

January 2017

## Overview of the internal energy market design legislation

### Main instruments

[Directive 2009/72](#) concerning common rules for the internal market in electricity, [Regulation 714/2009](#) on conditions for access to the network for cross-border exchanges in electricity, [Regulation 713/2009](#) establishing an Agency for the Cooperation of Energy Regulators and [Directive 2005/89](#) on security of electricity supply

*This briefing is one of a series of 'Implementation Appraisals', produced by the European Parliamentary Research Service (EPRS), on the operation of existing EU legislation in practice. Each briefing focuses on a specific EU law which is, or will shortly be, subject to an amending proposal from the European Commission, intended to update the current text. '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 inputs from, inter alia, the EU institutions and advisory committees, national parliaments, and relevant external consultation and outreach exercises. They are provided to assist parliamentary committees in their consideration of the new Commission proposal, once tabled.*

<b>EP committee responsible</b> at time of adoption of the EU legislation: Committee on Industry, Research and Energy (ITRE).
<b>Date of adoption</b> of original legislation in plenary: <a href="#">5 July 2005</a> (Security of Electricity Supply, Directive 2005/89) and <a href="#">22 April 2009</a> (Third Energy Package which included the legislation related to electricity and ACER).
<b>Transposition deadline:</b> 24 February 2008 (Directive 2005/89) and 3 March 2011 (Third Energy Package).
<b>Planned date for review of legislation:</b> A progress report was due by 24 February 2010 and delivered that year (Directive 2005/89); a detailed progress report by 2006 as well as annual progress reports (Directive 2009/72 and referencing Regulation 714/2009) and an evaluation to be presented three years after the first Director has taken up duties, and at least every four years subsequently (ACER).
<b>Timeline for new amending legislation:</b> Proposals amending the legislation related to the internal energy market, ACER and the security of electricity supply were <a href="#">published</a> on 30 November 2016.

## 1. Background

The EU has strengthened its internal energy market over time. It started to enact legislation in the 1990s to open up the energy markets. The third energy package,<sup>1</sup> adopted in 2009, continued the efforts of unbundling, i.e. separating network operators and energy suppliers. It contained three sets of electricity related legislation, namely a directive on common rules for the internal electricity market ([2009/72/EC](#)) and regulations relating to cross-border exchanges ([Regulation 714/2009](#)) and to the establishment of the [Agency for the Cooperation of Energy Regulators](#) (ACER).

An integrated energy market is closely connected to security of supply. Apart from the new [proposal](#) on safeguarding electricity supply dealt with here, a [proposal](#) on security of gas supply was presented in February 2016 and is currently awaiting a first reading in plenary.<sup>2</sup>

<sup>1</sup> The package also included natural gas legislation ([2009/73/EC](#)) and access to gas networks ([Regulation 715/2009](#)).

<sup>2</sup> See procedure file [2016/0030\(COD\)](#).

The EU has a longstanding aim of a fully interconnected market. The European Council set a deadline for completing the internal energy market by 2014.<sup>3</sup> While this deadline has not been fully met, the European Commission's 2014 [progress report](#) noted important improvements in terms of the diversification of energy suppliers and cross-border energy trade. Continued technological advances and the growing proportion of renewables in the energy mix have added new challenges. In 2014, 28 % of electricity produced in the EU was generated from renewables while this share was 14 % in 2004.<sup>4</sup> While the economic recession led to a reduction in energy demand, in the long-term, electricity demand is expected to increase.

## 1.1 Market governance

Along with the ACER, the European Network for Transmission System Operators for gas (ENTSO-G) and electricity (ENTSO-E) are responsible for streamlining the energy markets through the development of common rules for operators (network codes) which the Commission then formally adopts. They also prepare one of the main infrastructure planning instruments: the Ten-Year Network Development Plan (TYNDP).<sup>5</sup> The ACER was established to ensure that national regulatory bodies cooperated effectively and to decide on cross-border disputes, but only if it has been requested to do so. A mid-term evaluation of the ACER was undertaken in 2014 (see Section 4).

