

April 2016

## Energy Security and Integration

### Main instrument

#### [Regulation EU No 994/2010 on Security of Gas Supply](#)

*This briefing is one in a series of 'Implementation Appraisals' on the operation of existing EU legislation in practice. Each such briefing focuses on a specific EU law which is likely to be amended or reviewed as set out in the European Commission's Annual Work Programme. The Implementation Appraisals aim to provide a succinct overview of material publicly available on the implementation, application and effectiveness of an EU law to date - drawing on available input from the EU institutions and external organisations. The Implementation Appraisals are provided to assist parliamentary committees in their consideration of the new proposals, once tabled.*

**EP committee responsible at time of adoption of the EU regulation:** Committee on Industry, Research and Energy (ITRE)

**Date of adoption** of original legislation in plenary: [21 September 2009](#)

**Entry into force of legislation:** on 2 December 2010

**Planned review:** The European Commission had to undertake a review before December 2014, a report on the [implementation](#) of Regulation 994/2010 was duly published in October 2014

**Timeline for new amending legislation:** A [proposal](#) amending the legislation on the security of gas supply was published on 16 February 2016

## 1. Background

The renewed focus on energy, and on better energy integration and security, is reflected in the European Commission's work programme, which lists 'a resilient Energy Union with a forward-looking climate change policy', as one of its [top ten priorities](#). The Energy Union strategy comprises five inter-related strands that will work to increase the Union's energy security, sustainability and competitiveness:

- Energy security, solidarity and trust,
- A fully integrated European energy market,
- Energy efficiency contributing to moderation of demand,
- Decarbonising the economy, and,
- Research, innovation and competitiveness.

While all five areas are closely interlinked, this briefing will primarily focus on the area of [energy security and integration](#). A [summary](#) of all previous and existing policy and legislative activity relating to energy gives an overview.

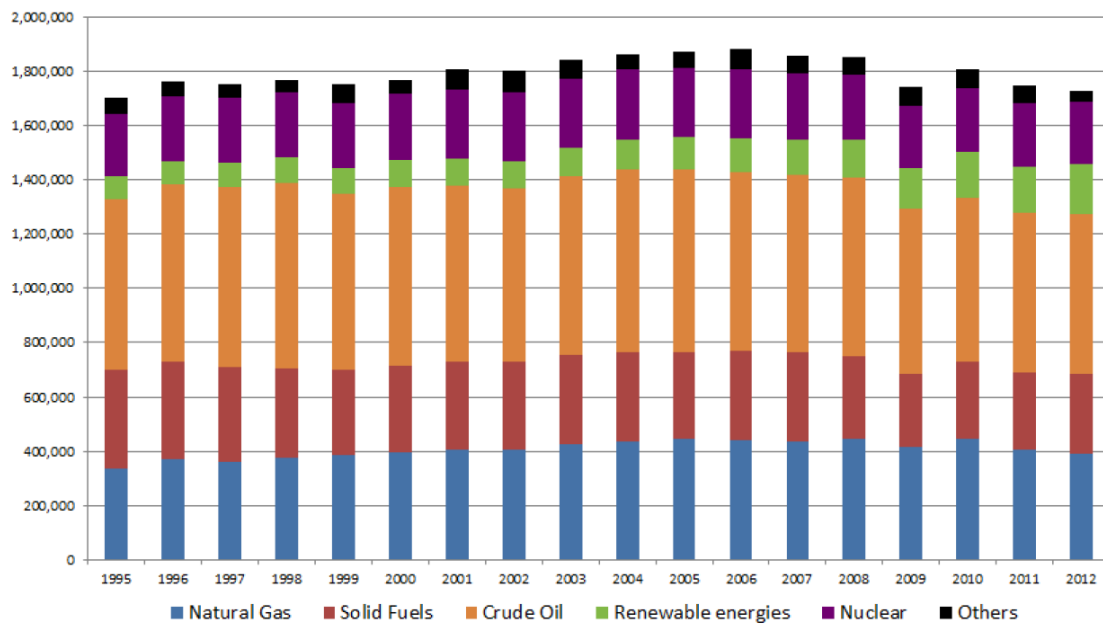
The EU's dependency on imported energy has increased in recent decades, partly due to the decrease in domestic fossil production but also because of a greater emphasis on cleaner energy. Temporary gas supply disruptions in 2006 and 2009 arising from Russia-Ukraine disputes, as well as the current conflict in Ukraine, has made the issue of energy dependency even more important. These energy supply crises partly prompted the

Third Energy Package which was adopted in 2009. The package is a series of legislative changes to increase Europe's readiness for supply shortage, and increase competition in the energy market. The package established a separation between gas and electricity network operators on the one hand and of producers/suppliers on the other, ensuring that those involved in both processes could not monopolise the whole system.

Since then, the issue has continued to increase in importance, with the European Commission setting out its detailed strategy in its Communication: '[European Energy Security Strategy](#)' (EESS) in May 2014, and the accompanying [in-depth study](#) on energy security, upon which the Energy Union builds. In an [update](#) to EESS in November 2015, the European Commission concluded that security of energy supply has become a permanent priority, rather than an issue only considered in time of crisis of supply.

