

# Gas Industry Regulatory Frameworks in BRICS Countries\*

---

---

 **Aleksander Volkov**

Associate Professor, Department of History and Theory of Law and State, St. Petersburg branch of the National Research University Higher School of Economics. Candidate of Juridical Sciences. Address: 17 Promyshlennaya Str, St. Petersburg, 198099, Russian Federation. E-mail:akvolkov28@gmail.com.

---

 **Abstract**

This article presents the results of a comparative legal analysis of gas industry regulation in BRICS countries. In addition to the description of gas production in these states, the author provides a general overview of the sources of regulatory environment in the gas sector and discusses the co-relation issues between international and national laws. The nature of legal regulation of natural gas production, transportation, distribution and trade forms a significant part of this research. The author's conclusions derive from the description of legal constraints within natural gas export and import. Firstly, all BRICS countries need to develop their respective gas industries. Some BRICS countries, like Brazil, South Africa, and, to some extent, India) are radically reforming their legal systems, while others are trying to solve their problems by opening up to government and private investments within the existing regulatory system (China and Russia). Secondly, all BRICS countries currently have high level of monopolization in production, transportation, distribution and trading (to varying degrees). However, only in Russia monopoly is legally enshrined in the area of gas export. Thirdly, it appears that all BRICS governments understand the necessity to create a competitive market environment and are taking appropriate actions. Fourthly, all BRICS countries have corruption problems, as well as problems with government failures; therefore, the effect of the reforms in the short-run will depend greatly on the political will of each respective government and to a lesser degree on the quality of legal regulation.

---

 **Keywords**

BRICS; gas industry; gas production; gas distribution; gas transportation; import-export of natural gas

---

---

Citation: Volkov A. (2014) Gas Industry Regulatory Frameworks in BRICS Countries. *Pravo. Zhurnal Vysshey shkoly ekonomiki*, no 3, pp. 172–182.

## Introduction

While international and national laws comprise independent legal systems, they do not function exclusively of one another. Their interaction with each other can be defined as a mutual dependence. On the one hand, national law-makers have to take into account existing international obligations. On the other hand, while working out international agreements, it is impossible not to take into account current national laws and regulations in order to avoid ineffi-

---

\* The study was implemented within the framework of the Basic Research Program at the National Research University Higher School of Economics in 2014.

cient and even “dead” rules. For this reason, it is essential to be aware of current national laws and the potential for their future development when creating legislation relating to the gas industry on the BRICS level which is international. First of all, it is necessary to appraise the current state and future prospects for the development of this branch of industry in different BRICS countries in order to enable ourselves to assess the necessity for and designation of such regulations.

Among BRICS countries, the Russian Federation is the only natural gas exporter (possessing more than a quarter — 32.9trn cbm or 17.6% of the world’s natural gas reserves). The rest of BRICS countries are gas importers.<sup>1</sup> China has 3.1trn cbm of natural gas or 1.7% of the world’s reserves; India has 1.3trn cbm or 0.7% of the world’s reserves (it should be noted that more than 50% of India’s sedimentary basins have not been fully explored);<sup>2</sup> while Brazil owns 0.5trn cbm or 0.2% of the world’s reserves. There is now an engineering capability to develop Brazilian gas fields, such as Jupiter and Tupi, where gas contained in so-called pre-salt soils (oil and gas are located under salt sediments at the depth of more than 7 km).<sup>3</sup> As described by Brazil’s ex-president Luiz Inácio Lula da Silva, these deposits were “the gift of God” and “Brazil’s pass to the future”.<sup>4</sup> South Africa has 0.27m cbm or 0.1 % of the world’s gas reserves. According to the latest review by the U.S. Energy Information Administration, large offshore gas deposits can be found in South Africa — up to 147m cbm of technically recoverable natural gas are in the Caru basin.<sup>5</sup>

All these countries are starving for energy resources due to the relatively high pace of their economic growth. Moreover, as a more efficient and environmentally friendly resource, natural gas is much in demand. The most common way to solve this problem is through the import of gas. However, despite the paucity of domestic natural reserves, the governments of these countries have begun to shift their focus to domestic production, which requires infrastructure, investment (including overseas investment), and necessary legal regulation.

## Sources of Legal Regulation

In order to provide a general overview of the regulatory environment in the gas sector it is useful to split BRICS countries into three groups: those with codified gas sector legislation (the Russian Federation<sup>6</sup>), those where only transport, distribution and trading of gas is regulated by the special

---

<sup>1</sup> Information on national energy resources of BRICS countries: Energy Information Administration. URL: <http://www.eia.gov/countries>.

<sup>2</sup> Bath, D.S. Legal Aspects of Oil and Gas Projects in India. *Australian Mining and Petroleum Law Journal*. 221. 1999. 221.

<sup>3</sup> Knowledge of significant reserves of natural gas contained in the continental shelf existed at the beginning of the 1950s; however, there was no method to extract it until the XXI century. Ball, A., and P. Galhardo. In *Search of Brazil’s Better Self: The Proposed Pre-Salt Regulatory Framework*. *Current International Trade*. Winter 2009. 16.

