



Celebrate the Past, Engage the Future

A 30 Year History of the IEF
and New Visions for Energy Security
and Orderly Transitions



INTERNATIONAL ENERGY FORUM

30 Years of Global Energy Dialogue

A History of the IEF and New Visions
for Energy Security and Smart Transitions

Contents Page

1. Introduction
5. Energy security: The evolution of producer and consumer perspectives.
7. Managing risks and opportunities in an age of change.
12. International dialogue and cooperation in pursuit of global energy security and climate goals.
15. Conclusion: The vital role of dialogue in the era of energy transitions now and in the future.



Introduction

The International Energy Forum (IEF), established 30 years ago, is a unique multinational organisation whose 70 member countries represent 90 percent of global supply and demand for oil and gas. The IEF serves as a neutral platform for dialogue between energy producers and consumers, and other stakeholders in the energy sphere to come together. This role is especially important in times of crisis, extreme oil price volatility, or supply shocks. Inclusive dialogue between producers and consumers is essential to manage and mitigate the impact of such developments for the benefit of both sides.

From a historical perspective, the Saudi Arabian government, under the leadership of the late King HRH Abdullah bin Abdulaziz Al Saud and current Energy Minister HRH Prince Abdulaziz bin Salman, generously offered to house the IEF Secretariat in the capital city of Riyadh, thus providing a permanent home to allow for continuous rather than ad-hoc dialogue. The opening of the IEF Headquarters in Riyadh on 19 November 2005, followed by the adoption of the IEF Charter on 22 February 2011 by all member states affirmed the interdependence of energy producing and consuming nations as well as transit states.



Signing Ceremony of the IEF Charter at the Extraordinary IEF Ministerial Meeting on 22 February 2011 in Riyadh, Saudi Arabia

Thirty years on, the IEF has established itself as a global leader in facilitating and promoting energy dialogue between ministers, industry executives, experts and energy analysts who come together to explore pathways to achieving energy security through an open exchange of ideas. Whereas the focus of the dialogue in the early years of its establishment was on oil markets, the dialogue has become more comprehensive taking into account a more diversified energy mix and facilitating orderly energy transitions. To this end, it has expanded its work to include insights into natural gas, energy efficiency, and renewable energy markets as well as new technologies.

The IEF's evolution was validated by the adoption of the landmark UN Sustainable Development Goals and the Paris Agreement in 2015. These two global initiatives established a common direction towards a more sustainable energy future and raised global awareness of the need for action to curb greenhouse gas and other harmful emissions. Technology advances in the last three decades have made it possible to imagine a future where fossil fuels, renewable energy, digitalisation and electrification co-exist to provide reliable and sustainable energy to a growing global population. By incorporating these trends under its Vision, Mission and Values, the IEF today is best positioned to facilitate the dialogue in an era of transition.

As the custodian of the Joint Organisations Data Initiative (JODI) since 2005, the IEF Secretariat's work is backed by solid data, the cornerstone of all energy analysis and forecasts, and an invaluable tool for ensuring transparency in the energy market. The IEF takes pride in coordinating JODI data on behalf of its international partners that include the Asia Pacific Economic Cooperation (APEC), the Statistical Office of the European Communities (EUROSTAT), the Gas Exporting Countries Forum (GECF), the International Energy Agency (IEA), the Latin American Energy (OLADE), the Organization of the Petroleum Exporting Countries (OPEC), and the United Nations Statistics Division (UNSD). By collecting official oil and gas data from producing and consuming nations each month, JODI serves as an aid for assessing supply and demand fundamentals on the global oil and gas markets. In making reliable data publicly available, JODI allows energy policy makers, analysts and financial institutions to formulate fact-based policy decisions that contribute to market stability and transparency.

Central to the IEF's role as the primary facilitator of energy dialogue and coordinator of data is the Symposium on Energy Outlooks, a flagship IEF event hosted jointly by the IEF, IEA, and OPEC at IEF headquarters in Riyadh. Senior economists and executives from international and national oil companies, analysts and energy experts from around the world attend the annual symposium, which marked its 10th anniversary in February 2020. The Symposium brings these different players together to discuss short-, medium-, and long-term energy outlooks to gain greater clarity and exchange views, compare perspectives prepared by other international organisations, government agencies as well as leading energy companies and financial institutions. It is an exercise in transparency that is at the heart of our mission and allows a better understanding of the future energy landscape and its direction.