While total energy demand has been in decline over recent years due to the 2008 economic crisis and energy efficiency improvements, energy dependency has not necessarily followed the same trend.

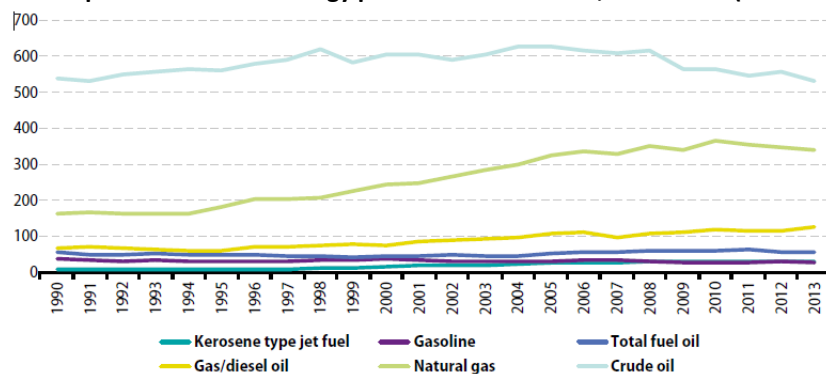
**Figure 1 – Total energy demand in EU-28, kiloton of oil equivalent (ktoe)**



Source: Eurostat energy, calculations by the European Commission, SWD (2014), 330

In 2014, the EU imported 53% of the total energy it consumed, with the biggest dependencies in oil (87%) and natural gas (67%).<sup>1</sup> While oil imports are higher than gas, it is gas that is seen as the main issue, due to a shortage of suppliers. The vulnerability varies across the EU, but six Member States depend entirely on one single external supplier for all their gas imports.<sup>2</sup> The graph in figure 2 shows energy imports and in particular, the increase in gas imports since the 1990s.

**Figure 2 – Imports of selected energy products in the EU-28, 1990-2013 (1000 Terajoule)**



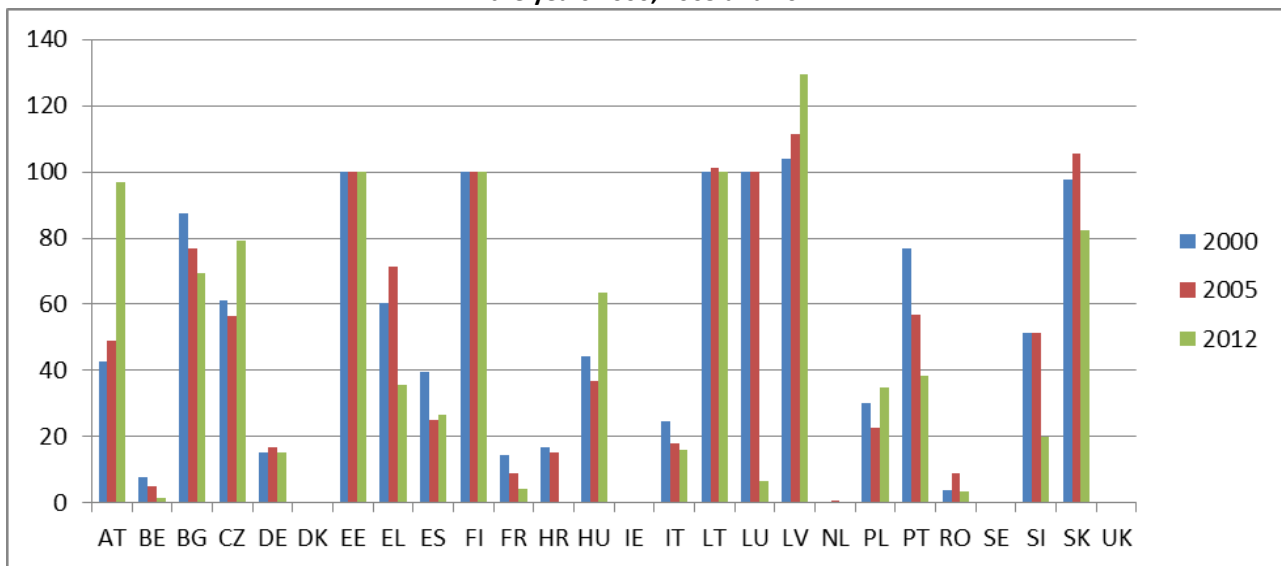
Source: Eurostat, 'Energy, transport and environment indicators', November 2015

<sup>1</sup> Eurostat, Energy dependence, 2014.

<sup>2</sup> COM(2014) 330.

Import figures on their own can, however, be slightly misleading, as these often vary over time and do not necessarily indicate vulnerability. An alternative way of illustrating dependence is by using a supplier concentration index which reflects both the diversity of suppliers and the exposure to suppliers outside the European Economic Area (EEA). This illustrates better how dependency can fluctuate over time. In the graph below, no value (Denmark, Ireland, Sweden, and the UK) indicates no gas imports from outside the EEA, and a value of 100 indicates a total dependence on one supplier outside the EEA. A few cases are over this threshold, which mainly indicate storage use, as in the case of Latvia. Generally, values over 30 indicate some dependence on Russian gas. It should be noted, however, that intra-EU trade movements are not reported as exports. This means that countries like Austria and the Czech Republic may appear to be more energy dependent than they are, as a lot of Russian gas destined for other EU countries will transit these countries.<sup>3</sup> The graph shows how some countries, like Bulgaria, have decreased their energy dependency, while other countries, like Hungary, have gone in the opposite direction. It also shows how countries like Finland or Estonia have remained highly dependent over time. In any case, it is clear that the energy vulnerability of some Member States has pushed the topic of energy security higher up the agenda.

