



FUTURE OF EUROPE OBSERVER

European Energy Policy

Following recent events in Ukraine and with winter fast approaching, energy policy and energy security of the European Union is an issue of great concern for individual citizens and governments alike. As EU member states seek to protect themselves from potential energy supply disruptions, new Commission President Juncker has called for a European Energy Union. This issue of the *Future of Europe Observer* examines the current and future challenges and issues for European policy makers. Alumni from the ZEI Master of European Studies program examine the call for energy solidarity, the energy network which stretches across Eurasia, and the implications of energy dependency in the EU.

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Future of Europe Observer

accompanies the debate on governance and regulation in the European Union.

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Solidarity: Worth the Energy?

by Carola Gegenbauer

The Treaty of Lisbon introduced solidarity in energy policy to the European Union. Article 194 states that the aims of energy policy are to be pursued “in a spirit of solidarity” between member states. In light of the current political situation in the Ukraine, solidarity can be a mechanism to strengthen energy security, in particular the security of gas supply.

Today, the EU imports 66% of its gas supply. Due to geography and existing resources of member states, their gas suppliers and the degree of dependency differ throughout the EU. For example, Algeria is the main supplier of gas to Spain, whereas the Baltic countries import gas solely from Russia. The past has shown the implications of import dependency from only a limited number of suppliers. Russia provides about a quarter of overall EU gas imports, with Ukraine being a key transit country. During the gas crises in 2006 and 2009, Russia cut off Ukraine’s gas supply over price-disputes and the EU was faced with potential shortfall in energy supply. The need for a European approach became appar-

ent and energy policy was made a shared competence. In 2010 the commission published the Energy 2020 strategy for competitive, sustainable and secure energy. Since the launch, investments in back-up infrastructure were made obligatory and infrastructure to connect member states’ energy networks has improved cross-border trade of gas. In the event of supply disruption, the EU has implemented rules to secure supply to vulnerable customers and made emergency response plans compulsory for member states. A gas coordination group has also been set up to exchange information and define common actions between EU member states, the Commission and the gas industry. To diversify gas supply routes, the EU has initiated the development of the Southern Gas Corridor to bring gas from Caspian and Middle Eastern regions to Europe.

In May 2014, in light of the political unrest in the Ukraine, the commission released a strategy on energy security specifically targeted at supply from Russia. It proposed stress tests to establish how our energy systems can cope in a

ZEI Class of 2015 begin their studies

The ZEI Class of 2015 began their studies on the 6th of October 2014. The class of 23 students from 15 different countries from all over the world have come to undertake the ZEI Master of European Studies; Governance and Regulation. The students have a full program ahead of them over the next year as they deepen their knowledge of the European integration process with a special emphasis on European governance and regulatory aspects. The new students are looking forward to the start of classes and discovering what the next year has in store for them.



The ZEI Class of 2015

crisis in order to develop an emergency plan. They look at reverse-flows, use of alternative resources and increased emergency gas capacity for storage. In the long run the strategy proposes to strengthen solidarity mechanisms in regards to natural gas and the use of gas storage facilities. It calls for more coordination at national level to speak with one voice in external energy policy. Donald Tusk, former Prime Minister of Poland and new President of the European Council, first proposed a European Energy Union with a single body charged with purchasing gas supply to confront Russia's monopolistic position in April 2014. The Commission reacted in its strategy by setting up a working group to see if EU wide purchases can be realised in line with EU and international trade law. A Vice-President for Energy Union has been appointed in the new EU Commission to coordinate efforts on energy within the different DGs, meet energy strategy targets and complete the internal market.

Threats to energy supply, especially in regards to gas, have contributed to integration in energy policy. Solidarity mechanisms can enhance energy security by offering member states alternative supply in times of crisis. Consumers are only threatened by a supply cut if they are dependent on one supplier, which is trying to exert political

pressure. To create solidarity mechanisms, continuing efforts have to be made to improve infrastructure and interconnectivity. Efficient reaction-mechanisms for crises need to develop further and so-called energy islands, for instance the Baltic States, must be connected to European networks. The Commission has called out for more supranational coordination in energy policies and even an eventual Energy Union. However, Article 194 states that energy policy "measures shall not affect a Member State's right to determine the conditions for exploiting its energy resources, its choice between different energy sources and the general structure of its energy supply". While the gas crises have provoked countries dependent on Russian gas to call out for more integration in the form of an Energy Union, member states which rely less on gas from Russia for various reasons, such as geography and existing natural resources, may be more reluctant to agree to further integration in energy policy.