“The International Energy Forum remains the only international body under whose umbrella both producers and consumers can cooperate on energy issues, exchange information, and gain deeper understanding of each other's energy concerns to enhance their common interests.”

HRH Prince Abdulaziz bin Salman bin Abdulaziz, Minister of Energy of the Kingdom of Saudi Arabia

On the international stage, the IEF’s convening power and its role as honest broker among producers and consumers in the interest of energy market stability and orderly transitions is best exemplified at the IEF biennial ministerial meetings, the world’s largest gathering of energy ministers. There have been 16 ministerial conferences to date with the next International Energy Forum Ministerial (IEF17) due to be convened in Riyadh in 2021 under the theme: “Vision for a New Era: The Producer-Consumer Quest for Stability, Change, and Growth.” A list of the IEF ministerials and their themes serve as a chronology of key energy developments in the last two decades. The following ministerial meetings were the most significant in advancing the agenda of the producer-consumer dialogue and illustrate the convening power of the IEF over time.

- **2010 – IEF12** hosted by Mexico in Cancun, which resulted in an agreement on a trilateral programme of work to be carried out jointly by the IEF, OPEC and the IEA to enhance market transparency
- **2014 – IEF14** hosted by Russia in Moscow, on the theme: “The New Geography of Energy and the Future of Global Energy Security”
- **2016 – IEF15** hosted by Algeria in Algiers, on the theme: “Global Energy Transition: An Enhanced Role for the Dialogue”
- **2018 – IEF16** hosted by India in New Delhi, on the theme: “The Future of Global Energy Security; Transition, Technology, Trade, and Investment”
- **2020 – IEF17** hosted by Saudi Arabia in Dhahran, on the theme: “Vision For A New Era: The Producer-Consumer Quest for Stability, Change, and Growth”



14th International Energy Ministerial Forum on 15-16 May 2014 in Moscow



Jeddah Energy Ministerial on 22 June 2008



16th International Energy Ministerial Forum on 10-12 April 2018 in New Delhi

Over the years, the IEF has invited other institutions to join the energy debate under its auspices by holding workshops, lectures, and conferences to widen the scope of its understanding of energy trends and serve its community of members more effectively. This has led to cooperation with the International Gas Union (IGU), the Gas Exporting Countries Forum (GECF), the International Renewable Energy Agency (IRENA), the European Union (EU), the King Abdullah Petroleum Studies and Research Center (KAPSARC) and the U.S. Energy Information Agency (EIA), among many others. Indeed, the 2020 Symposium on Outlooks included a series of events starting with the 4th IEF-EU Energy Day on The Green New Deal and Circular Economy: New Opportunities for Europe, North Africa, and the Middle East on 18 February and ending with the 1st IEF-IRENA Seminar on Renewables and Clean Energy Technology Outlooks taking place on 20 February in collaboration with KAPSARC.

The consensus view in the long-term outlooks of the IEA, OPEC, the EIA, international oil and gas companies, and other stakeholders' analyses, is that hydrocarbons will continue to make up the largest share of the energy mix at least until 2040 despite the rapid growth in renewable energy in recent years. More diverse transition pathways, and a growing reliance on short-cycle unconventional production has led to changes in supply-demand fundamentals and create new uncertainties that defer investment. Declining upstream oil investments since the oil price collapse of 2014 may lead to more market volatility, energy access issues and supply-demand imbalances in the future if investments are not made in a timely manner. These are challenges that can only be resolved through inclusive dialogue and collaborative action under the IEF umbrella.

“The International Energy Forum’s informal producer-consumer dialogue is an essential ingredient [in this] as we look to advance market stability, improve transparency and provide greater predictability in a sustainable manner.”

OPEC Secretary General HE Mohammad Sanusi Barkindo.