<sup>4</sup> *Ibid*.

<sup>5</sup> U.S. Energy Information Administration. <http://www.eia.gov/countries/cab.cfm?fips=SF>; BP Statistical Review of World Energy June 2013. [http://www.bp.com/content/dam/bp/pdf/statistical-review/statistical\\_review\\_of\\_world\\_energy\\_2013.pdf](http://www.bp.com/content/dam/bp/pdf/statistical-review/statistical_review_of_world_energy_2013.pdf).

<sup>6</sup> Special legislation is introduced by Federal Laws of February 25, 1992 “On Sub-soils”, of December 30, 1995 “On Product Sharing Agreement”, of February 25, 1999 “On Investment Activity in the Russian Federation in the Form of Capital Investments”, of March 31, 1999 “On Gas Supply in the Russian Federation”, of July 9, 1999 “On Foreign Investments in the Russian Federation”, of August 17, 1995 “On Natural Monopolies”, etc.

legislation (Brazil,<sup>7</sup> South Africa<sup>8</sup>) and those with no special regulation overseeing the gas sector (relationships are regulated similarly to regulations in the oil industry: India<sup>9</sup> and China<sup>10</sup>).

The system of law regulation in BRICS is international in nature. Hence, it is relevant to discuss the issues of co-relation of international and national laws. From this point of view, it is possible to distinguish three groups of countries. The Russian Federation comprises the first group: in accordance with Article 15 of the Constitution of the Russian Federation, international laws have the supreme legal force in the country. In Brazil, South Africa and India, equal legal force is in place — unless you consider some of the finer legal points — and, as a result, relative priority is given to national laws (in this case, a rule of priority of a special provision or a law introduced into effect later will work; a law introduced into effect later can be adopted at any moment by national legislative bodies)<sup>11</sup>. In China, common mechanisms for resolving disputes are set out in

---

<sup>7</sup> Brazilian legislation is introduced by Law №9.478 of August 6, 1997 (the so-called “Petroleum Law”), which finally ended Petrobras’s monopoly (Law №2.004 was abolished). On March 3, 2009, the so-called “Gas Law” №11.909 was adopted. It was designed to regulate the relationships in the sphere of transportation, processing, storage and realization of natural gas. The above-mentioned law does not regulate gas production, which is currently covered by the “Petroleum Law”. Brazilian legislation is quite clear and has a high level of juridical technicalities. The only issue facing the legislation is its “youth”, which, as a consequence, leads to difficulties of interpretation.

<sup>8</sup> Legal gas regulation in South Africa is covered in the 1977 Petroleum Products Act №120 (amended by the 2005 Petroleum Products Amendment Act №2), the 1977 Central Energy Fund Act №38, the 1977 Mining Titles Registration Act (amended by the 2003 Mining Titles Registration Amendment Act №24), the 1994 Central Energy Fund Amendment Act №48, the 2001 Gas Act №48 (amended by the 2004 Amendment Act №40), the 2002 Mineral and Petroleum Resources Development Act №28 (amended by the 2008 Mineral and Petroleum Resources Development Amendment Act №49), the 2002 Gas Regulator Levies Act №75, the 2004 National Energy Regulator Act №40, the 2008 National Energy Act №34, the 2008 Mineral and Petroleum Resources Royalty Act №28, etc.

<sup>9</sup> India has passed a series of legislation relating to petroleum and petroleum products (gas): the Petroleum Act of 1934, the Oil Fields (Regulation and Development) Act of 1948, the Mines Act of 1952, the Mines and Minerals (Development) Act of 1957, the Industries (Development and Regulation) Act of 1957, the Petroleum and Natural Gas Rules of 1959, the Petroleum and Minerals Pipelines (Acquisition of Right of User in Land) Act of 1962, the Oil Industry (Development) Act of 1974.

<sup>10</sup> In China, special legislation was introduced by the Law of March 19, 1986 “On mineral resources”, adopted after seven years of discussion (amended on August 29, 1996). On March 26, 1994, China’s State Council adopted the Regulations “On the Rules of implementation of the Law “On mineral resources””. Additionally, on February 12, 1998, three further amendments were adopted. In addition to the above-mentioned laws, basic legislation regulating this industry comprises two State Council regulations: “On Exploitation of Offshore Oil Resources in Cooperation with Foreign Parties”, dated 30 January 1982, and “On Exploitation of Onshore Oil Resources in Cooperation with Foreign Parties”, dated 7 October 1993. In fact, more than 200 pieces of legislation in China determine various aspects of foreign investor relations. Overall, Chinese legislation requires work in order to bring it in line with the country’s international obligations. Additionally, China maintains a number of “hidden” laws, some of which are not published and which are only known to public servants.

