



# Beyond the regulatory state: rethinking energy security governance and politics in the European Union

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## Abstract

The regulatory state model has traditionally been used to analyse the process of integrating the European energy sector, including the sensitive area of security of gas supply. This article argues that, due to recent innovations, this conceptualisation has become increasingly problematic and cannot provide an accurate picture of the current governance and politics of European energy security. This article applies the catalytic state model to the EU and contrasts it with the regulatory state approach. The catalytic state describes a peculiar pattern of governance which combines—rather than resolves—the tensions between market-centred and state-centred approaches and supranational and national views on EU energy security. This article also illustrates how this stylised form of state can be used to better frame the guiding principles, strategies and tools that are currently emerging as EU institutions address the issue of security of gas supply.

**Keywords** Catalytic state · Energy diplomacy · EU energy security · Regulatory state · Security of gas supply

## Introduction

The European Union (EU) has traditionally been conceptualised as a regulatory state—that is, an emerging polity that differs from the classic Westphalian state and from the post-WWII positive or interventionist state (Caporaso 1996; Majone 1996; Caporaso et al. 2015). This standard view has also been used to illustrate the main results of the process of integrating the European energy sector, including in the sensitive area of security of gas supply. According to this widely accepted perspective, the guiding principles, styles and instruments of the regulatory state's framework are still the major yardsticks for analysing and assessing the current governance and

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politics of the internal energy market and the external actions of the EU, which can be subsumed under the heading of the ‘external face’ of the EU regulatory state (e.g. Goldthau and Sitter 2014, 2015). This article argues that, in the wake of the important innovations introduced since the late 2000s, the regulatory state model is becoming less and less capable of framing the current dynamics of EU energy security. Instead, a different model—the catalytic state—is best suited to illustrate the emerging governance and politics in this policy domain.

The idea that the EU’s strategy in the realm of energy security, especially in the natural gas sector, has gradually shifted away from the regulatory and market approach towards more state-centred and geopolitical modes has been discussed since the late 2000s<sup>1</sup> (e.g. McGowan 2008; Youngs 2009, 2011; Kuzemko 2014). A similar assessment about the ‘mixed’ nature of the EU’s energy security governance can also be found in more recent works. For example, Anderson, Goldthau and Sitter (2017a: 238) describe the actions of the European Commission (EC) as taking place in a ‘grey area’ or a ‘third category’ between regulatory and geopolitical instruments (see also: Herranz-Surrallés 2016; Siddi 2019). However, by introducing the catalytic state model, which combines rather than resolves the tensions between market-centred and state-centred approaches to economic governance, this article offers insights to theorise that ‘grey area’. It develops a more accurate conceptualisation of EU energy security and resonates with the current efforts to go ‘beyond’ the regulatory state model (e.g. Genschel and Jachtenfuchs 2014, 2016; Caporaso et al. 2015; Mertens and Thiemann 2017, 2018) and rethink the very nature of the EU as an international structure of governance or as an ‘international state’ (Caporaso 1996).

This article is organised as follows. The first part provides a brief outline of the rise of the regulatory state in the EU energy domain. The regulatory state is contrasted with the model of the partner state, which describes the traditional governance and politics of the gas market in Western Europe. Second, the model of the catalytic state (Lind 1992; Weiss 1998, 2010, 2014) is developed and extended to the energy security realm and contrasted with the regulatory state. Third, the merits of this model for revealing important dynamics in EU energy security governance and politics are illustrated. The empirical section addresses three major dimensions of the EU as a catalytic state or as a ‘multilevel catalytic polity’: the guiding principles framing EU level governmental actors’ strategies, the policy tools used to develop those energy infrastructures (international pipelines and liquefied natural gas (LNG) importing terminals), which are crucial to the diversification of European gas supply, and the emerging patterns of energy diplomacy supporting those infrastructures.<sup>2</sup>

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<sup>1</sup> This article focuses on security of gas supply, which is a key component of the EU’s energy security strategy, which also includes measures in the areas of renewables and energy efficiency aimed to reduce the EU’s energy dependency (e.g. EC 2014, 2015). These measures are part of the EU’s climate change policy. Efforts to achieve mitigation and sustainability objectives have also contributed to challenging the market paradigm in the EU’s energy governance (e.g. Helm 2005; Kuzemko 2014).

<sup>2</sup> The model of catalytic state—like the model of regulatory state—can be applied to both the national and EU level of government. In a series of previous works, I have applied the catalytic state model to member states at the national level (Prontera 2017, 2018a, b). In this article, I apply this model at the EU level instead by examining the EU as ‘an international state’ (Caporaso 1996: 33).



This study is designed according to what Odell (2001: 163) calls a ‘preliminary illustration’ of a new concept: the limited goal of the empirical analysis is to put ‘concrete flesh on the bare bones of an abstract idea in order to help readers see its meaning more clearly’. In other words, the primary, limited goal of this article is to clarify and refine the concept of the catalytic state in the realm of EU energy security and to demonstrate its contribution to our understanding of important dynamics in EU energy security politics and governance. As Caporaso suggests, in this article, state forms are considered an emphasis rather than a discrete category, that is, ‘something to be accented rather than something to sort into categories’ (Caporaso 1996: 31). This is the traditional approach to the concept of forms of state. Forms of state should not be considered settled realities; they are ideal–typical characterisations of an emergent process of transformation (Clift 2014: 172). For example, in her works on industrial policy challenging the regulatory state hypothesis, Weiss points out that the regulatory-oriented state and the developmental-oriented state must of course be considered in terms of broad ideal types: ‘all states in reality combine both features’ (Weiss 1999: 81). Similarly, this article analyses the EU ‘as a catalytic state’ and points out some important tendencies correlating with this ideal type; it does not dispute the regulatory state model in its entirety. Despite these limitations, the conclusion section identifies the major implications of the catalytic state hypothesis, both for studies on EU energy security and recent literature that challenges the regulatory state approach. It also presents a tentative primary research agenda that stems from the adoption of the catalytic state model.

## Forms of state and energy security in the EU

### Partner versus regulatory state

Traditionally, the models of the positive state (or interventionist state) and regulatory state have been used to describe important characteristics of the governance and politics of the European energy and gas sector (Majone 1996, 1997). Gas (along with other public utilities, such as electricity, railways, etc.) was the quintessence of the post-WWII Western European positive state: public ownership, long-term planning, centralised decision-making and direct government intervention in industrial organisation were the norm. Progressive liberalisation and privatisation and the establishment of new, market-oriented methods of regulation in these sectors confirmed the rise of the regulatory state in Europe (Majone 1996). In the energy realm, this process had begun by the late 1980s with the emergence of the market paradigm in energy policy (Helm 2005) and the European Commission’s (EC) launch of the Internal Energy Market (IEM) project. The process continued with the diffusion of the market paradigm and the three energy legislative packages (1998, 2003 and 2009). These packages implemented the IEM in the gas and electricity sectors by promoting the unbundling of energy networks, third-party access (TPA) to infrastructures and regulation by independent authorities (Talus 2013). With these changes, the focus shifted from command and control policy instruments to rule-making and enforcing, from governments to independent regulatory authorities and from ‘old’ guiding principles (defending and



promoting the public interests) to ‘new’ ones (avoiding and preventing market failures).<sup>3</sup> The third energy legislative package in particular enhanced the EC’s role in oversight matters previously delegated to member states (MS) and national regulatory authorities, shifting the focus of regulation to the EU level. This move, however, should not be exaggerated. As Talus points out, ‘the regulatory powers of the Commission are modest and mainly focused on monitor proper compliance with directives full of political compromises and leaving much room for national variation’ (Talus 2013: 109). Energy governance in the EU has developed into a multilevel regulatory regime with important roles for MS and the EU and with connections among regulators in MS and in Brussels (e.g. Lodge 2008)

Both models—the positive and the regulatory state—capture important features of the organisation of European energy governance post-WWII and of its recent transformation. However, both models have been used to describe the general modes of national economic governance and cannot account for all the peculiarities of the energy sector, especially in the area of security of supply. They focus mainly on domestic policymaking, while security of supply has an important external dimension related to foreign energy policy and diplomacy (e.g. Duffield 2015). In addition, both models neglect the role of energy companies in international energy markets and the crucial relationships between them and governmental agents.

