

# Gas and LNG Sales Agreements

Tehran, April 2018

Jonathan Stern and  
Anthony Way



## The Course Topics

1. *Types of pipeline gas/LNG Sales Agreements*
2. *Gas/LNG Pricing: type of formulae, indexation principle, market value and net-back value*
3. *Price formulae historical evolution in long term pipeline gas//LNG sales agreement, trends and forecasts*
4. *Price review (revision) in long term pipeline gas/LNG sales agreements*
5. *Risks in long term pipeline gas/LNG sales agreements*
6. *The growth of short-term LNG trading*



- **Professor Jonathan Stern**
- **Distinguished Research Fellow and Founder  
OIES Gas Programme**



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# THE PRICING OF INTERNATIONALLY TRADED GAS

EDITED BY JONATHAN P. STERN



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LNG MARKETS  
IN TRANSITION  
The Great Reconfiguration

EDITED BY:  
ANNE-SOPHIE CORBEAU AND DAVID LEDESMA





# Other OIES Research on Gas Pricing in 2011-17

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(free to download [www.oxfordenergy.org](http://www.oxfordenergy.org))

- Challenges to the Future of Gas: unburnable or unaffordable? Jonathan Stern
- Do we have aligned and reliable gas exchange prices in Europe? Beatrice Petrovich
- Does the portfolio business model spell the end of long term oil-indexed LNG contracts, Howard Rogers
- The Evolution of European Traded Gas Hubs, Patrick Heather
- The Dynamics of a Liberalised European Gas Market, Howard Rogers & Jonathan Stern
- Challenges to JCC Pricing in Asian LNG Markets, Howard Rogers & Jonathan Stern
- The Cost of De-Linkages Between Europe's Gas Hubs; European Gas Hubs: How Strong is Price Correlation? Beatrice Petrovich
- Gas Price Reform in India: implications for the Indian gas landscape, Anupama Sen
- Oxford Energy Forum 101, 'Gas Pricing'.
- The Evolution and functioning of the traded gas market in Britain, Patrick Heather

TWCOG LLP

Commercial Consultants to the Global Gas Industry



# Consultants in Gas/LNG Projects and Pricing Disputes

## Gas/LNG Projects

Commercial Advisor for Singapore LNG Terminal for assessment of the terms for the import of LNG and the establishment of a multi-user import terminal; including a leading role in the successful negotiation of terminal agreements.

## Gas/LNG Pricing Disputes

Appointed by National Iranian Gas Corporation on 3 major disputes with respect to its gas exports (exceeding US\$27 billion). Provided multiple Expert Witness submissions supported by economic and financial analysis. Acted as Expert Witness under International Arbitration. (2013 to current)

Expert Advisor and Expert Witness for major European gas buyers/importers on Price Reviews of a large number of gas supply contracts (RWE, Enel, Edison, Gas Natural Fenosa, Uniper, DONG, PGNiG and Engie). Provided multiple Expert Witness submissions supported by economic and financial analysis. Acted as Expert Witness under International Arbitration (2006 to current).

Appointed by Naftogaz Ukraine in its dispute concerning the purchase of gas from Russia. Provided Expert Witness submissions supported by economic and financial analysis. Acted as Expert Witness under International Arbitration. (2015 to 2017)

Expert Advisor for two major Japanese LNG importers concerning disputed pricing in LNG supply contracts. Advice concerning Price Review. (2016 to 2017)

Appointed as Expert by a major Korean LNG importer concerning a disputed price review in one of its Australian LNG supply contracts. Advice concerning Price Review. (2017 to current)

# The Course Topics

1. *Intro - Types of pipeline gas/LNG Sales Agreements*
  - 1.1 *The Vocabulary of Gas Sales*
  - 1.2 *An Essential Understanding of Gas and LNG Sales Agreements*
2. *Gas/LNG Pricing: type of formulae, indexation principle, market value and net-back value*
  - 2.1 *NA/UK/Europe*
  - 2.2 *Persistence of Oil Indexation*
  - 2.3 *LNG*
  - 2.4 *LNG Current & Future Trends*
3. *Price formulae historical evolution in long term pipeline gas//LNG sales agreement, trends and forecasts*
  - 3.1 *Liberalisation*
  - 3.2 *Future for Gas to Gas Competition in Asia*
4. *Price review (revision) in long term pipeline gas/LNG sales agreements*
  - 4.1 *Price Review*
  - 4.2 *Arbitration*
5. *Risks in long term pipeline gas/LNG sales agreements*
  - 5.1 *Price Risk selling into wholesale markets*
  - 5.2 *Other Risk in gas LNG/Sales*
6. *The growth of short-term LNG trading*

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