

## **The energy dimension of the “Pivot to Asia” strategy: moving towards a regional cooperation in the Asia-Pacific geopolitical chessboard?**

### **Abstract**

The achievement of the energy security condition - namely to preserve regular energy supplies without disruptions - is one of the main target for both energy suppliers and energy consumers (importer countries) in the global scenario.

In the Asia-Pacific region, the geographical proximity and its huge oil and natural gas reserves legitimize Russia as strategic gas supplier for Asian countries. As a matter of the combination between the high energy demand of China, Japan, South Korea and Russia's aim to implement an eastward corridor of energy exports will draw up a strategic convergence of interests in order to achieve a shared condition of energy security.

Following the 2014 events (annexation of Crimea) and western sanctions, Russia has concretely undertaken a strategy of energy diversification more focused on Asian markets, in order to reduce its dependence on gas exports to the EU markets. For Asian countries Russia represents a geographically closer and reliable partner which will allow them to benefit of energy imports which don't have to cross any maritime chokepoints (such as Malacca and Hormuz) reducing their condition of vulnerability linked to the threat of disruptions along the maritime routes

The aim of this paper is to analyze the potential geopolitical impact of this energy cooperation between Russia and East Asian countries: does the energy dimension of the “Pivot to Asia” strategy could allow Russia to reorient its oil&gas exports to East? Can Russia become one of the main energy suppliers for East Asian countries, allowing them to solve the “Malacca dilemma”?

The development of an eastward energy corridor appears profitable especially for China, which could benefit of both overland and maritime import routes from Russia: moreover, sharing a border with Russia, China could avoid the threat of a potential interruption of the energy flows linked to the transit on third country.

### **Energy security in the Asia-Pacific region**

Commonly, energy security is defined as “the uninterrupted availability of reliable energy supplies at affordable prices” **Considering the condition of strong dependence on oil and**

**gas imports of the main economies in the Asia-Pacific region (namely China, Japan and South Korea) the availability of regular energy supply - without interruptions - represents a strategic stronghold of their energy security policy.** As a matter of fact, a prolonged interruption of the energy flows to these Asia-Pacific markets could be a serious threat for their economic growth, which needs huge availability of oil (and potentially gas) in order to support GDP growth rate.

**Given the combination among current high energy consumption, the expected growth of oil and gas demand and the insufficient (or inexistent) domestic production, China, Japan and South Korea will be exposed to a rising dependence on energy imports, drawing up a dangerous condition of vulnerability which negatively affects their energy security status.**

**China currently is the largest global energy consumer and the world's second largest oil consumer behind the United States. According to U.S. Energy Information Administration (EIA), Japan is the third largest oil consumer in the world, while South Korea is the eight-largest energy consumer in the world.**

**Moreover, these countries are in a dominant position in the liquefied natural gas (LNG) markets, because Japan is the world's first largest LNG importer while China surpassed South Korea in 2017 to become the world's second-largest LNG importer.**

Unlike other North East Asian countries, China can rely on huge oil and gas reserves but these are not sufficient to cover the growing energy demand: in 2017 Beijing produced 3,84 million barrels of oil per day (bbl/d), which were not enough to satisfy the domestic demand which reached 12,79 million bbl/d, pushing China to import nearly 8,9 million bbl/d.

According to the World Energy Outlook 2017 following the continued increases in demand for transport fuels China will become the world's largest oil consumer by 2030, taking over from the United States, but the declining domestic oil production will push China to increase its oil imports from current 8.9 million bbl/d. to 13 million bbl/d. by 2040.

China holds the second largest gas reserves in the Asia-Pacific region (3.1 trillion cubic metres, tcm) and the largest shale gas reserves (unconventional gas) in the world - 31.5 tcm, even if at present coalbed methane is the primary source of unconventional gas commercially produced in China - but natural gas accounts only for 6 percent of the country's total primary energy consumption, even if its use is rapidly increasing.

China will need additional volumes of natural gas to implement its “energy revolution

strategy”, making gas, not coal, the primary fuel for heating, industry and power generation: natural gas demand rises to over 600 billion cubic metres (bcm) by 2040 and the share of gas in China’s primary energy mix rises from under 6 percent to over 12 percent during this period.