**Figure 3 – Country specific supplier concentration index for natural gas from outside the EEA in the years 2000, 2005 and 2012<sup>4</sup>**



Source: European Commission using Eurostat data (SWD (2014) 330

(NB: Values above 100 indicates use of storage)

Actions taken to increase supply vary to date. In terms of short-term gas supply, the European Commission launched a [stress test exercise](#) in the summer of 2014, to assess how well the European gas system would cope with severe disruptions to gas supply during winter. A variety of scenarios were modelled with input from Member States, other European countries and the European Network of Transmission System Operators for Gas ([ENTSO-G](#)). The final report mainly focused on the scenario of a disruption of all Russian gas flows to Europe for a six-month period. The stress test showed that a lengthy disruption would have a substantial impact on the EU, particularly on the eastern EU Members, namely the Baltic States, Finland, Bulgaria, Greece, Romania, Hungary and Croatia. ENTSO-G's modelling showed that even when supply was reshuffled, between five and nine billion cubic metres of gas would be missing. Given that an increase in production from alternative gas suppliers in North Africa or Norway was deemed unlikely, liquefied natural gas (LNG) was seen as the most likely replacement, although the report did not analyse the impact of the potential price increase this alternative would entail. The main weaknesses in the supply system were the lack of planned infrastructure projects actually being undertaken, and the lack of coordination and cooperation between Member States, with national security plans too narrowly focused. Apart from calling for more action to address these two main weaknesses, the report also made several other

<sup>3</sup> The Oxford Institute for Energy Studies, 'Reducing European Dependence on Russian Gas: distinguishing natural gas security from geopolitics', November 2014.

<sup>4</sup> Figures for Cyprus and Malta were not available.

recommendations, including: maximising interconnector capacity; ensuring suppliers met their gas supply obligations; maximising fuel switching; and better use of storage.

In terms of longer-term security of supply, the EU clearly points to energy efficiency and renewable energy as key, with 15% of the EU's final energy consumption coming from renewables in 2013.<sup>5</sup> However, potential tensions between energy security and renewable energy exist. Member States determine their own energy mix, and in its [conclusions on the Energy Union of 19 March 2015](#), the European Council reiterated that Member States are free to act, by stressing that energy security should also be strengthened by 'having recourse to indigenous resources'. This gives Member States the opportunity to develop what is seen by some as more controversial choices, such as nuclear power or fracking.

There is a concern, particularly among some environmental NGOs, that a stricter focus on energy security and energy independence could see Member States focus on less clean energy choices, such as coal, or simply put too much focus on gas. There is already a trend towards the use of capacity markets (rewarding energy companies for the amount of power they can produce to draw on the spare capacity in case of shortage) instead of investment in renewable energy. In April 2015, the European Commission launched a [state aid enquiry](#) into capacity markets which is expected to be finalised in the summer of 2016. Given the increased use of capacity mechanisms to ensure energy supply, the European Commission wanted to know more about how these were implemented to ensure that the mechanisms did not distort competition in the EU.

Overall, subsidies and potential market distortion is a controversial area where opinions vary, with some arguing that fossils or renewable subsidies distort the market and pricing. Cost of energy is also an issue, as an increase in energy independence does not necessarily mean cheaper energy, and energy prices are already higher in Europe than in the USA for example, affecting both consumers and industry competitiveness.

Another priority for the EU in terms of diversifying supply is the Southern Gas Corridor which aims to deliver gas from Azerbaijan via the Caspian Sea to Europe. The project has been in the planning stages for a long time, but in March 2015, construction of the Trans-Anatolian natural gas pipeline (TANAP) started. TANAP is one of three pipelines that, once connected, will open a new gas supply route to Europe. The aim is for the pipeline to become operational in 2019-2020. Some NGOs, however, have been critical about the project, due to the human rights record of some of the countries along the pipeline.

Current gas storage facilities can also help to ease pressure on resources where necessary, and gas pipelines are also being used more efficiently, due to common rules on the use of gas networks. The newly adopted [rules](#) on cross-border cooperation between gas network operators, covering ways in which network operators manage gas flow across borders, will also add to a more efficient internal gas market.

