EVENT BRIEF

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Second Gas Data Transparency Conference

Doha | Qatar | 22-23 May | 2012

Main discussion topics and findings

Contents

Key Insights from Doha

- One can have fast data or accurate data, but not both.
- While *annual* gas data tend to be quite good, timely and accurate *monthly* data are tougher to find.
- There is no single comprehensive source of global natural gas data available.
- A global gas database would greatly reduce the need for market actors to cross-check data sources.
- Since supply and demand balances are the fundamental driving forces of market pricing, timely information about them is critical.
- In North America, the UK, and increasingly in Europe, trading at hubs has provided liquid and transparent pricing information. This transparency has been slow to spread to the rest of the world.
- The projected increase in natural gas demand over the next decades is expected to come primarily from non-OECD countries, with Asia and the Middle East playing a leading role.
- Given shifts in regional demand and the rise in global liquid natural gas trade, there is a clear need for more data on a global scale.

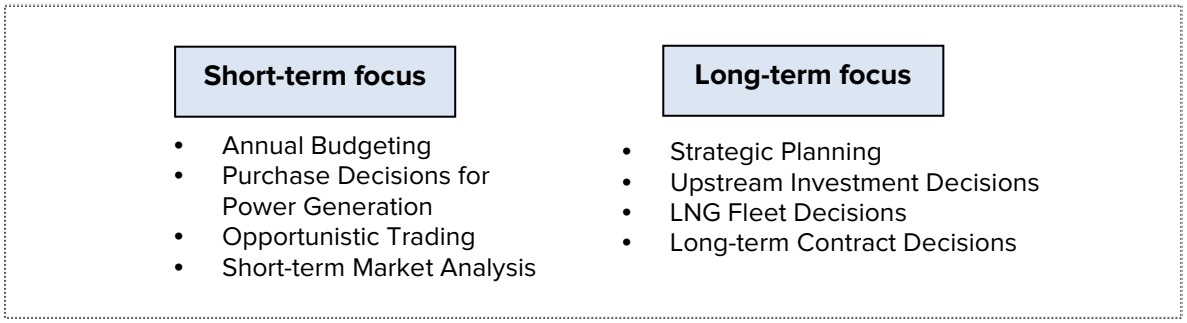
1. Event Background

Last month the International Energy Forum (IEF) held its **2nd Gas Data Transparency Conference** together with the Government of Qatar and its Joint Organisation Data Initiative (JODI) partners. The event was organised in response to requests from IEF Ministers for increased transparency in energy markets. Over 80 stakeholders, including government statisticians, bank analysts and energy company executives, engaged in focused discussions on issues central to gas market data transparency.

2. Selected Points

Participants discussed why **more accurate and timely data are relevant for both public and private sectors**, and for consumers and producers alike. The graphic below illustrates how oil and gas companies use data to make important short-term and long-term decisions:

Figure 1. Short- and long-term uses for gas markets data



Fifty-two countries representing roughly two thirds of global gas demand and supply are now contributing data to the JODI-Gas exercise.

Doha attendees reviewed some of the challenges to JODI-Gas progress and discussed concrete countermeasures. They identified the following among the most salient:

Table 1. Salient JODI-Gas challenges and countermeasures

JODI-Gas Challenges	Related Countermeasures
Confidentiality concerns from companies & lack of political will/support	IEF-led efforts to formalise JODI-Gas into an initiative + to start beta testing JODI-Gas
Lack of personnel trained on JODI-Gas reporting methodology	IEF to lead organisation of additional regional training sessions
Need for data harmonisation for natural gas	The United Nations Statistics Division has agreed to take the lead in creating a JODI-Gas manual

3. Overview: Why The Need for More Transparent Gas Data?

The more than 80 Conference attendees were in **unanimous agreement that natural gas will play a growing role in the global energy mix** in the decades ahead. With that as given, there was ample time to focus on the challenges concerning the availability of gas data and to discuss the potential benefits of more timely and comprehensive data to the public and private sectors alike.

