RECENT DEVELOPMENTS IN UNITED STATES AND INTERNATIONAL ENERGY LAW

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INTRODUCTION

This section of the Recent Developments in United States and International Energy Law consists of selected discussions of legislation and regulations related to global cutting-edge issues facing energy law.¹ The first article focuses on compatibility issues in the United States natural gas infrastructure as they relate to the transportation and storage of Liquefied Natural Gas. The second article shifts to a global perspective, discussing Russian minority shareholder protection in relation to Russia’s liberalization of regulations regarding the transfers of subsoil use rights.

¹ The content of the Recent Developments section is provided for general information purposes only. The short articles may serve as a useful beginning point in the legal research process, but are not intended as a substitute for primary research of the laws of the jurisdictions discussed.
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Liquified Natural Gas, Can We Stand the Heat?
Compatibility Issues with Liquified Natural Gas in the United States Natural Gas Infrastructure

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I. INTRODUCTION

Natural gas reserves across the globe are estimated to be near 5,500 trillion cubic feet; however, much of the reserves are isolated from large markets which makes it impractical to transport this gas via traditional pipelines. For example, more than half of the reported natural gas reserves are located in Russia, Iran, and Qatar, much too far to allow for pipeline transportation to the United States. As our domestic demand continues to grow, liquefied natural gas (LNG) can very effectively address the issues associated with transporting natural gas over very long distances and allow the United States to import large volumes of natural gas.

This article discusses some of the issues that arise, both functionally and legally, when LNG is imported for distribution within the United States. While many citizens of the United States, if not most, may believe that domestic natural gas and imported LNG are fungible goods, the reality is that the two can have different constituent components, and thus the resulting combustion characteristics are quite different. Because most LNG contains a greater percentage of non-methane components, which contain more combustion heat content, LNG burns “hotter” than domestic natural gas. As a result, LNG can affect the physical integrity and emissions of commercial and household appliances. As LNG becomes a larger part of our natural gas supply base, the economic considerations of mitigating these effects are becoming important on a nationwide basis.

II. DESCRIPTION, TRANSPORTATION, STORAGE, & SAFETY

A. Description

In order to transform natural gas into LNG, a liquefaction facility must
super-cool the gas to -260°F, at which point it condenses into a liquid.\(^5\) This cooling and subsequent liquefaction process reduces the volume of the gas by more than 600 times.\(^6\) The astounding reduction in volume allows a large quantity of natural gas to be economically transported from countries where supply is in excess of demand. In the first six months of 2007, the United States imported LNG from Algeria, Nigeria, Egypt, Trinidad, and others.\(^7\)

B. Transportation

The transportation of LNG begins at the liquefaction facilities where it is pumped, in its liquid state, onto specialized tanker ships.\(^8\) These ships are at the heart of the entire LNG operation and are specifically designed for their important task. Because LNG must be held at -260°F to remain in a liquid state, and must remain in a liquid state during transportation, the ships are equipped with complex cryogenic systems to sustain these extreme temperatures during the long ocean journey.\(^9\) The Energy Information Administration (EIA) reported in 2003 that 151 LNG tankers were in operation across the globe, with another 55 ships under construction.\(^10\) Since that time the LNG tanker fleet has grown substantially. Today there are 232 tankers in operation, with some 378 expected to be operating by 2011.\(^11\) Currently, Japan, Korea, and Europe are home to the only facilities that manufacture LNG tanker ships.\(^12\)

C. Storage

Once the tanker reaches its destination, the LNG is pumped off the ship (still in liquid form) into storage tanks.\(^13\) These storage tanks, similar to the tanks aboard the ships, are heavily insulated to sustain the super-cooled temperatures required to keep the LNG in liquid form.\(^14\) Before being introduced into the United States domestic supply chain, LNG must be regasified.\(^15\) The regasification process involves pumping the LNG through a heat exchanger to warm the liquid, where it returns to its gaseous state. Once regasified, LNG can be introduced into the domestic pipeline grid to local distribution


\(^{6}\) Id.


\(^{8}\) CITIZEN GUIDE TO LNG, supra note 5, at 2.

\(^{9}\) Id.

\(^{10}\) GLOBAL LNG MARKET, supra note 3, at 30-31.


\(^{12}\) GLOBAL LNG MARKET, supra note 3, at 30-31.

\(^{13}\) CITIZEN GUIDE TO LNG, supra note 5, at 2.

\(^{14}\) Id.

