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Natural Gas Supplies
in the European Union Policy**
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Abstract

The European Union is expected to embark in the overhaul of its economy announced by President von der Leyen, and much debate remains over the future of natural gas. Its environmental credentials against coal and oil put it in an ideal position to be the bridge fuel of the energy transition. However, the safety of its supply to the European market has been for the last two decades a source of significant concern for European legislators, making vital to adopt an ambitious European agenda to ensure the credibility of the gas sector. The present work aims at describing the rationale of such agenda, discussing the main steps that led to the definition of the current framework. For this purpose, the text addresses separately the internal and external dimension of the European policymaking. On the internal dimension, this work considers not only the initiatives adopted to prevent and manage a state of crisis, but also the factors related to the regulatory framework and to the network of infrastructures. On the external dimension, this work discusses the peculiar features of the EU action to ensure safe natural gas supplies, which in the past have been far from the traditional features of national foreign policies.

Introduction

On October 4, 2019, during Commissioner for Energy Kadri Simson's confirmatory hearing the centre of the debate was taken by the role of natural gas, on which several legislators adopted supportive positions. Natural gas is a fossil fuel, and it will have to be decarbonised by 2050, but it can play a very important role in achieving the ambitions of President von der Leyen's European Green Deal. In fact, it is far cleaner than coal, which makes the best available option to be coupled with renewables sources in the energy transition.

Decarbonising the current energy mix not only presents complex technical challenges and almost prohibitive cost but threatens to alienate the public's support. Dealing with such implications will require a long transition period in which fossil fuels will still play a relevant role. Among them, natural gas, the less pollutant and the most energy efficient, is a potential problem solver, becoming the "bridge fuel" that in the medium term will allow to phase out coal, remaining within the limits of the carbon budget, and at the same time to maintain the necessary amount of conventional electricity generation capacity. Coal burning is responsible a large cut of European emissions and it is simply incompatible with any credible agenda to fight climate change.

However, unlike coal and oil, natural gas presents critical aspects under the energy security point of view. Most of the gas currently used in Europe is imported and, as domestic reserves deplete, this issue will be more acute in the close future. In order to guarantee the security of their supplies, European States have been trying since the late 80s to pursue common solutions, leaving this fundamental task to the hands of the European Institutions.

The following pages will analyse the evolution of the EU agenda to ensure the security of natural gas supplies to the internal market, which has the main turning points in the signature of the Lisbon Treaty and in the inauguration of the Juncker Commission. The essay is divided into three sections. The first one is introductory and has a double aim. First, trying to define the concept of security of supply. Second, describing the context in which said policies were defined. The last two sections address the subject of this work by splitting the internal and the external dimension. Section two discusses the specific security of supply competencies of the EU, together with the role played by the internal market and by the gas infrastructures. Section three addresses the problem of the external dimension, addressing the peculiarity of the features of the EU action in this field and the relevant progresses achieved during the Juncker Commission to achieve better coordination among the EU member states.

1. Natural Gas and Energy Security

During the Juncker Commission, the Security of Supply framework, together with the environmental nexus, is the field where the action of the Energy Union acquired its most relevant features, shaping the potential role of natural gas in the European Energy market.

In a long-term perspective, the European Energy Security and the climate agenda are directly related. As of today, Europe heavily relies on imports to meet its domestic demand of primary energy. An increased production of renewable energy, coupled with a more efficient consumption, has the potential to relieve Europe from the energy imports dependency, either for the major part or even entirely, in the case of a “High RES” scenario. Nonetheless, this correlation hardly stands in the medium term (in the 2025-35 horizon), when natural gas will have to play its role of “bridge fuel” in the energy transition, acquiring a more relevant role in the energy mix. In this phase, Europe, that faces the decline of its domestic natural gas production, will be more dependent on imports from foreign countries and therefore exposed to supply disruptions, with the compelling necessity to diversify supplies and optimise the functioning of the internal market, in order to diminish its vulnerability.

1.1. The Problem of Definitions

When we talk about Energy Security, we must make a necessary preliminary consideration. In literature there is a bias between the security of producers and the one of consumers, where the position of the former is rarely considered since scholarly work deals mostly with the position of industrialised countries¹. This essay reproduces the bias, presenting the perspective of importers.

The second consideration is that energy security strategy can be differentiated into four categories: Operational Security (the condition for secure supply on a given day, even if particularly cold); Strategic Security (the capacity of handling a supply shock, either due to internal or external causes); Long-term Security (the ability to provide affordable and constant supply in a long run perspective); Geopolitical Security (addressing the political risk factor of external supplies)². This work deals with the Strategic and the Long-Term Security of the EU Supply. Moreover, the European Energy Security Policy is to be considered in two dimensions: internal and external. Before moving to the analysis of these subjects, we will first define the concept of Energy Security and the position it occupies in the Union policy.

¹ Proedrou, 2016.

² Clingendael International Energy Programme, 2016.

If we want to define what the Security of Supply is, it must be made a distinction between the concepts of energy of security *tout court* and the security of supply properly said, even if these terms are often used as synonyms. Energy security is non-technical concept, broadly used to identify many categories of risk (economic, social, political, etc...) while describing the energy relations between producing and consuming countries. On the other end, security of energy supply is a more restricted concept, but there is no agreement in literature over a precise definition. We can identify three groups of scholars whose definitions are characterised by a progressively growing intension and reducing extension. The first group focuses on the mere continuity of the commodity's supply. The second instead introduces additional severity filters. The most prominent of these definitions is given by the IEA, which defines Security of supply as "*the uninterrupted availability of energy sources at an affordable price*"³. The third group instead adds further complexity by considering also the impacts of price and continuity of service on the economy and in some cases on the environment, as two scholars, Noel and Findlater, did relatively to gas supply, that: "*refers to the ability of a country's energy supply system to meet final contracted energy demand in the event of a gas supply disruption*"⁴.

Even within the European Institutions there is not a unique definition, and this concept is broadly used to identify any act aimed at guaranteeing the regularity of the supply of commodities. The most satisfactory conceptualisation is contained in the Green Paper *Towards a European strategy for the security of energy supply* of 2006. It recites that the security of supply is the "*uninterrupted physical availability of energy products on the market, at a price which is affordable for all consumers (private and industrial), while respecting environmental concerns and looking towards sustainable development*"⁵. This is in line with what was outlined by the IEA and does not incur neither in oversimplification, nor in over-conceptualisation, therefore we will adopt it for the purpose of this work.