It is safe to say that **almost all market actors would welcome more data**. Conference participants spent a fair amount of time discussing how they use the data that are currently available, and how more data – including reliable, monthly data – could impact analyses, decisions and price-findings in both the short-term and the long-term.

4. How Gas Data Are Helpful in the Short-Term: Understanding Prices

How do market actors use natural gas data in the short-term? **One of the key reasons for scrutinizing short-term data is to develop a better understanding of the root causes of price volatility**.

As market observers know, gas prices can be volatile. In many nations, 30% or more of gas demand is linked to household consumption, which means that changes in weather dramatically impact demand. In addition to the weather, participants noted that when a potentially disruptive market event occurs it is necessary to scrutinize short-term market information to understand prices.

Conference participants also noted that as **natural gas is often considered to be "the marginal fuel"** – meaning that when one fuel supply is off-line or reduced, demand for natural gas rises. As demand for gas is often in competition with other energy sources (i.e. coal, renewables), volatility tends to rise. Along those same lines, the ability to substitute inputs in power generation (switching coal for gas, or vice versa) creates a need for power producers to know what is happening in the short-term, as variations in input prices clearly impact the profitability of electricity producers.

In addition, some industry representatives noted that data are useful for improving opportunistic trading strategies, such as hedging by physical market players. On that note, participants discussed how **the lack of transparency around natural gas tends to create a degree of anxiety in the marketplace, which implicitly encourages speculation** -- rather than investment decisions based on fundamental analysis. If we agree that speculation is to some extent linked to price volatility and we would like to see more stable prices, then the need to work toward the goal of greater gas data transparency becomes even more apparent.

5. How Gas Data Are Helpful in the Long-Term: Strategic Planning

Participants discussed how they use more comprehensive data over longer time horizons, notably for strategic planning purposes – including making upstream investment decisions and structuring long-term contracts.

We learned that **some countries are currently evaluating whether or not to invest in building out their gas infrastructure**, yet they quite naturally face a variety of strategic questions: if they plan to import, which policies will the exporting nations adopt? What long-term pricing arrangements will be in place?

As noted above, some discussants stated that natural gas is often referred to by policymakers and expert consultants as the "back-up" option or the marginal fuel. Some believe that if there is a shortage of some type of fuel, "they'll just use gas."

An important related point discussed in Doha was that gas infrastructure is very capital intensive, which usually means expensive, so market actors must collectively bear this in mind when performing scenario planning. By one rough estimate, **for every $1 spent on a gas fired power plant, $2 must be spent on upstream or infrastructure investment**. Given the long-term investments required through the entire value chain, greater data transparency – of both supply and demand – will help firms and governments alike in making more well-informed and confident investment decisions.

Taking a broader view, participants discussed how sharing information would benefit both consumers and producers:

- **Why should producers want to share more information?** To ensure that buyers of gas -- their customers -- have a good idea about expected future supply levels, and can plan their off-take accordingly.

- **Why should consumers want to share information**? So that producers have a better idea of expected future demand levels, and can plan their infrastructure build-out to ensure adequate and uninterrupted supply.

In other words, producers want to know if there will be demand, and consumers want to know if there will be supply. Reducing the amount of guesswork involved in these analyses will reduce uncertainty and should help reduce price volatility while supporting more informed strategic planning.

