



## Energy Infrastructure and Markets Database: Global Gas and Power Module

Comprehensive infrastructure data for strategic analysis, investment planning, and decision support

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In response to clients' needs to track gas and power developments in order to capitalize on opportunities created by the increasingly interconnected markets, IHS has developed the Global Gas and Power Database.



**The Source**  
for Critical Information and Insight™

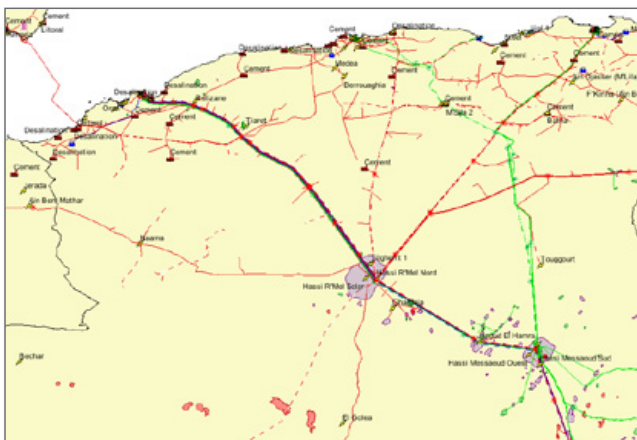
Massive investment in LNG facilities and transcontinental gas pipeline projects has created a truly global gas market. Unconventional gas production in the United States and political events in North Africa now have significant ramifications for LNG price negotiations in Asian markets. The aftershocks of the earthquake in Japan will likely be felt in gas and power markets around the world for a number of years with increased gas fired generation the most likely option exercised to compensate for nuclear plant outages, early retirements and project deferrals.

As power generation continues to be a major outlet for gas in most countries, the gas and power markets remain closely linked. Thus although power generation facilities typically are serving a regional market, with the globalization trend in the gas market, fuel supply planning must take into consideration developments in other markets. Also many gas exporters have growing domestic markets for gas which will impact future export availability.

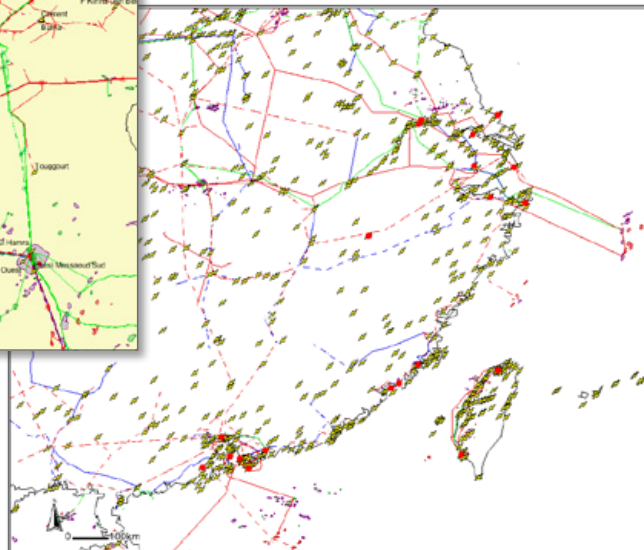
Increased reliance on renewables as well as carbon emissions controls have become business planning issues, as well as mandates in many countries worldwide. Europe's commitment to reduce carbon emissions by 20% as well as increase the share of renewable energy sources to 20% by 2020 will impact fuel usage in power generation and the continent's pipeline and LNG import requirements.

In such a dynamic market environment, stakeholders must stay abreast of key issues and developments all along the gas and power chain on both a worldwide as well as regional basis:

- What is the status of gas pipeline and LNG projects, their capacity and expected online date?
- Who has contracted for the supplies from these projects, volumes and contract terms?
- What is the pace of development of gas fired power generation, petrochemical and industrial facilities in the gas exporting countries?
- How may infrastructure access affect fuel selection for new generation facilities, and what are trends on a country, regional and company basis?
- Where will renewables-based projects have a significant impact on gas usage in power generation?
- Will new gas storage facilities be sufficient to handle seasonal weather patterns and fluctuations as well as back-up generation requirements for renewables?
- What is a competitor's infrastructure ownership position in a target market?
- Where are there opportunities to invest in gas and power projects and who are the current market participants?