1.2. Energy Security Framework

Given the limited amount of energy security related competencies of the EU, defined in Art. 194 of the Lisbon Treaty, the European Institutions tried to fill the gap by adopting an encirclement strategy, taking advantage from their competencies in other fields. However, security of natural gas supply specific policies have been missing in the European agenda for a considerably long period. In the year 2000, the Commission published the the green paper *Towards a European strategy for the*

³ www.iea.org

⁴ Winzer, 2011, pp. 4-6.

⁵ COM (2000) 769 final.

*security of energy supply*⁶, focusing on the structural weaknesses of the energy supply of the EU. The text was raising alarm on the fact that “*the EU meets 50% of its energy needs through imports and, if no action is taken, this will increase to 70% by 2020 or 2030. This external dependence involves economic, social, ecological and physical risks for the EU*”⁷. The Commission identified possible fields of action to change the structure of energy demand, by promoting renewable energy, using taxation to orient consumers behaviour, the building up of strategic stocks and routs for secure oil and gas import and the strengthening of the institutional instruments of the Union. The following initiative was the Green Paper “*A European strategy for sustainable, competitive and secure energy*”⁸, from 2006, which put the security of supply among the three pillars of the European energy cooperation, together with affordability and sustainability. The document underlined the need of improving solidarity between member states, proposing the creation of a crisis response mechanism and the establishment of a European Energy Supply Observatory to monitor the demand and supply patterns, together with a more formal grouping of transmission system operators (for both gas and electricity)⁹. A further step was taken in 2008 with the adoption of the Communication “*Second Strategic Energy Review – An EU Energy Solidarity action Plan*”, outlining the instruments at disposal of MS and European Institutions to secure the supply of Energy: 1) Infrastructure development and the diversification of energy supplies; 2) External energy relations; 3) Oil and gas stocks and crisis response mechanisms; 4) Energy efficiency; 5) Making the best use of the EU’s indigenous energy resources¹⁰.

The external dimension is the one which received the biggest attention in the following period, and in 2011 the Commission published the Communication “*The EU Energy Policy: engaging with partners beyond our borders*”¹¹, setting up the main points of the external action of the Union. The document had a follow up in 2012, when was established an information exchange mechanism with regard to intergovernmental agreements between Member States and third countries in the field of energy¹².

Finally, in 2014 the EU adopted the already mentioned Communication *The European Energy Security Strategy*, which is the base of current framework. The Communication addresses: 1)

⁶ Commission of the European Communities (2000). *Towards a European Strategy for Energy Supply Security - Green Paper*. COM (2000) 769 final, 29 November 2000.

⁷ Ibid.

⁸ Commission of the European Communities. (2006).

⁹ COM (2006) 105, p. 8.

¹⁰ COM (2008) 781 final.

¹¹ COM (2011) 539 final, pp. 3-4.

¹² Decision No 994/2012/EU.

Immediate actions aimed at increasing the EU's capacity to overcome a major disruption during the winter 2014/2015, in the view of the Crimean Crisis. 2) Strengthening emergency/solidarity mechanisms including coordination of risk assessments and contingency plans (relatively to both oil and gas stocks); and protecting strategic infrastructure (with respect to physical and IT security; and regulating the ownership from part of non-EU operators). 3) Moderating energy demand, in particular through the Energy Efficiency Directive (“EED”) and the Energy Performance of Buildings Directive (“EPBD”). 4) Building a well-functioning and fully integrated internal market by improving regulation and building interconnectors. 5) Increasing energy production in the European Union with renewables and CCS. 6) Further developing energy technologies with the Horizon Europe and SET plans. 7) Diversifying external supplies and related infrastructure. 8) Improving coordination of national energy policies and speaking with one voice in external energy policy¹³. The text, per se, did not add any innovative features, simply proposing measures already envisaged in 2008 and 2011, but defined a holistic and exhaustive plan contemplating a short, a medium and a long run.

This series of documents clearly show a tendency towards an “event-based” approach, where the growing awareness of the issues was amplified from the Russian-Ukrainian gas crisis in 2006 and 2009, a trend confirmed in 2014 on the wake of the birth of the Energy Union. The momentum which followed that event brought to several measures to improve the European framework. Nonetheless, most of the energy security related competencies still stand firmly under the scope of the sovereignty of Member States, which, despite the many calls to harmonisation, often promote a policy based on national rather than on communitarian interest¹⁴. An example is the attitude of Germany and Italy in the context of the Crimean crisis, which took position against Moscow but used soft diplomacy to protect their privileged relations with it, allowing private companies from the respective countries to sign long term agreements to guarantee the regularity of supplies¹⁵.

The key prerogative of member states (MS), defined in the Lisbon Treaty, is the decision about the composition of their energy mix, as well as over the choice of their suppliers. Every proposal for the creation of a supranational authority in charge of monitoring consumptions, supply and energy mix did not find fertile ground. The main argument against a reduction of MS sovereignty is their diversity. For instance, the Baltic States are dependent on Russian gas, Malta and Cyprus use no gas (although recent discoveries in eastern Mediterranean changed the situation for the latter), while France relies mainly on nuclear energy; and Poland, Greece and Czech Republic still have a high stake of coal consumptions. For that, the necessity of very differentiated policies would hardly cope

¹³ COM (2014) 330 final.

¹⁴ Tagliapietra, 2014, pp. 8-9.

¹⁵ Lombardo, 2010, p. 275.

with the Principle of Subsidiarity. Moreover, energy policy is deeply related with Foreign Policy, raising prodigious political obstacles.

