



## Global Gas Scenario & India

A Roundtable  
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Production of unconventional fossil fuels, particularly shale gas in USA has greatly affected the global energy scenario. This increase in production of shale gas is expected to not only affect the energy scenario in major producing countries but is also likely to have a lasting impact on the geopolitics of energy and energy trade, development of other energy sources and even the discourse around sustainable development.

While in North America and particularly in USA, the production of shale is expected to continue, several European nations are currently debating on whether or not to venture into exploration of this unconventional source of energy. In Asia, China has also commenced exploration and preliminary surveys have proved its shale gas reserves are expected to be much larger than those of North America. In India, the current exploration policy does not include unconventional sources of energy. A draft policy for exploration shale gas was prepared in 2012 and is reported to be in the last stages of finalization. One of the key concerns affecting development of shale gas is the ecological impact in terms of water requirement and the contamination of water due to fracking fluids. In a water scarce country like India, the implications of shale gas exploration on the environment become extremely critical.<sup>1</sup> In addition to the water requirements, there are also issues around acquisition of land and geological impact of drilling. Although these issues affect conventional oil and gas drilling too, they become much more pronounced in the case of shale gas given the current process of hydro-fracking.

In a global energy market that is evolving too deeply and too quickly, it is pertinent to assess India's position and chart out a long term strategy.

This Round Table aims to bring together policy makers, industry players and experts to discuss the issues affecting the development of energy sources to bridge the energy demand supply gap in the country. The panelists will discuss the following issues:

- **Geopolitical implications of the changing energy market landscape for energy supply scenario**  
Production of shale gas has already impacted the gas market in USA and Canada. Production of shale is also expected to greatly impact the volume and direction of global energy trade flows. USA, which was the largest consumer of energy and a large energy importer is now moving towards becoming self-sufficient and will also export some of its surplus gas. Energy exporting countries in the Middle East will also witness some changes and might have to look at reorienting their strategies to align with the changing global scenario. Which are the emerging

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<sup>1</sup> See TERI's Policy Brief: "Shale Gas in India: Look Before You Leap", June, 2013

players in the global gas markets? Can the success of US markets be emulated in other regions that hold reserves of shale gas? What are the likely trends and what will be the larger geopolitical implications of the rise in production of gas?

- **Evolving international gas markets and their implications on large consuming countries**

Consumers of gas are dispersed across the globe. Consumers in Europe purchase gas through a combination of gas from pipelines as well as LNG imports whereas Asian countries largely rely on LNG imports from the Middle East. What will be the likely scenario of gas trade for consuming countries? Will consuming countries also reorient the uses to which gas is put given the availability and the forms in which gas is available?

- **Convergence in global gas prices**

Historically, three gas markets have existed – the North American market, the European Gas market and the Asian (and now Asia/Oceania) markets. While prices in the first two do move in step with spot gas markets, Asian gas prices are largely linked to oil prices and are much higher than the prices in the other two markets. While some change may already be visible in gas prices across the continents, will these varying prices eventually converge? Will there be a sustained delinking of oil and gas prices and what will it take for Asia to develop a regional gas market?

- **Impact on other energy sources due to rising availability of gas**

Natural gas can act as a substitute for coal in power generation and industrial use as well as for petroleum products for use in transportation. Rise in availability of gas will, therefore, have an implication on other energy sources. This is already visible in the reduction in coal prices, re-emergence of coal in Europe and the competition that renewable energy sources are facing from shale gas production. What will the scenario be in the long term? Will gas compete with coal in large consuming countries? Is gas proving to be a serious threat to the developing renewable energy markets?

- **Lessons for India in the evolving markets**

The lessons for India and its strategy need to be examined on two fronts. First, on developing an import strategy and securing gas for meeting the rising demand-supply gap. Collaborating with emerging suppliers of gas and establishing adequate import infrastructure will be critical. Second, investing in research and development to facilitate the exploitation of resources domestically will also be needed. In this context, facilitating research on methods that are environmentally benign and are appropriately suited for the India situations will go a long way in increasing the country's gas production. Will India be able to adequately leverage the changing global scenario to meet its requirements? What are the policy and regulatory changes needed to facilitate this?