

FIFTH IEF-IGU MINISTERIAL GAS FORUM



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GAS FOR GROWTH: IMPROVING ECONOMIC PROSPERITY
AND LIVING STANDARDS

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1. SETTING THE SCENE

PHYSICAL MARKET TRENDS, WHAT'S NEW?

- More abundant supplies, weaker than expected demand growth, and the global spread of new technologies have enabled greater and more diverse gas trade between supply and demand centres. This has made gas markets more competitive and the terms of trade more short-term and flexible between a more diverse range of gas producers and consumers.
- Falling oil prices, rising supply, and greater competition among energy sources all contribute to the decline of gas prices a narrowing of price differentials between regions, and impact gas trade and investment. This is likely to further increase competition between pipeline and LNG supplies, and result in deferred final investment decisions on new upstream and infrastructure projects.
- In response to these new developments the industry seeks to:
 - re-examine longer term investment plans and business models
 - reinforce greater cost efficiencies along gas supply chains
 - reassess their competitive edge relative to new market entrants
 - reevaluate their value proposition to existing and new consumers
 - reengage the wider public on how gas benefits societies
- Some observers view these changes in physical gas markets as a transformative process towards greater commoditisation that will bring a more flexible and liquid global gas market. Gas pricing mechanisms and producer-consumer relations will change accordingly to the benefit of overall gas market security they say.
- To others, these changes do not take away from well-established business models specific to the gas sector, such as risk-mitigating long-term contracts in what remains a capital-intensive field. Abundant gas supplies are explained by the entry into operation of gas projects launched during the last investment cycle when high gas prices incentivised producers and consumers were eager to secure supplies through firm off-take guarantees in a then resource-constrained world.

SETTING THE SCENE

SUPPORTIVE POLICIES, MIXED VIEWS

- The future of gas should be bright whether changes in the physical gas market are here to stay, or reflect just another cycle. 21st century demographics require economic prosperity and living standards to increase across societies. They demand that national government policies and industry strategies work in concert to achieve healthy energy matrices and implement collectively agreed global goals, such as those recently laid down in the UN Paris Agreement on Climate Change or the 2030 Agenda for Sustainable Development.
- Most governments and oil and gas companies embrace gas since its properties help:
 - Fortify energy security
 - Diversify economies
 - Improve air quality
 - Reduce global warming
 - Facilitate energy access

- But views on the future role of gas differ across regions and in producer and consumer assessments. They are influenced by the relative share of gas in energy matrices, gas import and export dependencies, views on the share of renewables and the deployment rate of clean energy technologies¹ in longer term energy outlooks, and last but not least, increasingly so, the preferences of end consumers.
- Despite the many apparent advantages gas offers in providing practical solutions to energy security and sustainability questions, and the relative ease with which it can be used to back up, or displace fuels across sectors when and where more sustainable solutions are not available, it still appears to lack traction. In Europe where gas market penetration is generally high, the competitive advantages of gas are called into question by inter-fuel competition with coal and renewables, increasing import dependency and public acceptance. The absence of comprehensive and interconnected inland infrastructure also plays into this equation.
- In Asian growth economies gas market penetration is generally low, but demand growth is set to increase strongly over the coming decades. Alongside the energy security and economic opportunities gas provides across sectors of these economies, gas can make a large and easily scalable contribution in improving health and well-being in large urban and related industrial centres. Here public considerations prevail over the social economic and cost advantages of more carbon intensive sources, intermittent renewables, or more technology intensive energy sources.
- Producer countries are naturally more bullish on the share of natural gas in future energy matrices but the Organization of the Petroleum Exporting Countries (OPEC) has revised down its assessment of the share that natural gas may take in global primary energy demand from 28% to 26.6% in 2040.² Consumer countries are less upbeat on the role of gas over the next two and a half decades and project that gas' share in total global primary energy demand will reach around 24% in 2040.³
- Meanwhile the United States made the switch from being a net LNG gas importing country to being a net LNG gas exporter in March this year as JODI Gas data reveals and projects the share of natural gas to reach 26% in total global energy demand by 2040.⁴ Russia views on the share of natural gas in total global energy demand are more moderate too, projecting a share of 24% in 2040.⁵

2. RISKS AND OPPORTUNITIES

ROLLING DIALOGUE ON GAS MARKETS

- Enhanced dialogue on risk and opportunities is needed to understand what the current gas market dynamics imply for government policy in respect of energy security, healthy energy matrices, and sustainable economic growth. Government energy policy and gas industry investment decisions to increase prosperity and profitability over the longer term, must be flanked by an ongoing data-driven dialogue. Building relations of trust through enhanced data and policy transparency boost investor confidence and help stake holders to timely identify and seize new opportunities as well as emerging risks in more rapidly evolving world energy markets.