Carola Gegenbauer is a ZEI Alumna, Class of 2009, and Research Associate at the European Centre for Energy and Resource Security (EUCERS) at Kings College London.



Eurasian Energy Network: Facts and Figures

by Enzhe Nasyrova

The Eurasian energy network stretches across the territories of numerous countries and the northeast Chinese provinces. The network forms the biggest energy providers market, it owns 70% of world gas and oil reserves and has the biggest consumers as neighbors - the EU and China.

According to Vladimir Bushuev, the Eurasian Energy network represents a 'cell-based net, where the larger routes form the smaller ones'. Historically it has developed at the crossroads of the Eurasian energy axis, which starts from the Arctic and goes down to the Middle East and North Africa, and following East-West energy corridors:

1. The North Sea route with onshore and offshore energy resources stretches from Northern Europe to the countries of the Asia Pacific.
2. The Northern passage route links the resource extraction areas of Western and Eastern Siberia with consumers in the Urals and the Northern Pacific coast.
3. The Trans-Siberian rail route, which is also a key

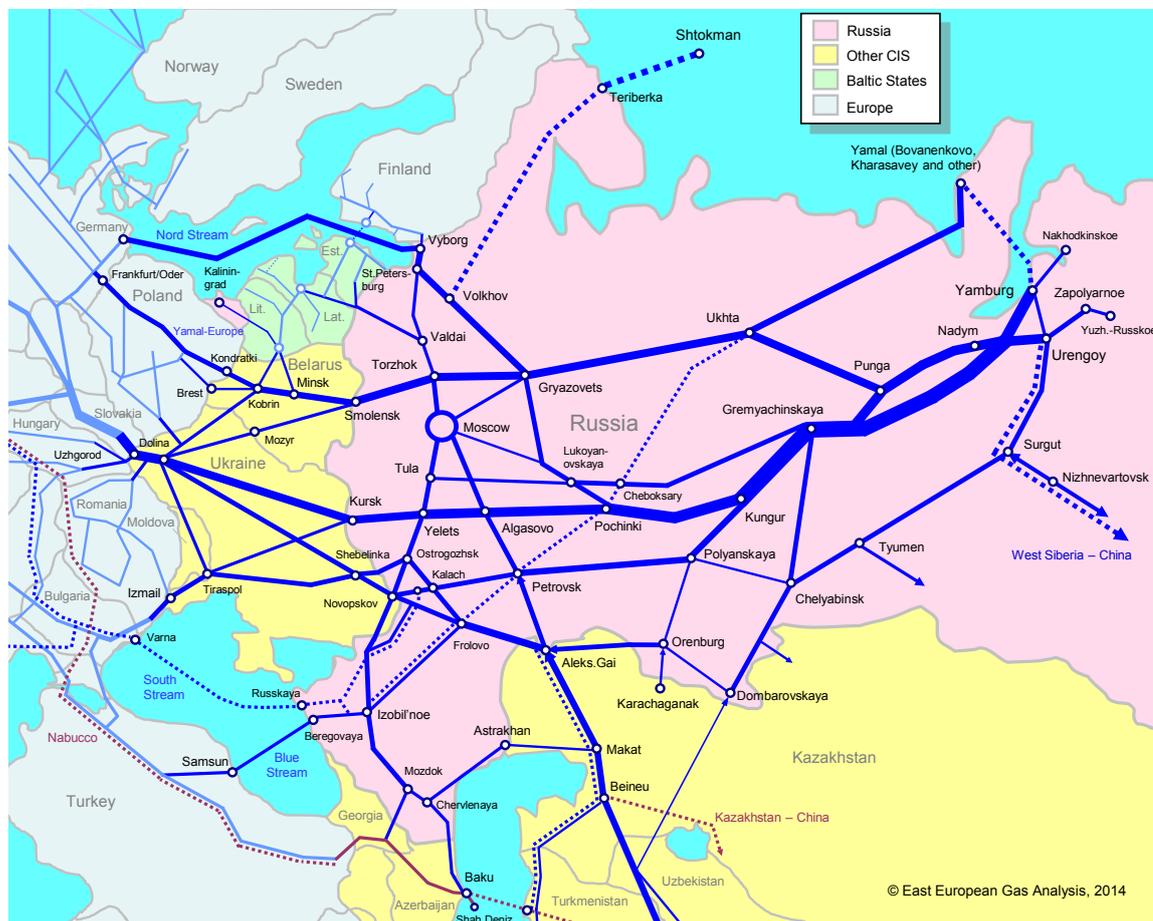
transportation route for EU-China trade transiting through Russia.