\(^{15}\) Id.
companies (LDC’s) and on to commercial and residential consumers.\textsuperscript{16} Today there are only six LNG terminals operating in the United States that are designed specifically for offloading and storing imported LNG. These operations are located in Georgia, Louisiana, Maryland, Massachusetts, Puerto Rico, and one facility in the Gulf of Mexico (a seventh facility in Alaska is operated only as an export facility).\textsuperscript{17} To accommodate the projected increase in LNG imports, more terminals are being constructed in areas favorable to the ingress and egress of large LNG tanker ships. The Federal Energy Regulatory Commission (Commission) reports that over forty new LNG terminals are under consideration for construction along coastal areas of the United States.\textsuperscript{18} The Commission has the exclusive authority to approve the location, construction, expansion, or operation of any LNG facility operating within state boundaries.\textsuperscript{19} The review process for new or expanded LNG operations includes an environmental impact study, review of security issues, seismic studies, and construction and operational techniques. The process also allows citizens to have a voice by formally intervening in the approval process.\textsuperscript{20}

D. Safety

As the number of LNG shipments entering the United States increases, safety issues are becoming a major concern, particularly for those who live near an offloading and storage facility. Many people may be surprised to know that LNG has been safely transported across oceans for more than forty-five years with no serious accidents.\textsuperscript{21} One of the major safety concerns revolves around the possible rupture of an LNG storage tank and the resulting uncontrolled regasification. The Commission reports that since 1959, some 33,000 LNG voyages have resulted in only eight incidents, none of which involved storage tank ruptures.\textsuperscript{22} As LNG warms above -160ºF, it forms a natural gas vapor that can travel along prevailing winds for long distances.\textsuperscript{23} If the concentration of gas in the atmosphere reaches 5% to 10%, the vapor cloud becomes combustible and can burn back toward the storage facility.\textsuperscript{24} While any serious public safety issues are extremely unlikely, an uncontained LNG spill can be very serious. In 1944, a LNG storage facility in Cleveland, Ohio, had a tank rupture and LNG spilled into the streets and sewers; the explosion and

\begin{itemize}
  \item \textsuperscript{16} Id.
  \item \textsuperscript{18} \textit{EXISTING AND PROPOSED NORTH AMERICAN LNG TERMINALS}, supra note 17, at 2.
  \item \textsuperscript{19} Natural Gas Act § 5, 15 U.S.C.A. § 717b(1) (West 2008).
  \item \textsuperscript{20} \textsuperscript{20} § 717b-1(b); Conservation of Power and Water Resources, 18 C.F.R. § 385.214 (2007).
  \item \textsuperscript{21} \textit{CITIZEN GUIDE TO LNG}, supra note 5, at 4.
  \item \textsuperscript{22} Id.
  \item \textsuperscript{23} Id. at 3-4.
  \item \textsuperscript{24} Id. at 4.
\end{itemize}
subsequent fire from the spill killed over 120 people. For all new LNG operations, the Commission requires both a containment system and thermal buffer zones to protect the public from this potential safety hazard.

In recent years, concerns of terrorism have also been an issue with LNG tanker ships—LNG ships could intentionally be used as a weapon to create a vapor cloud blown ashore by winds. To address this concern, the United States Coast Guard has been tasked with ensuring the safety and security of these ships. The security measures taken by the Coast Guard include advance notice of a ship’s arrival, safety inspections aboard the tankers, documentation of crews, inspection of safety procedures and systems at the unloading dock, and keeping other watercraft away from the LNG tankers when they are close to populated areas.

III. GLOBAL MARKET FORCES AT WORK

Natural gas plays a critical role as a source of energy in the United States. It comprises approximately twenty-five percent of the energy used in the United States on an annual basis. In 2006, the United States consumed 21.86 trillion cubic feet (Tcf) of natural gas. LNG, however, currently accounts for less than three percent of the total natural gas supplied in the United States.

However, while the U.S. imports a relatively small amount of LNG, the world market is very strong. Globally, Asia is the largest consumer of LNG, with estimates showing imports near 4,900 billion cubic feet (Bcf) in 2006. Europe is a distant second, with forecasts showing LNG imports exceeding 2,000 Bcf in 2007. While LNG imports are presently relatively small compared to the overall U.S. consumption, forecasts predict that imports will continue to grow significantly in the coming years. The Energy Information Administration forecasts that the U.S. will import some 5.5 Tcf of natural gas by the year 2030. Importantly, this data shows imports from Canada decreasing from current levels of 3.1 Tcf to pre-1990 levels of 1.2 Tcf, and no imports developing from Mexico. As a result, without importing LNG, the

25. Id. at 4.
26. Id. at 3-4.
28. CITIZEN GUIDE TO LNG, supra note 5, at 5.
29. Id. at 1.
32. Id. at 4-5, fig. 2.
33. Id.
35. Id.; See also ENERGY INFO. ADMIN., INTERNATIONAL ENERGY OUTLOOK 2007 42-43, 45 (2007), http://www.eia.doc.gov/oiaf/ieo/pdf/0484(2007).pdf (while Mexico does have large reserves
United States would be left with a 4.5 Tcf shortfall by 2030.\[^{36}\] Almost sixty percent of the LNG imported into the United States is supplied by Trinidad.\[^{37}\] In 2007, the remainder of the United States LNG imports came from Qatar, Nigeria, Equatorial Guinea, Algeria, and Egypt.\[^{38}\] The LNG import data for the United States shows that in 2000 approximately 226,000 million cubic feet (MMcf) of LNG was brought into this country, and that number remained fairly consistent through the end of 2002.\[^{39}\] In 2003, LNG imports made a significant jump to approximately 506,000 MMcf, and grew to over 652,000 MMcf in 2004.\[^{40}\] By the end of 2006, LNG imports had fallen to 583,000 MMcf.\[^{41}\] This decrease was due to strong global demand driving LNG prices higher than domestically produced natural gas.\[^{42}\] During this time, many LNG shipments were diverted to markets that relied heavily on LNG and were willing to pay higher prices.\[^{43}\]