¹ Including Carbon Capture Use and Storage, Ultra-Super Critical Power Generation, Efficiency gains and new energy transformation processes such as Power to Gas, Small Scale LNG, Natural Gas Vehicles, the role of Smart Grids, etc.

² OPEC (2016) World Oil Outlook, OPEC (2015) World Oil Outlook

³ IEA (2016) World Energy Outlook, IEA (2015) World Energy Outlook

RISKS AND OPPORTUNITIES IN OLD AND NEW CORNERS

- Capacity does not equal volume. Increased gas market flexibility created through a denser midstream sector with more diverse cross-border pipeline routes, LNG trade capacity, and storage facilities does not automatically translate into greater gas market security. Availability and access to upstream gas resources including adequate linkages to export facilities and downstream demand centres remains key. Depending on fluctuations in gas demand and supply that can tightening or loosen regional markets, idling capacity or throughput constraints may occur. Impacts can propagate more widely across countries and regions in a more interconnected energy market.
- The consequence of lower gas prices are higher gas prices. Present day investment reductions affect gas markets in the longer term when demand in turn outstrips supply and elevates prices. Volatility creates hurdles that limit the ability of governments and industry to enable gas to contribute to healthy and prosperous societies.
- Though gas demand growth may have slowed down due to weaker economic performance, the next economic upturn may limit demand growth without clear long term government policies and market signals, including transparent gas price discovery mechanisms that operate on a level playing field relative to other energies, sound contracting practices that take on board the legitimate interest of producers and consumers, and the implementation of energy sector-wide performance standards.

RISKS AND OPPORTUNITIES IN A WIN-WIN ENVIRONMENT

- Notwithstanding basic risks assessments, it is not unreasonable to expect that gas is likely to play a larger role for longer in keeping up with future global energy demand. This assumes of course that governments devise accommodating policies, and industry adequately responds to new energy market realities. For this to happen concerted action is needed.
- Ministers gathered at the 15th International Energy Forum hosted by Algeria in September 2016 pointed at the window of opportunity that the current gas market creates to help enhance the sustainability of energy matrices, including health and wellbeing by improving air quality in major urban centres.
- The present market environment offers gas import-dependent economies with an opportunity to benefit from greater supply flexibility and resource availability. Locking in volumes on more preferential terms than were on offer in tighter gas markets is rational when the opportunity presents itself.

When consumers go long in the present gas market, success depends on adequate infrastructure investment in their downstream markets, as well as energy policy and regulatory adjustments to secure demand. This offers new business opportunities for producers creating a win-win environment that increases economic prosperity and living standards in support of global goals.

4 EIA (2016) Energy Outlook

5 Analytical Centre of the Government of the Russian Federation (2016) Energy Outlook

- The present market environment is characterised by rising spot trades and shorter term gas contracts that is enabling the emergence of more transparent price formation mechanisms and risk management tools through hubs and LNG future contracts respectively that may well complement, and or innovate on other arrangements.
- The impact of new market entrants on both the supply and demand side of international gas markets brings greater liquidity, commoditisation, and competition to global gas markets. However, the importance of bilateral relations built up between gas producers, consumers and traders over the past decades remain critical for longer term gas market security.
- The necessity of strengthening these relations, and the trust, understanding and knowledge-base that is built through enhanced dialogue has never been greater. The IEF and its partner organisations stand ready to facilitate this important process, and to explore the role of gas in an orderly energy transition.