4. The Central Asian route or so-called "Silk Way" from China to Russia and Europe: e.g. the Sino-Kazakh and Sino-Turkmenistan (CACGP) pipelines destined to China or Southstream - to Europe.

5. The South-East Asia route from Hong Kong to Turkey via India, Pakistan, and Iran includes the Turkmenistan-Afghanistan-India gas pipeline network with the exit to the Indian Ocean.

Growing energy demand in the main export markets of the EU and China, the uneven economic development of Eurasian countries, outdated infrastructure, local conflicts, ethnic tensions and insecure neighbors in the South, create the need for more sustainable and secure supply, which is possible through:

- Creation of a competitive Eurasian energy market: due to the hegemonic behavior of Russia, which controls the largest part of the Eurasian energy infrastructure and leads the 'where to export



Eurasian Energy network: East European Gas Analysis

game,' many Central Asian producers sell their gas to Russia, and not directly to the final consumers. However, Azerbaijan, after the construction of the oil BTC and gas BTE pipelines, and Kazakhstan, which is the largest oil producer of the Caspian region, stand out as they have developed independent energy relations with the EU and China respectively. Recently Turkmenistan joined this duo with its substantial gas reserves, turning to Iran, South Asia, and China.

- Attracting substantial private and foreign investments for upgrading outdated infrastructure, developing new energy transportation routes over large distances and building costly underwater pipelines (for Caspian, Black Sea and North Sea regions). According to the IEA these activities will allow an increase of Eurasian gas exports to 500 bcm/year by 2020, while total Eurasian gas reserves amount to 70 tcm.

- Eliminating contradictions in local laws and international agreements in order to facilitate Eurasian energy trading and exports within Eurasia and to Europe and China, and to regulate other related activities. The Eurasian energy network consists of the independent states of Central Asia and the Caucasus and the states (Kazakhstan, Russia, Belarus and the recently joined Armenia) which form the Eurasian Customs Union, which as of the 1st of January 2015 will be known as the Eurasian Economic Union.

Eurasian countries are key suppliers of energy resources to the EU. Apart from Russia, which, according to Eurostat, in 2013 provided 39% of EU natural gas imports with the main share of consumers in Germany and Italy. The Caspian countries also provide added value to EU energy security, as the EU tries to gain independence from Russia, develop new supply routes for Eurasian energy sources, Russian gas in particular. According to the European Energy Security Strategy 2014, the EU's key infrastructure projects are Nord-Stream (with Russia), SouthStream (with Russia), TAP (with Azerbaijan and Turkey) and Baltic LNG Terminal (the Baltic states).

NordStream with a capacity of 55 bcma, which links Russia and Germany via the Baltic Sea,

and the ongoing SouthStream with a capacity of 63 bcma are projects both implemented with contributions from the Russian gas giant Gazprom. SouthStream was initiated against the background of political instability in Ukraine and previous shortages of Russian gas supply transiting through the territory of Ukraine.

However, the European Union, whose energy policy follows the three rules of diversification - supply countries, supply companies, and supply routes - seeks to reduce its external dependency on Russia by promoting the Southern Gas Corridor with the participation of the Caspian states. Thus, in June 2013, Azerbaijani Shah Deniz demonstrated his preference for a new Trans-Adriatic pipeline (TAP) over Nabucco, which previously was the main rival to SouthStream. The EU plans to receive Azerbaijani gas, which will initially

New ZEI Discussion Paper C 226/2014

Lothar Rühl: European Foreign and Security Policy since the Lisbon Treaty – From Common to single

Since the Lisbon Treaty, all organizational conditions have been created for the systematic use of the Common Foreign and Security Policy (CFSP).

Military and civil structures, especially the operational headquarters and associated common structures like transport command, have been established.

Until now there has been limited activity in crisis resolution, outside of Bosnia and Macedonia, and therefore little has been done in replacement of NATO. It is therefore difficult to assess the development of the common policy on conflict prevention and crisis management and it has been shown that in all cases NATO should come into play as planned from the outset.