With regard to the traditional politics of security of gas supply in (Western) Europe, the *partner state* model can take into account this external dimension.<sup>4</sup> According to this model, governments and companies’ strategies are mutually supportive: national governments create and protect national champions at home and use bilateral diplomacy and foreign policy to support those champions’ negotiations with producer states and their companies abroad. In this model, the ‘triangular diplomacy’ framework easily captured the patterns of energy diplomacy (Stopford and Strange 1991), because the most important agreements in the gas sector resulted from government-to-government, government-to-company and company-to-company negotiations. Western European governments were at the centre of all the infrastructure development agreements aimed at diversification and security of supply. They actively supported the construction of international pipelines and LNG terminals with state-backed finance, negotiating long-term contracts with producers and creating gas demand at the national level to match the rigid structure of supply from abroad (Stern 1990; Estrada and Kare 1995; Hayes and Victor 2006).

On the other hand, the model of the regulatory state has been extended to cover the ‘external governance dimension’ of European energy policy, which parallels the market-oriented approach that the EC pursued internally with the IEM (Herranz-Surrallés 2015: 912). Scholars have referred to this dimension as the ‘external’ face of the EU regulatory state (Goldthau and Sitter 2014, 2015; Andersen et al. 2016). According to this perspective—in line with the market approach to energy policy

<sup>3</sup> For a discussion of the concept of guiding principles and its use in the analysis of important ideational elements of energy governance, see Sovacool and Sidorstov (2013).

<sup>4</sup> The partner state model is derived from Andersen (1993). The UK is an exception; its gas market has long differed from that of continental Europe and is not considered in this article.



(e.g. Goldthau and Witte 2010)—rather than negotiating ad hoc bilateral deals for specific projects, or supporting particular energy companies, the goal of public authorities is to set up, ex ante, (mainly) multilateral governance structures that prevent market failures, lower transaction costs and set rules and standards for market exchanges. The external face of the EU regulatory state includes a variety of multilateral governance structures. These structures range from legally binding treaties, such as the European Economic Area (EEA), the Energy Charter Treaty and the Energy Community Treaty, to less institutionalised regional initiatives, such as Inogate, the Eastern Partnership, the Baku Initiative. The EC has used these structures to promote stable, predictable legal frameworks and/or transnational dispute resolution mechanisms that support energy companies in upstream and midstream activities outside EU borders. These structures also push producer and transit countries to align domestic energy governance with EU principles, rules and standards (e.g. Prange-Gstöhl 2009; Padgett 2011; Goldthau and Sitter 2014, 2015; Andersen et al. 2016).

### Regulatory versus catalytic state

The model of the regulatory state—extended to include its ‘external’ face—correctly points to both the shift from state to market and from bilateralism to multilateralism that occurred in the domestic and external governance of the European energy and gas sector over the last two decades. However, the regulatory state model also neglects important aspects of the current situation. First, although EU member states have liberalised and privatised (or partially privatised) their energy sectors, they continue to pay special attention to national energy affairs. In order to respond to traditional concerns about security of supply—aggravated by the Russian–Ukrainian gas disputes and the instability in the Middle East and North Africa—or to achieve other industrial or foreign policy goals, European governments have continued to develop bilateral energy diplomacy (e.g. Youngs 2009; Aalto and Korkmaz Temel 2014; Herranz-Surrallés 2016, 2017). In the framework of the IEM, states have also continued to adopt—along with new market-based policy instruments—more direct measures of state intervention to develop energy infrastructures, including planning and ownership. However, new forms of public involvement in ownership have replaced traditional public ownership (Haney and Pollitt 2013; Pollitt 2016). The latter tended to take the form of a large state-owned company or local municipally utility that were 100% owned by the central government or local authorities, whereas the new modes of public involvement take many different forms, from partly privatised companies to hybrid consortia of private companies, partially private companies and state-owned producer companies (Haney and Pollitt 2013). Second, since the late 2000s, the EC has begun to develop a more direct approach to energy security, bilaterally engaging specific producers or transit states and supporting infrastructure projects financially and diplomatically (notably in the case of the Southern Gas Corridor) (Herranz-Surrallés 2017). In fact, even the defenders of the ‘EU as a regulatory state’ approach admit that when it comes to security of gas supply, the EC is only ‘mostly’ a liberal actor (Goldthau and Sitter 2014: 1468). To be



sure, regulatory tools remain an important component of the EU energy security toolkit. This is confirmed by the antitrust procedures that the EC opened against the Russian company Gazprom in 2012. It is also illustrated by the infringement procedures opened against Bulgaria regarding the onshore section of the South Stream pipeline, which led to the pipeline's cancellation in December 2014. However, along with these 'defensive measures' (i.e. measures intended to hinder the strategies of other actors), the EC has gradually strengthened its positive, proactive role in infrastructure development and in the diversification of gas supply.

Focusing on the EU as an international structure of governance—or an 'international state' (Caporaso 1996: 33)—the final result of these processes is best described by the catalytic state model. Like the regulatory state, the catalytic state is committed to new methods of energy governance and is concerned with avoiding and preventing market failures. However, in a more specific sense, its actions are oriented towards supporting market actors and facilitating their efforts to realise specific investment projects by combining market-based incentives and more direct forms of intervention. The idea that public authorities act as 'facilitators' to promote and support market actors—rather than simply shaping the institutional and legal framework in which they operate—in order to realise specific goals emphasises the role of governmental agents as strategic actors in a liberalised market environment (Schmidt 2009; Colli et al. 2014). According to this perspective, liberalisation and privatisation do not necessarily imply a linear shift from direct government action (*faire*) to market action (*laissez-faire*). Nor do they necessarily indicate the emergence of forms of *faire-faire*, with private actors taking on the state's former responsibility and public authorities relegated to setting guidelines and incentives for market actions. Indeed, in many cases, states have adopted a wider set of instruments and have begun to engage in *faire-avec* policies by collaborating with market actors to pursue their objectives (Colli et al. 2014).

The notion of the catalytic state was first introduced by Michael Lind (1992). Linda Weiss developed it further, stressing the crucial role that states still play in the face of globalisation and liberalisation (Weiss 1998, 2010). According to Weiss, states have lost many of their traditional instruments for controlling economic activities, but they are not only engaged in setting the stage for markets to operate by providing rules and institutions; they have also been able to develop new strategies to more actively pursue their goals. In particular, catalytic states seek to achieve their goals less by relying on their own resources than by forging coalitions with other (public and private) actors to realise their objectives (Weiss 1998: 209–10). These strategies include new modes of public involvement in ownership, arrangements to leveraging financial resources and the establishment of national or transnational public–private partnerships or consortia to promote policy implementation (Weiss 1998, 2010, 2014). As such, according to Weiss, the most successful states in the new economic and ideational environment would be those that can augment their conventional state capacities with 'collaborative power', i.e. engaging others (whether states or business actors) 'to form cooperative agreements and consortia for action on this or that issue' (Weiss 1998: 211; see also Weiss 2014).

Drawing from Weiss, Hocking (Hocking 1999; Lee and Hocking 2010) uses the terms 'catalytic diplomacy' or 'network diplomacy' to reconceptualise the new patterns of diplomacy attached to the catalytic state model. This type of diplomacy



takes place in an international economic environment characterised by the growing liberalisation of commercial and trade relations, but also by the fragmentation of the state and a growing link between state and society. Hocking and the scholars of new economic diplomacy use the concept of network diplomacy to emphasise the collapse of traditional levels of analysis into a multilayered policy environment, illustrate the increase in the number of players—including international and supra-national (regional) institutions which states have created and in many cases, have acquired significant autonomy in formulating and implementing public policy—and their changing relationships, which have become less hierarchical and more fluid. But also to highlight the transformation of the very purpose of diplomatic practices, from signing international agreements to improving and *facilitating* policy processes and specific investment projects (Heine 2006, 2013; Tussie 2013).

To sum up, differing from the partner and regulatory states—that are characterised by *faire* and *faire-faire* approaches, respectively—the catalytic state is based on a *faire-avec* approach to energy governance. This approach structurally combines market-oriented policy tools with more direct forms of state intervention, new modes of public involvement in ownership and public–private partnerships. It also stresses the role of public authorities as a facilitator for market players. Additionally, the catalytic state embraces a form of networked energy diplomacy in which governmental agents must negotiate with many private and public actors to pursue their policy goals. This form of energy diplomacy is different to both the multilateral *ex ante* diplomacy of the regulatory state, in which governments and international organisations try to create rules and negotiate treaties, and Susan Strange’s model of triangular diplomacy, in which the main diplomatic actors were national decision-makers, represented by national executives and managers of national energy companies.