Based on the significant increase in LNG imports over the past few years, there is little doubt that LNG will be an important part of the United States energy portfolio. But, unlike domestically produced natural gas, the transportability of LNG will continue to subject it to global market forces, forcing the United States to compete globally for LNG shipments. While the majority of LNG in the global market is bought and sold via long-term contracts, most of the imports into the United States are purchased on the spot market.\[^{44}\] Even though LNG imports into the United States have increased dramatically over the past few years, the importers have not yet developed long-term purchase contracts similar to the more mature LNG buying markets.\[^{45}\] Fortunately, an infusion of new supply will soon be added to the market, as new export facilities come on-line in Equatorial Guinea, Norway, and Yemen.\[^{46}\] This increased supply should cause global LNG prices to soften and become more competitive in comparison to U.S. domestic production prices, thus encouraging greater numbers of LNG shipments to find their way into the United States.\[^{47}\]

\section*{IV. INTERCHANGEABILITY, WHAT IS IT & WHY DOES IT MATTER?}

Interchangeability is defined as “the ability to substitute one gaseous fuel for
another in a combustion application without materially changing operational safety, efficiency, performance or materially increasing air pollutant emissions." To many, natural gas is considered a completely fungible good, having the same characteristics no matter where it is sourced. In reality, natural gas is made up of different constituent components, depending on the formation from which it is produced. Some formations produce natural gas composed mostly of methane with a small amount of inert gases such as nitrogen and carbon dioxide, while other formations produce natural gas containing considerable amounts of non-methane hydrocarbons, like butane, propane, and ethane, along with some amount of inert gas. These non-methane hydrocarbons contain more heat energy than methane, thus the more of these contained in a given volume of natural gas, the more heat content the gas will have (expressed as British Thermal Units or BTUs). LNG is no exception, and, depending on the source country, can contain significantly higher amounts of non-methane hydrocarbons than domestic natural gas. Additionally, LNG contains virtually no inert substances such as carbon dioxide, nitrogen and water, because these are removed prior to liquefaction to prevent them from forming solids when the gas is cooled to -260°F. As a result of these differences, LNG can have much higher heat content relative to the natural gas historically used within the United States and can cause problems for all consumers of natural gas.

Gas fixtures and appliances are manufactured, or “tuned,” to operate efficiently and safely using a gas with a given compositional makeup of methane, non-methane, and inert components. Natural gas appliances, from consumer household products to turbines for electricity production, have operational limits for varying natural gas composition. When the natural gas supplied to the appliance varies significantly from the gas which the appliance was designed to accommodate, problems ranging from carbon monoxide emissions to lowered product reliability and shortened product life span can occur. For combustion applications, the common issues include formation of black soot, unsafe or heightened levels of carbon monoxide emissions, and yellow tipping (the normally blue flame of proper natural gas combustion is yellowed by incomplete combustion). Because the designs of natural gas appliances are widely varied, it is impossible to know exactly how changes in

49. Id. at 4.
50. Id. at 4-5.
51. Id. at 9, 13.
52. Id. at 5.
53. Id. at 8-9.
54. Id.
55. Id. at 18.
56. Id.
gas composition will affect each one. In reciprocating engine applications, such as cars and buses, engine knock—a harmful condition related to pre-ignition of the fuel—can occur, which can result in premature failure of the engine.\textsuperscript{57} In other commercial combustion applications, decreased performance and failure to comply with emissions requirements are concerns.\textsuperscript{58} In virtually all natural gas combustion appliances, reduced component life and elevated emissions can be issues when gas composition changes beyond the intended design limits. Surprisingly, new appliances designed to meet more stringent emissions requirements are most susceptible to changes in gas composition.\textsuperscript{59} In other parts of the world, where LNG comprises most of the natural gas supplies (Asia, for example), appliances are designed to be compatible with high BTU LNG.\textsuperscript{60} This is an important consideration in the United States, as it is unlikely countries supplying LNG will make any significant changes in their processes to lower the BTU content of their LNG due to the smaller number of shipments coming to the United States.

Of the many different methods to measure interchangeability, the Wobbe Number has been identified as the best predictor of the interchangeability of compositionally distinct natural gas.\textsuperscript{61} This index provides a useful correlation between the compositional makeup of the natural gas and the combustion characteristics it will exhibit. The Wobbe Number is comprised of the BTU content and the specific gravity of natural gas.\textsuperscript{62} BTU content is important, because it indicates the combustion heat content of a given volume of gas, but the inquiry cannot end there. Specific gravity also needs to be considered as it affects how fast the gas will flow. Natural gas flow to an end use appliance is normally regulated by pressure, but gas having a higher specific gravity is heavier and will flow slower; conversely, gas with a lower specific gravity will flow faster.\textsuperscript{63} Thus, a high BTU gas with a high specific gravity will burn cooler than a lower BTU gas with a low specific gravity. The Wobbe Number Index takes both of these factors into consideration and allows for a fairly simple calculation to reach a meaningful result.