This paper will trace the evolution of the IEF since its inception and discuss its transformation into a global forum that has helped to bridge the gap between energy producers and consumers that existed in the 1970s and 1980s. Where there was once mistrust and competition, the IEF has provided a level playing field away from the conflicts and disputes that characterised decades past. As we stand on the cusp of a new decade, it is time to act to strengthen the framework for energy security and orderly energy transitions that transcend political and economic barriers in an increasingly globalised and inter-connected world of digitalisation and technological progress. The IEF stands ready to play its part as facilitator and incubator of new ideas that will help shape the future.

“The IEF’s role in bringing together producers and consumers is more important than ever because, as new markets emerge, so too do new challenges and opportunities to address them.”

Dr Fatih Birol, Executive Director of the IEA.

2. Energy security: The evolution of producer and consumer perspectives

Energy security is usually understood to mean the availability of reliable and uninterrupted energy supply to consumers at affordable prices. However, from the perspective of energy producers, many of which rely on exports of hydrocarbons and their derivatives, it is an existential imperative and an economic lifeline. As the dominant fuel in the energy mix, oil is a global strategic commodity that has powered the world economy since World War II. It was the prize that the victorious powers sought to control in the post-colonial era to ensure access to the oil reserves of the Middle East and North Africa and secure transit routes. At the time, Russia was not the energy powerhouse it is today nor was the United States among the top oil producers while the North Sea was not on the radars of the multinational oil companies.

Historical producer-consumer distrust

The Western powers needed oil for the post-war reconstruction effort and they were in a position to determine production levels and prices since the Western international oil companies had divided the prolific concessions in the Middle East and North Africa among themselves and were in control of the entire value chain. They were, therefore, both the producers and the consumers of oil before the resource holders won independence and subsequently nationalised their oil and gas industries. It was decolonisation and globalisation of energy trade and investment flows that caused the interests of producers and consumers to diverge. The producers sought to maximise their revenues from oil to build modern economies while the major consuming nations of the Organisation of Economic Cooperation and Development (OECD) found themselves trying to reduce their reliance on the production policies and prices set by the newly empowered producing nations. There was little convergence of interests and no institutional framework for dialogue between the two sides.

The producers, determined to shed the vestiges of control by the big international oil companies of the day, came together in 1960 and created OPEC. The consuming nations were not championed by any single organisation until after the 1973 oil embargo. This amplified the mistrust between producers and consumers that was to linger for decades. In 1974, the International Energy Agency (IEA) was established as the energy arm of the OECD with a mandate to represent the interests of energy consumers and ensure security of supply in the event of disruptions. It was an era of confrontation characterised by an absence of trust and little scope for compromise that did not serve the interests of either side.

As they sought maximum revenues, the producers failed to consider the impact that higher oil prices had on demand while the consuming nations began to practice energy conservation and explore new frontiers. As oil prices rose, the vast reserves of the North Sea became commercially viable and production began to rise to levels that challenged the dominance of the OPEC producers' club. Brent Blend crude oil produced in the North Sea emerged as the global price benchmark in the free physical market, a position it retains to this day. Further increases in production from non-OPEC states, including the United States, eroded OPEC's price-setting power, but not its ability to balance supply and demand by increasing or decreasing oil production, a mechanism it has used effectively over the years though not always with the desired effect. For example, in 1997, OPEC raised its oil production just as the Asian economic downturn was taking hold. It was a move that might have been prevented through better access to data and information, which was lacking at the time. This cost the OPEC producers and demonstrated the absence of effective communication between producers and consumers, particularly in non-OECD Asia that was to emerge as the main driver of energy demand growth years later.

From confrontation to global partnership on the IEF platform

Though energy security was high on the international agenda of energy importing and exporting countries, a global partnership on energy security still proved elusive. Initiatives led by France to address energy security considerations through inclusive producer-consumer dialogue made little progress because of the atmosphere of mistrust that prevailed. The end of the Cold War between the two superpowers and the collapse of the Berlin Wall in 1989 gave way to the emergence of the newly independent states of the former Soviet Union and the end of communist rule in Eastern Europe. These developments altered the supply-demand dynamic with the rise of new energy producers and demand from the liberalising economies of Eastern European states.