Download: http://www.zei.uni-bonn.de/dateien/discussion-paper/DP_C226_Ruehl.pdf



supply up to 20% of European demand, bypassing Russia to Southern Europe. According to the agreement which dates back to 2012, TAP will link to the Trans-Anatolian Pipeline (TANAP), also a part of the Southern Gas Corridor, through which the South Caucasus Pipeline will supply the EU with Caspian natural gas.

In the future, not only diversification of supply routes and suppliers, upgrading infrastructure, and competitive and free markets will be key milestones for the development of the Eurasian energy market and its relations with neighbors. According to analysts, the Eurasian energy supply and demand balance will not be maintained, as the volume of energy sources in Eurasia will not be sufficient to fill all pipelines. For example, even though the Russian natural gas export volume will increase from 270-294 bcm to 349-368 bcm by 2020, the EU's share is expected to decrease, while exports to China and the Asia-Pacific will increase. There is also a tendency that in the long-term perspective Russia will not have enough gas to deliv-

er to Europe, thus it will have to seek energy resources from its Caspian neighbors like Azerbaijan and Turkmenistan. Therefore, the current problem of the Eurasian pipeline network goes beyond the political agenda and is tied not only to an absence of infrastructure, but will also be affected by eventual shortages of energy resources in Eurasia

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The new European Commission team for Energy Union

Jean-Claude Juncker's new Commission has taken office on the 1st of November 2014. Juncker has organised his Commission by forming clusters surrounding designated policy areas. Each of these 'Project Teams' will be headed by a Vice President. Following the European Parliament's rejection of the Slovenian nominee Alenka Bratušek, the Vice President for Energy Union is Maroš Šefčovič. The project team is called: "A Resilient Energy Union with a Forward-Looking Climate Change Policy."



The new Vice President for Energy Union Maroš Šefčovič.

Jean-Claude Juncker stated: "I want to reform and reorganise Europe's energy policy into a new European Energy Union. We need to pool our resources, combine our infrastructures and unite our negotiating power vis-à-vis third countries.

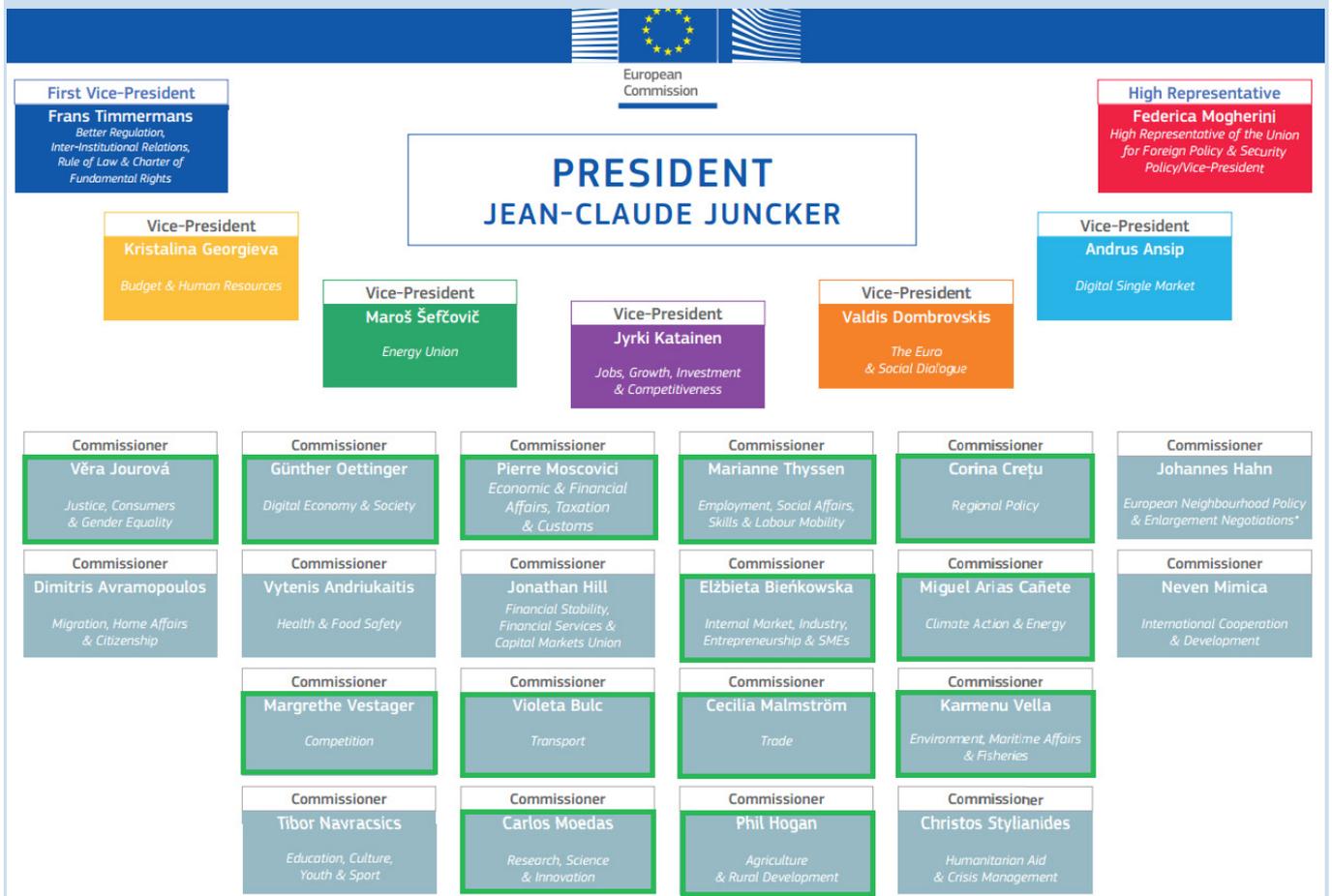
We need to diversify our energy sources, and reduce the high energy dependency of several of our Member States." (Political Guidelines for the next Commission)