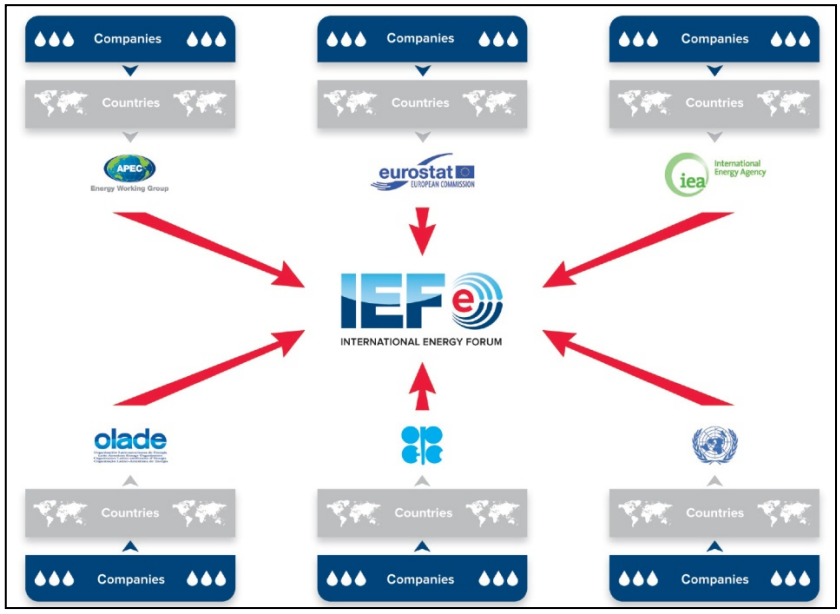
6. JODI-Gas: Challenges and Countermeasures

Participants discussed the various challenges to progress for JODI-Gas, some of which lie in the monthly data collection exercise, as described in this three-step procedure:

1. Representatives from national statistics offices contact natural gas companies in their respective countries to request data, and likewise review data from secondary sources.

2. Natural gas firms provide the requested data to national offices, which then analyse it, fill out the JODI-Gas questionnaire, and pass the data to the JODI partner organisation responsible for that region.

The graphic below shows how JODI data flow from companies to national offices to JODI partners organisations



3. The JODI partner reviews the data, checks for outliers, compares what it receives to secondary sources, clarifies doubts if necessary, and then sends the data to the IEF -- which again checks the data and uploads it onto the JODI website for dissemination.

The aforementioned process may appear to be simple, but years have been dedicated to capacity-building and coordination. Table 2 below provides detailed descriptions of the related challenges discussed at the Doha conference and the concrete countermeasures that were identified.

The IEF has a mandate to help facilitate an informed dialogue among energy producing, consuming and transit states, and to help stakeholders understand what the future holds so they can make more informed decisions today. In that spirit, the discussions and next steps set forth at the recent Doha Conference represent another step forward in our collective quest toward energy security.

Table 2. JODI-Gas challenges and countermeasures highlighted in Doha

JODI-Gas Challenges	Related Countermeasures
Confidentiality Participants noted that **while some nations and companies have concerns about releasing data**, in the end not supplying data has a negative effect on the marketplace -- raising uncertainty and fueling price volatility. **Political Will** Participants discussed how in some cases **companies are not providing data because they are not mandated to do so by law**. Some Conference attendees requested support for the creation of data reporting legislation, while others mentioned that their countries were waiting for JODI-Gas to be launched so that they would feel obligated to participate.	**Moving Forward with JODI-Gas** After conversations with JODI partners, **the IEF will work with JODI partner organisations to transform the JODI-Gas exercise into a permanent initiative**. If JODI-Gas becomes a permanent initiative that should encourage broader participation. **Beta Testing of JODI-Gas** **Launch a beta version of the JODI-Gas database**, which will at first only be made available to participating countries so that they may provide feedback/share insights, with the next step to be a public launch of the database (as soon as technically feasible). This should help to build on the existing momentum.
Lack of Trained Personnel **Technical support and training are vital to improving data quality**, and a lack of expertise or understanding of key definitions or methodologies can be a barrier to sourcing reliable and consistent data. Topics such as measurements, conversion factors and calorific values can be a source of problems when comparing gas data and sources.	**Ongoing JODI Training Sessions** The **IEF will continue to organise regional training sessions**, both to train statisticians and to generate awareness for the JODI principles of cooperation and greater transparency. The IEF is also analysing ideas for **virtual training**, such as webcasts and online demonstrations among others.
Need for Data Harmonisation Gas markets are shifting from being regional toward global – hence the **need for harmonised definitions** to address topics like these: • Definitions e.g. production including flaring and venting – marketed or wellhead? • Units of measurement – energy content is very different • Volume data depending on temperature • LNG often not considered as natural gas imports Participants in Doha underscored the **need for a JODI-Gas training manual**, and possibly the development of a "knowledge-based platform" for the sharing of countries' experience in the collection of JODI-Gas data.	**Development of a JODI-Gas Training Manual** The **United Nations Statistics Division** graciously offered to take the lead in **creating a JODI-Gas manual**. The IEF is also analysing the launch of an online forum through which participants in the JODI could share ideas, ask questions and post answers on technical and policy related themes.