<sup>11</sup> According to paragraph 51 of the 1949 Indian Constitution, the State shall endeavour to (c) foster respect for international law and treaty obligations in the dealings of organized peoples with one another and (d) encourage settlement of international disputes by arbitration. Paragraph 253 outlines that Parliament has the power to make any law across the whole or any part of the territory of India to implement any treaty, agreement or convention with any other country or countries or any decision made at any international conference, association or other body. Section 231 of South Africa’s 1996 Constitution states that international agreements are considered binding only after both the National Assembly and the National Council of Provinces have approved them (2). An international agreement of a technical, administrative or executive nature, or an agreement which does not require either ratification or accession, entered into force by the national executive, becomes binding without the approval of the National Assembly and the National Council of Provinces, but it must be tabled in the Assembly and the Council within a reasonable amount of time (3). Any international agreement becomes South African law when it is enacted into law by national legislation, but a self-executing provision

the country's constitution or in its laws. The Contract Procedure Act does not contain provisions concerning the priority in the application of international treaties over national legislation and the possibility of direct operation of the rules of international agreement in China.<sup>12</sup>

Moreover, most BRICS countries have specialized sub-legislative regulatory bodies (other than ministries): the Federal Tariff Service in Russia, the National Agency of Petroleum, Natural Gas and Biofuels in Brazil (ANP), the Directorate General of Hydrocarbons (production) and the Petroleum and Natural Gas Regulatory Board (transportation) in India, and the Petroleum Agency in South Africa (production) and the National Energy Regulator (transportation) in South Africa. China is the only BRICS country with no established body for regulating the gas sector.

## Legal Regulation of Natural Gas Production Forms of Access

Licensing provides a legal form of access to exploration and production of natural resources in China<sup>13</sup> and South Africa.<sup>14</sup> India, however, has been using a contractual approach since 1997, using production sharing agreements based on tenders.<sup>15</sup>

---

of an agreement that has been approved by Parliament becomes South Africa law unless it is inconsistent with the Constitution or an Act of Parliament (4). Customary international law becomes South African law unless it is inconsistent with the Constitution or an Act of Parliament (section 232). When interpreting any legislation, every court must prefer any reasonable interpretation of the legislation that is consistent with international law over any alternative interpretation that is inconsistent with international law (section 233). The principle of international law supremacy does not exist in Brazil. Brazil's Supreme Federal Court recognized that international treaties approved by the National Congress have equal force with national legislation (Justice Celso de Mello Ext 662-2/PU-PERU 28.11.1996. In DJU of 30.05.1997). The only exception to this rule are the conventions on human rights protection, which have equal legal force as the amendments to the Brazilian Constitution (Amendment no 45 of December 8, 2004 to the Brazilian Constitution).

<sup>12</sup> Tsuanley U. Problemy vzaimodeistvia mezhdunarodnogo i natsionalnogo pravovogo regulirovaniya inostrannykh investitsiy v Kitae: publichnyi aspekt. Kazan. 2008. 20.

<sup>13</sup> The order of license receipt is regulated by the State Council Regulation of April 27, 1987, "On registration of production of mineral resources". The license is provided by the State Council's Department of Geology and Mineral Resources for the period of 10 years, with the right to a further extension of 30 years, taking into account the volume of the deposit site (article 7). The holder of the license can terminate its license with the consent of the Department and relevant regional and provincial executive organs; however, in practice a transfer of rights is difficult to implement.

<sup>14</sup> The Minister of Minerals and Energy of RSA may invite applications for production rights to any block or blocks by publication of the notice in the Gazette. The Minister must grant a production right if the applicant has access to financial resources and has the technical ability to conduct the proposed production operation optimally; the estimated expenditure is compatible with the intended production operation and duration of the production work programme; the production will not result in unacceptable pollution, ecological degradation or damage to the environment; the applicant has the ability to comply with the relevant provisions of the Mine Health and Safety Act, 1996 (Act №29 of 1996); the applicant has provided financial resources and otherwise for a prescribed social and labor plan. A production right is subject to prescribed terms and conditions and is valid for the period specified in the right, each of which may not exceed 30 years. Any holder of a production right who wishes to apply to the Minister for the renewal of a production right must lodge an application. A production right may be renewed for further periods, each of which shall not exceed 30 years.

<sup>15</sup> The first product sharing contracts were concluded in January 1999. The new rules allowed private companies to bid for oil and gas exploration blocks, with no limitation on the number of blocks and foreign participation (100% foreign direct investment is allowed), with no automatic state participation in commercial discoveries. Companies, including ONGC and OIL, were in equal position, being paid the international price of oil for new discoveries made under the policy.

In accordance with Brazil's Petroleum Act, production is carried out on the basis of concession contracts (based on public tenders) or production sharing agreements (the latter are only applicable to pre-salt deposits and areas proclaimed by the Brazilian government to be "strategic"). Production sharing agreements<sup>16</sup> are contracted for 35 year-terms with a consortium of companies. Petrobras is the only operator responsible for carrying out the exploration and production of a gas deposits.