On the other end, the Commission is also vested of considerable authority. First, and more important, having the power to take legislative initiatives, it can steer the evolution of the single market. Second, it oversees the implementation of European law by MS (and consequently to start infringement procedures in case of non-compliance) and the compliance with market competition rules by private actors. Third, the Commission oversees the penetration of foreign enterprises evaluating the compliance of their operations to the rules and regulations, acquiring a leverage on large companies such as Russia's Gazprom or Algeria's Sonatrach. For instance, former has been investigated from the European Antitrust in a case concluded in May 2018, when the Commission imposed binding obligations to enable free flow of gas in Eastern Europe at competitive prices¹⁶. Fourth, the Commission can circulate green and white papers and can publish *ad hoc* studies, in order to influence policymakers and civil society in fields which fall outside its scope of competencies. Fifth, it exercises its own diplomatic action and, moreover, attends international *fora* and seats in international organisations (such as the G20 and the IEA), in certain cases in representation of the MS.

A third actor needs to be recalled are private companies. Since the liberalisation of gas markets, these entities can no longer be considered with the same criteria publicly owned enterprises, because the drivers of their business decisions are entirely different. Public companies are the *longa manus* of their governments, and not rarely they act on political basis rather than in search of profit, while private companies have more complex relation with their home states. In fact, on one side, states have a strong leverage, setting the rules in which privates operate (laws, regulations, taxation, court decisions and so forth) and companies need their support when, in the international context, their undertakings are affected by geopolitical factors. Although, on the other side, states partner with privates to ensure their energy needs, since are companies, not governments, to operate in the energy sector by investing in production and transportation infrastructures, and so the formers rely on the performance of the latter to ensure its energy needs. For instance, it is undoubtful that ENI's position in Libya and Russia are a relevant element of Italy' energy diplomacy¹⁷, even if only 30.0% of its shared capital is publicly held, while 55.76% is owned by foreign investors¹⁸. The empowerment of markets following their unification turned private companies into a crucial player for the success of any long-term initiative. For that, European Institutions and MS' governments are required to enact long term policies, in form of regulations or positive/negative incentives, aimed at steering their

¹⁶ European Commission, 2018. Press Release, May 18.

¹⁷ Proedrou, 2016, pp. 48-50.

¹⁸ www.eni.com

strategic business decisions, in terms of infrastructural investments, development of natural resources, R&D.

2. The Internal Dimension

The external and the internal dimension are not, of course, separate entities, on the contrary they exist in symbiosis. This repartition, even if artificial, is widely accepted in literature and is useful since external and internal policy are played with very different tools, and, in order to categorise them, we need to look at them from a different point of view.

As declared in 2000's Green Paper, and reiterated in the *European Energy Security Strategy* of 2014, the development of internal gas (and electricity) markets lies at the basis of the European Security of Supply. In other words: "*The key to improved energy supply lies first in a more collective approach through a functioning internal energy market and greater cooperation at regional and European levels, in particular for coordinating network developments and opening up markets [...]*"¹⁹. For that, the internal dimension of the EU security of supply strategy is essentially based on a series of measures to ensure the good functioning of the internal market.

For the full realisation of the internal market, two kind of barriers can be identified: regulatory and physical. The first ones attain to the implementation of a common regulatory background, relatively to both the regular functioning of the market and emergency situations (supply disruption). The physical barriers are instead related to the lack of adequate infrastructure (interconnection, diversification and storage capacity).

2.1. Security Specific Competencies of the EU

Concerning the measures which are *stricto sensu* security specific, where member states have proved to be quite jealous of their prerogatives, the Union's competences were initially circumscribed to situations of crisis and restrained by the principle of Subsidiarity, which related to three sectors: strategic storage²⁰, coordination of crisis management plans and physical security of the infrastructure. With respect to that, Directive 2004/67/EC *Concerning Measures to Safeguard Security of Natural Gas Supply* defined the competencies of Member States and Communitarian Institutions in case of supply disruption. MS could set their own policies respecting minimum

¹⁹ European Court of Auditors, 2015, p. 11.

²⁰ These powers were exercised with the emanation of the Directive 2006/67/EC of 24 July 2006 imposing an obligation on Member States to maintain minimum stocks of crude oil and/or petroleum products. This limit was set at 90 days of average consumptions.

standards (Art. 3) and, moreover, their own emergency plans (Art. 8). Just in case of “*a major supply disruption for a significant period of time*” the Commission was called to act, convening the Gas Coordination Group²¹, in charge of harmonising the measures adopted at national level and to assist the MS more affected by a supply disruption.

In 2010, as a reaction to the previous year’s crisis, the EU adopted the landmark Regulation 994/2010. The legislation establishes a framework for managing supply crisis with prevention and reaction measures, involving companies, National Authorities, MS and the Commission itself, in order to provide coordinated responses to supply disruptions. It was introduced the concept of protected customer (whose supply must be guaranteed. it includes households) and, on the infrastructure side, the fundamental N-1 formula²². The regulation also required to provide all transborder interconnectors with reverse flow capacity, so that, together with the N-1 rule, the effects of a Russian decision to halt gas exports would have been at least mitigated. National Authorities were also required to present preventive action plans to mitigate risks, and emergency plans, submitting them to the Commission to be discussed within the Gas Coordination Group²³. The regulation also set three crisis levels: 1) Early warning, activating the homonymous mechanism to draw attention on the possibility that certain events may affect security of supplies. 2) Alert level, triggered by shortages related to supply disruption of exceptional demand peaks, but still manageable by market mechanisms. 3) Emergency level, in case of failure of market measures which require prompt application of non-market measures to prevent the deteriorating of supplies’ security. In this context, the Commission is responsible for coordinating national plans, ensuring transparency and information exchange and declaring a regional or EU wide emergency on request of a National Authority.

The implementation of these rules took place in 2014, when, as we saw, the events of the Crimean Crisis led to a new momentum in the energy security policy. Following the long-term *European Energy Security Strategy*, that we discussed before, the Council requested to execute stress tests of the gas system, hypothesising two scenarios: the halt of gas supplies from Russia or through Ukraine during the winter²⁴. The test showed that the Union would have lacked 60% of its supplies, with

²¹ The Gas Coordination Group is introduced in article 7 and is composed by the representatives of member states representative and by bodies of the industry concerned and of relevant consumers, under the chairmanship of the Commission. Can be convened on request of the Commission or of a Member State.

²² “*The N – 1 formula describes the ability of the technical capacity of the gas infrastructure to satisfy total gas demand in the calculated area in the event of disruption of the single largest gas infrastructure during a day of exceptionally high gas demand occurring with a statistical probability of once in 20 years*”. Quoted from: Regulation (EU) No 994/2010, p. 18.