\textbf{V. MANAGING INTERCHANGEABILITY}

There are many different methods to lower the high BTU content of LNG to make its combustion characteristics similar to that of the historic gas supply.

\textsuperscript{57} Id.
\textsuperscript{58} Id. at 5, 18.
\textsuperscript{59} Id. at 5.
\textsuperscript{60} Id. at 13.
\textsuperscript{61} Id. at 7 (the Wobbe Number does not consider all factors relevant to interchangeability and thus cannot always predict the interchangeability of gases with different compositions).
\textsuperscript{62} Rainer Kurz, Pipeline and Gas Technology, \textit{Determining Gas Fuel Quality}, available at http://www.pipelineandgastechnology.com/0106gasmachinery.kurz.html (last visited April 14, 2008) (the Wobbe Number is the lower heating value (LHV) divided by the square root of the specific gravity).
\textsuperscript{63} Id.
within the United States. Viewed broadly, these methods include management at the source of production, management prior to introduction into the pipeline grid, and management at the point of use.

The first option, management at the source, consists of removing the hotter burning non-methane components prior to liquefaction. One of the major issues with this option is that LNG is sold on an “energy contained” basis, thus the high-heat non-methane components make each shipment more valuable. Because of this, producers are unwilling to remove these valuable components from the feedstock gas prior to liquefaction. Additionally, the countries that supply LNG, either lack a market for these individual components, or lack the processing facilities to remove these components from the gas. Perhaps even more importantly, some larger markets, such as Asia, have higher BTU standards than the United States, meaning that removal of these components would render the processed LNG incompatible with higher demand markets.

The second option is to process the LNG prior to inducing it into the domestic pipeline grid. One procedure is to simply remove the high-heat non-methane components in the United States once the LNG is re-gasified. The obstacles here are the same as overseas. Not every LNG terminal in the United States is near an extraction facility or a market for these individual products. The most common method of moderating the heat value of LNG is by blending the gas with nitrogen or ambient air just prior to the gas entering the pipeline. This dilutes the gas by reducing the BTU content of the gas and increasing the specific gravity, resulting in a lower Wobbe Number. As an example, some gas utilities in the Rocky Mountain region currently manage the Wobbe Number of their gas supply by blending ambient air with natural gas just as the gas enters the city’s distribution grid. Another procedure involves blending gases with different compositions in order to dilute high BTU LNG. This requires two distinct gases be sourced and stored, which is operationally undesirable, as it reduces the unfettered ability of the terminal operator to buy LNG from the lowest cost supplier regardless of the compositional makeup. Blending along the transmission pipeline is theoretically an option, and does currently occur, but more out of happenstance than planned blending procedures. Due to the location of small feeder lines, gas does blend where feeder lines join a main pipeline; however, since some end use markets are geographically situated downstream of LNG terminals, with no feeder lines in between, pipeline blending is not always an option.

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64. NGC+ INTERCHANGEABILITY WORK GROUP, supra note 48, at 13.
65. Id.
66. Id. at 14.
67. Id.
68. Id.
69. Id. at 15.
70. Id.
The third option is to manage the effects of LNG at the point of use.\textsuperscript{71} This requires inspection, and possible adjustment or replacement, of each natural gas appliance. Because of the large number of natural gas appliances in use, this would take countless hours of labor and many years to complete.\textsuperscript{72} Not only is the amount of time an issue, but also, no segment of the supply chain will be eager to bear the cost of this endeavor.

\textit{VI. REGULATORY DEVELOPMENTS}


Specifications for natural gas composition are contained in individual pipeline tariff agreements. These agreements set forth minimum and maximum limits for each component of natural gas. Because some of the LNG imported into the United States does not meet the criteria called out in the pipeline tariffs, several proceedings dealing with interchangeability have been brought before the Commission. These proceedings highlight the often opposed objectives of the pipelines to have a certain type of natural gas delivered to them, the producer’s ability to sell and transport gas without overly restrictive compositional requirements, and the end-users objective to receive natural gas that will not degrade the performance or life of their appliances.\textsuperscript{73}

To address the concerns about how interchangeability issues would be resolved, the Commission issued a generic policy statement in June 2006.\textsuperscript{74} The policy recognized the need for a regulatory basis by which individual companies could guide their negotiations for tariff provisions addressing gas interchangeability, and sets forth five broad policy principles that the Commission will apply in interchangeability proceedings.\textsuperscript{75} Each principle promotes the overarching goal of the Commission to promote development of natural gas infrastructure to increase supply and lower barriers to increased LNG imports.\textsuperscript{76} The first principle is a reminder that the Commission only has jurisdiction to address provisions contained in an approved tariff.\textsuperscript{77} Through the Natural Gas Act, the Commission is given the responsibility to ensure that the tariff provisions are “just, reasonable and not unduly discriminatory or preferential.”\textsuperscript{78} Thus, only interchangeability provisions contained in an