In the Russian Federation, there are also two legal approaches to natural gas production: the licensing approach (licenses are awarded by tenders and competitions) and production sharing agreements. This model can provide a real inflow of investments, despite existing issues of inflation, the lack of an effective tax system, and political and legal instability.<sup>17</sup> However, subsoil areas according to the production sharing agreement are not currently distributed. In Russia, there are only three ongoing production sharing agreements: "Sakhalin-1", dated June 30, 1995,<sup>18</sup> "Sakhalin-2", dated June 22, 1994,<sup>19</sup> and "Kharyaga", dated December 20, 1995, which concluded before the law concerning production sharing agreements came into force.

Thus, only two countries use a contracted form of access to exploration and production of natural resources (Brazil, India), while the other three use only the licensing approach. A distinctive feature of legal implementation in gas production in BRICS countries, notwithstanding the form of access, is the dominance of state-owned companies: Gazprom JSC in Russia, the Petroleum Oil and Gas Corporation of South Africa (PetroSA) in South Africa, China National Petroleum Corporation (CNPC), China Petrochemical Corporation (SINOPEC) and China National Offshore Oil Company (CNOOC) in China, Petrobras in Brazil, and Oil and Natural Gas Corporation (ONGC) and Oil India Limited (OIL) in India.

## Participation of Foreign Investors

India, South Africa and Brazil provide a favourable environment to foreign investors, with no particular limitations and the permission to invest in production streams with 100% foreign capital. In Brazil, gas production companies must be established in accordance with Brazilian law, and must have their own head office and administration in Brazil, regardless of citizenship of the entity's owners. However, acquiring stakes and shares in such a company is possible only with the approval of antitrust authorities, ANP and the state regulatory body (as appropriate). Moreover, a foreign investor must be registered and is required to declare their investments to the Brazilian Government using the Central Bank of Brazil's (SisBacen) electronic system.

Even more severe restrictions were introduced in the Russian Federation and China. In China, state-appointed companies CNPC, SINOPEC, and CNOOC are responsible for cooperation with foreign partners. With an authorization from the Chinese Ministry of Economy, these companies can set up so-called production sharing agreements<sup>20</sup> with foreign investors.

---

<sup>16</sup> The model is used in countries with huge reserves of natural resources and insignificant risks of exploration and production activity. Ball, A., and P. Galhardo. In *Search of Brazil's Better Self: The Proposed Pre-Salt Regulatory Framework*. Current International Trade. Winter 2009. 18.

<sup>17</sup> Konoplyannik A., Subbotin M. "Prirodnye" romitety srazhayutsa s natsionalnoy. <http://www.yabloko.ru/Publ/Srp-ks/srp-ks-3.html>.

<sup>18</sup> The review of project "Sakhalin-1". <http://www.sakhalin-l.com/project/prjoverview.asp>.

<sup>19</sup> The review of project "Sakhalin-2". <http://www.sakhalinenergy.ru/ru>.

<sup>20</sup> Usually, the contract is titled "Petroleum contract", and can also be used for natural gas.

Such agreements differ from similar contracts in Russia and are largely determined by the model contract, as revised in 2007.

In Russia, the national legal regime is executed in relation to foreign investors according to the general rule. However, specific limitations were set following the ratification of Federal Laws №57-FZ “Foreign Investments in the Business Entities of Strategic Importance for National Defense and State Security”, dated April 29, 2008, and №58-FZ “Introducing Amendments to Certain Legislative Acts of the Russian Federation and Abolition of Certain Provisions of Legislative Acts of the Russian Federation in connection with the adoption of the Federal Act, Foreign Investments in the Business Entities of Strategic Importance for National Defence and State Security Act”. These laws deal with restrictions applied to companies engaged in geological exploration and/or mineral prospecting and production in subsoil areas of federal significance.<sup>21</sup> Only legal entities which are established in accordance with Russian law, which have at least five years of experience in subsoil exploration in the continental shelf of the Russian Federation, and which have more than 50% share/contribution from the Russian Federation in their authorized capital can be considered to become subsoil users.

## Legal Regulation of Natural Gas Transportation

In Russia, Federal Law №147-FZ, dated August 17, 1995, “Natural Monopolies Act Gas Shipment” stipulates that transportation of natural gas along pipelines is covered by natural monopolies. Consequently, Gazprom JSC controls the country’s gas transport system. Federal Law №69-FZ, dated March 31, 1999, “Gas Supply in the Russian Federation” maintains some guarantees for non-discriminatory access of any enterprise to the gas transport networks (article 27). However, these provisions are potentially not adequate for overseas companies due to potential limitations in terms of access, based, for example, on technical unfeasibility. Additionally, restriction to gas transit access is frequently used as a political tool. It is possible to appeal access restrictions to the antitrust authority or through legal proceedings. The Federal Tariff Service determines rates for the country’s main gas pipelines.