²³ Wilson, 2017.

²⁴ The two scenarios dealt with two sets of variables: the type of winter, mild or cold, and the quality of the crisis management, with or without cooperation among MS. Moreover, these scenarios were tested for one- or six-months long

severe consequences in the east, underlining the importance of a further reinforcement of the security framework²⁵.

Such steps were undertaken in February 2016, with the presentation of the *Sustainable Energy Security Package*, composed by two communications (on heating and cooling and on LNG and storage), one Decision (on intergovernmental agreements)²⁶ and a new Security of Supply regulation. The regulation (EU) 2017/1938²⁷, which repealed the one from 2010, took up the recommendations of 2014 stress tests, including the need of improving regional cooperation, to increase supply standards in case of emergency and to improve the plans about the realisation of reverse flow interconnectors. The core of the new Regulation is the Solidarity Principle, imposing MS mutual assistance even in case of severe supply disruption (Art. 13). The stress test showed that the performance of the Union in terms of resilience improved remarkably in case of an adequately coordinated response. For that, the Regulation required to improve the regional cooperation approach, producing common risks assessment and developing regional Preventive Action and Emergency Plans. In order to facilitate such initiatives, new norms for improved transparency were introduced, asking Companies to inform their respective National Authorities about the details of their long-term contracts when relevant for the security of the supply of a MS²⁸.

Last of all, the regulation asked ENTSOG to perform another European wide gas supply and infrastructure disruption test, to be repeated every four years, with the aim of providing an overview over the major risks and to identify emergency supply corridors²⁹.

period of supply disruption that, in the cold winter case, saw countries such as Estonia, Finland and Bulgaria facing from 60% to 100% of demand disruption.

²⁵ COM (2014) 654 final.

²⁶ For further information: European Commission, *The EU Strategy on Heating and Cooling*, COM (2016) 51 final; European Commission, *on an EU strategy for liquefied natural gas and gas storage*, COM (2016) 49 final; Decision (EU) 2017/684 of the European Parliament and of the Council of 5 April 2017 on establishing an information exchange mechanism with regard to intergovernmental agreements and non-binding instruments between Member States and third countries in the field of energy, and repealing Decision No 994/2012/EU.

²⁷ Regulation (EU) 2017/1938.

²⁸ According to the regulation, a contract needs to be notified to the National Authority of the most exposed Member State when it exceeds the 28% of the whole national demand. Source: Regulation (EU) 2017/1938, Art 18b, p. 28.

²⁹ The simulation encompassed 19 scenarios (disruption of an infrastructure or of all the supply from a certain country) based on 13 risk groups (geographic areas), covering the effects on the demand and identifying the supply emergency supply corridors through which could have been brought relief to the affected area.

2.2. Internal Market and Security of Supply

The processes of liberalisation and deregulation in the EU is based on the rationale that constructing a free and unified gas market has the effect to reinforce the security since: 1) multiple suppliers are available; 2) the market is more flexible; 3) there is, in absence of other factors, a competition to lower prices; 4) politically motivated actions result harder to undertake³⁰. The table below provides an overview of the reforms introduced with the three energy packages to create the base structure of the Common Market:

Development of the Common Market in the three energy packages.

Common Energy Market Core Components					
	Market opening	Third Party access	Market Regulation	Unbundling of TSOs	Network Development
First Package (1996-98)	Gradual and restricted	Negotiated, Regulated or Single Buyer	Any Competent Authority	Accounting	/
Second Package (2003)	100%	Regulated Access Only	Independent National Regulator	Legal	/
Third Package 2009	Directive 2009/73/EC; Regulation (EC) 714/2009; Regulation (EC) 715/2009		Coordination of Regulators by ACER	TSOs as Separate Identity	The Year Development Plans
			/	Coordination of TSOs by ENTSOG	

Source: European Court of Auditors.

The Commission's narrative about a common free gas market as a tool for improving energy security initially caused conflicting reactions. If on one side this project presents the advantages outlined above, on the other raised doubts about the reliability of markets and about the consequences of a market failure. These concerns, together with others of a more strictly political and economic nature,

³⁰ Proedrou, 2016, p. 59.

created a certain reluctance in countries such as Italy³¹ and Germany, that slowly adapted to the new regime. Moreover, a handful of countries such as the Baltic States feared that liberalisation would have exposed them to foreign (in this case, Russian) economic interest, seeing in a heavily regulated environment a tool for protection. In other countries prevailed the view according to which energy is a strategic public good, and for that its supply could not be left to markets, which could protect customers from price fluctuations less effectively than the public sector. All these concerns paved a hard way for the effective implementation of the Third Energy Package, initially set for 2014 and then declared complete only in 2016, facing several setbacks in the process of integration in MS legislative framework, due the non-transposition or non-conformity issues³².

The Third Energy Package, setting measures on market opening, third party access and unbundling, provided the legal basis for the creation of a real common gas market, further reinforced in 2011 by the Regulation (EU) No 1227/2011 on wholesale energy market integrity and transparency, which established rules to prevent market manipulation in European wholesale markets³³. Nevertheless, all these measures would fall short of their target if not adequately supported by a proper regulatory framework, aimed at harmonising a patchwork of local and national markets in order to favour trans-border exchanges achieve price convergence.

The foundation instruments of the European Gas Regulation were in fact set by the Third Energy Package itself, whose goals were to be reached through the implementation of EU-wide network codes and guidelines, establishing a legally binding set of rules to regulate access to European Gas Networks (cross-border capacity allocation mechanisms, rules on balancing, rules on transmission tariffs structures and rules on operability). Three entities are responsible for the development of these norms. At the highest level there is the European Gas Regulatory Forum, also known as Madrid Forum, where all the relevant stakeholders³⁴ of the Gas Market regularly meet to discuss issues related to the Gas Market.

³¹ Italy turned into national law the directive 73/2009 only in 2011, with the legislative degree 93/11, Nevertheless, the content of this legal document was deemed by the commission as insufficient to guarantee the implementation of the necessary measure, leading Italy to face an infringement procedure.