\textsuperscript{71} Id. at 15-16.
\textsuperscript{72} Id.
\textsuperscript{74} Id.
\textsuperscript{75} Id. at 10-12.
\textsuperscript{76} Id. at 11-12.
\textsuperscript{77} Id. at 12.
\textsuperscript{78} Id.
approved pipeline tariff can be enforced through a regulatory proceeding. The second principle calls for flexibility in the tariff provisions. To promote the goal of increasing the supply of natural gas, the Commission calls for tariff provisions that would allow pipelines the flexibility to transport gas that would normally be out of specification. The Commission extends substantial discretion to each pipeline in deciding when to make exceptions to interchangeability provisions and when to agree to transport gas that it would normally reject. The third principle calls for private resolution of interchangeability standards between the pipeline and their customers, but also sets forth the expectation that all challenges relating to tariff interchangeability provisions be based on proven scientific and engineering data, not mere speculation. Fourth, the Commission adopts the NGC+ White Paper interim guidelines as a common starting point for resolving issues. Any pipeline desiring to add or change existing tariff provisions relating to interchangeability must now explain how these provisions differ from the interim NGC+ White Paper provisions, and provide a comparison of the proposed changes to those of each interconnected pipeline. Overly rigid provisions that have the potential to restrict the use of LNG are likely to be found unjust and unreasonable. Lastly, the Commission reminds that disputes over interchangeability tariff provisions may be brought before them in a regulatory proceeding, and once again establishes that “significant weight” will be given to the NGC+ White Paper interim guidelines.

B. Dominion Cove Point LNG, LP

One day after announcing its policy on interchangeability standards, the Commission issued an order regarding the expansion of the Cove Point LNG terminal. One issue addressed in this opinion was a claim by Washington Gas Light (WGL) that the LNG flowing through their pipeline caused rubber sealing components of its pipeline to become dry and to crack, leading to leaks. Unfortunately for WGL, the evidence indicated these issues had existed for many years prior to the introduction of LNG by Dominion, and that the leaks were likely due to improper application of hot tar to the seals.

79. Id.
80. Id.
81. Id. at 16.
82. Id. at 12-13.
83. Id. at 13; NGC+ INTERCHANGEABILITY WORK GROUP, supra note 48, at 26 (calling for interim guidelines of +/- 4% Wobbe Number variation from local historical variation, subject to 1,400 Maximum Wobbe Number and 1,110 Maximum BTU).
84. Policy Statement, supra note 73, at 15-16.
85. See id. at 13.
86. Id. at 13-14.
88. Id. at 24-25.
89. Id. at 26-28, 30-35.
Additionally, the LNG being introduced into the pipeline by Dominion met all standards previously set out in the pipeline tariff. Consistent with its policy to promote new sources of supply, the Commission took no action, in large part, because the LNG met all previously agreed to interchangeability specifications in the tariff. The parties have put these same issues before the Commission on two more occasions, but both motions for rehearing have been denied. The Commission has stood firm on its position to promote new sources of supply and not to burden LNG operations when their gas meets pre-existing tariff provisions on interchangeability.

C. AES Ocean Express, LLC v. Florida Gas Transmission Company

In early 2007, the Commission had the opportunity to address interchangeability issues as they relate to downstream user’s concerns over the effects of LNG on their electrical generation turbines. The Commission granted AES Ocean Express authorization to construct a facility to deliver LNG into Florida, via the Florida Gas Pipeline. The two parties were unable to come to an agreement on tariff provisions relating to interchangeability standards, and a string of administrative actions ensued. Ultimately, the Commission upheld Florida Gas’s proposed standards as just and reasonable, finding that they would allow a substantial amount of LNG to be imported.

At the heart of the proceeding were claims by some of Florida Gas’s customers—mostly electric generation companies—that they would incur significant costs to modify their gas-fired electric turbine equipment to use gas that reached the upper Wobbe Number limits proposed in the tariff. Florida Gas argued that the Commission should enact a mechanism for recovery of these modification costs from the LNG importer. Based on evidence contained in the electric turbine manufacturer’s specifications, the Commission found that the proposed standards would not impose any undue burden on Florida Gas’s customers. While the costs incurred to modify some of the turbines to operate safely within the proposed limits could be from $100,000 to as much as $200,000 per turbine, the Commission found these costs were not beyond what one would expect to encounter during the normal course of business, and could “reasonably be expected in operating sophisticated equipment with special needs as to the fuel it burns.” Here, there was no evidence to support a finding by the Commission that the proposed standards

90. Id. at 20-21.
93. Id. at 19 (proposing a Wobbe Number range of 1,340 to 1,396).
94. Id. at 9-10.
95. Id. at 57-58.
96. Id. at 103-104.
97. Id. at 24.
98. Id. at 28-30.
would require the electric generation companies to incur excessive modification costs. The Commission rejected Florida Gas’s attempt to enact a modification cost recovery mechanism and stated that, “no such mechanism should be established” now, or in any future proceeding brought by Florida Gas. Moreover, due to complex jurisdictional requirements, the Commission found that it did not have the authority to impose a cost recovery mechanism.