In South Africa, the gas regulator grants licenses for pipeline construction and operation. It is important to note that licenses are granted for various kinds of activity, including construction, custody, and operation. Activities of vertically integrated companies at different market levels are carried out separately, using different separate accounts, with no information swapping or cross-subsidization allowed. The gas regulator has the right to adjudicate disputes between different parties, as long as it has their consent to do so.

Prior to 2006, India’s GAIL Ltd<sup>22</sup> held a monopoly over the country’s gas transportation sector. In December 2006, the Indian government decided to push network construction, opened the transportation market, and allowed Reliance Gas Transportation Infrastructure Ltd

<sup>21</sup> Areas of federal significance are measured for the purposes of the country’s defense and security and include deposits of natural gas with reserves of more than 50bn cbm (article 2 of Federal Law no58-FZ).

<sup>22</sup> GAIL Ltd was incorporated in August 1984 as a Central Public Sector Undertaking (PSU) under the Ministry of Petroleum and Natural Gas (MoP&NG). The company was initially given the responsibility of constructing, operating and maintaining the Hazira, Vijaypur, Jagdishpur (HVJ) pipeline project. It was one of the largest cross-country natural gas pipeline projects in the world. Originally this was a 1,800 km pipeline, which set out the foundation for the development of the natural gas market in India. Having started out as a natural gas transmission company in the late 1980s, GAIL Ltd has grown organically through the construction of a large network of natural gas pipelines covering more than 9,500 km. Today, GAIL Ltd accounts for 78% of India’s gas transmission business. [http://www.gail.nic.in/final\\_site/successstory.html](http://www.gail.nic.in/final_site/successstory.html).



(RGTIL), a privately held company, to undertake this. Regulator PNGRB ensures third party access to one third of the company's transport capacity and prescribes transportation rates.<sup>23</sup>

In Brazil, Petrobras monopolized the gas transportation sector until 1997. Following the introduction of the Petroleum Act, Petrobras founded Transpetro to carry out independent oversight and to ensure liberalized access to the gas transportation network. The introduction of the 2009 Gas Law aimed to ensure independent transportation and new investments into the country's gas transportation sector. Henceforth, natural gas transportation (construction, expansion and gas pipeline transportation management) has been carried out using a permit system (used only when pipelines are the subject of international agreements) or tender-based concession agreements.

Transportation tariffs, paid by customers of natural gas transportation services and managed through concession agreements, are set by ANP. Access to pipelines is granted through transportation service contracts. Access refers primarily to free capacity; access to earmarked idle capacity becomes possible only after free capacity access has been depleted. Disputes in natural gas transportation contracts are subject to consideration by ANP, which doesn't exclude appeals to any court, including arbitration courts.

In China, gas pipelines belong either to CNPC (80%) or SINOPEC (20%). These two companies set transportation tariffs independently<sup>24</sup> and don't ensure the right of third party free access to their infrastructure. As such, state control is minimal in this area.<sup>25</sup> As a result, other companies have two alternatives: they can either sell gas to companies-gas pipeline owners under their terms and conditions or sell gas at local markets. The creation of an independent regulator, which would design laws relating to tariffs and free access to gas transportation infrastructure and transport capacity, could become a significant contribution to the development of a competitive industry.<sup>26</sup>

Therefore in BRICS countries there is a monopoly of state companies in the field of natural gas transportation. But at the same time in all BRICS countries except China the access of third parties to the pipelines is ensured and the separation of the activities between production, transport, storage is implemented. Transportation tariffs in all BRICS countries, with the exception of China, are regulated. And it is the State which is responsible for the development of transport system (in Russia in directly through state control company).

## Legal Framework of Natural Gas Distribution and Trade

In accordance with the 1988 Brazilian Constitution, gas distribution regulation falls within the authority of the country's states (article 25).<sup>27</sup> Therefore, each constituent entity of the federation has its own pattern of relationship-building. However, these patterns are based on similar principles and institutions: concession contracts on natural gas distribution; licenses for con-

---

<sup>23</sup> Official site of the Petroleum and Natural Gas Regulatory Board. <http://www.pngrb.gov.in/newsite/the-act.html>.

<sup>24</sup> These respect the limits set by the Chinese government. The upper limit comprises the prime costs of the pipeline and management operations, plus 12% profit.

<sup>25</sup> Wei W., Peng X., Hou Y., Chen B., Du J., Wang G. Gas in China. The Impacts and Benefits of Structural Reforms in the Transport, Energy and Telecommunications sectors. APEC Policy Support Unit. 2011. 374.

<sup>26</sup> Corbeau A.-S., Volk D., Sinton J., Ping J.J.J., Teng T., Boshu L., Fen Y. Gas Pricing and Regulation. China's Challenges and IEA Experience. 2012. 30. [http://www.iea.org/publications/freepublications/publication/ChinaGasReport\\_Final\\_WEB.pdf](http://www.iea.org/publications/freepublications/publication/ChinaGasReport_Final_WEB.pdf).

