.5% ▼
13	Iran	1539.0	0.7% ▲	-2.7% ▼
14	Italy	1523.0	1.5% ▲	-4.8% ▼
15	Spain	1435.8	0.7% ▲	-6.0% ▼
<b>Total 61**</b>		<b>64254.8</b>	<b>3.1% ▲</b>	<b>3.7% ▲</b>

\* Calculation based on the monthly world oil supply data and the quarterly world oil demand data from the Oil Market Report, International Energy Agency.

\*\* Number of countries that reported data for December 2009, the month before and the same month of the last year.

(1) Crude oil includes lease condensate

(2) Total products demand includes direct use of crude oil

Further information on flow/product definitions available on the Joint Oil Data Initiative (JODI) website.

Ranking based on available JODI data and therefore (Top 15) varies from one product/flow to another.

**Detailed information:** Data for Ecuador are missing for 2007. Russia does not report complete data set for LPG, Kerosene and total petroleum products. Singapore reports only trade data.



# JODI AND DATA TRANSPARENCY IN THE SPOTLIGHT

Ministers express support for JODI  
and call for expansion of the Initiative



## **1. G20 LEADERS' STATEMENT:** THE PITTSBURGH SUMMIT, G20 SUMMIT 2009, 24-25 SEPTEMBER 2009, PITTSBURGH, USA

"We note the Joint Oil Data Initiative as managed by the International Energy Forum (IEF) and welcome their efforts to examine the expansion of their data collection to natural gas."

## **2. G8 DECLARATION:** "RESPONSIBLE LEADERSHIP FOR A SUSTAINABLE FUTURE". G8 SUMMIT 2009, 8 - 10 JULY 2009, L'AQUILA, ITALY

"...we continue to strongly support the Joint Oil Data Initiative (JODI), managed by the IEF, and call for all countries to cooperate in improving quality, completeness and timeliness of data..."

## **3. CHAIR'S SUMMARY:** THE 3RD ASIAN MINISTERIAL ENERGY ROUNDTABLE, 26 APRIL, 2009, TOKYO, JAPAN

"Participants welcomed the important progress made so far in Joint Oil Data Initiative (JODI) coordinated by International Energy Forum (IEF), in cooperation with International Energy Agency (IEA), Asia-Pacific Economic Cooperation (APEC), and Organisation of the Petroleum Exporting Countries (OPEC), other partner organisations and member countries, and also encouraged these organisations and countries to make further improvements to JODI to provide more complete and timely energy data, including stock data, and the inclusion of gas-related data."

## **4. LONDON ENERGY MEETING:** 19 DECEMBER 2008, UK CHAIR'S REPORT

"Participants noted the importance of providing accurate, complete, and timely data to the Joint Oil Data Initiative (JODI), including information on upstream and downstream capacities and expansion plans."

## **5. JEDDAH ENERGY MEETING:** 22 JUNE 2008, JOINT STATEMENT BY THE KINGDOM OF SAUDI ARABIA AND THE SECRETARIATS OF THE IEA, IEF AND OPEC

"...the quality, completeness and timeliness of oil data submitted through the monthly Joint Oil Data Initiative (JODI) should be enhanced. In order to further improve market transparency and stability, the seven organisations involved in JODI (APEC, Eurostat, IEA, IEF, OLADE, OPEC and UNSD) are called upon to start work to cover annual data, that includes, among other things, upstream and downstream capacities and expansion plans."

## **6. 11TH INTERNATIONAL ENERGY FORUM:** 20-22 APRIL 2008, ROME, ITALY CONCLUDING STATEMENT BY HOST / CO-HOST COUNTRIES

"More timely and complete data on oil consumption, production, trade and stocks help to increase transparency in the oil market and decrease room for speculation by dampening oil price volatility."



# ENERGY POVERTY

IEF Symposium on Energy Poverty  
8-9 December 2009,  
Johannesburg, South Africa

The 11th IEF Ministerial noted that “over two billion people do not yet have access to modern energy services. This perpetuates the poverty cycle and inhibits economic development, availability of clean water and food, while preventing training and acceptable health standards.” Ministers called for the solidarity of IEF countries and a step change in the collective efforts of all relevant international organisations to help achieve the Millennium Development Goals by halving poverty rates by 2015.

Responding to this call from Ministers, the IEF convened a symposium on energy poverty in Johannesburg on the 8-9 December 2009, hosted by the Department of Energy of South Africa, to discuss the most effective means to alleviate energy poverty through enhanced cooperation and partnerships, and to review the role of relevant stakeholders.

The symposium observed that energy poverty programs are severely underfunded and encouraged international financial institutions to refocus on infrastructure and to develop local and regional projects that produce tangible results in alleviating energy poverty. They declared that aid and development agencies’ assistance is most efficient when the agencies act as an interface between business and development of non-commercial projects, work directly with business partners, and facilitate business involvement.

Participants noted that domestic policy reform should address institutional constraints that impede investment and called for the development of regional cooperation involving both private and public sectors and an expansion of cross-border transmission. They advocated models that are replicable, scalable and based on local autonomy as the most effective.