Opinions vary on the role of the ACER. In a recent Commission [consultation](#),<sup>6</sup> some stakeholders were in favour of a strengthened agency while others, particularly Member States and national energy regulators, preferred the status quo. A [report](#) commissioned by Parliament's Industry Research and Energy Committee (ITRE) concluded that the current governance is not effective enough to oversee market coupling. In terms of the ENTSO-E, the Commission's consultation again showed diverging opinions. Some stakeholders suggested that there was a potential conflict of interest in its role as a network code drafter and as a lobby organisation, but all favoured a closer cooperation between Transmission System Operators (TSOs). In its review of the internal energy market,<sup>7</sup> the European Court of Auditors (ECA) also recommended that the ACER be given sufficient powers to effectively carry out the tasks within its remit. It also noted that Member State participation in the ACER working groups varied substantially, with newer Member States in particular hardly participating at all. This was often due to the national regulators' limited resources.

## 1.2 Infrastructure and investment

In the EU, TSOs are generally financed through consumer tariffs. The EU budget investment in energy infrastructure is relatively small. In fact, EU funding covers around 5 %<sup>8</sup> of the investment needs relating to grid infrastructure. As an illustration, according to ECA, the International Energy Agency (IEA) estimated that a total investment of €931 billion was needed to improve the electricity and gas networks in the EU over the period 2014-2035.<sup>9</sup>

While the EU has specific competence in the area of energy, Member States are free to choose their own energy mix. This has led to quite diverging national policy decisions being made, for example, a focus on nuclear or renewables, which have consequences for the internal energy market. Much of the EU's infrastructure is relatively old. The IEA estimates that about 30 % of coal and oil-fired power plants were

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<sup>3</sup> See Council [conclusions](#) of 4 February 2011.

<sup>4</sup> [Electricity generated from renewable sources](#), Eurostat.

<sup>5</sup> See [ENTSO-G TYNDP](#) and for ENTSO-G and [ENTSO-E TYNDP](#).

<sup>6</sup> Consultation on a New Market Design, 15 July 2015 to 9 October 2015, DG Energy, European Commission.

<sup>7</sup> European Court of Auditors, Improving the security of energy supply by developing the internal energy market: more efforts needed, Special Report No 16, December 2015.

<sup>8</sup> [Energy Union: Key Decisions for the Realisation of a Fully Integrated Energy Market](#), Policy Dept. A, EP, April 2016.

<sup>9</sup> European Court of Auditors, Improving the security of energy supply by developing the internal energy market: more efforts needed, Special Report No 16, December 2015.

constructed more than 40 years ago while nearly half of all nuclear plants are at least 30 years old.<sup>10</sup> Given the cost of new infrastructure projects, the time it takes to finalise them and the potential for public opposition, key decisions on whether to invest in 'traditional' energy sources need to be taken soon. The increase in renewable energy use also carries costs such as the integration of intermittent technology, i.e. wind and solar power, into the grid system.

All in all, new infrastructure investments are likely to lead to additional price increases in energy. The IEA estimates that electricity prices over the next decade have to increase by at least 20 % to deal with the ageing infrastructure. In terms of EU funding, there are those who argue that it needs to become better targeted.<sup>11</sup> A review of the internal market by the European Court of Auditors (ECA) recommended a clearer strategy for awarding EU funding to infrastructure projects to ensure that they are in line with the needs of the internal market.

### **1.3 Interconnectivity and cross-border trade**

One of the key indicators chosen by the Commission to assess EU market integration is the level of interconnectivity. The EU has set a target of interconnectivity equivalent to 10 % of installed generation capacity in each Member State by 2020, to be increased to 15 % by 2030. Most countries are expected to reach the target by 2020.<sup>12</sup> However, many observers argue that a fixed overall target across the EU is only partially effective and that interconnection targets should be more flexible and closer reflect the particular needs relating to specific cross-border traffic.<sup>13</sup> The development and implementation of network codes, technical rules ensuring interoperability between energy transmission systems, will also be important for market integration. Here, challenges still remain. In its 2015 report on the internal energy market, the ECA noted that none of the 11 codes in the electricity sector had been approved at that stage.

### **1.4 Renewables**

Renewable sources have seen a rapid increase and in 2014 renewable energy made up 16 % of the final energy consumption.<sup>14</sup> As renewables become more established, policies in relation to renewables have a wider effect on the market. The IEA notes that, while support for renewable sources has overall been successful, in some Member States, such as Spain or Germany, the generous support offered to solar power mainly via feed in tariffs,<sup>15</sup> led to an unexpected increase in solar power generation. This in turn led to higher consumer prices. In Spain, retroactive policy action was taken to tackle the issue, which led to a lowering of investment confidence. As financing of renewables centres on initial investment rather than operating costs, investments are more sensitive to policy-related risks than other energy sources. As renewables become more established, challenges move away from better interconnections and the completion of network codes, to dealing with flexible energy generation, grid infrastructure, demand side integration and energy storage. The intermittent nature of many renewables raises different challenges for security of supply. Many Member States have started to look into solutions to address these issues via capacity mechanisms, for example, which has an effect on the overall internal market.