3. KEY OBSERVATIONS

PLAIN VANILLA

- IEF offers the following ‘plain vanilla’ observations on gas markets to help frame discussions:
 - Gas demand will continue to grow to 2040, especially in Asia growth markets.
 - LNG trade and new price signals create a global gas market with new risks and opportunities.
 - Abundant gas supplies mean reductions and deferrals in LNG and upstream investment.
 - Lower spot prices exert pressure on the prospects for higher long-term prices which remain subject to renegotiation.
 - But when gas markets tighten, spot price spikes may be harder to manage without lasting long-term relations and understandings.
 - Traditional contract clauses on price indexation, destination, nomination and others are eased.
 - New LNG exports can reduce gas prices in other regions in the new geography of energy exemplified by the panama channel expansion.
 - Gas is likely to play a larger role for longer in keeping up with future energy demand when dialogue continues with all stakeholders on a rolling basis.

4. GAS MARKET TRANSPARENCY

THE IEA-IEF-OPEC TRILATERAL WORK PROGRAMME, JODI AND BEYOND

- Energy Ministers have repeatedly stressed their continued support for improving market transparency by means of the fruitful dialogue that the IEF pursues through the IEA-IEF-OPEC Trilateral work programme. Alongside dialogue on energy outlooks this includes the Joint Organisations Data Initiative (JODI), a flagship collaboration of eight international organisations⁶ coordinated by the IEF, and which is now one of the main pillars of energy market transparency.

⁶ APEC, Eurostat, GECF, IEA, IEF, OLADE, OPEC, and UNSD

- After the successful public launch of JODI-Gas during the 14th International Energy Forum (Moscow, May 2014), one of the most important areas of work on the JODI agenda is ongoing improvement of the oil and gas databases, through strengthened coordination and more widespread and committed participation by countries that are members of the Partner organisations.
- Gas market data transparency stands to be improved with intensified efforts to understand and learn from price formation mechanisms and reporting practices in Asian and other regional markets, capacity-building in statistical bureaux, knowledge-sharing, and broader dissemination of the data.
- Ministers gathered at the 15th International Energy Forum (Algiers, September 2016) stressed the importance of market visibility and stability in ensuring long-term investment for large scale projects, while noting better information also enables more flexible industry responses to boost gas market resiliency and open up new growth opportunities.
- To further facilitate gas energy market transparency, a JODI 5-year plan was endorsed by the JODI partner organisations. This includes improving existing JODI-Oil and JODI-Gas data in terms of timeliness and completeness of reporting, as well as enhancing the visibility and user friendliness of the platform. An exploration of options to improve coal market data is ongoing. This will help to better understand gas market interactions with other energy technologies.

5. CONCLUSION

ROLLING DIALOGUE - A KEY FORCE FOR AN ORDERLY ENERGY TRANSITION

- Producer consumer dialogue is fundamental to collectively overcome risks, and to seize opportunities, especially in an era of more abundant flexible gas markets and interconnecting energy systems. Gas can be a driving force to help achieve an orderly energy transition, and is expected to make the largest contribution to societies across the world when compared to other energy technologies across outlooks.
- A rolling and energy technology neutral dialogue on the evolution of gas markets will help to ensure that gas delivers on economic growth, climate change, and energy transition goals. The dialogue will be well-served by more visible and user-friendly energy market data transparency, and deeper engagement not only among existing partners and stakeholders, but by reaching out and harnessing the expertise of a broader range of international energy sectorstakeholders.
- Stronger public engagement through fact based and transparent communication strengthens acceptance across societies of the role that gas can play in shaping a prosperous and healthy energy future.
- Building on the outcomes of the preceding IEF-IGU Ministerial Gas Forums, the 15th International Energy Forum, and work in other energy governance platforms, the 5th IEF-IGU Ministerial Gas Forum hosted by the government of India in New Delhi on 6 December 2016 presents a golden opportunity to enhance dialogue and assess the risks and opportunities these new dynamics present to gas consuming and producing countries, as well as to the more diverse range of companies involved in the international gas industry.
- Gas is likely to play a larger role for longer in keeping up with future energy demand when dialogue continues with all stakeholders on a rolling basis. The opportunity has never been greater to strengthen relations through enhanced dialogue on the role of gas in an orderly energy transition.