Other actions to increase energy security, such as moving to alternatives such as LNG, or diversifying supply, are important, but not always easily achievable, particularly not in the short-term. The fast-moving political developments outside the EU, particularly in the aftermath of the Arab Spring, also had an effect on alternative supply. For example, in a 2010 study for the European Commission on alternative gas supply, recommended Libya and Iraqi Kurdistan as two potential suppliers, now no longer viable options.<sup>6</sup> The European Commission set out its [LNG strategy](#) in February 2016. This outlines key actions for improving secure supplies by ensuring that the necessary infrastructure is in place, by completing the internal market and by cooperating with international partners to ensure that the global LNG market is transparent. While LNG has so far been a limited option for the EU, due to high prices caused by fast-growing demand from the Asian market and a limited number of exporters, this may change as the global supply is expected to increase. Although there is currently a tendency to move away from long-term contracts, many Member States still have supply contracts, mainly with Russia. This limits the flexibility of alternative gas supply. All in all the European Commission's projections

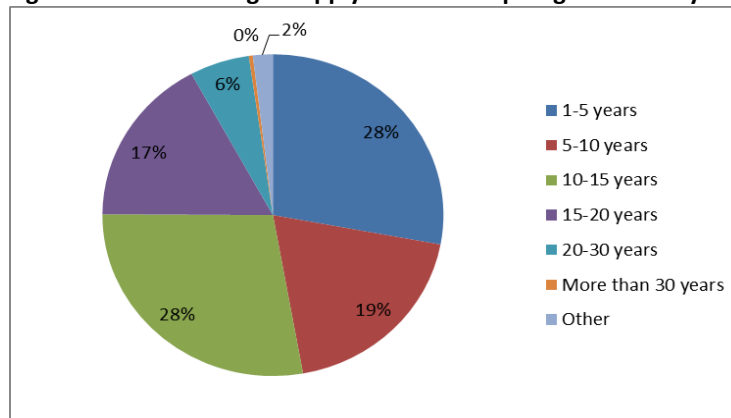
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<sup>5</sup> Eurostat news release 43/2015 – 10 March 2015.

<sup>6</sup> Mott MacDonald, 'Supplying the EU Natural Gas Market', by order of the European Commission, November 2010.

estimate that gas consumption will remain relatively stable, which means that imports will continue to increase until 2030.<sup>7</sup>

**Figure 5 – Number of gas supply contracts expiring within set years**



Source: European Commission, SWD (2014) 330 Base: 265 contracts

The Transatlantic Trade and Investment Partnership (TTIP) currently being negotiated between the EU and the USA has important implications for the energy sector. Negotiations are ongoing since 2013, and the European Commission has repeatedly asked for inclusion of a chapter on energy and raw materials in the negotiations. Although increased trade with the USA could diversify energy supply, it is unlikely to have a big impact on energy security given that the USA have significant restrictions on oil and gas exports which are unlikely to change. The TTIP has received mixed responses across stakeholder groups and Parliamentary Committees, mainly due to the potential inclusion of Investor States Dispute Settlements (ISDS). The ISDS give foreign investors the right to take governments to a special arbitration court if they feel their investments in that country have been undermined by government action. Critics fear this will open the door to legal actions against fracking bans for example.

## 2. Current EU legislation and its implementation status

As previously mentioned, in the area of energy security, the Third Energy Package, adopted in 2009 and transposed in 2011, has been key to safeguarding electricity and gas supply in Europe. The package consists of two directives concerning common rules for the internal market in [electricity](#) and [natural gas](#) respectively and three sets of regulations relating to access to [electricity](#) and [gas](#) networks as well as the establishment of the [Agency for the Cooperation of Energy Regulators](#) (ACER).

The 2015 [Energy Union Roadmap](#), does not propose a review of the legislation surrounding the Third Energy Package apart from the act which created ACER, however, it does set out the Commission's intention to review a series of legislation closely connected to energy security. Along with the first [progress report](#) on the Energy Union in November 2015, an [updated roadmap](#) outlines the legislation to follow in 2016 in the area of energy, such as a review of the Directive on safeguarding electricity supply, of ACER, and an initiative on electricity market design.

### [Regulation EU No 994/2010 on Security of Gas Supply](#)

This regulation which repealed and replaced Directive 2004/67 is partly based on lessons learnt from the 2009 gas crisis. It aims at ensuring that Member States have taken sufficient steps to protect themselves against a supply disruption, and to increase cooperation to improve the internal gas market. Under the regulation, Member States need to outline measures to ensure gas supply to protected customers,<sup>8</sup> what actions will be taken in the event of disruption to their largest gas infrastructure, and produce risk assessments, a preventative action plan and an emergency plan. To tackle potential disruption, a common indicator to measure gas security supply threat is used: N-1. This indicator defines a minimum gas supply standard that Member States have to

<sup>7</sup> SWD (2014) 330.

<sup>8</sup> This includes as a minimum all households, and Member States may also include SMEs and essential social services, provided they fulfil certain set criteria.

meet, i.e. in case of disruption to its main infrastructure, a Member State should still be able to provide at least a 30-day supply to households and other vulnerable customers via an alternative route.

As stipulated by the regulation, the European Commission published a [report](#) on the implementation of the regulation so far, in October 2014. The report showed some discrepancies between Member States in terms of implementation of the regulation and data collection. The area of supply standards was particularly highlighted, as the European Commission felt that the regulation had 'failed to bring about a clear system in which the supply standard is monitored and enforced in a systematic manner. As a result thereof, it appears that customers remain unequally protected across the EU'. The report therefore argued that the provisions on standards of supply should be reviewed. While N-1 standards were perceived as an effective tool to monitor infrastructure quality, it was felt additional benchmarks could be included in the various national plans to get a more comprehensive picture. Noting that bi-directional capacity at borders had increased, the report still found that there was not sufficient flexibility in the system to deal with significant disruptions. The report argued for an increased regional perspective in Member States' plans and not just a focus on their own national supply or cross-border interconnections, suggesting that national plans be replaced with regional ones. The report also argued that for the Commission to provide effective oversight in emergency situations, powers to issue binding requests on Member States should be considered as well as the capacity to issue early warnings on a regional or union level.