³² Transposition checks made necessary to launch nineteen infringements procedures, all closed by 2015, while conformity checks brought to ten more procedures and four requests of additional information. Source: European Court of Auditors, 2015, p 20.

³³ Regulation (Eu) No 1227/2011.

³⁴ The list of participants include national regulatory authorities, EU national governments, the European Commission, transmission system operators, gas suppliers and traders, consumers, network users, and gas exchanges. Source: www.ec.europa.eu

The second entity is the already mentioned ACER, which is entrusted of assisting and coordinate the various NRAs and oversees Gas and Electricity Transmission Operators (TSOs) and infrastructural development plans, monitoring the market³⁵. In addition to that it was created the ENTOS-G (in parallel with the ENTSO-E in the electricity sector), an association between TSOs whose mandate is facilitating the cooperation among its members, so to promote the completion of the internal market (developing network codes) and ensure an efficient management of the European Gas Grid. Moreover, it biannually updates the Ten-Year Network Development Plan (TYNDP)³⁶.

Last of all, the body that triggers the creation of new network codes, being acts of secondary legislation, is the European Commission, that each year, after a public consultation, draws an “annual priority list”. On request of the Commission, the ACER produces then a Framework Guideline, which ENTSOG develops into a network code through extensive consultation. The text becomes then legally binding after the approval of the Commission³⁷. Between 2014 and 2017, in order to allow the effective implementation of the Third Energy Package, a round of network code was adopted by the Commission, concerning data exchange, balancing of transmission networks, allocation mechanisms, access, congestion management procedures and harmonised transmission tariffs³⁸. This ambitious number of regulatory initiatives has not been fully implanted yet, and it is likely that, once this task is achieved, the von der Leyen Commission will propose a new range of codes to bring further harmonisation in the internal market³⁹.

2.3. Security of Supply and Infrastructures

As mentioned before, the second kind of barriers, next to the regulatory ones, to the supplies’ security in the Common Market is related to infrastructures. This is true for both gas and electricity, but the

³⁵ Costescu, Manitsas, Szikszai, 2018, p. 5-9.

³⁶ The TYNDP analyses the European as infrastructure and its future development projects, outlining different development scenarios. The TYNDP also includes a European supply adequacy outlook and an assessment of the network resiliency. Source: www.entsog.eu/tyndp.

³⁷ www.entsog.eu/tyndp.

³⁸ These regulatory initiatives are: Commission Regulation (EU) 2015/703 establishing a Network Code on interoperability and data exchange rules; Commission Regulation (EU) No 312/2014 establishing a Network Code on Gas Balancing of Transmission Networks; Commission Regulation (EU) 2017/459 establishing a network code on capacity allocation mechanisms in gas transmission systems and repealing Regulation (EU) No 984/2013; Commission Decision (EU) 2015/715/EU amending Annex I to Regulation (EC) 715/2009 on conditions for access to the natural gas transmission networks; Guidance on best practices for congestion management procedures in natural gas transmission networks [SWD(2014) 250]; Commission Regulation (EU) 2017/460 of 16 March 2017 establishing a network code on harmonised transmission tariff structures for gas.

³⁹ About the Commission priorities for 2019, and in general on its future undertakings in the gas market see: www.fsr.eu.eu

level of interconnection of the power grid is in a more advanced condition. Western Europe has a satisfactory level of interconnection between national grids, but in Eastern Europe the situation is remarkably more problematic, worsening the issue of the “single source” dependency. It also persists the presence of “gas islands”. In addition to that, even existing structure present several constrains. In many situations it has been observed that certain infrastructures, in case of rising workloads, have an insufficient absorption capacity, limiting imports and exports of gas. Furthermore, in many cases the existing infrastructure do not have reverse flow capacity.

These limits could not have been addressed by companies, being the amount of investments needed too large and the financial risk, especially in a sector like the gas one that, in the mid-2000s, was being challenged by heavily subsidised renewable sources. The Commission took the initiative in 2006, beginning to improve the TEN-E⁴⁰ framework, and identifying 550 projects in the entire energy sector eligible for EU funding⁴¹, while on the following year the TEN Financing Regulation⁴² regulated co-financing conditions and provided EUR 155 million in the period 2007-2013. Funding was mainly provided by the European Investment Bank (EIB), which guaranteed EUR 29.4 billion in loans in the period 2007 and 2012⁴³.

In 2010, one year after the Russian-Ukrainian crisis and in the context of the *20-20-20 Plan*, legislators called upon a new strategy for infrastructures in Europe. It was then launched the *Communication Energy infrastructure priorities for 2020 and beyond – a blueprint for an integrated European energy network*, calling for a new method for deciding upon new projects, with a view to deliver priority based, complete and time bound undertakings, to be planned in cooperation with High Level Regional Groups and an enhanced framework of regional initiatives⁴⁴. Moreover, the document urged the creation of a stable funding framework, foreseeing the necessity EUR 1 trillion of investments in the whole energy sector (CCS, renewables, etc...) of whom half in infrastructural projects. In the same year also become operative the ACER and the ENTSOG, which immediately drew the first TYNDP.

In 2013 a new revision of the TEN-E⁴⁵ was realised, registering considerable improvements from the previous one. Proposed by the Commission in 2011, the revision was based on the measures planned

⁴⁰ First created in 1996 and then renewed in 2002, the Trans-European Networks for Energy (TEN-E) is an instrument, managed by the Commission, which to finance the electricity and natural gas infrastructure.

⁴¹ Decision No 1364/2006/EC.

⁴² Regulation (EC) No 680/2007.

⁴³ European Court of Auditors, 2015, p. 16.

⁴⁴ The document is a comprehensive text assessing all the energy related issues where the infrastructural aspect would have played a role. See: European Commission (2011), p. 5-15.

