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By many accounts, we are currently in the midst of an energy revolution. Technological advances that have enabled tapping of previously inaccessible supplies of natural gas from shale rock in the United States are spreading to the rest of the world, raising hopes of a shift in the global energy market towards a cheaper and more environmentally-friendly energy source. Shale is a sedimentary rock rich in organic material that was of little use as a source of gas until about a decade ago, when American companies developed new techniques to fracture the rock and drill horizontally, allowing the gas to be produced in commercial quantities. As a result, American production of shale gas has soared in recent years, and according to government reports, the United States overtook Russia to become the world's biggest gas producer for the first time in a decade.

The EU and Asia are excited by the shale gas boom and are positioning themselves to buy up rights to these new discoveries. In Europe, countries are looking for recoverable shale gas, estimated to be up to 400 trillion cubic feet, to free themselves from their dependence on Russian gas. For example, it has been reported recently that ConocoPhillips has teamed up with a subsidiary of a British firm to explore the Baltic Basin of Poland, and exploratory wells are being planned by other companies at various locations, including Germany and France. China, driven by the need to secure energy supplies to support its country's growth, has signed an agreement with the U.S. to look into exploiting its own shale gas reserves.

Some political analysts and columnists suggest that the geopolitical effects of the shale gas "revolution" may already be evident. These analysts and columnists suggest that the shift in world energy markets may have had an effect on world politics, as western officials have reportedly noticed a distinctly more friendly tone in their dealings with Russia, pointing to recent events such as the new nuclear arms reduction treaty with the U.S., tougher sanctions on Iran, and the sensitive response to the fatal air crash on Russian soil that killed the Polish president.

Japanese companies have also recently been positioning themselves to take advantage of the potential in the shale gas market. Sumitomo Corporation became the first Japanese company to make a full-scale entrance into a U.S. shale gas project by acquiring a 12.5% interest in a portion of the Barnett Shale gas acreage in North Texas. Mitsui & Co., Ltd., Japan's largest LNG trader, entered into a joint venture with Anadarko Petroleum as a 32.5% partner in Anadarko's Marcellus Shale gas project in Pennsylvania. American shale gas has become an attractive option for Japanese trading houses looking to diversify into exploration and production (and an attractive place to learn the specialized technologies and skills required to produce shale gas).

All this talk of revolution, however, is met with its share of skepticism. Some environmentalists have pointed out environmental dangers posed to groundwater by the chemicals that are used to extract the shale gas, and such fears will only be heightened by the growing environmental conscience. Some energy experts also believe that shale gas will slow down the transition to renewable energy because renewable energy depends on various tax incentives to achieve acceptable costs, while shale gas is soon set to become one of the cheapest energy options available. It is still the case, even in recent environmentally-conscious times; that the term "cheaper" is preferred to the term "greener" when it comes

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to energy resources.

Shale gas will likely not be a complete answer to the world's energy issues of market control, dependence and climate change. While the shale gas boom has the makings of a revolution, albeit one that has snuck up on the world, it remains to be seen whether it will be looked back on as having revolutionized the world.

Our areas of practice

Nishimura & Asahi is the largest law firm in Japan with approximately 500 lawyers and is recognized as Japan's premier law firm, with involvement in many landmark transactions, including international projects involving multi-national consortiums in various infrastructure and energy and natural resources projects. N&A also has had a long history of seconding its professionals to key governmental agencies, which results in a creation of strong relationships with governmental agencies in Japan that are unrivalled by any other law firm. N&A is internationally recognized, and wins various awards, for its excellence in a number of fields of law, including mergers & acquisitions, corporate restructuring and bankruptcy, international finance, project development and finance. N&A continues to expand and strengthen its areas of practice, including its energy and natural resources practice group.

About the Authors

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