The [new proposal](#) follows up on some of the weaknesses identified in the European Commission's 2014 implementation review and in its stress test. In particular, the legislation would strengthen the exchange of information by increasing the amount of detailed contractual information that is automatically supplied to the European Commission. It would also give the competent authority more power to ask natural gas companies for additional information in special circumstances, such as ahead of an emergency. Gas companies would also be required to automatically notify the national competent authority and the European Commission of contracts deemed relevant to the security of gas supply as soon as they were signed or amended. This mainly applies to long-term contracts that give a sole supplier a large stake in the market. The legislation also proposes to strengthen the common standards by developing a template for all actions and emergency plans, and increases the role of the European Commission in terms of oversight and coordination. The proposal also contains a move towards more regional cooperation with the development of regional risk assessments and regional preventative action and emergency plans. While regional cooperation was an option under the previous legislation, the new proposal makes it central. The proposal contains additional details on how a potential crisis would be identified and dealt with, including a 'solidarity clause' for Member States to divert their own non-essential supply to the EU country that has declared an emergency according to prior agreements. The N-1 standard formula has been refined, and information on whether the gas available in the system is able to reach all the delivery points in case of disruption will also be included, as well as EU-wide simulations by ENTSO-G similar to the 2014 stress test. The new proposal came with an [Impact Assessment](#) (IA) outlining four options plus the baseline scenario, with option 3 (Enhanced coordination with some principles/standards set at EU level) being the preferred option. The IA anticipated that the regional approach to security of gas supply would be the main implementation challenge. An [EPRS briefing](#) on the Commission's IA provides more details.

In terms of stakeholder response, many representatives of the gas industry were relatively positive while environmental NGOs felt that there was an excessive focus on gas and that renewable energy and energy efficiency should be priorities in ensuring EU energy security.

While the European Commission's own implementation report underlined the close links between gas and electricity supply, and recommended that a review of the legislative framework of security of gas supply should also include the electricity supply sector, legislation in this latter area is yet to come. The current proposal focuses on supply, but the issue of demand is also important. A recent report of the European Court of Auditors, [Special Report No 16](#), on the internal energy market, pointed out that the European Commission's gas demand forecasts have consistently overestimated gas demand, which could lead to overinvestment in gas pipeline infrastructure. It also pointed out that the main indicator to measure gas supply, the N-1 indicator, is mainly a tool used to assess whether Member States can supply customers with gas in case of an emergency shortage. In addition, the N-1 indicator may ensure that a Member State has an alternative supply route if its main route is not working, but it does not address dependency as the alternative supply route under N-1 can still come from the same gas provider. The report also argued that the development of transparent trading mechanisms should



be accelerated to ensure proper competition in the gas market. This point was echoed in a study by the Oxford Institute<sup>9</sup> which provided an overview of recent developments in the gas market, noting a move away from long-term contracts and an increase in transparent, market-based trading in regional hubs. However, the report also noted that there were considerable differences within the EU in terms of market transparency, with north-west Europe being the most competitive market.

#### [Decision on information exchange mechanism with regard to intergovernmental agreements between MS and third countries in the field of energy](#) Decision No 994/2012

This Decision outlines the process for exchanging information between Member States and the European Commission in relation to intergovernmental agreements on energy. For example, all existing intergovernmental agreements should be submitted to the European Commission, including any amendments or ratification of agreements. In return, the European Commission needs to inform a Member State of doubts about compatibility with EU law within nine months of the Member State submitting the agreement.

The [new proposal](#) would ensure that the European Commission could scrutinise intergovernmental agreements before they are signed and provide its opinion on whether they are in line with EU law at the earliest possibility. The proposal was accompanied by an [Impact Assessment](#) setting out five options including a baseline scenario, for consideration. A European Commission [report](#) into the implementation of the legislation concluded that while the legislation had in many ways been beneficial, contributing for example to a well-functioning internal energy market, it had not been fully effective. This was mainly due to the fact that checks were carried out after agreements were finalised. It noted that the most efficient way of ensuring compliant agreements was to carry out ex-ante checks. An [EPRS 'legislation in Progress' briefing](#)<sup>10</sup> details the new proposal.

### 3. EU-level reports and other evaluations to date

#### A. European Commission reports

##### [The role of gas storage in the internal market and in ensuring security of supply](#), prepared for the European Commission, 2015

This study provides an overview of trends in the gas storage sector in the EU over the last decade. It also looks at storage-related security of supply measures across the EU, comparing mandatory measures to store gas with non-mandatory measures. It assesses the costs and benefits of mandatory measures. While there had been concerns that there was a decline in gas storage due to changes in the gas market, the report concludes that gas storage continues to be a useful tool in providing seasonal and short-term flexibility. In terms of mandatory storage-related security of supply measures, the costs of these generally exceed the benefits, given the probabilities of a major disruption. However, the issues are more complex and it is, for example, unclear to what extent the insurance value of storing gas in case of an unexpected event is taken into account by the market. The lack of transparency in pricing has made this difficult to assess. The report suggests that the insurance value should be internalised, either as a supplier penalty in case of disruption or as incentives for physical or virtual storage to ensure customers are protected against price spikes.