Table 1 summarises the main differences between the partner, regulatory and catalytic state models<sup>5</sup>. The catalytic state model is especially useful for describing the current politics and governance of EU energy security. Although the EC has

<sup>5</sup> At first glance, some of the differences sketched here between the regulatory state and the catalytic state in the area of domestic governance might seem to recall the ‘new public management (NPM) versus governance’ debate in public administration (on this debate, see Klijn 2012), with NPM practices associated with the regulatory state model and its market approach and the governance perspective, with its focus on horizontal coordination, closer to the catalytic state. However, neither perspective is fully capable of addressing the differences between these two forms of state in the energy security realm. These perspectives have been mainly applied to the national (or EU) context of public administration, with a focus on services provision (especially integrated services) and delivery. However, this focus is too narrow to cover the international and foreign policy dimension of both the regulatory state model, when it is extended to include its ‘external’ face, and the catalytic state, with its networked patterns of diplomacy. That is to say, the components of energy diplomacy and government–company relations fall outside the NPM versus governance debate. In particular, when considering these elements, NPM’s focus on, for example, agentification, intraorganisational dynamics, contracting out, performance indicators, auditing and control is somehow misleading. Indeed, as anticipated, scholars adopting the lens of the regulatory state model have drawn on the literature on EU external governance to cope with the international dimensions of the regulatory state in the European energy sector (e.g. Goldthau and Sitter 2015; Heranz-Surrallés 2015). This exposes another problem of the NPM versus governance debate: the fact that this debate is possible only if we assume a very narrow and ‘restricted’ definition of governance (Klijn 2012), which is, however, very problematic when we move outside the public administration and public management literature (see also Agranoff and McGuire 2001).



**Table 1** Partner, regulatory and catalytic state and energy security governance

	Partner state	Regulatory state	Catalytic state
Guiding principles	Defending/promoting public interest	Avoiding/preventing market failures	Supporting/facilitating market actors
Public authorities' role in the implementation of projects	Demand creator/state-backed financing	Rule-making and enforcing	Rule-making and enforcing/facilitator
Relationships between government and energy companies	Mutually supportive	Neutral	Indirectly supportive
Policy instruments	Direct forms of state intervention (e.g. planning, ownership)	Market and regulatory instruments (e.g. regulatory and financial incentives)	Market and regulatory tools/direct forms of state intervention/leveraging/public-private partnerships
Energy diplomacy	Triangular diplomacy (to back national champions)	<i>Ex ante</i> multilateral diplomacy (to promote international agreements and institutions)	Network diplomacy (to facilitate the implementation of specific projects)





increased its role in security of supply, it is misleading to claim that it has assumed ‘the traditional role of the state’ by backing strategic energy projects (Talus 2015: 211). At least, it has not assumed the traditional role played by European governments in the partner state model. The EC lacks many important instruments that were (and still are) in the hands of national governments, notably authority over various energy-related and foreign policy issues and ownership or strong connections with energy companies (Andersen et al. 2016). Moreover, the EC is committed to market liberalisation and competition rather than protecting national energy companies. For these reasons, it is also misleading to consider the EC’s support for international pipeline projects, such as Nabucco, as examples of a classic ‘geopolitical perspective’ (Kuzemko 2014). Similarly, the EU’s approach cannot be equated to either the ‘economic nationalism’ (McGowan 2008) or the ‘geopolitical behaviour’ that is pursued by state actors, such as member states (Youngs 2009: 174).

The concept of network diplomacy, on the other hand, seems especially relevant in Europe’s ‘multilayered political-diplomatic environment’ (Hocking 2004). In the emerging *régime constitutionnel* of the ‘politics of energy under the Lisbon Treaty’ (Braun 2011), MS have granted some powers and legal authority to the EC, especially regarding infrastructure and security of supply. However, MS have also retained the right to conduct their own bilateral (energy) relations with non-EU countries and to determine the structure of their own energy supplies. In a similar institutional environment—and with only limited capabilities and resources—the EU must forge coalitions and promote cooperation among a wide range of public and private actors in order to achieve its goals. In the next section, the idea of the EU as a ‘catalytic state’ or as a ‘multilevel catalytic polity’—rather than a ‘multi-level regulatory polity’—will be further discussed.

## European energy security and the EU as a catalytic state

In the realm of energy security, the catalytic state differs from the regulatory state in many important respects (Table 1). Three key dimensions will be considered in this empirical section in order to challenge the regulatory state hypothesis and assess the EU ‘as a catalytic state’. The first dimension concerns the guiding principles that influence public authorities’ intervention in energy security. The analysis in “[The EU as a facilitator in the realm of energy security](#)” section focuses on key EU documents and legislations in the area of energy security and gas infrastructure. The legislative acts discussed were passed after the approval of the Lisbon Treaty in 2007, which formalised the EU’s new competences in the area of security of supply (Art. 194). This discussion demonstrates that the main EU governmental agents have begun to see themselves as facilitators for market actors and strategic infrastructure projects rather than simply promoters of markets and controllers of market failures (e.g. the undersupply of public goods), as in the regulatory state model (e.g. Majone 1997). This argument focuses on the EC, which is the EU’s key executive body and the central actor in the EU’s internal and external energy policy (Andersen et al. 2016).



The second dimension of the catalytic state model, analysed in “[Combing tools and supporting energy infrastructure development](#)” section, regards the policy tools used to implement infrastructural projects that promote diversification and security of gas supply. This section focuses on the major international pipelines and LNG receiving terminals developed between the early 2000s (after the implementation of the first gas directive 98/30/EC) and 2018. In line with the catalytic state hypothesis, this section demonstrates that these projects result from a combination of market-based instruments and more direct forms of state intervention. These include planning, financial contributions and new types of public involvement in ownership. Initially, MS used their own resources to promote these infrastructures. However, the EU has recently increased its diplomatic and financial support. With regard to the latter, it is important to consider the arrangements that are used to facilitate the implementation of infrastructure projects and leverage both public and private money. These include dedicated instruments, such as the European Energy Programme for Recovery (EEPR) and the Connecting Europe Facility Energy (CEF-E), EU funds, such as the European Regional Development Fund (ERDF) and the European Fund for Strategic Investments (EFSI), and loans that are provided by European public banks, such as the European Investment Bank (EIB) and the European Bank for Reconstruction and Development (EBRD). Although these efforts challenge the regulatory state model, they also differ from the modes of direct financial backing granted under the interventionist Keynesian state model (e.g. Mertens and Thienmann 2017).

Finally, “[The EU and the emergence of network diplomacy: from marketbuilding to coalition-building](#)” section examines the modes of EU energy diplomacy. This section focuses on the cases in which the EU has offered diplomatic support to energy projects, identified in “[Combing tools and supporting energy infrastructure development](#)” section. This discussion illustrates the emergence of EU diplomatic patterns in line with network diplomacy. It also demonstrates the move from the regulatory state’s multilateral and rule-based approach to the catalytic state’s focus on coalition-building.

### **The EU as a facilitator in the realm of energy security**

The first signals of the EU’s efforts to move beyond a market or regulatory approach were already evident in the early 2000s. In the first Green Paper on security of energy supply, issued in 2000, the EC paid special attention to external gas infrastructure and explicitly stressed the importance of promoting new strategic routes from the Caspian Sea basin and the southern Mediterranean (EC 2000). Then the 2003 (Decision No 1229/2003/EC) and 2006 (Decision No 1364/2006/EC) guidelines on the Trans-European Energy Network (TEN-E) replaced the 1996 guidelines (Decision No 96/391/EC). The 1996 guidelines focused on the completion of a single market, but the new decisions also incorporated criteria on security of supply. The Commission proposed several ways to support gas infrastructure development. It established the concept of ‘projects of European interest’ and offered financial support to infrastructure projects. Interestingly, it also provided for the appointment of European coordinators with the aim of ‘facilitating coordination between the various parties involved’ (i.e. MS and project developers) to realise energy infrastructure and resolve implementation problems (Decision No 1364/2006/EC). However,



only one coordinator was appointed for external gas infrastructure (for the Nabucco pipeline). Besides, the budget allocated to the 2006 TEN-E scheme was very limited (only around 20 million euros per year) and was mainly intended for financing feasibility studies. This changed in 2009, when, in the wake of the 2008 economic downturn and the second Russia–Ukraine gas dispute, the four billion euro EEPR was established to address Europe’s economic crisis and European energy policy objectives, including those related to gas infrastructure and security of supply.

