

State of Development of Shale Gas and its Impact on the Energy

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Abstract

The challenges within the energy industry are enormous, and the direction the energy industry will take over the next two decades is far from clear. However, it is very clear that some choices, particularly those not made, may have serious global implications and could be very hard to reverse. Coming out of the recent economic crisis planners and policy makers around the world are grappling with how to meet the growing energy needs of the world, while advancing global environmental objectives. Constraints on oil and coal are increasing and the higher costs of energy are driving new thinking about energy systems. At the same time, the revolution going on in the natural gas industry has forced the world to rethink the role of natural gas in the energy mix. However, it remains uncertain how dramatic the shale gas revolution will be. Many complex forces are at work and a radical shift toward natural gas in global energy systems is far from assured.

Many industry observers have highlighted the potential role of unconventional gas, but a true revolution of natural gas in the power sector will need many anchors. For example, the environmental impact of shale development will need to be mitigated in a way suitable for all stakeholders. Furthermore, new gas infrastructure will be critical in emerging markets. Overall, there is a growing sense that gas can be a pragmatic choice to balance environmental concerns with a lower cost energy solution. However, the potential for gas to globally advance will likely require new pricing mechanisms and increased international cooperation. GE Energy’s “Fast Blue” future pictures a world where gas systems become a preferred energy platform because of their versatility and flexibility in supporting other energy sources like renewables; encouraging forces that accelerate the global convergence of gas and power markets. The goal of this session is to present a very possible energy future, but to also recognize the significant, and perhaps intractable, challenges associated with a rapid and profound shift toward natural gas around the world.