<sup>27</sup> State-level legislation does not regulate the distribution of Liquefied Natural Gas (LNG). This activity is regulated by ANP user licenses.

struction of gas distribution pipelines and maintenance; tariffs are set by each state's regulating authority, taking into account investment costs, management and maintenance, and principles of rationality, transparency, publicity and equipment considerations.

Non-discriminatory access to the network is provided following a payment to tap to the net. The tariff is set by the parties, operator and the customer, through negotiation and is recorded in the contract, which has to be registered by the state regulator. Despite discretion in state regulation of this area, 18 of 27 distribution companies are more or less controlled by Petrobras.<sup>28</sup> Distribution companies are monopolies in pipeline gas trade (with no fixed tariffs) based on natural gas sales contracts registered by ANP.

In contrast with Brazil, there is no unified systematized legislation regulating natural gas distribution and trade in China. Taking into account the fact that in urban areas it is impossible to have several gas distribution networks, most distribution companies are not obligated to ensure third party access to the network; most of the companies belong to and are managed by local authorities. On December 27, 2002, the Chinese Ministry of Construction issued the "Guidance on how to Speed Up the Transition of Municipal and Public Sectors into the Market Economy". As a result, this area was opened to privately held companies, including foreign companies. According to tender results, over 60 privately held companies obtained licenses for gas distribution in cities like Shanghai and Guangdong.<sup>29</sup> Another trend emerged as well: CNPC began negotiations with Hebei and Gansu authorities and other provincial authorities to obtain licenses for gas distribution. Inevitably, the risk of corporate giants winning tenders to produce, transport and distribute natural gas arose. Such a scenario would produce a more closed gas sector, which would possess barriers to entry for new market players. Natural gas sale tariffs are set by local authorities, which take into account production, transportation and distribution costs. A distinguishing characteristic of tariff regulation in China (as well as in Russia) is the price differentiation for industrial and domestic customers, whereby tariffs for domestic customers are lower.<sup>30</sup>

In August 2007, the Chinese government set out a policy to reform price setting: gradual surrender of state tariff setting, transition to market-based instruments of pricing, natural gas price pegging to the cost of alternate sources of energy, gradual increase in natural gas prices, and price equalization to world market prices. The Chinese government has already started to create so-called hubs, or distribution trade centres, which determined prices according to the market. One of those hubs was set up in Shanghai.

In South Africa, there is a natural gas distribution and trading licensing system. The distributor carries out its work in a certain sphere and is obliged to supply gas to any party concerned (if economically possible). The regulator only sets maximum prices, while NERSA (National Energy Regulator of South Africa) investigates customer complaints. At the moment, Sasol Gas is the country's main distributor, with only a few clients. Indian PNGRB organizes tenders for distribution of licenses relating to supply network construction and its operation. Licenses are provided for five-year terms. Foreign and Indian companies have equal opportunities. The first tenders took place in 2008 and 2009, with 41 cities today having been provided with distribution networks.

<sup>28</sup> Official site of the U.S. Energy Information Administration. <http://www.eia.gov/cabs/brazil/Full.html>.

<sup>29</sup> Working Paper of the International Energy Agency. Natural Gas in China. Market Evolution and Strategy. 2009. [http://www.iea.org/publications/freepublications/publication/nat\\_gas\\_china.pdf](http://www.iea.org/publications/freepublications/publication/nat_gas_china.pdf).

<sup>30</sup> Ordinary, prices for industrial users are lower because of lower transportation costs.



In India, licence system (received as a result of a tender) for distribution is used. GAIL Ltd is the leading company not only in gas transport sector, but also distribution and trading, selling 51% of the country's natural gas. Gas produced by ONGC and partially joint venture companies is sold by GAIL, while OIL sells gas which has been produced using its own resources. Recently, GAIL has set up regional joint ventures with local authorities. The gas pricing system is dualistic: the government sets market tariffs for gas produced by ONGC and OIL, while tariffs for gas sold by privately-held companies or joint ventures are set according to production sharing agreements. This area needs reforming. One suggestion is to increase prices at the former market, the other one is to unify the approach and set uniform prices for gas tariffs. In 2010 regulated tariffs had nearly doubled, which implies that, so far, the Indian government has followed the former approach.

In Russia, specialized gas distribution organizations (GDOs) operate gas supply networks. Today, there are 310 GDOs in Russia, 1-24 GDOs for a constituent entity of the Federation, two thirds of them are the branches of Gazprom through Gazpromregiongas. The same situation is for trading: Gasprom Mezhhregiongaz undertakes gas trading services through its 50 regional gas companies (Gasprom regional gas companies).

In terms of gas trading arrangements, the Russian market can be divided into the wholesale (regulated and unregulated (the price is not fixed) with participation of independent producers) and retail markets. At the wholesale market, contracts, including those arranged through open trade, comprise significant volumes of gas being traded. Under existing laws, all aspects of consumer prices for natural gas are approved at the federal level by the Federal Tariff Service.