The defining moment from an energy security perspective came in 1990-91. Iraq's invasion of Kuwait in the summer of 1990 had implications for both producing and consuming nations in the region and beyond. As some 5 million barrels per day of production was lost from Iraq and Kuwait, the debate was whether OPEC alone should tap into its spare capacity and increase supply to make up for the shortfall, or whether the IEA would contribute to the effort by ordering the release of strategic stocks held by its members. It was this development that led to the first communication between OPEC and the IEA through informal channels.

It was a momentous event that redefined international relations while demonstrating the power of collaboration in pursuit of a common cause. While some argued that a freely functioning oil market would adjust to any shock without outside interference, others saw the need for an impartial supervisor of market activity to ensure transparency and to avoid communication being misconstrued as collusion. It was the Gulf War that set the stage for the move towards establishing a neutral ground where energy producers and consumers could meet and eventually led to the creation of the International Energy Forum.

3. Managing risks and opportunities in the Age of Change

Mitigating and managing risk is an inherent part of an evolving energy landscape. As the physical and futures markets have grown, the use of oil as a financial instrument by traders and other market stakeholders to manage risk can affect oil price movements independent of physical supply-demand fundamentals. The risk of excessive volatility caused by poor insight into lightly regulated financial markets can, in turn, have a disruptive effect on investments in the oil supply chain. In the wake of the 2008 financial crisis, the leading world economies in the Group of Twenty (G20) asked the IEF, OPEC and the IEA to look into these developments to enhance transparency and deepen understanding of the complex interactions between physical and financial markets, and help set guidelines for price reporting agencies in close collaboration with the International Organization of Securities Commissions (IOSCO). Two very important meetings took place to formalise this working relationship.

Genesis of the dialogue – Jeddah and Cancun Meetings

Over the past three decades, the producer-consumer dialogue has strengthened international engagement on energy security through global partnerships that the inclusive platform of the IEF offers. The value of these gatherings with the participation of senior energy industry executives representing the energy value chain has helped to foster better understanding of the challenges faced by producers and consumers. They have resulted in most instances in key collaborative initiatives, while the dialogue continues to evolve in response to disruptive technologies that are upending the traditional concept of energy security.



His Majesty King Abdullah bin Abdulaziz launches the JODI World Database on 19 November 2005



Jeddah Energy Ministerial on 22 June 2008



For example, the spike of oil prices to \$147 in 2008 resulted in lower demand, stepped up energy conservation measures in consuming nations and production increases from high cost oil plays. Indeed, it was this price increase of 2008 that marked the start of the shale oil revolution in the United States. There was also a recognition that it was not in the interests of either producers or consumers to allow prices to remain at levels that would result in demand destruction while placing a burden on oil consumers, especially in the developing world. Such was the concern over the elevated oil price that the late King HRH Abdullah bin Abdulaziz Al Saud of Saudi Arabia called for an urgent meeting of producers and consumers in Jeddah in June 2008 with the support of the IEF. This was followed by a series of further meetings in London, Riyadh, and Paris between 2008 and 2010 to address the architecture of the producer-consumer dialogue and the problem of oil price volatility.

When oil prices subsequently dropped to \$30/bbl following the 2008 financial crisis, there was a sense that weak oil prices would have a negative impact on investments and ultimately harm consumers. At the 12th IEF ministerial hosted by Mexico in Cancun in 2010, one of the most significant IEF ministerial gatherings, IEF ministers along with the G20 agreed on the need for enhanced energy data transparency, a better understanding of energy outlooks, and a deeper analysis on the activities of oil price reporting agencies. They also agreed that global energy market governance needed improvement, and this was best done through the IEF platform.

The agreement was formalised in the IEF12 Cancun Ministerial Declaration containing recommendations and an implementation plan, as well as the agreed areas of cooperation between the IEA, IEF, and OPEC. The establishment of the Trilateral Work Programme between the three organisations has helped to inform IEF Ministerial Meetings with robust analyses on future trends. The IEF Charter was adopted at an Extraordinary IEF Ministerial Meeting held on 22 February 2011 in Riyadh and circulated as an official document by the Secretary General of the United Nations to safeguard the informal, inclusive nature of the IEF dialogue and reinforce the commitment of producing and consuming countries to this unique global partnership. It was a watershed moment, and the formalisation of an international consensus that preventing excessive oil price volatility was in the security interests of both consumers and producers.