⁴⁵ Regulation (EU) No 347/2013.

in 2009 and 2010. The TEN-E envisaged 12 “most wanted” infrastructural priorities, among which were identified four strategic gas corridors to be completed by 2020: 1) North-South gas interconnections in Western Europe (‘NSI West Gas’), eliminating the infrastructural bottlenecks that, at the borders of Spain (and exploiting its enormous regasification capacity) and Italy, prevent North African gas to flow to Northern Europe and vice-versa. 2) North-South gas interconnections in Central-Eastern and South-Eastern Europe (‘NSI East Gas’), linking the Baltic Sea with the Adriatic and the Aegean Sea in order to increase the flexibility of the Central European Region, still affected by monopolistic and isolated markets with a limited attractiveness for investors. 3) Southern Gas Corridor (‘SGC’). 4) Baltic Energy Market Interconnection Plan in gas (‘BEMIP Gas’), connecting Baltic States with the rest of the Union, relieving their dependency on Russian gas⁴⁶. The TEN-E also drew the guidelines for the selection of the list of Projects of Common Interest (PCI), to be revised every two years. The Commission estimated that, realising the necessary high-pressure gas transmission pipelines, storage, liquefied natural gas terminals (LNG) and reverse flow infrastructure, would have required an investment of EUR 70 billion⁴⁷. Hence, to improve the financing scheme, this regulation was complemented with a regulation establishing the Connecting Europe Facility, which in the period 2014-2020 was set to provide EUR 5.85 billion⁴⁸. Furthermore, quite extraordinarily, the EU budget allocated directly EUR 7.4 billion, while, in the whole period 2007-2020, the European Strategic Investment Fund (ESIF) and the European Energy Programme for Recovery (EEPR) allocated respectively EUR 1.3 and EUR 0.8 billion in the gas sector alone.

This remarkable framework received further input in 2016, in response to the appeal of the *Energy Security Strategy* of the same year, when the Commission published a Communication, part of the Sustainable Energy Security Package, defining its strategy on LNG and storage, aiming at fully exploiting their potential to make gas markets more liquid and more open to receive imports from alternative suppliers, becoming thus more resilient to supply disruption⁴⁹. All the measures envisaged led to the realisation of 61 gas infrastructural projects from the first, second and third PCI list, while 14 more will be completed by 2014⁵⁰. Moreover, the TYNPD of 2017 contained 234 projects (in reduction with respect to the 279 of 2015), of whom 186 related to transmission, 30 LNG terminals and 18 to storage⁵¹.

⁴⁶ www.ec.europa.eu

⁴⁷ Reichert and Voßwinke, 2012.

⁴⁸ Regulation (EU) No 1316/2013.

⁴⁹ COM (2016) 49 final.

⁵⁰ *Idem*, p. 3.

⁵¹ This data includes both FID (Final Investment Decision) and non-FID status projects, which are about the 90% of the total. Reference: ENTSOG, 2017, p. 149.

Nevertheless, as of today, the internal market is not complete yet, since the level of liquidity in certain parts of Europe, especially in the east, is still low. Thirteen MS still maintain regulated prices for domestic users, and eleven do it for industrial use too. This clearly favours the formerly state-owned companies, which remain in control of their local markets, a situation that the Commission, through wide use of infringement procedures, is trying to slowly address. Hub prices started to widespread as a result of effective diversification and increased liquidity.

In 2015 ACER registered an improvement of the market functioning, and in 2016 the process of implementation of the Third Energy Package was called concluded⁵². The current level of maturity of European gas hubs, dependent on the level of liquidity and interconnection, as well as on the enforcement of the regulatory framework, shows the existence of a “multi-speed Europe” which, even if initial signals are encouraging, still needs improvements, also considering the persisting price differences in the various areas.

However, removing more physical -infrastructural- barriers, requires huge investments, which would be hardly justifiable in the context of the energy transition, which threatens to leave the current infrastructure under-utilized. Moreover, an increased market competitiveness coupled with a growing import capacity, related especially with LNG growth, are likely to keep gas prices lower for the years to come, furtherly reducing the attractiveness for private investments in a sector which is experiencing a growing level of uncertainty due to the growth of renewable sources and technological development.

In this view, the *Communication on strengthening Europe's energy networks*, adopted by the European Parliament in April 2018, claims the necessity of a re-orientation of the infrastructural policy toward electricity. In fact, the list of gas related PCIs is declining remarkably and, once completed the remaining interconnection projects, “by 2022/25, Europe should achieve a well interconnected and shock resilient gas grid”⁵³. By that year, all the European countries will abide to the standard of the N-1 Rule, having access to three different sources. Moreover, the Commission prescribed that this approach, based on a handful of key projects, “should be accompanied by a more efficient use of existing infrastructure [...] and more effective enforcement of the legal and regulatory-based measures”, eloquently adding that “beyond the already identified priorities, a cautious approach to new investment is required to avoid over-investment and the risk of stranded assets that would put an additional burden on consumers”⁵⁴.

⁵² Vinois, 2015, pp. 404-413.

⁵³ COM (2017) 718 final, p. 8.

⁵⁴ Idem, p. 10.

3. The External Dimension

When it comes to discuss the external dimension of the EU's Energy Policy, a background element must be kept into consideration: there is no such thing as a consolidated common energy foreign policy instrument. Of course, the Union can exercise its own external action and is endowed of remarkable diplomatic instruments, both in terms of soft and hard power, its foreign action in the energy field is mostly related with issues such as the promotion of its climate agenda and technological development, but when it comes to relate with security considerations in energy diplomacy, MS maintain their sovereignty and would hardly be favourable to lose part of their competencies.

Moreover, MS were not able to reach an agreement about the features of a common external strategy in the gas sector. First, as already mentioned, they greatly differ as to the energy mix, which put them different at levels of vulnerability *vis à vis* Russia and other suppliers, determined not only by their previous policy choices, but also by their geographical position. Second, the disparity in the bargaining power of MS is, with some of them having a much stronger negotiation position in virtue of their internal market size and international standing. Third, MS have a very different attitude toward exporting countries, Russia above all. Some MS, like Italy or Germany, consider it as a reliable commercial partner, while others are more suspicious, for geopolitical and historical reason, like Poland or the Baltic States. Fourth, because of the previous considerations, some states have a tendency to free riding, preferring to adopt a bilateral approach for energy issues, at detriment of a common political line. An example of that is the construction of the North Stream, which was negotiated by Germany after the 2006 Crisis, and unceremoniously defined by Radosław Sikorski, Polish Defence Minister, as a new Molotov-Ribbentrop Pact⁵⁵.