In the majority of BRICS countries, gas distribution and trade is subject to monopolistic oversight. Trading and distribution still are not really: gas trading is done by the distribution companies, except Russia, but even there they are controlled by vertically integrated company. However, all BRICS governments have made attempts to transition to a regime of granting natural gas distribution licenses through tenders (Brazil, South Africa, India, China) and to providing freedom of choice when selecting a supplier (restricted in Russia, South Africa, Brazil).

Tariffs in all BRICS countries are set by fiat; however, China, India and even Russia have already taken steps to abolish price control, though they are in the early stages of this process.

## Legal Regulation of Export/Import of Natural Gas

Natural gas is subject to import/export control. In South Africa, a company or an individual that intends to import or export natural gas needs an import or export permit. The issuing of petroleum import and export permits is subject to requirements administered by the Department of Energy. The person or entity that intends to import/export gas must request an import or export permit application form from the International Trade Administration Commission, complete the application form and submit it to the Department of Energy for authorization. Import permits are valid for twelve months and export permits for six months.<sup>31</sup>

Prior to the introduction of NELP in India,<sup>32</sup> private exploration companies operating under production sharing contracts had little independence, largely because the government either

---

<sup>31</sup> South Africa Government Services. Import or export permits for petroleum products. [http://www.services.gov.za/services/content/Home/OrganisationServices/Import/Importandexportpetroleumproducts/en\\_ZA](http://www.services.gov.za/services/content/Home/OrganisationServices/Import/Importandexportpetroleumproducts/en_ZA).

<sup>32</sup> The New Exploration Licensing Policy. In 1997, the government of India and the Directorate General of Hydrocarbons formulated the NELP and started a new era of production-sharing contracts. The policy, which aimed to create a more investor-friendly framework, consisted of the following steps: the deregulation of the upstream sector; the opening doors to private and foreign investors; the promise to give companies the right

bought gas based on a fixed formula or, in a few cases, allowed it to be exported.<sup>33</sup> Today, companies can export gas only when India attains self-sufficiency in natural gas supplies in any given year. In the event that this takes place, domestic sale obligations will be suspended for a period specified by the Indian government, and the company will have the right to export its participating interest share of natural gas during the given period, subject to any other extant policy guidelines of the government. Therefore, import of natural gas in India can be granted through licenses made available by the Ministry of Petroleum and Natural Gas. In fact, India does not have any pipeline connections, though there are pipeline projects covering Iran-Pakistan-India, Turkmenistan-Afghanistan-Pakistan-India, and Myanmar-India. So all the gas currently imported to India is LNG and comes from Qatar, Australia, Russia, Egypt, Oman, Nigeria, and Indonesia.<sup>34</sup>

Currently, Brazil does not really export natural gas. In 2011, 10.5bn cbm were imported (9.8 cbm from Bolivia and the rest from Trinidad and Tobago, USA, and Qatar).<sup>35</sup> The share of LNG (liquid natural gas) in proportion to pipeline gas has a tendency to rise. Not surprisingly, three LNG factories were constructed<sup>36</sup> in Paulina, Pecem and in Guanabara Bay.<sup>37</sup>

The Brazilian Ministry of Mines and Energy can authorize export-import operations for any given company or group of companies, as set out in regulations outlined by the National Council for Energy Politics (CNPE) and ANP. Frequently, concession agreements contain clauses which allow the possibility of ANP imposing export interdiction in circumstances where internal demand for gas is not satisfied.

As to Russia, according to article 3 of Federal Law, dated July 18, 2006, “On gas export” the exclusive right for gas export belongs to a possessor of the unique system of gas-supply or its subsidiary company Gazprom-Export LLC. Only gas produced under production sharing agreements, agreed before the above-mentioned law had taken effect, is not covered by this regulation. But even in this instance, Gazprom JSC “convinced” ExxonMobil to assign exclusive rights to export natural gas produced at the Sakhalin-1 project. This law was invalidated because of the importance of securing national energy security, preventing the exhaustion of natural resources, fulfilling international obligations, and maintaining the country’s energy balance. It is believed by sciences that listed objects could be achieved not by the complete ban of export activities of other companies but by the fixation of the quotas for export or introducing the license regime like it is practiced in China<sup>38</sup> and USA.

---

to sell gas at market prices in the domestic market, with the government having a final say on pricing; and the gradual evolution to full market pricing. See Correau, A.-S. International Energy Agency. Natural Gas in India. 2010. [http://www.iea.org/publications/freepublications/publication/natural\\_gas\\_india\\_2010.pdf](http://www.iea.org/publications/freepublications/publication/natural_gas_india_2010.pdf).

<sup>33</sup> Jain, Anil, and Sen Anupama. Natural Gas in India: An Analysis of Policy. 2011. [http://www.oxfordenergy.org/wpcms/wp-content/uploads/2011/05/NG\\_50.pdf](http://www.oxfordenergy.org/wpcms/wp-content/uploads/2011/05/NG_50.pdf).