##### [Subsidies and costs of EU energy](#), November 2014, prepared for the European Commission

This report aims to quantify the extent of Member States' public interventions in the energy market, except for the area of transport. The report looks at current and historic investments still relevant today, and also attempts to estimate the monetary value of environmental impacts, which are costs to society not recoverable by the market. The study looked at over 700 interventions, using mainly national sources of information such as balance sheets. The report estimates that the total value of state interventions in 2012 was €122 billion, and that the external environmental costs came to around €200 billion.

- In terms of current interventions (2008-2012), 70% of support went to energy production, mainly renewables, while around a third went on energy demand (i.e. tax exemptions). Coal and nuclear were also big beneficiaries of support for energy production as well as demand.

<sup>9</sup> ['The evolution of European traded gas hubs'](#), Oxford Institute for Energy Studies, December 2015.

<sup>10</sup> ['Intergovernmental agreements in the field of energy'](#), EPRS, European Parliament, March 2016.

- Reviewing historic support with an impact today, the report concludes that the nuclear power industry is the main beneficiary by far.
- When considering external costs, climate change accounts for half (with coal being the most costly), followed by depletion of resources (22%).
- The report also uses 'levelised' costs to compare the costs of electricity generated by different sources, i.e. the estimated production cost if no public intervention/subsidies were present. This comparison shows that the levelised costs of electricity of onshore wind, solar, coal and gas-based technologies are relatively similar, with costs ranging between €75/MWh and €110/MWh, while offshore wind and biomass were at around €125/MWh with oil much higher at over €250/MWh (2012 prices).

[Study regarding grid infrastructure development: European strategy for raising public acceptance](#), June 2014, prepared for the European Commission

This report attempts to map potential stakeholders with an interest in grid infrastructure from those directly involved, such as developers, to the general public. For each group identified, the report lists their main concerns, and the best channels and formats to communicate with them and when to involve them.

[Benefits of an Integrated European Energy Market](#), July 2013, prepared for the European Commission

This report aims to assess the benefits of the internal energy market achieved so far and in the future (until 2020-2030), as well as estimate the cost of delays and insufficient network connections beyond 2014. The study is based on literature reviews, case studies and modelling.

In terms of gas market integration, the report estimates that for all the, then EU-27, countries to achieve N-1 security of supply (if the most important piece of infrastructure is disrupted, production can still be maintained), a €1.5-3 billion supply infrastructure investment is needed in addition to the agreed €10 billion+ investments reported by the European Network of Transmission System Operators for Gas.

In terms of electricity markets, the report estimates that once market coupling is fully implemented (the merger of cross-border markets in energy trading into one single market) the benefits will be around €2.5-€4 billion per year, although it points out that two thirds of the benefits have already been achieved due to current market integration in north west Europe. The report recommends going further in terms of international integration to achieve the most benefits.

[Unconventional Gas: Potential Energy Market Impacts in the European Union](#), September 2012, prepared for the European Commission

This report looks at the potential impact of shale gas globally by assessing the available evidence on unconventional gas resource size and access via a literature review and modelling. The report concludes that gas consumption overall will increase, but that no country will produce enough shale gas to become a net exporter, although the increase in shale gas production could lead to a reduction in gas price, with the potential to affect the scale of LNG production. In terms of the situation in EU Member States, the report states that even in the most positive scenario, shale gas will not provide gas self-sufficiency for Europe. At best, shale gas could replace other declining domestic resources, so that import dependence can be maintained at about 60%.

## **B. Other reports**

[Energy Policies of IEA Countries: European Union, 2014 Review](#), December 2014, International Energy Agency (IEA)

This in-depth review of EU energy policies argues that since 2008, external events such as conflicts in oil/gas production countries have changed the EU focus from climate change to energy security. It reports on progress in the area of market liberalisation and EU2020 targets, and notes that more action is needed to increase efficient cross-border trade in energy for example. The report argues that the lack of coordinated energy and climate policies have led to unintended consequences, such as a failure to invest in the decarbonisation of the power sector due to a collapse in carbon prices following lower energy demand; and the fact that a fall in energy



prices has not been passed on to consumers. In the area of gas, it concludes that the EU will continue to depend on Russian gas imports and that LNG imports are essential to diversify gas supply. Finally the report calls for greater consistency in EU external energy policy.

[Reducing European Dependence on Russian Gas: Distinguishing natural gas security from geopolitics](#), October 2014, The Oxford Institute for Energy Studies

This paper concludes that contractual obligations limit the scope to reduce Russian gas imports, and that modelling of natural gas and LNG supply suggests that even in 2030, Russia will continue to be a large gas supplier to the EU. This is due to: an expected fall in production from other gas suppliers such as Norway and the Netherlands; other alternatives such as renewables or shale gas not making up the difference; nuclear infrastructure being too expensive; an increased coal usage not being compatible with current CO<sub>2</sub> emission targets; and uncertainties around the cost of LNG, partly due to expected demand in China. However, the paper does point out that there are a range of different solutions for the most dependent countries to diversify, such as sharing LNG terminals, better electricity interconnections, and gas supply from other sources such as the Southern Gas Corridor. Given the alternatives, the authors are sceptical about whether the European Commission's projection that the EU could reduce its gas imports by 40% by 2030 if the energy efficiency target was 40% is possible. It also points out that gas is mainly used as heating in the residential sector, which means that reductions can only be achieved through insulating new and old housing stock.