*Domestic Algerian gas market developments*



*Southeast China gas-fired power plants and projects (highlighted in red)*

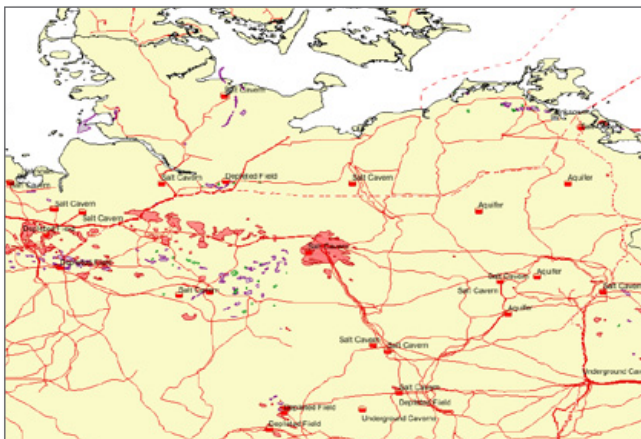
As a leading provider of information and insight to the oil and gas industry, IHS has expanded the scope of its Energy Infrastructure and Markets Database suite of products to provide a comprehensive **Global Gas and Power Database** for in-depth business planning and operations support. As well as existing facilities, projects are captured along with the current status. The content is outlined in the following:

### Gas Pipelines:

- Name
- Type of pipeline
- Status & online date
- Operating company
- Route & length
- Diameter
- Capacity:
  - Time period
  - Reported
  - Estimated
- Looping by segment
- Entry/Exit node capacity

### Gas Storage:

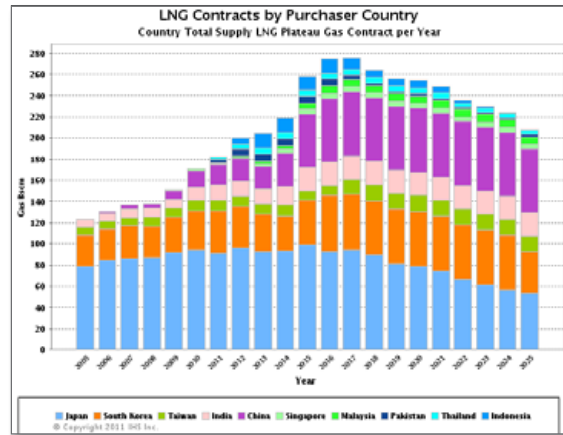
- Name
- Status & online date
- Type of storage
- Operating company
- Storage volume:
  - Working gas
  - Cushion gas
  - Total
- Peak withdrawal capacity
- Injection capacity
- Installed compressor power MW
- Gas quality specifications



N. German gas storage and projects by facility type

### LNG Liquefaction & Regasification Facilities:

- Name
- Status & online date by unit
- Ownership structure and operating company
- Capacity & capacity holders
- Storage capacity
- Number of tanks
- Technology
- Capital cost



Asian LNG contracts by country

### Gas Distribution Structures:

- Gas pipeline and LNG supply contracts:
  - Supplier
  - Time period
  - Plateau volume
- Gas customer profile:
  - Customer type
  - Number
  - Time period
  - Sales volume

### Power Plants:

- Plant type
- Status & online date by unit
- Ownership structure
- Capacity by unit & turbine type
- Primary/alternative fuel by unit

### Industrial Facilities

- Plant type
- Status & online year by unit
- Plant capacity

### Facility Emissions

- Type
- Allocated
- Verified

## Decision Support

Key areas of decision support provided include:

- **Supply Planning** – For key sources of natural gas by pipeline, what are the prospects for increased imports and what additional transit flexibility is needed? What is the status and expected commission date for pipeline expansions and new projects? How prominently will LNG figure into the supply outlook; which projects will advance and when will they be online?
- **Gas Procurement** – What is the contract position of key market participants? How do the volumes and the duration match their primary market needs? Will storage be adequate to handle seasonal demand swings and accommodate volume commitments?
- **Market Analysis** – What are the announced power plant projects, current status and online date? Will there be sufficient gas supplies to sustain the trend toward combined cycle gas fired facilities? How will renewables impact the need for gas fired power generation?
- **Competitor Analysis** – What is the gas infrastructure and power generation market share by company on a country and pan-European basis? What is the customer profile by company? How does this compare with their gas contract position and generation kit?

The database mapping tools also allow users to create custom maps which can provide visual insight into critical questions such as:

- What are the transport options to access a potential customer and how will this change in the future?
- Where are the gas storage facilities in a specific market?
- How can regasification facilities be accessed?
- Where are system bottlenecks?
- How is a competitor positioned along the gas and power chain?
- What is the market potential in a specific region?
- Where are competitors' power generation projects located and what are the fuel types?
- Is there a large industrial base and potential gas market if supplies were available and infrastructure developed?

The Global Gas & Power module can also be seamlessly integrated with IHS' extensive oil and gas field's database to assess the reserves position of suppliers as well as identify new supply sources and the likely timetable for development. **The E&P Essentials Database** provides reserves by field, operator, development status, discovery and development dates, cumulative production and annual production profile.



For more information

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