3.1. Energy Governance and Energy Diplomacy

Before discussing the features of the EU Energy Diplomacy in its attempt to ensure the security of gas supplies, we need to point out the difference between Energy Governance and Energy Diplomacy. The distinction among these two policy fields is that, while the former sees security as a mainly economic problem and addresses it to promote economic competitiveness, the latter sees it as a geopolitical problem, which needs to be addressed to promote national/communitarian interests⁵⁶.

⁵⁵ Petersen, 2009.

⁵⁶ Herranz-Surrallés, A. (2016). An emerging EU energy diplomacy? *Discursive shifts, enduring practices*. Journal of European Public Policy, vol. 23, No. 9, p. 1389.

Historically, the energy policy of the EU was based on the market paradigm, leaving to MS the other aspects of it, and so was its idea of External Energy Security, based on the idea of addressing the lack of a well-functioning regulatory regime shared with producing and transit countries. For that, the instruments used by the European Institutions have been described as a form of “external governance”⁵⁷, trying to extend the *acquis communautaire* through institutional arrangements like the Energy Community⁵⁸ and initiative like the European Mediterranean Regulators Group (EMERG)⁵⁹. This approach was supported by the jurisprudence of the court, which provided a remedy to the lack of a legal basis justifying the external action in the energy filed with the opinion 1/03 of 7 February 2006. In such opinion, the asserted that whenever the Union is endowed of relevant competencies on the internal ground, in order to achieve its goals, it can assume international obligations even in absence of specific norms, so that an implicit competencies established⁶⁰.

After the 2009 Russian-Ukrainian Crisis, that caused a deterioration of the relations between Moscow and the rest of Europe and the consequent withdrawal of Russia’s provisional application from the Energy Charter Treaty, setting a principle of no discrimination in trade and pricing practices, the position of the EU on energy matters started being contaminated by geopolitical ideas⁶¹. After the 2006 Crisis, a debate on the definition of possible goals for an energy diplomacy starts emerging. For instance, great attention was devoted to the Principle of Solidarity, which Poland proposed to include in the Treaty of Lisbon (an idea then rejected). Anyway, in 2008 the Communication *EU Energy*

⁵⁷ Lavenex, 2004, p. 680-700.

⁵⁸ The Energy Community is an international organisation created in 2006 that links together the European Union and its neighbours (Albania, Armenia, Bosnia and Herzegovina, FYR of Macedonia, Georgia, Kosovo, Moldova, Montenegro, Serbia, Turkey, Ukraine) with the aim of creating a common regulatory and market framework, allowing cross border trade and energy integration. For Further information: <https://www.energy-community.org/>

⁵⁹ Resulted from a process which started in 1995, the European Mediterranean Regulators Group (EMERG) was established on July 1, 2008 in Malta, as an independent platform of National Regulatory Authorities for Electronic Communications Networks and Services. Its members are, together with several Eu countries, Algeria, Bosnia and Herzegovina, Egypt, Israel, Jordan, Lebanon, Libya, Morocco, State of Palestine, Switzerland, Tunisia and Turkey. For further information: <http://www.emergonline.org/>

⁶⁰ European Court of Justice (2006, February 7). *Competence of the Community to conclude the new Lugano Convention on jurisdiction and the recognition and enforcement of judgments in civil and commercial matters*. Opinion 1/03, I – 1168.

⁶¹ In an interesting study published 2014, was monitored the evolution of the policy discourse at the European Parliament, by calculating the number of speakers uttering ideas of energy governance and energy diplomacy (about policy competencies, instruments, goals and the problem definition) in selected parliamentary debates. The results show that, if in 2001-03 energy governance related topics were mentioned 68 times, and diplomacy related ones only 21, in 2007 the ratio was 36 to 87, and in 2010 it reached 24 to 126, showing a remarkable growth of the debate over energy and geopolitical issues. Source: Kuzemko, 2014, p. 64-67.

*Solidarity action Plan*⁶² mentioned foreign policy as one of the instruments for an effective energy policy. This contamination escalated after 2009, with the Czech EU Presidency calling a more proactive approach and arranging high level conferences on the Nabucco pipeline, labelled as “strategic project”, while on the other end the Commission began to abandon its neutrality and started to openly criticise MS support for projects such as the South Stream, that would have increased the dependency on Russia⁶³.

Because of such a transformation, it is easy to draw the misleading conclusions about the progresses of the energy diplomacy discourse in that phase. It is undeniable that the political discourse evolved radically in a very short time, the practices of the Union remained in the boundaries of traditional market-based security objectives, without exceeding the limits of the intergovernmental method. Energy diplomacy became instead a supporting tool capable of dealing with the geopolitical challenges of the new decade, giving the EU the possibility to act as a forum to coordinate the action of MS and carry high level dialogue, being occasionally entrusted of initiatives having a certain threshold of consensus among MS, for an improved Energy Security.

In this view, the Lisbon Treaty reinforced the legal base turning into law the doctrine on the implicit competencies, with article 188 L stating that: “*The Union may conclude an agreement with one or more third countries or international organisations where the Treaties so provide or where the conclusion of an agreement is necessary in order to achieve, within the framework of the Union's policies, one of the objectives referred to in the Treaties [...]*”⁶⁴. After the entry in force of the treaty, the Foreign Affairs Council was created.

3.2. External Action and Supply Security

The first step of this new approach is the landmark Communication *On security of energy supply and international cooperation - "The EU Energy Policy: Engaging with Partners beyond Our Borders*, published in 2011, which conceptualised the entire framework of the EU Energy Foreign Policy. In its introduction, the text recites: “*Bilateral energy relations between individual Member States and third supplier or transit countries can result in a fragmentation of the internal market. [...]. With the 2014 deadline to complete the internal market for electricity and gas, it is urgent to fully unfold its external dimension*”. Moreover, the document says that: “*The EU must build on the strength of its market, expanding links between the European energy network and neighbouring countries and creating a wider regulatory area*”⁶⁵. The Communication contained four policy priorities, namely:

⁶² See page 87.

⁶³ Herranz-Surrallés, 2016, p. 1396.

⁶⁴ TFEU, Art. 188L.

⁶⁵ COM (2011) 539 final, p. 2.

building up the external dimension of the internal energy market; strengthening partnerships for secure, safe, sustainable and competitive energy; improving access to sustainable energy for developing countries; and better promoting EU policies beyond its borders⁶⁶.