## 4. European Parliament position/MEPs' written questions

### A. Parliament Resolutions

[European Parliament resolution of 15 December 2015 'Towards a European Energy Union'](#)

In its resolution on the European Energy Union on 15 December 2015, Parliament called for the EU to negotiate with third countries with one voice and for the European Commission to be given a stronger role in the negotiation and oversight of energy contracts to increase transparency and reduce the risks of dominant suppliers gaining advantages. It called on the European Commission to publish regular progress reports on actions taken to reduce energy import dependency, and for stress tests such as the one conducted in 2014 to be conducted regularly. The resolution also called for the European Commission to maintain the aim of having a separate energy chapter in TTIP, and expressed concerns about the impact of Nord Stream<sup>11</sup> on the diversification of gas supply and on the solidarity principle between Member States. It called for energy policy to be linked with common foreign and security policy. It also stressed that all projects aimed at diversifying energy sources must be in line with EU climate policies and that improving energy efficiency is key to reduce energy dependency.

[European Parliament resolution of 15 January 2015 on the situation in Ukraine](#)

This resolution stresses the need to increase EU energy security and independence and reduce its energy dependence on Russia, giving priority to pipeline projects that diversify energy supplies. It also calls for the EU to work towards a Common External Energy Policy.

### B. MEPs' Written Questions

A range of parliamentary questions have been asked on energy security and integration in the current parliamentary term, including questions on topics such as energy interconnectivity targets, specific energy sources – nuclear, LNG and coal; as well as fracking, TTIP, Nord Stream II, the Southern Gas Corridor and country-specific issues.<sup>12</sup>

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<sup>11</sup> Gas pipeline project supplying gas from Russia to Europe through the Baltic Sea to Germany.

<sup>12</sup> See for example: E-000870/2016, P-000741/2016, O-000007/2016, E-000291/2016 E-000193/2016, E-015966/2015, E-015658/2015, P-015616/2015, P-015380/2015, E-015270/2015, E-014889/2015, E-012882/2015, E-012869/2015, P-012711/2015, E-012563/2015, E-012562/2015, E-011316/2015, P-010711/2015, P-010326/2015, P-001573/2016, P-015616/2015, E-015439/2015, E-015359/2015, E-014889/2015, E-013616/2015, E-012883/2015, E-005688/2015, E-006021/2015, E-005476/2015, E-005475/2015, E-005473/2015, E-005472/2015, P-005197/2015, E-004871/2015, E-004300/2015, E-003806/2015, E-003555/2015, E-003466/2015, E-003118/2015, E-002966/2015, E-002891/2015, E-001235/2015, E-000770/2015, E-011130/2014, E-011129/2014, E-011037/2014,

**[Written question](#) by Zigmantas Balčytis, MEP (S&D), 17 September 2015**

This question relates to Nord Stream II, the proposed increase in gas supply from Russia to Germany, asking what is the European Commission's view on the project and how does it sit with EU policy, in particular with the aim of diversifying supply.

**[Answer by the European Commission](#), 30 October 2015**

Security and diversification of supply is crucial to the Energy Union. Any gas pipeline project in the EU needs to be in full compliance with all EU legislation including the Third Energy Package. The Commission will cooperate with national regulatory authorities to ensure compliance with these rules.

**[Written question](#) by Anna Elżbieta Fotyga, MEP (ECR), 24 July 2015**

This question refers to progress with the Southern Gas Corridor (SGC) and EU relations with states along the route, in particular Azerbaijan.

**[Answer by the European Commission](#), 17 September 2015**

The reply stresses the importance of the Southern Gas Corridor (SGC) in diversifying EU energy sources, and outlines the various cooperation in place with countries along the SGC, such as the signature of the Declaration on energy cooperation between Turkmenistan, Turkey, Azerbaijan and the European Commission on 1 May 2015. The Commission is also continuing its work to enhance security and stability in the EU's neighbourhood via initiatives such as the European Neighbourhood Policy and the Eastern Partnership.

**[Written question](#) by Roberta Metsola, MEP (PPE), 31 March 2015**

Given the continued dependency on a single gas supplier of some EU members, what is the European Commission's plan to improve the situation?

**[Answer by the European Commission](#), 8 June 2015**

The European Commission has developed several different initiatives to improve supply such as the Southern Gas Corridor, an EU-wide LNG strategy and improvements to the current infrastructure. In terms of infrastructure, the establishment of the Central East South Europe Gas Connectivity High Level group was particularly stressed. This group aims at agreeing and developing priority infrastructure projects in the least interconnected areas, to increase diversity of supply.