In the same period, with the 2008 *Second Strategic Energy Review*, the EC called for the EU to ‘speak with one voice’ in matters of international energy issues and to embrace a more ‘active approach’ to infrastructure development by ‘collaborating with Member States’ and promoting ‘more effective collaboration with the private sector’ (EC 2008a: 6). According to the Commission, this approach was considered ‘particularly important for certain key external energy infrastructures which face heightened non-commercial risks’. In these cases, ‘the development of public private partnerships, providing the necessary *political underpinning*, and potentially a certain level of public financing or guarantees (...)’ was considered ‘increasingly important’ (EC 2008a: 6, italics added).

This redefinition of energy security problems was clearly laid down in the 2008 Green Paper *Towards a Secure, Sustainable and Competitive European Energy Network*. If the previous approach was based on the assumption ‘that investments would be borne by the market players who pass the costs to consumers’, now the problem was reframed as how to ‘increase the leverage of the various funding possibilities for infrastructure investments, including TEN-E, Structural Funds and the EIB’ (European Commission 2008b: 5).

In the 2010 *Report on the Implementation of the TEN-E Program*, the Commission recognised again the limits of its original approach to strategic infrastructures. In the Commission’s words, the problem was that ‘it was assumed throughout that EU intervention in the implementation phase of such projects would not be necessary, as *commercial interests* would drive project forward’ (EC 2010a: 1, italics added). To address these shortcomings, the Commission proposed a combination of regulatory tools (better rules for authorisation procedures and a better prioritisation of strategic projects) and an increase in financial contributions to the projects. The innovations envisaged by the Commission still supported its market-based, regulatory approach to energy governance; in this case, public authorities focused on avoiding/preventing market failures. Under the new TEN-E scheme, projects could become Projects of Common Interest (PCIs) if they were key to EU energy security and ‘clearly [demonstrated] market failures’, which would discourage private investment (EC 2010a). This inspired the 2009 Third Energy Legislative Package. Under the third package, large gas infrastructure projects could be granted exemptions to the rules on TPA or unbundling on the grounds that such projects contribute to ‘public goods’, i.e. security of supply and increased competition in the EU gas market (Directive 2009/73/EC, Art. 36). However, in the 2010 *Report on the Implementation of the TEN-E Program*, the Commission identified problems related to ‘political cooperation and coordination’ and stressed its positive, active role ‘to facilitate the implementation of complex projects involving several countries and companies’ by ‘bringing relevant stakeholders with the aim to *build consensus* on the way ahead



of politically sensitive and complex regional projects' (EC 2010a: 7, italics added). This goal was also confirmed in the 2010 Communication on *Energy Infrastructure Priorities for 2020 and Beyond*. In this communication, the EC reiterated the importance of improving dialogue with all stakeholders involved in the projects and promoting 'regional cooperation'; it also recognised that the 'high-level involvement of the Commission as a *facilitator* and even driving force' was a crucial element in project implementation (EC 2010b: 12; italics added).

In 2013, the new TEN-E guidelines (Regulation 347/2013) laid down the new regulatory and financial framework for PCIs. The new guidelines confirmed the market failure/public good approach (see in particular Regulation 347/2013, Art. 42). However, the new guidelines also incorporated the more political perspective of the catalytic state model aimed at facilitating market actors and creating coalitions between public and private actors. These guidelines provided for the establishment of 'regional groups' managed by the EC to 'ensure close cooperation between Member States, national regulatory authorities, project promoters and relevant stakeholders' (Regulation 347/2013, Art. 22).

In 2013, the CEF-E, with a budget of 4.7 billion euros, was established to support the realisation of PCIs under the 2013 TEN-E scheme (the first two lists of PCIs were formalised in 2013 and 2015). However, in the 2014 *European Energy Security Strategy*—issued after war broke out in Eastern Ukraine—the Commission recognised that the 'large majority of critical projects' promoting energy security, located in Eastern Europe, were 'mainly large scale projects (...) inherently complex and prone to delays'. Hence, 'the possibilities to speed up their implementation require more than just early CEF support' (EC 2014: 10). Their implementation required the Commission to 'intensify its support for the critical projects by bringing together the project promoters (...) as well as the relevant ministries *to ensure strong political support*' (EC 2014: 10, italics added). The reframing of EU energy security towards the catalytic state model was echoed in the 2015 Communication on the *Energy Union*. In this document, the Commission focused on energy infrastructures both inside and outside the EU while stressing the need to exploit fully the support granted by EU funding and financial instruments, including the EFSI, which was established in 2015 as a flagship project of the newly appointed Juncker's Commission. Moreover, the Commission reasserted its role in facilitating the implementation of strategic energy projects. According to the Communication, 'constructing the infrastructure to deliver new sources of gas to the EU involves many partners and is both complex and expensive (...) resolving these issues requires resolute action at EU level' (European Commission 2015: 4). Finally, in the 2017 Communication *On strengthening Europe's Energy Networks*—issued on November 2017 in conjunction with the third PCIs list—the Commission recognised that the 'EU's financial support under the CEF, EFSI and EIB loans has been an important factor to leverage private investment for energy infrastructure and thus implementing critical PCIs in the gas sector' (EC 2017: 3). The Commission also highlighted the 'key role' of the regional High Level Groups, established in 2015, 'to accelerate infrastructure development in specific European regions, facing particular challenges' and stressed that the Commission's '*political and financial support has been a key enabler*' of strategic energy projects (EC 2017: 3, italics added).



## Combing tools and supporting energy infrastructure development

International pipelines and LNG receiving terminals are crucial to diversifying suppliers and supply routes. Since the early 2000s, MS—in accordance with the catalytic state hypothesis—have promoted these infrastructures by combining more direct forms of state intervention (e.g. planning and new modes of public involvement in ownership) with the market and regulatory incentives provided by the IEM framework, in the form of exemptions from the TPA rule (Tables 2, 3). Table 2 lists all the large, new LNG terminals that became operational between 2000 and 2018. It also includes projects that have been included in the 2015 and 2017 PCIs lists: one in Croatia and one in Northern Greece (both currently under development) and two in Estonia (both cancelled in 2016, see below).

As Table 2 shows, all the new LNG terminals built from 2000 to the early 2010s resulted from the efforts of MS. They were supported by exemptions from the TPA rule, new modes of public involvement in ownership, and/or other instruments of direct state intervention. During this period, LNG spread through the EU as a result of national strategies aimed at promoting diversification of supply and competition in the domestic market. The EU included most of these MS LNG projects under the 2003 and 2006 TEN-E frameworks. However, assigning ‘EU status’ to these projects did not have a substantial effect because it was not backed by financial or regulatory support (it is only under the 2013 TEN-E Regulation that PCIs can rely on an improved regulatory framework for accelerated realisation). The EU did not supply any diplomatic support to these LNG projects either. However, as anticipated, at the beginning of the 2010s, the EU’s approach to energy infrastructure began to change. In 2010 and 2011—under the EFRD and the EEPR—the EU granted to the Poland Świnoujście LNG terminal, developed by the state-owned company Gaz-System, significant financial support covering nearly 30% of the total cost of the project (Table 2). Under the new 2013 TEN-E regulation, as a PCI, this terminal also relied on an improved regulatory framework to speed up its realisation.