**Given their geographic location, maritime routes are the main supply corridors for China, South Korea and Japan, which rely to various degrees on oil and gas imports delivered with oil and LNG tankers. Consequently, security of supply and the security of the Sea Lines of Communications (SLOC'S) are one of the most strategic goals of their foreign energy policy.**

**Japan and South Korea have not overland oil and gas pipelines, so they completely rely on maritime energy routes, in order to meet their energy needs, while China has the opportunity to mitigate this weakness, also benefiting of overland routes of energy imports.**

**This strong reliance on maritime energy routes as the main supply energy corridors clearly represents a dangerous factor of vulnerability especially because these energy routes obligatory cross the maritime chokepoints of Hormuz and Malacca, where colliding geopolitical interests and strategic issues could affect the global energy transit, posing serious geopolitical concerns for Asian-Pacific energy consumers.**

If Malacca is the strategic energy gateway for oil maritime imports shipped to Asian markets, 16 million barrels of oil per day cross Malacca, Hormuz is equally strategic given that it is daily crossed by 18.5 million barrels of oil produced by Middle East countries, and 80 percent of these volumes went to Asian markets.

**Concerning oil, more than half of Chinese oil imports cross Hormuz chokepoint but over 75 percent of Chinese oil imports flow through Malacca straits (Beijing also imports oil from Africa), while the dependence of South Korea and Japan on oil imports from Middle East is higher, accounting for nearly 82 percent for both. Considering that Japan also imports oil from African producers, nearly 87 percent of Tokyo's oil imports totally cross Malacca strait.**

A potential blockage or a disruption of the energy transit through Malacca could be a serious geopolitical threat, which could provoke heavy economic and financial losses for Asian countries, also affecting their energy security condition.

As a matter of fact, following the potential blockage of Malacca, oil and LNG tankers

should be rerouted around the Indonesian archipelago, with additional shipping costs also rising energy prices.

Mainly China fears that international terrorists or hostile powers could seize control of the straits and block nearly all of China's energy imports. However the main concern for China is linked to the potential geopolitical competition and rivalry with the US: their active presence in the Asian Pacific waters could also lead US to enhance their strategic influence on Malacca strait, allowing them to check and geopolitically contain the rise of China and control the flow of energy.

The situation appears slightly different in the gas sector, because the dependence on LNG gas imports delivered through maritime chokepoints is less pronounced. In this case, Asian-Pacific countries have successfully adopted a strategy of diversification, developing energy partnership with several suppliers and lessening the dependence on LNG imports coming from Qatar, Oman and African suppliers.

### **Russia and eastward route of export: a concrete reliable energy supplier in the Asia-Pacific region**

If the availability of regular energy supply - without interruptions - represents the main precondition to achieve energy security, Asian-Pacific countries have to successfully implement a geographical diversification's strategy of energy import routes, partially solving the so-called "chokepoint dilemma".

**If China could be able to develop endogenous reserves and to implement overland pipelines to preserve its energy security, South Korea and Japan are characterized by a different energy scenario compared to China: in addition to the fact that they don't have energy resources to exploit (such as conventional and unconventional gas deposits or large offshore oil and gas fields), the geographical and geopolitical constraints- the insularity of Japan and the obligatory transit through North Korean territory - concretely hamper the opportunity to benefit of overland pipeline routes.**

The regional energy strategy must be focused to increase the shares of oil and gas imports which don't have to cross maritime chokepoints and to enhance energy partnerships with regional energy suppliers.

**In the Asian-Pacific region, Russia represents the best option and the main energy partner to strengthen the energy security condition of these countries.**

**As a matter of fact, Russia is a global energy actor:** in 2017 Russia was the third-largest producer of petroleum and other liquids (after Saudi Arabia and the United States), with a production of 11,25 million barrel of oil per day, and the second-largest producer of dry natural gas (second to the United States), producing 635 bcm of natural gas.

Russia also holds the sixth-largest oil reserves in the world (106.8 billion barrels of oil) and the world's largest natural gas reserves estimated at 35 tcm.

**The EU markets have traditionally represented the main outlet of Russian oil and gas exports: the so-called western vector of export accounting for 70 percent of Russian oil exports (while 26 percent of these are shipped through the eastern route to Asian markets) and nearly 90 percent of Russian natural gas exports (while less than 6 percent are delivered to Asian markets).**

However, after the 2014 events Moscow has progressively changed its foreign energy policy: the progressive deterioration of the relations with Ukraine - the main transit country to ship Russian export to the EU - and the sanctions adopted by EU and United States against Moscow after the annexation of Crimea have further contributed to re-orient to East the Russia's export policy.

**According to the Russian Energy Strategy 2035, Russia will increase its quote of energy exports towards the eastern markets that is estimated in 23 percent of total; in details, there will be an increase of supply of natural gas (delivered in form of LNG) from the current 6 percent to 31 percent, while the oil supply will reach the quote of 32 % percent in spite of current 26 percent.**

**This energy dimension of the “Pivot to Asia” strategy also reflects the Russia's need to preserve its energy security condition as supplier country, through the diversification of export routes reducing the unbalanced reliance on the EU markets: furthermore, the current tensions with Ukraine (also before 2014) have clearly highlighted the risk of interrupting the transit of Russian gas so exposing Russia to a condition of high vulnerability.**

In the last decade Moscow has worked to further diversify its westward route of exports, through the realization of the Nord Stream gas pipeline and project to create a southern route, the TurkStream gas pipeline which will be on stream in 2019: both of these corridors are conceived to bypass Ukraine so avoiding the threat of interruptions and enhancing national energy security.