## **5. European Economic and Social Committee and Committee of the Regions**

Both bodies have now provided their opinions on 'A Framework Strategy for a Resilient Energy Union with a Forward-Looking Climate Change Policy'. In its [opinion](#) adopted on 1 July 2015, the European Economic and Social Committee (EESC) called for the Energy Union to have a clearer vision, in particular so that EU citizens could understand how it may benefit them. It stressed that energy cost should be considered an equally high priority as energy supply. The Committee called for new energy policy governance to ensure coherence between the different aspects of energy policy in the EU and for more proactive action to engage the public in discussions on energy.

The Committee of the Regions (CoR), in its [opinion](#) on the Energy Union, called for local and regional energy projects to play a role in decreasing EU energy dependency, and called for a balance in spending between large-scale infrastructure projects and meeting local needs, in particular in terms of integrating locally-produced renewable energy into the grid. It suggested that a local authority representative be included on the national regulatory bodies.

## 6. European Court of Auditors (ECA)

[Improving the security of energy supply by developing the internal energy market: more efforts needed](#), Special Report No 16, 2015

The report looks at how EU internal market policy and energy infrastructure funding has impacted on the security of energy supply. The report reviewed actions taken in Member States since 2007. In particular, it looked at the level of regional cooperation, harmonisation and transparency in the energy market; the independence of the regulators; and the outcome of several EU-funded infrastructure projects. In the area of gas, it argued that there was too much focus on diversifying supply routes, rather than looking at alternatives to natural gas; that more efforts were needed to ensure a truly transparent and competitive gas market; that infrastructure planning was hampered by inaccurate gas demand forecast models, which tended to overestimate gas demand; and that the N-1 indicator on its own was an insufficient measure of gas security supply. All in all, the report concluded that while progress had been made, the current infrastructure was insufficient to create an integrated market. Several recommendations were made, including to increase investment in alternative gas supply such as LNG and to develop in-house capacity to model energy markets. The report also argued for EU funding to be used more strategically and to prioritise infrastructure projects that would contribute to strengthening the internal market. (An [EPRS briefing on ECA Special Report No 16](#) provides more detail)

## 7. European Commission consultations and opinion surveys (selection)

**Consultation on the Revision of Regulation (EU) No 994/2010 concerning measures to safeguard security of gas supply** – This [consultation](#) ran between 15 January and 8 April 2015. The consultation aimed at identifying the areas where improvements to the above regulation might be required and what the various options and their impacts would be. Some 106 [responses](#) were received, mainly from the private sector. In their responses companies stressed the importance of the market in resolving security of supply issues, while public authorities focused mainly on issues related to the lack of regional cooperation. Opinions also varied depending in which market the respondents were operating.

A [consultation](#) on the **Intergovernmental Agreements Decision** was undertaken between July and October 2015. Results are not yet available, but individual answers can be reviewed on the consultation website. Around 20 responses were received from industry and public bodies.

### **Eurobarometer**

The European Parliament commissioned a special [survey](#) on energy, with interviews undertaken in all Member States, in late 2010. The survey showed that 60% of respondents felt that energy security would increase with better coordination between Member States. In terms of priorities for energy cooperation, these were: price stability (29%); renewables (27%); and security of supply. Priorities varied widely between Member States and reflected the energy mix and energy dependence in each country.

## 8. Other sources of information

**Eurostat data on energy** - see <http://ec.europa.eu/eurostat/web/energy>

**ACER Annual Reports** – see <http://www.acer.europa.eu/Pages/ACER.aspx>

**IEA Statistics** - see <http://www.iea.org/statistics/>

**OCED** – see <http://www.oecd-ilibrary.org/> (includes access to IEA publications)

**EPRS** – see <http://www.europarl.europa.eu/thinktank/en/home.html>, including briefings such as:

- [EU-Russia energy relations – stuck together?](#), Russell, Martin, At a glance, Members' Research Service, EPRS, March 2015.
- [Shale gas and EU energy security](#), Erbach, Gregor, Briefing, EPRS, December 2014.

[The EU's energy security made urgent by the Crimean crisis in-depth analysis](#), European Parliament Policy Department External Policies, DG EXPO/B/PolDep/Note/2014\_92, 2014.

[TTIP Impacts on European Energy Markets and Manufacturing Industries](#), European Parliament Policy Department A: Economic and Scientific Policy, Study for the ITRE Committee, January 2015.

[The cost of non-Europe in the single market for energy cost of non-Europe report : European added value](#), Del Monte, Micaela, European Parliament European Added Value Unit, PE 504.466, EPRS, 2013.

## 9. Conclusion

The above studies and debate indicate that there is no single solution to increasing energy security and integration. However, it is clear that increased cooperation and coordination on a European level is needed to enhance energy independence, particularly in view of the differences between Member States in relation to their degree of energy dependency. The current proposal only covers gas supply and not electricity supply, making it more difficult to assess to what extent the proposal will enhance energy security overall. While the proposal strengthens the oversight role of the European Commission, it is not clear whether the increased information requirements would contribute to a more transparent and therefore more competitive market. Taking into account the global developments is also important. LNG demand in Asia, as well as conflicts in the Middle East, will have an effect on available resources and on energy security. This increases the importance of linking EU energy policy with EU external relations as called for by Parliament.

Overall, a variety of initiatives are needed, together with careful consideration of the consequences of these choices, and a recognition that EU energy dependency will continue for some time.

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