The role of the IEA-IEF-OPEC Trilateral

Although the three organisations represent different interests, this was an area that affected the energy complex as a whole and where producer and consumer interests converged because of the adverse effect that excessive oil price volatility or poor insight into price formation and reporting practices was having on market confidence and investment decisions. While, the IEA maintains that market forces alone should be allowed to determine price, OPEC relies on production management to balance markets and provide price stability. This has not prevented collaboration between the organisations at the technical and expert level. The IEF, IEA and OPEC work closely together through JODI, the oil and gas database that has grown in scope and relevance over the years. Technical experts from the three organisations meet regularly to compare their findings and analyses in order to bridge the gap between the baselines used in modeling their short, medium, and long-term outlooks. It is worth looking at the functions of the IEF's two main international partners -- the IEA, OPEC -- and their mandates.



12th International Energy Forum on 30-31 March 2012 in Cancun, Mexico

The IEA, the semi-autonomous energy watchdog of the OECD, has above all the mandate to ensure the energy security of its members. IEA members are required to hold emergency oil stocks equal to at least 90 days of net oil imports. The IEA secretariat can, in consultation with members, order the release of emergency stocks in the event of supply disruptions though it is a tool that has been used sparingly. The Paris-based IEA fosters cooperation on energy policy and technology and has widened the scope of its work in recent years to include renewable energy, energy efficiency, and new technologies that are driving the energy transition. It has also reached out to non-OECD member countries like China and India, the key drivers of energy demand growth globally, bringing them in as Association Countries, since as non-members of the OECD, they cannot be full members.

On the producer side, OPEC works to stabilise oil markets through output policy coordination, including the deployment of spare capacity in response to short-term disruptions and collective efforts to keep market volatility within an acceptable range. The dramatic rise in U.S. shale oil production shifted the balance of power, prompting an alliance between OPEC and Russia and several other non-OPEC producers that was informally negotiated on the sidelines of the IEF15 Ministerial in Algiers in 2016. The relationship has survived since the “Declaration of Cooperation” which was formalised in 2016 and renewed under the “Charter of Cooperation” in 2019.



15th IEF Ministerial Forum on 26-28 Septemebr 2016 in Algiers

The IEF plays a crucial role in this partnership as an intermediary between the IEA and OPEC. As its name suggests, the IEF serves as a forum for open discussion and exchange of ideas, although it does not issue directives or resolutions that are legally binding on its members. Its membership includes OPEC and IEA member countries as well as key unaffiliated countries such as Russia, China, India, Argentina, South Africa, as well as transit countries. The continuous dialogue facilitated by the IEF helps to provide clarity and shed light on the main challenges and trends that are emerging in the global energy arena and helps set the agenda for the biennial ministerial meetings.

Dialogue in an evolving risk environment

As the energy landscape has evolved so have the risks associated with it. The quest for stability requires greater dialogue as energy market dynamics have become more complex, giving rise to a new set of energy security concerns. The geopolitical upheavals of 2011 when several Middle Eastern and North African countries were convulsed by revolutions, tensions related to Iran's nuclear programme, the closure of Japan's nuclear power plants after the March 2011 Tsunami were just some of the events that exerted bullish pressure on the oil and gas markets, driving oil prices back up above \$100 per barrel.

Sustained high oil prices and security of supply concerns were catalysts for the dramatic rise in unconventional oil production in the US. Following the oil market downturn in late 2014, unconventional US oil and gas production become more resilient due to cost reductions and new drilling techniques. But as the US has emerged as the world's largest producer and exporter of oil and refined products, it has, in effect, become part of the global energy market having been insulated in the past by a ban on oil and gas exports beyond its immediate borders. The new role of the US, a major player in international oil and gas markets, makes it both vulnerable to price volatility but also one that is having an immense impact on global energy supply. The rapid growth of US supply in a short period is partly responsible for the collaborative effort between Moscow and Riyadh on energy policy. Furthermore, the continued resilience of US shale oil producers has made it easier for the market to absorb supply shocks caused by sanctions on some producing countries, political upheaval in others, or due to weather-related or force majeure disruptions. Yet, continued instability can impact energy security and market stability in the medium- and long-term if imbalances become entrenched.