Participants advocated the addition of energy poverty reduction as the 9th Millennium Development Goal and affirmed that the initiative “Energy for the Poor”, launched by King Abdullah at the Jeddah Energy Meeting and supported by the G20 leaders should be given a new impetus and more widespread support to mobilize the funding necessary to bridge the energy poverty investment gap.

*For the concluding statement please visit [www.ief.org](http://www.ief.org)*

# FROM ROME TO CANCUN THROUGH JEDDAH AND LONDON:

Expert Group, High Level Steering Group  
and Expanded High Level Steering Group

The global energy dialogue among producing and consuming countries has intensified since the 11th IEF Ministerial in Rome (April 2008), against the background of the dramatic changes in the global energy scene and the unprecedented oil price volatility in 2008 ranging from nearly \$150 per barrel to below \$40. The Jeddah ad-hoc Energy Meeting, called by the Custodian of The Two Holy Mosques, King Abdullah Bin Abdul-Aziz of Saudi Arabia, held on 22 June 2008, convened Energy Ministers and petroleum industry CEOs to discuss and identify the causes and consequences of oil’s erratic price wings and to suggest means to improve oil market functionality. Ministers and CEOs then convened again at the London ad-hoc Energy Meeting, called by the Rt. Hon. Gordon Brown MP, Prime Minister of the United Kingdom, on 19 December 2008, when the world economy had just begun to grapple with the spectre of lower economic growth and debilitating financial turmoil.

As a follow-up to the Jeddah and London ad-hoc Energy Meetings, a High-Level Steering Group (HLSG)<sup>1</sup> was established to provide recommendations to the 12th IEF for strengthening the architecture of the consumer-producer dialogue through the IEF and for reducing volatility in energy markets. The HLSG benefited from the work of an independent Expert Group (EG)<sup>2</sup>. The IEF Secretariat provided the Secretariat to the HLSG, with the assistance of the Secretariats of IEA and OPEC.

The recommendations and implementation plan developed by the HLSG have been reviewed and endorsed by an Expanded High-Level Steering Group (EHLHG) composed of a significantly larger group of representatives from producer and consumer, developing and developed countries. The recommendations submitted to Ministers attending the 12th IEF in Cancun focus on an enhanced IEF framework to sustain and reinforce the commitment of producer and consumer states to the informal dialogue, and propose to mitigate energy market volatility.

In a related move, the Governing and Executive Boards of the Secretariats of IEA, IEF and OPEC have approved a tri-lateral agreement which identifies specific areas of cooperation between the three organisations in line with, and supportive of, the recommendations of the EHLHG. These areas of cooperation include future energy trends, the physical and financial market linkages and energy market regulation and data transparency.

<sup>1</sup> The HLSG members are: Algeria, France, Germany, Japan, Kuwait, Mexico, Norway, Qatar, Saudi Arabia, UK and the US.

<sup>2</sup> The Expert Group members are: Mahnouch Arsanjani, Guy Caruso, Bassam Fattouh, Michael Greenberger, Claude Mandil and Adnan Shihab-Eldin.





## IEF PARTICIPANTS



ALGERIA, ANGOLA, ARGENTINA,  
 AUSTRALIA, AUSTRIA, AZERBAIJAN,  
 BAHRAIN, BANGLADESH, BELARUS, BELGIUM,  
 BOLIVIA, BRAZIL, BRUNEI, BULGARIA, CANADA, CHAD,  
 CHILE, CHINA (PRC), COLOMBIA, CONGO (R), CROATIA, CUBA,  
 CYPRUS, CZECH REPUBLIC, DENMARK, ECUADOR, EGYPT,  
 ETHIOPIA, FINLAND, FRANCE, GABON, GERMANY, GREECE, HUNGARY,  
 INDIA, INDONESIA, IRAN, IRAQ, IRELAND, ITALY, IVORY COAST, JAPAN,  
 JORDAN, KAZAKHSTAN, KUWAIT, LEBANON, LIBYA, LITHUANIA, MALAYSIA,  
 MALTA, MAURITANIA, MEXICO, MOROCCO, NETHERLANDS, NEW ZEALAND,  
 NIGERIA, NORWAY, OMAN, PAKISTAN, PERU, PHILIPPINES, POLAND,  
 PORTUGAL, QATAR, ROMANIA, RUSSIAN FEDERATION, SAUDI ARABIA,  
 SINGAPORE, SLOVAK REPUBLIC, SLOVENIA, SOUTH AFRICA, SOUTH  
 KOREA, SPAIN, SRI LANKA, SUDAN, SWEDEN, SWITZERLAND, SYRIA,  
 THAILAND, TRINIDAD & TOBAGO, TUNISIA, TURKEY,  
 TURKEMENISTAN, UNITED ARAB EMIRATES, UNITED KINGDOM,  
 UKRAINE, UNITED STATES OF AMERICA, UZBEKISTAN,  
 VENEZUELA, VIETNAM, YEMEN  
 APEC, EC, ECS, IEA, IGU, IMF, OAUPEC,  
 OLADE, OPEC, UN, WB, WEC, WPC

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