**We can observe that Russia and Asia-Pacific countries have identified a profitable convergence of strategic interests based on the energy cooperation, because Russia's aim to implement an eastward corridor of energy exports can be combined with the goal of China, Japan and South Korea to strengthen relations with the main regional energy supplier in order to secure oil and gas imports which don't have to cross maritime chokepoints**

**Moreover, the energy companies of these Asian countries can be successfully involved as partners in the Arctic offshore and shale projects in order to increase Russia's oil and natural gas production, replacing Western companies which have to renounce due to the sanctions. Asian energy companies are able to realize massive investments, to use their know-how and modern technologies helping Russia to achieve the aims of the national energy strategy.**

In these last years, Russia and China have expanded a strategic energy partnership which appears profitable for both actors. **Given the geographical proximity and sharing a long-border, the development of oil and gas pipelines from the rich reserves located in the Siberian and East Russia fields directly to China will strengthen Beijing's energy security through massive and regular energy flows, avoiding potential disruptions linked to the transit on a third country.**

The Eastern Siberia Pacific Ocean (ESPO) pipeline is the main oil transport artery, operating since 2009: the current transport capacity of 1.6 million barrel of oil per day will be further enhanced to 2.6 million barrel of oil per day by 2020, meeting oil needs of China and other Asian economies (Japan and South Korea). Kozmino port in the Russian Pacific coast is the export terminal through which China could enhance its oil imports from Russia, which will be delivered by a different and profitable sea route, geographically closer to Chinese refineries of the eastern coast and without crossing geopolitical chokepoints like Malacca. Moreover, China benefits of an exclusive oil pipeline, the Skovorodino-Daqing, which is a spur of the ESPO with a current capacity of 600,000 barrels of oil per day.

**The success of the Pivot to Asia energy dimension is showed by the fact that since 2017 Russia has become the main oil supplier for China, surpassing Saudi Arabia as China's largest source of foreign crude oil: through oil tankers and pipelines Russia is able to export 1.2 million bbl/d to China, accounting for 14 percent of Chinese total oil imports.**

Following the gas deal signed in May 2014 in Shanghai, China has further improved the energy cooperation with the neighbour and border supplier: through the planned realization of the “Power of Siberia” gas pipeline, China will receive 38 bcm per year of Russian gas by 2019, exploiting untapped fields in Eastern Siberia. Furthermore, the Sino-Russian Memorandum of Understanding to realize the Altai gas pipelines in November 2014 represented another relevant and strategic step in this profitable energy cooperation: by the end of 2015 both parties should conclude this deal to implement the “western energy route”, delivering 30 bcm of Russian gas per year, from the Western Siberia's fields to Xinjiang.

**The opening of the Arctic sea route will be profitable for China, reducing shipping times compared to the route crossing Malacca and Indian Ocean, also solving the vulnerability linked to the chokepoint transit. Chinese investments to develop Yamal LNG project in the Russian Arctic aim to exploit the opportunity to increase natural gas imports from a new maritime route which bypasses Malacca, even if - due to the climatic conditions - LNG exports to eastward markets are possible only in the summer months. The Chinese company CNPC holds 30 percent shares in the international consortium led by Russian Novatek (50 percent of shares) - which also includes French Total - to develop this huge gas field (926 bcm of estimated natural gas reserves) realizing a LNG plant in the Sabetta port able to export 27 bcm of natural gas per year.**

Considering that China should import 280 bcm of natural gas - 150 bcm via pipeline and 130 bcm via LNG - by 2040 (according to IEA projections), imports from Russia will account for almost one fourth of Chinese total imports.

**Also for South Korea and Japan Russia is the only country in the Asia-Pacific region which can play the role of energy supplier (with the exception of Australia).**

**Following the planned enhancement of the ESPO pipeline's capacity, Japan and South Korea will benefit of additional oil imports, which could offset a necessary reduction of imports from Middle East, even if also these supply don't totally reverse the existent scenario. As a matter of fact, only 50 percent of the total future ESPO capacity could be delivered from the Kuzmino port to Japan and South Korea, because China has already ensured itself 900.000 bbl/d on 1.6 million bbl/d.**

In the gas sector, Japan and South Korea can benefit of several alternative suppliers in order to geographically diversify imports, improving their energy security by means of the

reduction of LNG imports crossing Malacca and Hormuz straits.