As the US has achieved a greater level of self-sufficiency in oil and gas, its energy imports have declined, leading to a geographic shift in oil and gas trade towards the fast-growing Asian market. Given that oil and gas demand growth will be driven largely by markets in non-OECD Asia, led by China and India, security of supply in the East of Suez market has gained in importance. The Asian market relies heavily on Middle Eastern exporters and to a lesser extent, African exporters, for its oil and gas supplies, and this has implications for investment decisions to guarantee security of supply to the Asian market in the future.

The volatile price environment of the last decade and the 2014 oil price collapse led to an unprecedented decline in upstream investments in the ensuing years, raising the prospect of supply shocks later this decade. At the same time, investments in value added downstream refining and petrochemicals joint ventures by Middle Eastern National Oil Companies, both in their home countries and in several large Asian consuming countries, has grown significantly and may yet lead to overcapacity and more competition with other suppliers of refined products such as the US. Producers will have to make up for the backlog and add new oil upstream capacity to respond to growing demand in both OECD and non-OECD countries. Informed dialogue is essential if producers and consumers are to understand the implications of these structural changes and adapt their policies accordingly in the interest of global energy security.

Beyond fundamentals: New policy and technology dimensions

Energy transitions that are now underway have created urgency in the minds of policymakers on how to best adapt policy to integrate new technologies that promise to reshape traditional models and empower the consumer. This also includes finding pathways to achieving shared goals, including universal and affordable access to modern energy services while keeping the average global temperature rise to no more than 2°C by 2100.

All these developments add important new dimensions to the producer-consumer dialogue. Though the discussion on energy security had so far focused primarily on the impact of investment and trade patterns on supply and demand balances of fossil fuels, perceptions are changing due to rising global awareness on the need to diversify energy sources and limit emissions from hydrocarbons. The IEF has recognised the need to engage with a wider range of technologies to accelerate orderly energy transitions and contribute to the attainment of sustainable development and climate goals. This includes the pace of integration of new technology options in both hydrocarbon and renewable energy industries, in which light tight oil, liquefied natural gas, hydrogen, electrification and the role of the circular carbon economy will be important factors. The manner and pace of deployment of these energy sources, and how new technologies are integrated into new energy models, will shape investment decisions. If managed in a collaborative and timely manner, these new developments will greatly contribute towards providing sustainable, affordable, and accessible energy to all without compromising energy security.

4. International dialogue and cooperation in pursuit of global energy security and climate goals

Adoption of the 2030 Agenda for Sustainable Development at the United Nations Sustainable Development Summit on 25 September 2015, and the landmark “Paris Agreement” concluded by the 21st session of the Conference of the Parties to the United Nations Framework Convention on Climate Change in December 2015, were defining moments for the community of nations. Heads of State from more than 150 countries attended the Paris meeting and pledged to pursue efforts to reduce greenhouse gas emissions with the aim of limiting the increase in overall emissions to 2 degrees Celsius over pre-industrial levels and endeavour to limit the increase to 1.5 degrees Celsius to reduce the risks and impacts of climate change.

Although the historic agreement provided the impetus for more concrete action to decarbonise the global economy, change will not come overnight. This is not a process that can be detached from fossil fuels where price movements can determine the pace of energy conservation efforts and fuel switching. High oil prices tend to encourage energy efficiency while lower oil prices can lead to complacency in consuming nations and delay the adoption of cleaner energy solutions. The inter-relations between the different fuel sources that are vital to the health and growth of the global economy make dialogue and knowledge-sharing by stakeholders across the energy value chain a necessary imperative. The IEF will be an active facilitator of this process now and in the future.



13th International Energy Forum on 13-14 March 2012 in Kuwait City

An enhanced role for dialogue: Milestone IEF Ministerial Meetings

Biennial IEF Ministerial Meetings are central to the dialogue amidst shifting energy priorities. As the largest gathering of energy ministers in the world, the IEF Ministerial is the ideal global venue to discuss challenges facing the global energy environment and to work collaboratively on potential solutions.