D. Iroquois Gas Transmission System, LP & Algonquin Gas Transmission, LLC

Iroquois and Algonquin are two proceedings that have recently come before the Commission. These proceedings involve the addition of tariff provisions to address interchangeability issues from the anticipated introduction of substantial amounts of LNG into their pipelines. Both companies have proposed upper and lower BTU limits and Wobbe Numbers. As expected, many interested parties have filed protests to the provisions, some claiming the provisions are too broad, and others claiming the provisions are too narrow. Per standard procedure in these proceedings, the Commission has suspended implementation of the new provisions pending a technical conference, which gives all interested parties the opportunity to present evidence to support their positions.

VII. CONCLUSION

The long-term physical effects of LNG on consumer and industrial appliances, as well as their emissions, have yet to be determined, but it is clear that LNG is poised to become a much larger part of our natural gas supply base, particularly in large markets near coastal areas, where LNG terminals are being constructed.

For the near term, no method exists for natural gas users to recover costs that are necessary to modify their appliances to operate with natural gas containing high BTU LNG. A user may, however, bring an action protesting interchangeability tariff provisions as unjust and unreasonable due to excessive modification costs required to modify their appliances to be compatible with the proposed provisions. There are currently two methods for a consumer to bring an interchangeability action before the Commission. First, a new proceeding can be initiated against a natural gas supply entity by filing a complaint with the Commission, alleging violation of a statute, rule, or

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99. Id. at 105.
100. Id. at 109.
103. Iroquois Gas, 119 F.E.R.C. ¶ 61,325 at 3-5; Algonquin Gas, 120 F.E.R.C. ¶ 61,114 at 4-6.
104. Iroquois Gas, 119 F.E.R.C. ¶ 61,325 at 8; Algonquin Gas, 120 F.E.R.C. ¶ 61,114 at 8.
previous order. Second, a consumer can intervene in an on-going Commission proceeding by filing a motion to intervene, and ultimately become a party to the proceeding. To be awarded party status, the consumer must show they will be affected by the outcome of the proceeding and overcome any motions in opposition that may be filed. These third-party actions will be reviewed under Section 5 of the Natural Gas Act, which affirmatively places the burden upon the intervener to show that the proposed or existing pipeline tariff provisions are unjust and unreasonable. To satisfy this burden, the challenger will be required to show that appliance modification costs are necessary, as specifically called for by the manufacturer’s specifications, and that the costs are above the level that would be expected in the normal course of business. Based on a recent Commission decision, modification costs of up to $200,000 were not sufficient to render proposed interchangeability standards unjust and unreasonable. Even if this hurdle is overcome, the Commission is still unlikely to fully adopt interchangeability provisions proposed by the challenger. The Commission has plainly stated that when faced with competing just and reasonable provisions proposed by pipelines and other parties, the provisions proposed by the pipeline will be favored. This policy will make it difficult for a challenging party to have their specific tariff provisions adopted by the Commission when the pipeline is proposing any just and reasonable provisions.

Additionally, proceedings addressing conflict related to interchangeability standards will be set against the backdrop of the Commission’s policy to increase natural gas supply and lower potential barriers to increased LNG imports. In this context, it is unlikely that interchangeability provisions will become anything but less restrictive, allowing larger amounts of high BTU LNG to be introduced into the domestic supply chain.

107. § 385.214.
108. § 385.214.
110. See AES Ocean Express, 119 F.E.R.C. ¶ 61,075 at 28-32.
111. See id.
112. See id. at 15-16.
113. See id. at 16; See also PJM Interconnection, LLC, 117 F.E.R.C. ¶ 61,331, 49 (2006).
114. See Policy Statement, supra note 73, at 10-11.
MINORITY SHAREHOLDER PROTECTION IN CONNECTION WITH TRANSFERS OF SUBSOIL USE RIGHTS

NATALYA MOROZOVA AND MARIA SHANGINA

I. REGULATION ON THE TRANSFERS OF SUBSOIL USE RIGHTS

Since the mid-1990s, Russia has been gradually liberalizing its regulation on the transfers of subsoil use rights. The original version of the Federal Law “On Subsoil,”116 adopted in 1992 (the “Subsoil Law”), was silent on the matter, and therefore subsoil use rights were originally not transferable. Currently, the Subsoil Law provides for a number of cases when subsoil use rights are, or can be, transferred from a subsoil user to another person or entity and the underlying subsoil use license reissued in the name of the transferee without the need to undergo the complex and risky procedure of applying for a new license through a tender or auction.117 Such cases generally include corporate reorganizations, acquisitions of business in the course of bankruptcy proceedings, and transfers of subsoil use rights to related companies.

The Subsoil Law provides for two distinct grounds allowing transfers of subsoil use rights to related companies. One ground, available since 2000,119 is the establishment by a subsoil user of a new legal entity for the purpose of continuing operations on the field, provided, among other things, that:

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115. This article was first published in The Russia/Eurasia Executive Guide, a WorldTrade Executive, Inc. publication, in December 2007. References have been updated as of 29 May 2008.