The EU grants for the Świnoujście LNG represented an important innovation; previously, the EU’s financial contribution to TEN-E projects rarely amounted to more than 0.01–1% of the total costs (EC 2010a). Moreover, the EC also supported this project under the Baltic Energy Market Interconnection Plan (BEMIP) regional initiative (see “[The EU and the emergence of network diplomacy: from market building to coalition-building](#)” section). The EU has since applied this approach to the other LNG projects planned in the Baltic States and Southeastern Europe (Table 2). To realise the Krk terminal, Croatia has established a state-owned company, but a crucial element is the financial contribution granted by the EU under CEF-E (covering 28% of the total cost of the first phase of the project development) and the €339 billion loan offered by the EIB. In order to facilitate the realisation of this project, political and diplomatic backing has also been provided within the context of the Central and Southeastern Europe Gas Connectivity High Level Group (CESEC) (see “[The EU and the emergence of network diplomacy: from market building to coalition-building](#)” section). Similarly, the EU has provided diplomatic and financial support for a new terminal in Northern Greece (at Alexandroupolis) developed by a public–private consortium which includes the Greek and Bulgarian



**Table 2** Major LNG receiving terminals realised/under development in the EU-27 (EU minus the UK) (2000–2018)

Site, Country (capacity in bcm/y)	Start-up date	Major proponents/shareholders (*)	Modes of public involvement in ownership (EU companies)	Other instruments of direct state intervention	Third-party access (TPA) regime/exemptions	EU support		
						EU status (TEN-E)	Financial support (Grants and loans) (m = million) (EU grants as % of total costs) (\$)	EU diplomatic support (**)
Revithoussa, Greece (5 bcm/y)	2000	DEPA (Greece)	DEPA (Greece) 65% state-owned		As an 'emerging market' Greece was exempted from the TPA requirements of the Second Gas Directive (currently regulated TPA)	–	–	No
Bilbao, Spain (7 bcm/y)	2003	Enagas (Spain) 50%, EVE (Spain) 50%	EVE: Basque Government energy agency Enagas: 5% state-owned	Planning system	Regulated TPA	–	PCI (TEN-E 2003)	No
Sines, Portugal (7.6 bcm/y)	2004	TRANSGAS (Portugal, subsidiary of GALP Energia)	GALP Energia: at the time of the LNG terminal construction the company was 34% state-owned		As an 'emerging market' Portugal was exempted from the TPA requirements of the Second Gas Directive (currently regulated TPA)	–	PCI (TEN-E 2003)	No



Table 2 (continued)

Site, Country (capacity in bcm/y)	Start-up date	Major propo- nents/sharehold- ers (*)	Modes of public involvement in ownership (EU companies)	Other instru- ments of direct state intervention	Third-party access (TPA) regime/exemp- tions	EU support	Financial support (Grants and loans) (m = mil- lion) (EU grants as % of total costs) (\$)	EU diplo- matic support (**)
						EU status (TEN- E)		
Sagunto, Spain (8.8 bcm/y)	2006	Unión Fenosa Gas (Spain) and Oman Oil Company (Oman) 50%, Enagas (Spain) and Osaka Gas (Japan) 50%	Enagas: 5% state- owned	Planning system	Regulated TPA	PCI (TEN-E 2003; TEN-E 2006)	–	No
Mugardos, Spain (3.6 bcm/y)	2007	Tojeiro Group (Spain) 51%, Galicia Govern- ment (Spain) 24%, First State Investment (UK) 15%, Sonatrach (Algeria) 10%	Galicia Govern- ment owns the 24% of the terminal	Planning system	Regulated TPA	PCI (TEN-E 2003; TEN-E 2006)	–	No



Table 2 (continued)

Site, Country (capacity in bcm/y)	Start-up date	Major proponents/shareholders (*)	Modes of public involvement in ownership (EU companies)	Other instruments of direct state intervention	Third-party access (TPA) regime/exemptions	EU support	Financial support (Grants and loans) (m = million) (EU grants as % of total costs) (\$)	EU diplomatic support (**)
Rovigo, Italy (8 bcm/y)	2009	Qatar Petroleum (Qatar) 22%, Edison (Italy) 7%, ExxonMobil 70%	Edison: 35% owned by Italian municipalities, 52% owned by EDF (France). In 2012 EDF (84% state-owned) acquired the full control of Edison	Financial contribution from the Italian state	TPA exemption for 80% capacity used by Edison on a long-term basis for 25 years	PCI (TEN-E 2003; TEN-E 2006)	-	No
Fos Cavaou, France (8.3 bcm/y)	2010	GDF (France) 70%, Total (France) 30%	GDF: 33% state-owned	-	Regulated TPA (90% of capacity subscribed on long-term basis, 10% available for short-term contracts)	PCI (TEN-E 2006)	-	No





Table 2 (continued)

Site, Country (capacity in bcm/y)	Start-up date	Major proponents/shareholders (*)	Modes of public involvement in ownership (EU companies)	Other instruments of direct state intervention	Third-party access (TPA) regime/exemptions	EU support	Financial support (Grants and loans) (m = million) (EU grants as % of total costs) (\$)	EU diplomatic support (**)
Rotterdam, Netherlands (12 bcm/y)	2011	Gasunie (Netherlands) 50%, Vopak 50%	Gasunie: 100% state-owned	–	TPA exemption granted for 20 years and for the total terminal's capacity	–	–	No
Livorno, Italy (3.8 bcm/y) (FSRU) (β)	2013	Uniper (Germany, formerly E. On) 48%, Iren (Italy) 49%	Iren: 60% owned by Italian municipalities	–	TPA exemption for 20 years and for total capacity (\$\$\$)	PCI (TEN-E 2006)	–	No
El Musel, Spain (7.1 bcm/y)	2013	Enagas (Spain)	Enagas: 5% state-owned	Planning system	Regulated TPA	–	–	No
Klaipėda, Lithuania (4 bcm/y) (FSRU)	2014	Klaipėdos Naphtha (Lithuania)	Klaipėdos Naphtha: 70% state-owned	State aid by Lithuania (°)	Regulated TPA	–	–	No
Dunkirk, France (13 bcm/y)	2015	EDF (France), 65%, Fluxys (Belgium) 25%, Total (France) 10%	EDF: 84% state-owned	–	TPA exemption granted for 20 years	2013 PCIs list (TEN-E 2013)	–	No



Table 2 (continued)

Site, Country (capacity in bcm/y)	Start-up date	Major proponents/shareholders (*)	Modes of public involvement in ownership (EU companies)	Other instruments of direct state intervention	Third-party access (TPA) regime/extensions	EU support	Financial support (Grants and loans) (m = million) (EU grants as % of total costs) (\$)	EU diplomatic support (**)
Świnoujście, Poland (5 bcm/y)	2016 Capacity extension to 10 bcm/y expected for 2022	Polskie LNG (owned by GAZ-SYSTEM, Poland)	GAZ-SYSTEM: 100% state-owned	–	Regulated TPA	2013 PCIs list (TEN-E 2013) 2015 and 2017 PCIs lists (capacity extension)	EFRD (€): € 223 m EPRP: € 80 m Total cost: € 869 m (EU: 30%)	No
Krk, Croatia (2.6 bcm/y) (FSRU)	2020 (expected)	LNG Croatia LLC (Croatia)	LNG Croatia state-owned company	–	–	2013, 2015 and 2017 PCIs lists (TEN-E 2013)	CEF-E: € 101 m Total cost (first phase): € 363 (EU: 28%) (°) EIB loan: € 339 m	Yes (CESEC)



Table 2 (continued)

Site, Country (capacity in bcm/y)	Start-up date	Major proponents/shareholders (*)	Modes of public involvement in ownership (EU companies)	Other instruments of direct state intervention	Third-party access (TPA) regime/exemptions	EU support	Financial support (Grants and loans) (m = million) (EU grants as % of total costs) (§)	EU diplomatic support (**)
Paldiski, Estonia (2.5 bcm/y)	Both projects were abandoned after Klaipeda LNG started operations (see above)	Balti Gaas (Alexela Group, Estonia)	–	–	–	2013 and 2015 PCIs lists (TEN-E 2013) (excluded from the 2017 PCIs list)	–	Yes (BEMIP)
Tallin (Muurga harbour) Estonia (4 bcm/y)		Vopak, Port of Tallin (Port Authority, Estonia)	Port of Tallin: Estonian state-owned company	–	–	2013 and 2015 PCIs lists (TEN-E 2013) (excluded from the 2017 PCIs list)	–	Yes (BEMIP)
LNG Northern Greece, Alexandroupolis (6 bcm/y) (FSRU)	2020 (expected)	DEPA (Greece) Gastrade, BEH EAD (Bulgaria)	DEPA: 65% state-owned BEH EAD: 100% state-owned	–	–	2017 PCIs list (TEN-E 2013)	–	Yes (CESEC)