For example, IEF ministers took up the challenge to accommodate the structural changes in the energy market and policy shifts by sharpening focus on the implications for global energy security and the architecture of global energy governance. The 13th and 14th biennial International Energy Forum Ministerial Meetings held in Kuwait on 12-14 March 2012, and in Moscow on 15-16 May 2014, focussed on energy security and ways to reduce excessive energy market volatility by consolidating global partnerships through the initiatives launched at IEF12 in Cancun. Ministers followed up on their promise to include energy poverty alleviation as the 9th United Nations Millennium Development Goal, that later became the 7th UN Sustainable Development Goal, and placed emphasis on energy efficiency in hydrocarbon supply chains to deliver a sustainable energy future.

At the 2018 IEF ministerial in New Delhi, “The Future of Global Energy Security: Transition, Technology, Trade and Investment,” ministers placed emphasis on affordability. This includes making energy supply chains more efficient and sustainable and acknowledging the indispensable role of new financing mechanisms, clean energy technologies, including natural gas, and micro grids for healthy and inclusive growth. Prime Minister Narendra Modi shared his energy vision as comprising four pillars – energy access, energy efficiency, energy sustainability and energy security – and called for a mutually supportive relationship between producers and consumer. IEF16 delegates also focussed dialogue on the roles of fossil fuels and clean energy technologies, including renewables, and how the two can co-exist in a transformed energy landscape, respond to the global energy challenge, and provide affordable energy for all.

Looking forward, the IEF17 International Ministerial Energy Forum, hosted by Saudi Arabia with Morocco and Nigeria as co-hosts, will convene in Saudi Arabia in 2021 on the theme “Vision for a New Era; The Producer-Consumer Quest for Stability, Change and Growth.” Gathering energy ministers, industry leaders, and heads of international organisations one day in advance of the G20 Energy Ministers Meeting, the IEF17 will provide an opportunity to strengthen energy security by focusing dialogue on these themes and issues. IEF17 findings can be further considered for the G20 Energy Ministers Meeting to take forward in new initiatives in collaboration with the IEF and other relevant international organisations.

Looking into the future

Although the debate over the future energy mix is important to assess investment requirements, energy demand growth forecasts point to future challenges if the current sluggish investment in new upstream capacity persists. The United Nations estimates that the world population will grow from around 7.55 billion today to more than 11 billion by the end of this century, when Africa, accounting for more than 88 percent of this growth, is expected to equal Asia in population. OPEC projects non-OECD energy demand will grow by 100 million barrels of oil equivalent per day (mboe/d) by 2040, compared with 3 mboe/d in OECD countries. Led by India, China and Nigeria, the combined shares of Asia and Africa in world energy demand growth will amount to around 75 percent by 2040.

In most scenarios, hydrocarbons are expected to dominate the global energy mix until at least the 2050s. Advances in clean energy technologies such as carbon capture use and sequestration (CCUS) if deployed on a larger scale could ensure that oil, gas and, to a lesser extent coal, can continue to play a role in supplying the global market even as renewable energy is making inroads in the electricity and transportation sectors. However, not all sectors can be electrified, and, in some areas, there are few or no alternatives yet to oil and gas. Future energy demand and supply levels will be determined by demographics, market conditions, tax and regulatory incentives, and national economic and environmental policies, all which influence investment decisions by the industry. A comparison of long-term scenarios that take account of both existing new and alternative policies in outlooks to 2040 published by the IEA and OPEC provide guidance as to the level of investments needed to balance supply and demand.

Technology and policy are not static, and any gap in investments by misreading these trends could potentially lead to supply-demand imbalances in the future with implications for energy security. The methodologies used to model energy outlooks warrant regular discussion among policymakers, industry executives, and other stakeholders. The IEA-IEF-OPEC Symposia on Energy Outlooks provide a detailed comparison of these outlooks and the annual gatherings have contributed to a better understanding and comparability of energy outlooks.