117. Id. All grounds for the transfer of subsoil use rights are listed in article 17.1 of the Subsoil Law; this article was introduced by an amending law to the Subsoil Law (Zakon Rossisskoi Federatsii “O Vnesenii Izmenenii I Dopolnenii v Zakon Rossisskoi Federatsii ‘O Nedrakh’”) [Russian Federation Law “On the Introduction of Amendments and Supplements to the Russian Federation Law ‘On Subsoil’”], Mar. 3, 1995, No. 27-FZ, Sobranie Zakonodatel’stva Rossisskoi Federatsii [SZ RF] [Russian Federation Collection of Legislation] 1995, No. 10, Item 823) and has been amended a number of times.

118. Id.

the new entity (i) is organized under the laws of the Russian Federation, (ii) has been provided with assets necessary to carry out the activities specified in the subsoil use license, (iii) has obtained the permits and authorizations required to carry out the relevant activities; and,

the transferor’s share in the charter capital of the new entity is not less than 50% at the time of the transfer of subsoil use rights.\(^\text{120}\)

The other ground, available since late 2006,\(^\text{121}\) is the transfer of subsoil use rights to a subsidiary or parent company\(^\text{122}\) upon the instruction of such parent company, provided that the transferee:

- is a legal entity organized under the laws of the Russian Federation;
- meets (i) Russian law requirements for subsoil users, (ii) specific requirements established by the terms of the auction or tender for the subsoil block in question, and (iii) the requirements set forth in the subsoil use license with respect to that particular block; and,
- has been provided with assets necessary to carry out activities specified in the subsoil use license, including field facilities.\(^\text{123}\)

The second ground, unlike the first ground, does not require a subsoil user to specifically form a new entity in order to transfer the subsoil use rights.

**II. RISKS TO MINORITY SHAREHOLDERS**

The transfer by subsoil users of their subsoil use rights to related companies is a convenient mechanism, especially for vertically integrated natural resource companies. However, it poses certain risks to their minority shareholders.

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120. *Id.*


122. Under Russian corporate law, a company is deemed a subsidiary of another company (the parent company) if that other company can determine decisions taken by the first company (i) due to its predominant participation in the charter capital of the first company, (ii) on the basis of an agreement between the two companies, or (iii) otherwise. Grazhdanskii Kodeks RF [GK] [Civil Code] art.105(1) (Russ.).

123. *Id.*
Thus, a minority shareholder may be unable to prevent the transfer by a company of its subsoil use rights to another entity. Moreover, a minority shareholder may not even be aware of the transfer until it is completed and the license is reissued in the name of the transferee. If the license is transferred to a non-wholly owned subsidiary, the minority shareholder’s interest in the project is diluted; and if it is transferred to the subsoil user’s parent company, it is lost completely. As a result, the investor’s share in the company loses all or part of its value. In addition, as the investor is no longer a shareholder of the subsoil user, he loses the ability to attend general meetings of shareholders of the subsoil user and likely loses access to the information about the company and, therefore, the ability to monitor performance in the field.

III. POSSIBLE PROTECTIONS

Russian law does not provide straightforward mechanisms to protect the rights of minority shareholders in the situations described above, and Russian courts have so far been of little help in cases of such unwelcome transfers.124 For this reason, in practice, minority shareholders suffering losses as a result of transfers of subsoil use rights seek, not always successfully, alternative ways to protect their rights. These include challenging the legality of transfers on formal grounds, e.g. seeking to invalidate transfers of assets necessary to develop the field;125 involving government officials;126 or otherwise exercising pressure on the transferor and/or transferee.

In order to avoid the risk of abuse of its rights by the majority shareholder, a minority shareholder should, if possible, secure protections against loss of its investment in advance of an acquisition of shares in a Russian subsoil user. Some such protections are available in Russian corporate law, although to a limited extent.

Russian corporate law does not specifically require corporate approval of the transfers of subsoil use rights127 or payment of compensation to minority shareholders.128

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127. Postanovlenie FAS Vostochno-Sibirskogo Okruga [Resolution of the Federal Arbitration Court of the Eastern-Siberian Region] May 17, 2006, No.А33-32724/04-С6-Ф02-1545-06-С1 (The plaintiff challenged the transfer of subsoil use rights to a subsidiary of the transferor on the ground that the application for the reissue of the license in the name of the transferee was not approved by the general meeting of participants of the transferor as an action that determines the main areas of the project; the court ruled that approval of such an action is necessary only for the purpose of the exercise of the right of control over the transferor, and the plaintiff had no such right).

shareholders for the loss of their investment as a result of such transfers. However, it provides for certain tools that make such transfers difficult or impossible without the consent of minority shareholders.

One such tool is the procedure of interested party and major transaction approvals. Although specific rules vary depending on the legal form of the transferor and the provisions of its charter, generally a transaction is deemed (i) a major transaction if its value exceeds 25% of the balance sheet value of the transferor’s assets, and (ii) an interested party transaction if it is entered into with a related person or company, e.g. a parent or subsidiary company. Again, depending on (i) the legal form of the transferor, (ii) the size of the transaction and (iii) the provisions of the transferor’s charter, major and interested party transactions require approval at the board and/or shareholder level by a simple or qualified majority or, in some cases, unanimity; the votes of interested persons are not counted for the purposes of approval of interested party transactions.