(β) FSRU = Floating Storage and Regasification Unit; (\*) in this column the major companies involved in the development and management of the terminals are listed; (\*\*\*) = 'diplomatic support' refers to an active, specific and continued support to the project from the European Commission; (§) = author's elaboration from data provided by the EU, energy companies website and specialised press; (§§§) = in 2014 the developers renounced to the TPA exemption; (°) = a state aid, authorised by the European Commission, of €448 million was granted by Lithuania for the construction of the terminal; (ç) = European Regional Development Fund (ERDF); (°) = under CEF-E the EU is also funding other projects allowing pipeline connections with Hungary

**Table 3** Major pipeline projects realised/planned along the gas corridors supplying the EU market (North–South corridor from Norway not included) (2000–2018)

Pipeline	Status (as of December 2018)	Major proponents/ shareholders (*)	Modes of public involvement in ownership (EU companies)	Third-party access (TPA) regime/exemptions	EU support	Financial support (Grants and loans) (m = million) (EU grants as % of total costs) (\$)	EU Diplomatic support (**)
East–West Corridor							
South Stream	Cancelled in 2014, replaced with the Turk Stream (see below)	South Stream AG (2008); Gazprom (Russia) 50%, Eni (Italy) 50%	EDF: 84% state-owned Eni: 30% state-owned	–	No (opposition)	–	No (opposition)
Nord Stream	In operation since 2012	South Stream Transport (Black Sea Section) (2011): Gazprom (Russia) 50%, Eni (Italy) 20%, EDF (France) 15%, Wintershall (Germany) 15% Nord Stream AG (2010): Gazprom (Russia) 51%, Wintershall (Germany), 15.5%, Ruhrgas (Germany) 15.5%, Gasunie (Netherlands) 9%, GDF-Suez (France) 9%	Gasunie: 100% state-owned GDF-Suez: 33% state-owned	OPAL pipeline: 22 years TPA exemption for 50% of capacity (****)	Project of ‘European interest’ (TEN-E 2006)	–	No



Table 3 (continued)

Pipeline Origin of gas (capacity in bcm/y)	Status (as of December 2018)	Major proponents/ shareholders (*)	Modes of public involvement in ownership (EU companies)	Third-party access (TPA) regime/exemptions	EU support		
					EU Status (TEN-E)	Financial support (Grants and loans) (m = million) (EU grants as % of total costs) (\$)	
Nord Stream 2 Russia (55 bcm/y)	Permitting procedures for construction undergoing (onshore and offshore sections)	Gazprom (100%) Financial investors (***): ENGIE (France, formerly GDF-Suez), OMV (Austria), Shell (Netherlands), Uniper (Germany formerly E.On), Wintershall (Germany)	ENGIE (France): 30% state-owned OMV (Austria): 30% state-owned	–	No (opposition)	–	No (opposition)
Turk Stream Russia (31 bcm/y)	Under construction (construction started in May 2017)	South Stream Transport B.V. (2015): wholly owned subsidiary of Gazprom (Russia)	–	–	No (opposition)	–	No (opposition)
South–North Corridor Green Stream Libya (8 bcm/y)	In operation since 2004	Green Stream BV: Eni (Italy) 50%, NOC (Libya) 50%	Eni: 30% state-owned company	–	–	No	No



Table 3 (continued)

Pipeline Origin of gas (capacity in bcm/y)	Status (as of December 2018)	Major proponents/ shareholders (*)	Modes of public involvement in ownership (EU companies)	Third-party access (TPA) regime/exemp- tions	EU support EU Status (TEN-E)	Financial sup- port (Grants and loans) (m = mil- lion) (EU grants as % of total costs) (\$)	EU Diplomatic support (**)
Medgaz Algeria (8 bcm/y)	In operation since 2011	MEDGAZ (2007): Iberdrola (Spain) 20%, Endesa (Spain) 12%, GDF (France) 12%, Sonatrach (Algeria) 26%, Cepsa (Spain) 20%, Gas Natural (Spain) 10% MEDGAZ (2013): Sonatrach (Alge- ria), 43%, Cepsa (Spain), 42%, Gas Natural (Spain) 15%	In 2007, Gas Nat- ural, decided to participate in the project, tacking a 10% share from Sonatrach. Gas Natural was the traditional incumbent in the Spanish gas market. GDF: 33% state- owned	TPA exemp- tions granted by Spanish national authorities (included in the national man- datory plan- ning system)	Project of 'Euro- pean interest' TEN-E (2006)	TEN-E: € 2 m Total cost: € 900 m (EU: 0.2%) EIB loan: 500 m	No
Galsi Algeria (10 bcm/y)	postponed in 2010 and suspended in 2014	GALSIF: Sonatrach (Algeria) 41%, Edison (Italy) 20%, Enel (Italy) 15%, SFIRS (Italy) 11%, Hera (Italy) 10%	Enel: 30% state-owned company SFIRS: owned by Sardinia Region (Italy) Hera: 60% owned by Italian municipalities	-	Project of 'Euro- pean interest' (TEN-E 2006) 2013 and 2015 PCIs lists (TEN-E 2013)	EEPR: € 120 m Total cost: € 3635 m (EU: 3%)	No



Table 3 (continued)

	Pipeline Origin of gas (capacity in bcm/y)	Status (as of December 2018)	Major proponents/ shareholders (*)	Modes of public involvement in ownership (EU companies)	Third-party access (TPA) regime/exemptions	EU support EU Status (TEN-E)	Financial support (Grants and loans) (m = million) (EU grants as % of total costs) (\$)	EU Diplomatic support (**)
Southern Gas Corridor	Nabucco Azerbaijan and others (31 Bcm/y)	Cancelled in 2013 (after res-calling in Nabucco West, 16 bcm/y)	Nabucco Gas Pipeline International (2008): OMV (Austria), MOL (Hungary), Transgaz (Romania), Bulgargaz (Bulgaria), Botas (Turkey), RWE (Germany)	OMV: 30% state-owned MOL: 25% state-owned Transgaz: 100% state-owned Bulgargaz: 100% state-owned	25-years TPA exemption for 50% of capacity	Project of 'European interest' (TEN-E 2006) 2013 PCIs list (TEN-E 2013)	TEN-E: € 9,5 m EEPR: € 200 m Total cost: € 7900 m (EU: 2.6%)	Yes (see comments in the text)
TAP	Azerbaijan (10 bcm/y)	Under construction, operation expected in 2020	2010: Axpo (Switzerland), E.ON (Germany), Statoil (Norway) 2015: BP (UK) 20%, SOCAR (Azerbaijan) 20%, Snam (Italy) 20%, Fluxys (Belgium) 19%, Enagás (Spain) 16%, Axpo 5%	Snam: 30% state-owned Enagas: 5% state-owned	25-years TPA exemption for 100% of capacity	2013, 2015 and 2017 PCIs lists (TEN-E 2013)	TEN-E: € 3 m CEF-E: € 14 m Total costs: € 4500 m (EU: 0.3%) EIB loan (supported by EFSI): € 1,500 m EBRD: € 500 m	Yes (after 2013) (SGC Advisory Council) (CESEC)



Table 3 (continued)

Pipeline	Status (as of December 2018)	Major proponents/ shareholders (*)	Modes of public involvement in ownership (EU companies)	Third-party access (TPA) regime/exemptions	EU support (TEN-E)	Financial support (Grants and loans) (m = million) (EU grants as % of total costs) (§)	EU Diplomatic support (**)
IGI-Poseidon Azerbaijan (10 bcm/y)	Merged with the East-MedPipe-line project (see below)	IGI-Poseidon S. A. DEPA (Greece) 50%, Edison (Italy) 50%	Edison: 35% owned by Italian municipalities, 52% owned by EDF (France). In 2012 EDF (84% state-owned) acquired the full control of Edison DEPA: 65% state-owned	25-years TPA exemption for 100% of capacity	Project of 'European interest' (TEN-E 2006) 2013 PCIs list (as part of the ITGI project)	TEN-E: € 7.6 m EEPR: € 100 m Total costs: € 1250 m (EU: 8%)	No
EastMedPipe-line (10 bcm/y) Cyprus and Israel-to Greece	Feasibility studies/ operation expected in 2025	IGI-Poseidon S. A. DEPA (Greece) 50%, Edison (Italy) 50%	Edison: see above DEPA: 65% state-owned	-	2015 and 2017 PCIs list (TEN-E 2013)	CEF-E: € 36.5 m Total cost: € 10,000 m (EU: 0.3%)	Yes (but limited)

(\*) = in this column the major companies involved in the development of the projects are listed, where appropriate important changes in the shareholder composition are considered indicating the relevant years; (\*\*) = 'diplomatic support' refers to an active, specific and continued support to the project from the European Commission; (‡) = opposition refers to the explicit opposition to the project expressed by the European Commission; (\*\*\*\*) = these five European companies have committed to provide long-term financing for 50% of the total cost of the project, which is estimated to be €9.5 billion (each company will fund up to €950 million); (\*\*\*\*\*)= OPAL is the onshore pipeline in German territory connected to the Nord Stream; (§) = author's elaboration from data provided by the EU, energy companies website and specialised press





state-owned companies (Table 2). This project should work in tandem with the Interconnector Greece–Bulgaria (IGB Pipeline). If realised, it will allow the transportation of LNG to Southeastern Europe, enhancing diversification of the gas supply particularly in Bulgaria, Romania, Serbia, Macedonia, Hungary and, possibly, Ukraine. It is worth noting that under the BEMIP, the EU has also supported two LNG projects in Estonia (at Tallin, see Table 2). However, both projects were abandoned after the realisation of the Lithuanian LNG terminal at Klaipeda. This project was developed outside the regional framework of the BEMIP. It was a national initiative of the Lithuanian government with (initially) poor coordination with the other Baltic states.