IEF-Kapsarc Meeting on Open and Transparent Energy Data Ecosystems, Policy Scenario Models, and Tools

Conclusion

Established as a neutral body for informal and open dialogue to depoliticise relations between interdependent energy market stakeholders, the IEF has proved its relevance for the future since its establishment. It has done so by adapting to changes in the energy landscape, expanding its knowledge base, and by successfully consolidating its position as an invaluable platform for dialogue for energy producers and consumers in their common pursuit of energy security, market transparency, and orderly transitions. Where there was conflict, the IEF provided a safe haven for discussion without prejudice. In upholding the principle of objectivity and by keeping an open mind to the winds of change, the IEF has evolved with the times in order to better serve its members and the global energy community. As the depository of the global JODI energy database, it has contributed to the energy security agenda where transparency and accurate data are ever more essential as the center of gravity of energy markets shifts to the non-OECD region.

From an era that was dominated by oil and little else, the energy world has matured and evolved as new technology and unconventional sources of energy have come into play, upsetting traditional models. The IEF Secretariat and its dedicated staff have kept up with these changes and widened the scope of their activities to incorporate the new trends into their programme of work and through partnerships with other multilateral organisations. The IEF's evolution can be tracked in the themes selected for its biennial ministerial meetings, which are the world's largest gathering of energy ministers. These IEF ministerials have resulted in concrete measures being adopted to enhance energy market transparency, energy efficiency and energy security. In fostering a better understanding between the two sides on the energy security needs of the other, the IEF assists in maintaining global energy security and achieving orderly energy transitions. Technology and new ideas cannot bring about change in a vacuum. It is above all up to governments to set enabling policies and pass legislation needed to accommodate change. The IEF's role in bringing together policymakers and industry leaders at the highest level should be seen in this context. The IEF today is best positioned to take the global partnership between producer and consumer countries forward into a new era in the interest of all market stakeholders.

ENERGY SECURITY

Through Dialogue

MARKET TRANSPARENCY

Through Dialogue

ENERGY TRANSITIONS

Through Dialogue

IEF MINISTERIALS

30 YEARS OF IEF DIALOGUE

1991 – IEF1

Ministerial Seminar

Host: France

Co-host: Venezuela

1992 – IEF2

Ministerial Workshop

Host: Norway

Co-host: Egypt & Italy

1994 – IEF3

3rd International Energy Forum

Host: Spain

Co-host: Algeria & Mexico

1995 – IEF4

4th International Energy Forum

Host: Venezuela

Co-host: European Commission & Russia

1996 – IEF5

5th International Energy Forum

Host: India

Co-host: Brazil & Norway

1998 – IEF6

6th International Energy Forum

Host: South Africa

Co-host: Qatar & United Kingdom

2000 – IEF7

7th International Energy Forum

Host: Saudi Arabia

Co-host: Japan & Netherlands

2002 – IEF8

8th International Energy Forum

Host: Japan

Co-host: Italy & United Arab Emirates

2004 – IEF9 IEBF1

9th International Energy Forum

1st International Energy Business Forum

Host: Netherlands

Co-host: Iran & Norway

2006 – IEF10 IEBF2
10th International Energy Forum
2nd International Energy Business Forum
Host: Qatar
Co-host: China & Italy

2008 – IEF11 IEBF3
11th International Energy Forum
3rd International Energy Business Forum
Host: Italy
Co-host: India & Mexico

2010 – IEF12 IEBF4
12th International Energy Forum
4th International Energy Business Forum
Host: Mexico
Co-host: Germany & Kuwait

2012 – IEF13 IEBF5
13th International Energy Forum
5th International Energy Business Forum
Host: Kuwait
Co-host: Algeria & Netherlands

2014 – IEF14
14th International Energy Forum
Host: Russia
Co-host: Iraq

2016 – IEF15
15th International Energy Forum
Host: Algeria
Co-host: Argentina & Kazakhstan

2018 – IEF16
16th International Energy Forum
Host: India
Co-host: China & Korea

2021 – IEF17
17th International Energy Forum
Host: Saudi Arabia
Co-host: Morocco & Nigeria

IEF MINISTERIALS
30 YEARS OF IEF DIALOGUE



www.ief.org



www.jodidata.org



**ENERGY
SECURITY**

Through Dialogue

**MARKET
TRANSPARENCY**

Through Dialogue

**ENERGY
TRANSITIONS**

Through Dialogue