However, Russian law has certain provisions that affect the availability of this method of protection.

First, although it is obvious that a key factor in determining the market value of a company in the natural resources sector is whether this company has the necessary subsoil use licenses, a license is not considered an asset for Russian accounting purposes and is not shown on the company’s balance sheet either as goodwill or otherwise. Instead, it is considered an act of a state body or a special permit.

Second, the prevailing position in Russian legal doctrine is that relations company’s activity. The court took the position that, although the scope of authority of the general meeting indeed includes determination of the main areas of the company’s activity according to the law, the application for the reissue of the license in the name of another entity is not a document which determines the main areas of the company’s activity and therefore does not require the approval of the general meeting.


129. Id. 130. Id.


132. See also Russian Federation Law “On Subsoil”, supra note 2, art.11.
between licensing authorities and the licensee are governed by public rather than private law;\(^{133}\) therefore, transfer of a subsoil use license cannot be regarded as a civil law transaction.\(^{134}\) Thus, civil law and consequently corporate law, mechanisms are likely not applicable to license transfers.\(^{135}\)

As a consequence, the standard procedure of approval of interested party and major transactions may be unavailable as a protection against unwelcome transfers of subsoil use rights.

However, as discussed above, one of the conditions for an inter-group transfer of subsoil use rights is that the transferee is provided with assets necessary to develop the field. As the assets in question usually have significant value, such transfers of assets will likely trigger corporate approval requirements both as interested party and major transactions. In addition, depending on the legal form of the transferor it may be possible to expand the scope of transactions that require approval as interested party and/or major transactions in the charter of the company.

Another corporate law tool that might be used as a protection is related to the provisions of the charter of a subsoil user. The extent to which this tool is available depends on the type of entity in question.

There are two main types of legal entities in Russia: joint stock companies and limited liability companies; the legal regime is generally more flexible for limited liability companies than for joint stock companies.

Thus, the charter of a limited liability company can provide for a broader scope of authority of the general meeting of participants than that set forth in the law. In particular, the charter can require approval by the general meeting of resolutions on the transfers of subsoil use rights. The charter of a limited liability company can also require unanimity or qualified majority for adoption of such decisions and allows, upon unanimous consent of all participants, deviation from the standard "one share – one vote" principle in favor of an disproportional distribution of votes at the general meeting of participants. The charter of a limited liability company may also require unanimity for the amendment of the charter itself, which protects minority shareholders against amendment of the charter to its detriment following acquisition.

In joint stock companies, the authority of the general meeting of shareholders is prescribed by law and cannot be expanded by the charter. The charter therefore cannot condition decisions on the transfer of subsoil use rights on shareholder approval. The law, however, does not restrict the authority of the board of directors and allows qualified majority or unanimity for passing

\(^{133}\) This view is shared in particular by E.V. Novikova, D.V. Vasilevskaya and V.D. Melgunov; see also Postanovlenie FAS Zapadno-Sibirskogo Okruga [Resolution of the Federal Arbitration Court of the Western-Siberian Region] April 21, 2004, No.Ф04/2156-219/А67.


\(^{135}\) Id.
board decisions. Thus, a minority shareholder can potentially block a decision on the transfer of subsoil use rights at the board level. For the minority
shareholder to be able to do so, (i) it should have its representatives on the
board, (ii) the charter of the company should provide that decisions on the
transfer of subsoil use rights require board approval by a qualified majority or
unanimous vote, and (iii) the votes of the minority shareholder’s
representatives on the board should be sufficient to block such decisions.

The above protections do not, however, totally eliminate the risk of
unwelcome transfers of subsoil use rights for minority shareholders in a joint
stock company. The reason is that, due to the inflexibility of the provisions of
the law, a minority shareholder may be unable to prevent the amendment of the
charter and the removal of provisions restricting the freedom of the company to
transfer subsoil use rights.

Thus, a minority shareholder in a limited liability company is in a less
vulnerable position than in a joint stock company as far as its rights to block
decisions on the transfer of subsoil use rights are concerned, provided of course
that the shareholder has managed to have all the necessary protection
mechanisms incorporated into the charter of the company.

IV. CONCLUSION

To summarize, an investor considering an acquisition of a minority stake in
a Russian company holding a subsoil use license should be aware that Russian
subsoil law allows transfers of subsoil use rights to other entities and such a
transfer may lead to total or partial loss of the investor’s investment.
Depending on the legal form and the corporate and shareholdings structure of
the company in question, it may or may not be possible to eliminate the risk of
such adverse consequences through corporate law mechanisms.

In order to mitigate the risk of unwelcome transfers of subsoil use rights, the
investor should insist, at the outset, that provisions protecting his rights are
included in the charter of the company as a condition precedent to completion
of the transaction. The investor should also stay informed about the business
of the company after completion of the acquisition and attend, whenever
possible, all meetings of the management bodies of the company in order to be
aware of the proposed transfer of subsoil use rights and to prevent the loss or
dilution of his interest in the project or negotiate favorable exit terms.