7. Historical Background: JODI and Oil Data

To better understand the current state of gas market data collaboration, it may be helpful to review some brief background information on the multilateral data collection initiative known as JODI.

Back in the late 1990s, Energy Ministers identified the lack of transparent and reliable oil statistics as a key contributor to oil price volatility. Producers and consumers alike stepped up efforts to improve the availability and reliability of oil data, and **Ministers at the 7th International Energy Forum in Riyadh urged a global response to the challenge of greater transparency**.

Six international organisations – APEC, Eurostat, IEA, OLADE, OPEC and UNSD[1] – took up the challenge, combined their efforts, involved their Member Countries and in April 2001 launched the Joint Oil Data Exercise. The primary goal was not to build a database, but to raise awareness among oil market players about the need for more transparency in oil market data. The first priority of the six organisations was to assess the oil data situation in their respective member countries. The assessment included the collection of monthly oil statistics from each organisation's member countries through a harmonised questionnaire on 42 key oil data points.

Progress was immediate: **within six months, 55 countries had participated in the exercise**. Six months later there were over 70 participating countries, representing 90% of global oil supply and demand. At the 8th International Energy Forum in Osaka in 2002, Ministers reaffirmed their political support, and with that mandate the six organisations obtained agreement from their Member Countries to make the Exercise a permanent reporting mechanism -- the Joint Oil Data Initiative was born.

As the process gathered momentum, the quality, timeliness and completeness of submissions all improved. As the scale of the initiative and global interest in it continued to grow it was clear that the information had to be made available in a compatible form: The JODI-Oil World Database was created. **Participants in the 5th JODI Conference in October 2004 then strongly recommended that this joint global database should be made freely accessible to all** – organisations, countries, industry, analysts and journalists.

[1] The full names of the JODI-Oil partner organisations are: Asia Pacific Economic Cooperation (APEC), Statistical Office of the European Communities (Eurostat), International Energy Agency (IEA), Latin American Energy Organization (OLADE), Organization of the Petroleum Exporting Countries (OPEC), United Nations Statistics Division (UNSD).

The IEF Secretariat, which took over the co-ordination of JODI in January 2005, and its partner organisations are fully aware of the limitations of the database, but already for many countries -- especially for the Top 30 producers and consumers -- timeliness, coverage and reliability are at reasonable levels. **The challenge for the organisations now is to increase the coverage to other countries, to reduce the delay in data submissions and to further enhance the data quality**.

JODI: From Oil to Gas

In recent years, Ministers have been calling for JODI to be extended to cover additional fuels. The **JODI-Gas collection exercise was first launched in October 2009**, and has continued to receive support from Ministers – most recently at the 13th IEF Ministerial in Kuwait (March 2012). At present, 52 countries representing around 2/3 of global gas supply and demand are participating. They supply data on production, exports, imports, storage and demand.

The IEF, its six partner organisations and the Gas Exporting Countries Forum (GECF) are leveraging the experience and hard work gained through JODI-Oil. JODI-Gas can benefit from the JODI-Oil experience in several ways. For example, JODI-Gas benefits from the fact that international statistical standards for energy statistics are now available. What's more, JODI-Gas builds upon well-established cooperation among international organisations.

To learn more about JODI, visit www.jodidata.org