This is especially correct for Japan, which is reorienting its energy policy to the Asia-Pacific regional dimension: at present Australia (35 bcm) and Malaysia (20 bcm) already covers 2/3 of Japan's total imports, while South Korea's dependence on LNG imports coming from Middle East - Qatar and Oman - accounts for 45 percent of total imports.

The geographical proximity and its huge gas reserves legitimize Russia as strategic gas supplier for Asian countries.

**At present the Sakhalin Energy's LNG plant is the only existent source of Russian gas imports to Japan and South Korea, waiting for the development of other offshore and onshore fields. Sakhalin LNG exports are almost totally delivered to Japan (65 percent) and South Korean markets (23 percent), also considering that Japanese energy companies Mitsui and Mitsubishi are shareholders with Russian Gazprom and Dutch Shell in the consortium.**

**Given the huge abundance of natural gas reserves, Russia envisages several projects of LNG terminals along its Pacific Coast to meet the demand of Asian countries: Far East LNG is a project (jointly leaded by Rosneft and ExxonMobil) to construct an LNG plant with an initial capacity of 5m tonnes and a potential capacity of 10m tonnes, fuelled with 485 bcm of estimated reserves of Sakhalin-1 fields.**

The project to realize the Vladivostok LNG plant could support Russian ambitions to enhance gas exports to the Asian markets, even if at present the project appears temporarily frozen. According to the original project gas from the Sakhalin (Sakhalin II and Sakhalin III projects) and Eastern Siberia fields (Yakutia and Irkutsk gas production centers) will be the main source of this terminal which would have an annual capacity of 20.6 bcm.

**In addition to the LNG option, some Japanese energy companies supported the project to realize an offshore pipeline from southern Sakhalin to Japan's east coast, with a capacity of 16-20 bcm of natural gas per year: this project could be a strategic option for Japan in terms of diversification, with the first potential natural gas supply delivered not in LNG form.**

South Korea too will benefit of additional Russian gas deliveries following the realization of LNG terminals along the Pacific coast, mainly opening new LNG receiving facilities.

**Furthermore, the Korean-Russian energy cooperation has been mainly focused on the implementation of an ambitious project of overland gas pipeline (the Trans-Korean gas**



**pipeline, also called PNG project) linking East Siberian gas fields to South Korea via North Korea.** In 2008 South Korea and Russia agreed to conduct a feasibility study of the Trans-Korean gas pipeline and three years later – in November 2011 – South Korean and Russian Presidents agreed to begin pipeline construction in September 2013, and finish in 2016. On November 5, 2011, the pipeline within the Russian area, the Sakhalin-Vladivostok pipeline, was completed. Nevertheless, there are no progress about the realization of this pipeline, which will have a significant geopolitical impact in the regional security relations, due to the involvement of North Korea as transit country. At the same time, this energy transit in a third country represents a factor of vulnerability, exposing South Korea to the threat of a potential disruption.

## **Conclusion**

Given the dangerous condition of vulnerability and the potential threats to their energy security condition, South Korea, China and Japan have wisely undertaken strategies of diversification aimed to wide oil and gas suppliers, trying to address their unbalanced dependence on energy imports from the Middle East.

Even if these strategies could concretely support the attempts of the North East Asian countries to avoid sudden energy disruptions, the combination between the expected growth of their energy demand and the distortions and weakness of their domestic energy scenario – high dependence on energy imports, lack or insufficient domestic production – could frustrate or downplay some of the positive effects. The most complicated situation is in the oil sector: the largest oil reserves are located in the Middle East and an increase of oil imports from Russia can reduce the dependence on traditional suppliers, however without solving the vulnerability factors.

The combination between geographic proximity and the availability of huge oil and natural gas reserves characterize Russia as the main reliable energy provider in the Asia-Pacific region: furthermore, most of the promising oil and gas fields are located in Eastern Russia, geographically closer to North Asian consumer markets and so reducing time of shipping and costs of transports compared to imports from Middle East as well as from other potential suppliers from the region such as United States and Australia.

Under the Russian perspective, Asian markets represent an attractive option to diversify exports, even if EU markets and the westward route of export remain important in the

national energy strategy: in the next years, the energy cooperation with Asian companies and their investments will allow Russia to start production in several oil and gas fields located in Russia's Far East, Siberia and Arctic increasing domestic production and potentially achieving the strategic target of Russian authorities to double gas exports by 2035, also becoming the fourth largest LNG exporter in the world.

Energy imports from Australia and United States could compete with Russian resources: as a matter of fact, both of them don't have to cross maritime chokepoints to reach Asian markets and these oil and gas deliveries will allow Asian-Pacific countries to further diversify the routes of imports.