After a period during which MS developed projects mainly through diplomatic support and public involvement in ownership, the EU's growing role became evident in the case of international pipelines (Table 3). Table 3 lists the major international pipeline projects proposed or realised along the main gas corridors connecting producers with the EU market from 2000 to 2018 (Schubert et al. 2016). These include the East–West corridor (from Russia to the EU), the South–North Corridor (from North Africa to the EU) and the new Southeast–West corridor, or Southern Gas Corridor (from Middle East and Central Asia to the EU).<sup>6</sup> The Southern Gas Corridor (SGC) in particular has witnessed significant EU activism since the mid-2000s. The EU granted 'EU status', TPA exemptions and financial support first to the Nabucco and IGI-Poseidon (part of the Interconnector Turkey–Greece–Italy (ITGI)) and later to the Trans-Adriatic-Pipeline (TAP) and the EastMedPipeline. EU status (as a project of 'European Interest' under the TEN-E 2006 scheme) and/or limited financial support were also granted to projects along the East–West and South–North corridors. However, these projects (Nord Stream, Green Stream, Medgaz and Galsi) were national initiatives developed according to national agendas, involving national companies and supported by bilateral diplomatic relations between MS and producers. (Only Medgaz received an important financial contribution from the EIB: a €500 million loan.)<sup>7</sup>

Among the SGC projects, Nabucco in particular was considered a priority in Brussels. In 2009, the EU funded the Nabucco consortium with a financial contribution of 200 million euros. This financial contribution—although a very small part of the project's overall estimated costs (totalling something like 7.9 billion euros)—was significant compared to the funds previously granted to this pipeline or other projects under the TEN-E scheme (Table 3). In 2010, the EIB and the EBRD also began to evaluate the feasibility of a potential financing package of up to €3.2 billion for the Nabucco consortium (€2 billion from the EIB and €1.2 billion from the

<sup>6</sup> The North–South gas corridor, from the Norwegian and North Seas to the European continent, is not considered because it does not pose risks to security of supply. Norway–EU energy relations are regulated under the EEA framework. Under this framework, Norway functions much like an EU member state in many ways (Talus 2013: 232).

<sup>7</sup> Although an 'EU status' was granted to the Nord Stream, this project was heavily contested by some new member states in Eastern Europe, especially the Baltic states and Poland (many concerns were also expressed by the Ukraine and the USA).



EBRD).<sup>8</sup> Moreover, the EC promised Nabucco continuous political and diplomatic support (Sartori 2012, 2013). A European Coordinator was appointed to facilitate the project's realisation and to promote dialogue among MS and energy companies. EC Representatives took part in international summits organised to support Nabucco's realisation, which were held in Budapest (January 2009), Sofia (April 2009) and Prague (May 2009). The EC was also included in the Nabucco Committee, which was established by the intergovernmental agreement signed by the states involved in the pipeline's route to support the project's implementation (Art. 12, Nabucco Agreement). Finally, the EC proposed the establishment of the Caspian Development Corporation (CDC) as a public–private initiative to combine political, legal and commercial resources to aggregate European gas demand, assist European gas companies with purchases from Central Asia and convince Caspian producers to commit gas volume to the Nabucco.

Notwithstanding the EU's support, the Nabucco project (and its successor Nabucco West) was eventually abandoned in favour of the TAP in 2013. However, the EU has not abandoned its diplomatic involvement in the SGC. In June 2013, the TAP was selected by the developers of the Azerbaijan Shah Deniz II gas field to supply European markets. The EU then increased its involvement in the project. In November 2014, in cooperation with the Azeri government, the EC established the Southern Gas Corridor Advisory Council 'to steer the implementation of the project at political level'.<sup>9</sup> TAP was also included among the 'priority projects' of the CESEC. A small grant for the project was provided under the CEF-E (and previously under the TEN-E framework) (Table 3). It is worth noting that owing to the TPA exemption, the TAP was not eligible for CEF-E grants for works. However, in February 2018, the EIB decided to offer to the TAP consortium a €1.5 billion loan (the EBRD also supported the project with €500 million). This EIB loan was the largest single loan ever granted to an energy project. It was backed by a guarantee from the EFSI, and it was widely supported by the EC.<sup>10</sup>

The EU has also recently increased its financial and diplomatic involvement in the EastMedPipeline. However, in this case, public involvement in ownership by member states is a key feature of the project, while the EU financial support is minimal (Table 3). In this regard, this project is similar to the pipelines developed in the previous period. Moreover, the EU's diplomatic support of the EastMedPipeline has been very limited and cannot be compared with the EC's more structured efforts to

<sup>8</sup> See 'EIB, EBRD and IFC start appraisal of Nabucco pipeline', 6 September 2010, available at: <http://www.eib.org/en/infocentre/press/releases/all/2010/2010-142-eib-ebrd-and-ifc-start-appraisal-of-nabucco-pipeline.htm> (accessed 12 January 2019).

<sup>9</sup> Declaration of the European Commission Vice-President for the Energy Union Maroš Šefčovič, available at: <https://ec.europa.eu/energy/en/news/southern-gas-corridor-vice-president-%C5%A1ef%C4%8Dovi%C4%8D-attended-ministerial-meeting-baku> (accessed 28 December 2018).

<sup>10</sup> See, for example, the letter of support sent in July 2017 by the European Commission Vice-President Maroš Šefčovič and the Climate and Energy Commissioner Miguel Arias Cañete to the EIB's president, available at: [https://www.scribd.com/document/365626132/Letter-on-Southern-Gas-Corridor#fullscreen&from\\_embed](https://www.scribd.com/document/365626132/Letter-on-Southern-Gas-Corridor#fullscreen&from_embed) (accessed 18 October 2018).



support the TAP or the recent LNG projects in the Baltic region and Southeastern Europe.

### **The EU and the emergence of network diplomacy: from market building to coalition-building**

The EU has granted diplomatic support to only a few infrastructural projects: five LNG terminals (in Croatia, Estonia, Greece and Poland) and two international pipelines (Nabucco and the TAP) (see Tables 2, 3). However, it is more important to focus on the EU's mode of energy diplomacy in these cases. The EC's growing involvement in the realisation of these projects is in line with the network diplomacy model. As we saw, the first, most prominent example is the EU's support of the Nabucco pipeline. However, recent developments confirm that this approach—oriented at building coalitions rather than markets—is becoming the EU's systemic method for addressing concerns about security of supply. This is especially true in regions like the Baltics and Southeastern Europe, which are overly dependent on Russian pipeline gas and where MS (and their national companies) have limited financial and diplomatic resources for supporting large (and costly) energy infrastructure.

As anticipated, although the Nabucco project was abandoned in 2013, the EC has continued to offer diplomatic support to this new corridor with the establishment of the SGC Advisory Council. This initiative was created in 2014 by an agreement between the EC and Azerbaijan. However, it is not a replication of a traditional bilateral diplomacy pattern (the EU and Azerbaijan had already signed a *Joint Declaration on the Southern Gas Corridor* in 2011) and resembles the modes of network diplomacy. Along with the EC, this initiative includes all the EU (Greece, Italy, Bulgaria) and non-EU (Albania, Azerbaijan, Georgia, Turkey) countries involved in the TAP and IGB Pipeline routes.<sup>11</sup> The meetings of the SGC Advisory Council (held in 2015, 2016, 2017 and 2018) were also opened to the companies involved in the energy projects and to international financial institutions. This initiative explicitly aims to 'facilitate' (SGC 2015) the implementation of the projects by improving cooperation between public and private actors, resolving issues related to permits and authorisation and attracting additional financial resources (SGC 2015, 2016).