<sup>34</sup> India joined the global LNG market in March 2004, as the Dahej LNG terminal became operational. Petronet LNG Limited, a joint venture promoted by GAIL, IOCL, Bahrat Petroleum, GDF Suez, the Asian Development Bank and the ONGC was formed to import LNG in order to meet the growing demand for gas. The second LNG terminal is the Shell and Total terminal (4.8bn cbm located in Hazira, which was commissioned in April 2005. Both are located on the western coast and could be further expanded. The third terminal, the Dabhol- Ratnagiri LNG terminal, has a total capacity of 7.5 cbm.

<sup>35</sup> Official site of ANP. [http://www.anp.gov.br/?pg=60983 noSe\\_\\_o\\_2](http://www.anp.gov.br/?pg=60983%20noSe__o_2).

<sup>36</sup> Activity in the LNG domain is regulated by act of ANP no 118. 2000.

<sup>37</sup> Rolim, M.J., and V.S. Henriques. Brazil in “The International Comparative Legal Guide to: Gas Regulation 2010”. [www.iclg.co.uk](http://www.iclg.co.uk).

<sup>38</sup> Blumental, D., T.L. Chua, and A. Au. Upstream Oil and Gas in China. <http://www.velaw.com/uploaded-Files/VEsite/Resources/20-Vol3SecVCh3UpstreamOilandGas.pdf>.

At the same time liberalization arrives even in this sector. The first of December 2013 new amendments to the law “On gas export” were adopted. They finally made possible to make export of LNG.

## Conclusion

Based on the comparative legal overview provided in this paper, we can draw the following conclusions. Firstly, all BRICS countries need to develop their respective gas industries. Some BRICS countries, like Brazil, South Africa, and, to some extent, India) are radically reforming their legal systems, while others are trying to solve their problems by opening up to government and private investments within the existing regulatory system (China and Russia). Secondly, all BRICS countries currently have high level of monopolization in production, transportation, distribution and trading (to varying degrees). However, only in Russia monopoly is legally enshrined in the area of gas export. Thirdly, it appears that all BRICS governments understand the necessity to create a competitive market environment and are taking appropriate actions. In all this states the production sector is liberalized, there is free access to transport, except China. In Brazil there are bids for receiving the licenses for all the activities in the gas industry (which are separated, except commercialization and distribution), price is free for consumers, but still no freedom to choose a supplier. In Russia the Government took measures for unbundling the vertical integrated company, there is a wholesale market with a partly deregulated price. Even in China the liberalization has started, but till now only distribution is deregulated. In India we have partly free price on the market, bids for receiving licenses for transport, distribution as in RSA. Fourthly, all BRICS countries have corruption problems, as well as problems with government failures; therefore, the effect of the reforms in the short-run will depend greatly on the political will of each respective government and to a lesser degree on the quality of legal regulation.



## References

- Information on national energy resources of BRICS countries: Energy Information Administration. Available at: <http://www.eia.gov/countries> accessed 20.08.2014.
- Bath D.S. (1999) Legal Aspects of Oil and Gas Projects in India. *Australian Mining and Petroleum Law Journal*, no 18, pp. 221-240.
- Ball A., Galhardo P. (2009). In Search of Brazil's Better Self: The Proposed Pre-Salt Regulatory Framework. *Current International Trade*, winter, pp. 16-25.
- Konoplyannik A., Subbotin M. “Prirodnye”romitety srazhayutsa s natsionalnoy. Available at: <http://www.yabloko.ru/Publ/Srp-ks/srp-ks-3.html> accessed 20.08.2014.
- Wei W., Peng X., Hou Y., Chen B., Du J., Wang G. (2011) Gas in China. *The Impacts and Benefits of Structural Reforms in the Transport, Energy and Telecommunications sectors*. Adelaide: APEC Policy Support Unit, pp. 370-384.
- Corbeau A.-S., Volk D., Sinton J., Ping J.J.J., Teng T., Boshu L., Fen Y. (2012) *Gas Pricing and Regulation. China's Challenges and IEA Experience*. Available at: [http://www.iea.org/publications/freepublications/publication/ChinaGasReport\\_Final\\_WEB.pdf](http://www.iea.org/publications/freepublications/publication/ChinaGasReport_Final_WEB.pdf) accessed 20.08.2014.
- Working Paper of the International Energy Agency. Natural Gas in China. Market Evolution and Strategy*. (2009). Available at: [http://www.iea.org/publications/freepublications/publication/nat\\_gas\\_china.pdf](http://www.iea.org/publications/freepublications/publication/nat_gas_china.pdf) accessed 20.08.2014.
- Rolim M.J., Henriques V.S. *Brazil in “The International Comparative Legal Guide to: Gas Regulation 2010”*. Available at: [www.iclg.co.uk](http://www.iclg.co.uk) accessed 20.08.2014.
- Blumental D., Chua T.L. *Upstream Oil and Gas in China*. Available at: <http://www.velaw.com/uploaded-Files/VEsite/Resources/20-Vol3SecVCh3UpstreamOilandGas.pdf> accessed 20.08.2014.