The first policy priority sets the objectives for achieving the security of gas supplies, prescribing four complementary courses of action. First, achieving coordination in the Common Market improving information sharing and negotiating with third countries at EU level large infrastructural projects. Second, diversifying routes and suppliers with new infrastructures, prioritising Southern Corridor and LNG. Third, continuing the process of market integration with neighbour countries, with particular regard to the members of the Energy Community and of the Eastern Partnership⁶⁷. Fourth, stepping up the partnership with Russia⁶⁸.

The first results came in the same year, when the European Council opened to the possibility of funding projects “*justified from a security of supply/solidarity perspective, but unable to attract enough market-based finance*”⁶⁹, and, some months later, for the first time the Commission was empowered to negotiate, on behalf of MS, the realisation of an infrastructure, the Trans-Caspian Pipeline, outside the Union territory.

In 2012, a Decision of the Parliament and the Council enforced a Commission’s proposal on the establishment of an information exchange mechanism about intergovernmental agreements (IGAs) between Member States and third countries in the field of energy, being part of the efforts of the Commission to favour the transparency of the external projection of the Common Market. The document required MS to submit their existing legally binding agreements having an impact on the Internal Market or on the state of Supply Security, giving the Commission the possibility to question MS in case of incompatibility with the EU law⁷⁰.

Moreover, other measures were taken in order to facilitate the exchange of information on energy external relations, improving the coordination of MS policies. For instance, after the treaty of Lisbon, was created the Council’s Working Party on Energy, where the Commission updates member states and builds common positions. In addition to that, following the 2011 Communication, the Strategic

⁶⁶ Every policy priority was then divided in a set of three to four goals, each one encompassing several proposed actions. In this work we will only select those related with the issue of security of gas supply, contained in the first policy priority.

⁶⁷ The Eastern Partnership (EaP) is a joint policy initiative aimed at improving relations between the European Union (EU) and six Eastern neighbours: Armenia, Azerbaijan, Belarus, Georgia, Moldova and Ukraine. Its framework is constituted by bilateral agreements and it is supported by the European Neighbourhood Instrument. Source: www.ec.europa.eu.

⁶⁸ Ibid.

⁶⁹ European Council, 2011, p. 3.

⁷⁰ Decision No 994/2012/EU

Group for International Energy Cooperation (composed by the Commission, the External Action Service and the MS's Foreign Affairs Ministers) was also formed and set up to discuss common priorities and initiative with respect to China, Ukraine, the Southern Mediterranean, the U.S., the Eastern Partnership and Russia⁷¹.

In July 2015, in the context of the Communication *A Framework Strategy for a Resilient Energy Union with a Forward-Looking Climate Change Policy*, Federica Mogherini, High Representative of the European Union for Foreign Affairs and Security Policy, lunched an *Action Plan for Energy Diplomacy*, meant to be one of the cornerstones of the Energy Union, reaffirming the importance of the of the external dimension and based on four pillars: 1) Strengthening the energy diplomacy by increasing the involvement of the Foreign Affairs Council on the subject; 2) Developing further on energy dialogues; 3) Improving the global energy architecture and expanding the current multilateral initiatives; 4) Making systematic efforts to increasingly speak with one voice on crucial issues⁷². Assessing the action plan, the Council listed the key priorities to address in its follow up concerning the diversification of supply, stating that: “*diplomatic support should focus on the Southern Gas Corridor, the Southern Caucasus and Central Asia; the strategic potential of the Eastern-Mediterranean region; the Euro-Mediterranean energy cooperation in the Southern Neighbourhood; the wider Middle East region; new energy sources in the Americas, Africa and Australia, including the potential of Liquefied Natural Gas (LNG)*”⁷³.

The most important follow up initiative was taken with the *Sustainable Energy Security Package*, further demonstration of how the internal and the external dimension of the Security of Gas Supply are being built in strict integration with each other. The document envisaged the already mentioned revision of the Decision on transparency of IGAs, which had proved to be ineffective because of the difficulty to renegotiate deals that resulted to be non-compliant with the EU law. In fact, the need of such a reform had been required already by *European Energy Security Strategy* in 2014 and readdressed during the definition of the Energy Union framework⁷⁴. The new text, still maintained its exclusive focus on IGAs, leaving commercial agreements under the scope of the Security of Gas Supply Regulation, proposed in the same legislative package. It required MS Governments to inform the Commission before the beginning a negotiation for a new agreement or for the revision of an existing one, also reporting about any draft or amendment as soon as the parties would have agreed on its content, establishing a full-fledged *ex ante* compliance check. Because of it, MS were prohibited to sign or ratify any agreement before the Commission had informed them about its

⁷¹ Knodt, Piefer, and Muller, 2016, pp. 57-75.

⁷² www.eeas.europa.eu.

⁷³ Council of the European Union, 2015, p. 5-8.

⁷⁴ European Parliament, 2017.

consistency with the EU law within five weeks, and, in case, had issued an opinion within twelve weeks⁷⁵.

The new decision was a big step in ensuring the coherence of the EU External Energy Security, and the approval of MS proofs a much higher degree of political coherence. Another positive signal in terms of cohesion was also given when the Commission was entrusted of negotiating the realisation of the North Stream II, a project contested by countries such as Poland, for it to comply with the *acquis communautaire*⁷⁶. There are three, mutually reinforcing, possible explanations of these improved coordination. First, in the last years there has been a partial centralisation of energy competencies, boosted by the “implicit power doctrine”, which allowed the internal governance competencies to affect also on the external ones. Second, several geopolitical events, most prominently the Arab Springs and Crimean Crisis, brought about a sense of vulnerability, urging decision-makers to address External Energy Security. The third factor was the process of institutional innovation launched by the Juncker Commission and culminated with the realisation of the Energy Union, which led to coordination and information exchange mechanisms. Put together, these three elements provided a legal basis, catalysed a political momentum and exploited it to consolidate solidarity among MS. If on one side Member States remain sovereign over their External Energy Security Policies, and so will be, unless a major revolution of the Treaties occurs, on the other hand the existence of a common political framework is undeniable.

⁷⁵ Decision (EU) 2017/684.

⁷⁶ www.ec.europa.eu.

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