The Vice-President for Energy Union will steer and coordinate in particular the work of the project team whose composition will change according to need. It includes the Commissioner for Climate Action and Energy, Miguel Arias Cañete; the Commissioner for Transport, Violeta Bulc; the Commissioner for Internal Market, Industry, Entrepreneurship and SMEs, Elżbieta Bieńkowska; the Commissioner for Environment, Maritime Affairs and Fisheries, Karmenu Vella; the Commissioner for Regional Policy, Corina Crețu; the Commissioner for Agriculture and Rural Development, Phil Hogan; and the Commissioner for Research, Science and Innovation, Carlos Moedas.

Juncker Commission's Energy Policy Objectives

- Coordinating Commission efforts to ensure the EU achieves its targets in the field of energy for 2020 and 2030, including as part of the Europe 2020 Strategy.
- Completing the internal energy market, by connecting infrastructures and engaging with regulators and stakeholders at national and European level in order to improve, reinforce and fully apply EU legislation in this area. Increasing competition should help drive down costs for citizens and businesses and boost growth.
- Coordinating specific actions to strengthen energy security on a European scale, starting with the need to counteract any possible energy shortages over the first three to twelve months. Europe's energy dependency should also be reduced by diversifying sources and routes of energy imports and pooling our negotiating power.
- Supporting the Vice-President for Jobs, Growth, Investment and Competitiveness in the project to present, within the first three months of our mandate, the jobs, growth and investment package announced in the Political Guidelines. The package should help to mobilise additional public and private investment in infrastructure such as energy networks, as well as in renewable energy and energy efficiency.
- Coordinating strategic policies in the field of transport and space where necessary to contribute to the objective of a resilient Energy Union, with a forward-looking climate change policy.
- Contributing to managing the reduction of greenhouse gas emissions from the industrial and transport sectors in particular, as part of our overall effort to reinforce the sustainability of our growth model.
- Tapping the job potential of "Green Growth" and making Europe the world number one in renewable energy.

The European Commission Energy Union Project team is highlighted in green below



Winter is Coming

by Thomas Panayotopoulos

With the winter season approaching and the days becoming colder, questions about European energy security become more and more urgent for the general public. Pushed by the crisis between Russia and the Ukraine the European Commission has adopted a new energy strategy, thereby deepening its efforts of 2006 and 2009. Indeed if the series of turbulences in this region from 2006 to 2010 showed the weaknesses of energy security in the European Union, the current conflict reveals an urgent need to deal with this issue; the energy situation of the European Union is defined by a growing dependency based on imports of fossil energy sources in order to satisfy the needs of primary energy.