The EC has pursued a similar approach to improve security of gas supply in the Baltic region, although in this case the main issue was promoting cooperation among MS. In 2008, the EC established the BEMIP to help end the energy isolation of Lithuania, Estonia, Latvia and Finland. The EU has used this framework to support the Poland LNG terminal, promote cooperation among the Baltic states and facilitate the realisation of one 'regional' LNG terminal (BEMIP 2009). However, despite the EU's diplomatic activism, the Baltics were not able to agree on the location of

<sup>11</sup> Georgia and Turkey are involved in the SGC through the SCP and TANAP pipelines. These pipelines are the first sections of the SGC and bring natural gas to the TAP at the Turkish–Greek border. Bulgaria is involved in the project through the IGB pipeline, which should connect with the TAP in Greece. Albania is involved in the TAP route.



this regional project—which would also receive EU financial support. After the war in Eastern Ukraine, the EC relaunched the BEMIP initiative to promote some of the major regional gas infrastructures included in the EU 2013 and 2015 PCI lists, such as the regional LNG terminal in Estonia. Unlike the previous framework, the ‘reinforced’ BEMIP initiative, established in 2015, has a new, three-tier institutional structure. This consists of a political level, an operational level and working groups with representatives from the EC, MS governments and energy companies (BEMIP 2015a). The reinforced BEMIP framework is coordinated by the EC and aims to improve cooperation among the national governments involved and to help solve all the political, operational and technical problems in projects’ implementation (BEMIP 2015a, b). Eventually, the regional LNG terminal in Estonia was not realised. (This project was not included in the 2017 PCIs list.) However, the BEMIP—along with CEF-E financial backing—was instrumental in facilitating the launch of two new international pipelines that connect the Baltic States: the Estonia–Finland Interconnector (Balticconnector) and the Poland–Lithuania pipeline (GIPL), which are expected to enter into operation in 2020 and 2021, respectively.

The EU’s approach as a ‘coordinator’ of public and private actors and ‘facilitator’ of energy projects is additionally illustrated by the establishment of the CESEC High Level Group in February 2015. Like the other two initiatives, the rationale behind this framework—set up and managed by the EC—is to facilitate the implementation of specific energy projects, including the Croatian and Greek LNG terminals, the TAP and the Ionian Adriatic Pipeline (IAP), a project that would connect with the TAP and serve the Balkan markets. The CESEC High Level Group aims at promoting cooperation among private and public actors—from MS (Austria, Bulgaria, Croatia, Greece, Hungary, Italy, Romania, Slovakia and Slovenia) and non-MS (Ukraine, Moldova, Serbia, FYROM, Albania and Bosnia–Herzegovina)—and ‘ensuring that all challenges the projects are facing are identified and successively addressed’ (CESEC 2015: 2). Interestingly, according to the CESEC, actions within this framework ‘cannot serve to substitute the legal process set up for the identification of Projects of Common Interest (...) or the legal provisions related to financing under the Connecting Europe Facility’ (CESEC 2015: 2). In other words, this framework also clearly illustrates a defining feature of the catalytic state model: the combination of regulatory tools—designed to avoid and prevent market failures—with initiatives intended to facilitate market actors’ and the implementation of specific investment projects. These initiatives occur in the EU’s ‘multilayered political-diplomatic environment’ (Hocking 2004) and involve the EC in building coalitions to achieve its goals.

## Conclusions

Research on EU energy security is in a paradoxical situation. Scholars have pointed to the growing tensions between the regulatory and market approach and a more interventionist and geopolitical logic to EU energy security governance (e.g. McGowan 2008; Youngs 2009; Kuzemko 2014; Herranz-Surrallés 2016; Andersen et al. 2017a, b; Siddi 2019). By contrast, they have framed this governance under the



traditional lens of the regulatory state, all the while knowing the problems in adopting this model, especially regarding security of gas supply (e.g. Goldthau and Sitter 2014, 2015; Andersen et al. 2016). The model of the catalytic state helps close this gap in the literature and theorise EU energy security beyond the regulatory state. Although this model recognises the resilience of the market paradigm in EU energy governance (e.g. Herranz-Surrallés 2016), the strategy of the EC has departed from the indirect (*faire-faire*) approach of the regulatory state. In addition, the catalytic state contends that the outcome of this strategy shift can be encompassed by the direct (*faire*) approach of the partner state, which is based on a state-centric perspective. The catalytic state emerges as a structural combination of market-centred and state-centred modes of energy governance. It stresses how the EC has embraced a *faire-avec* approach and combines different types of policy tools to achieve its objectives: market-based and regulatory incentives of the IEM and more direct forms of intervention. The catalytic state model also points to the limits of the ‘external’ face of the regulatory state perspective. It recognises the more proactive and targeted approach that is embraced by the EC, especially in the area of infrastructure and diversification of gas supply. However, it contends that the EU’s strategy can be assimilated with the traditional ‘geopolitical’ behaviours (Youngs 2009: 174), which state actors can implement in international energy affairs (e.g. Kuzemko 2014). Networked forms of energy diplomacy (rather than bilateral forms and state backing of national champions) characterise the EU’s approach on the matter. Overall, the catalytic state model highlights the role of the EC as a facilitator rather than as a regulator (or a provider of energy services) and as a coalition builder rather than as a market builder.

The adoption of the catalytic state model—i.e. framing the EU as a catalytic state—also points to the development of a different research agenda for the study of EU energy security. In the regulatory state hypothesis, the ‘characteristic institutions’ (Majone 1997) of governance in the energy sector are regulatory agencies. On the other hand, hybridisation and hybrid institutions—exemplified by public–private partnerships and new modes of public involvement in ownership—are emerging as crucial features of the catalytic state model. Hybrid institutions, in turn, present specific accountability problems, which differ from those of traditional non-majoritarian institutions (e.g. Skelcher 2005, 2010). This issue deserves more attention, especially since energy security is a policy area that, because of its international and strategic dimensions, has already revealed a resistance to parliamentary scrutiny in EU member states (e.g. Herranz-Surrallés 2017). Secondly, under the catalytic state model and the related *faire-avec* approach, a discretionary policy style still seems to be very important; this contrasts with the ‘rule-bound’ and ‘legalistic’ style of the regulatory state (Majone 1997). The main difference between the partner state tradition of energy governance and the EU’s current multilayered political and diplomatic environment is that a ‘negotiated discretionary policy style’ seems to have replaced the previous practices in the realm of energy security. The ability of EU governmental agents to deploy ‘collaborative power’ (Weiss 1998: 211) and play a ‘catalytic role’ (Weiss 2014: 3) by promoting coalitions with other public and private actors—rather than simply creating markets and preventing/avoiding market failures—is becoming crucial to policy effectiveness. This latter point also calls for



a shift in the focus of analysis. New analyses must examine those patterns of energy diplomacy which do not fit the bilateral mode (such as negotiations between the EU and third states) nor the multilateral mode (such as the EU's efforts to create legally binding agreements, as in the case of the Energy Charter Treaty). In other words, new research should focus on those institutional arrangements—like the BEMIP, the SGC Advisory Council and the CESEC High Level Group—which facilitate project implementation and resemble the modes of network diplomacy.

Finally, the catalytic state's focus on leveraging and public–private partnerships also resonates with the recent literature on the European 'hidden' investment state (Mertens and Thienmann 2017; see also Mertens and Thiemann 2018). This literature challenges the EU's regulatory state hypothesis and calls attention to an emerging multilevel governmental infrastructure that aims at facilitating investment in several policy sectors. According to Mertens and Thienmann (2017: 5), this can possibly surpass the mobilisation of national powers to compensate for the lack of the EU's infrastructural powers, as sketched by Genschel and Jachtenfuchs (2016). It can also create genuine supranational capacities by allowing other policy actors to 'make use of Europe' by accessing new institutional and budgetary resources (Woll and Jacquot 2010).

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