According to EUROSTAT the EU-28's dependency on energy imports increased from 43 % of gross energy consumption in 1990 to reach 53.4 % by 2012. The highest energy dependency rates in 2012 were recorded for crude oil (88.2 %) and for natural gas (65.8 %). Since 2004, the EU-28's net imports of energy have surpassed its primary production, which means that more than half of the EU-28's gross inland energy consumption was supplied by net imports.

This dependency situation of the European Union can be explained because of structural reasons. Indeed, the European Union's energy consumption is very high. Its energy consumption, which represents 13,5 % of the total energy consumption of the world, may have decreased in recent years but the European Union still belongs to the four highest energy consuming regions in the world.

Furthermore, besides increasing consumption it is also a reduction in energy production which causes problems in the European Union. This is due to the fact that the European Union's internal resources of fossil energy are highly limited. The European Union holds only 2% of the world's gas reserves, 2% of the world's uranium reserves and only 0,65 % of the world's oil reserves. On the other hand renewable energy contributions to the total consumption of the European Union still remain low at 11% .

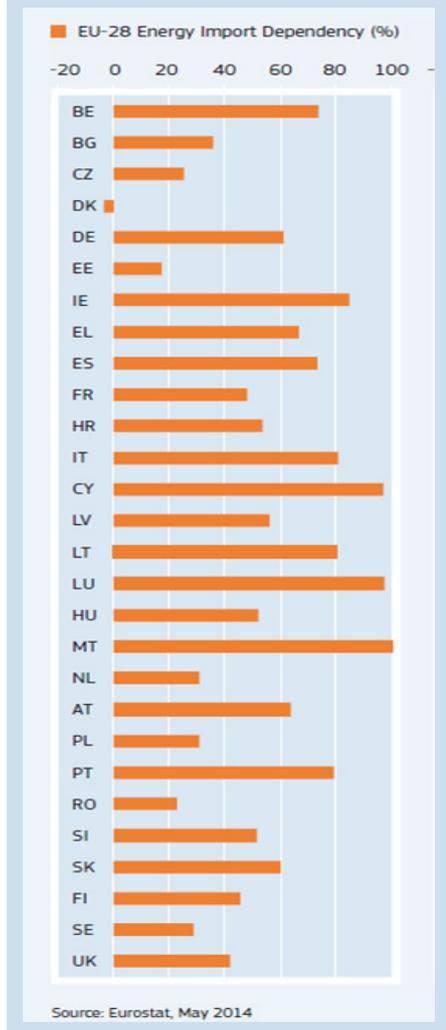
If these sources of energy were to stay constant the European Union's energy dependency would reach over 80% in 2035 because of the increase in energy consumption and the decrease in the internal energy production. In the long term, only a significant technological leap would provide the possibility to reduce dependency on imported fossil energies.

One must however note, that European Union member states do not all have the same level of energy dependency. The spectrum evolves from countries like Cyprus or Malta who are totally dependent on energy imports, to Denmark who is the only European Union member state to have a positive energy trade balance.

This disparity is also visible in energy consumption where Italy, Germany, France and the United Kingdom consume the majority of energy in the European Union.

It is with a new strategy based on 8 pillars that the European Commission wants to signal the necessity to decisively strengthen these weaknesses of the European Union in energy security matters.

EU Energy Import Dependency - %



Internally, it will therefore be crucial for the European Union to reduce the risk of supply disruption and increase the energy solidarity within the member states. This is the reason why for this winter the European Commission calls for an evaluation of risks in case of a supply disruption. Response mechanisms for such cases which include; the increase of energy storage, the use of alternative fossil fuels, the establishment of interconnections or the intensified exploitation of liquefied natural gas will have to be in place.

Externally, the European Union needs to find a way to diversify its supply and transit energy sources. This should however not be done by claiming that all energy links with Russia are the personification of evil, but instead by using the various new possibilities of energy generation inside and outside of the European Union by opening new energy supply paths (Africa, Caspian Sea).

It is important to understand that energy supply security hysteria will not lead anywhere if not followed by concrete investments in other energy sources. The upcoming energy disruption threat in this cold winter could represent the reason needed to correct the long lasting European Union energy paradox, that the European Union, which was created around Energy (ECSC and EURATOM), sixty years later still does not have a common energy security policy.



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