### **1.5 Pricing**

In an internal market, price convergence between wholesale and consumer energy prices is to be expected. However, while wholesale prices have reached unprecedented lows due to low oil and gas prices and mild

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<sup>10</sup> © OECD/IEA Energy Policies of IEA countries: European Union, 2014 Review, IEA Publishing. Licence: [www.iea.org/t&c](http://www.iea.org/t&c).

<sup>11</sup> see, [Energy Union: Key Decisions for the Realisation of a Fully Integrated Energy Market](#), Policy Dept. A, EP, April 2016.

<sup>12</sup> Spain and Cyprus are expected to take a little longer.

<sup>13</sup> European Court of Auditors, Improving the security of energy supply by developing the internal energy market: more efforts needed, Special Report No 16, December 2015.

<sup>14</sup> [Eurostat](#).

<sup>15</sup> Supports generators by guaranteeing a fixed price for a set number of years.

weather, consumer prices have not followed. This is mainly because only about half of the electricity price is related to wholesale prices, while tariffs and taxes make up a large proportion of the consumer energy prices and therefore vary substantially. There has been a gradual convergence across the EU in wholesale prices though, showing that the market has become better integrated, at least up until 2013. The situation in Member States can still vary. In Germany for example, wholesale prices have been very low, although consumer prices remained high, while in Italy, Ireland, the UK and the Netherlands, a lack of interconnectivity meant that wholesale prices remained high.

Energy poverty is a reality for many EU citizens. In 2014, 10 % of households could not afford to heat their homes properly, and in some countries the figure is even higher, with around a quarter of the population in Bulgaria, Greece, Portugal, Cyprus and Lithuania in energy poverty.<sup>16</sup> In a recent Commission [consultation](#) on electricity market design, most stakeholders agreed that scarcity pricing, i.e. paying a different price depending on the actual supply and demand of energy, should form part of any new market design. As it stands, according to a recent ACER report,<sup>17</sup> scarcity pricing is currently not occurring due to capacity mechanisms which are impeding high price periods.

The challenge and scale of the task relating to integrating the energy market is huge. The IEA identifies three key areas: improve the functioning of national markets by limiting state intervention, increase cross-border capacity and optimise cross-border flows. The agency also recommends more regional cooperation, prioritising the completion of key infrastructure projects, phasing out regulated retail prices, identifying and tackling subsidies that are distorting the energy market, and increasing customer choice.

## 2. Security of electricity supply

The [Security of Electricity Supply Directive](#) (2005/89) established a framework for safeguarding the security of electricity supply by ensuring an adequate level of generation capacity, a sufficient balance between supply and demand and an appropriate level of interconnection between Member States. A first review of the security of supply legislation was undertaken in 2010. The Commission [progress report](#) outlined successes achieved thanks to the third energy package while also noting that some barriers remained. These included, for example, a continued reliance on regulating energy pricing in some Member States and differences in the quality of reporting on issues related to security of electricity supply, particularly in terms of the amount of detailed data included in the reports. The review also highlighted the integration of renewables in the grid as a particular challenge going forward. The ECA concluded in a recent report on the internal market that 'energy infrastructure in Europe is not yet suited for fully integrated markets and therefore does not currently provide effective security of energy supply'.<sup>18</sup>

## 3. Infringements and non-conformity checks

The transposition of the third energy package was relatively challenging, with the Commission opening 38 infringement proceedings against 19 Member States.<sup>19</sup> Most of these cases were resolved without court action, and as it stands, Member States have now fully transposed the Third Energy Directive.

Once transposition has been completed, the Commission can also carry out non-conformity checks, i.e. systematically scrutinise whether the legislation has been correctly applied in Member States. In first instance, the Commission can open what are known as EU 'pilot schemes' to attempt to resolve issues via voluntary compliance. Where this is not the case, an infringement procedure can be started. As of July 2016,

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<sup>16</sup> [EU energy trends and macroeconomic performance](#), prepared for the Commission, July 2016.

<sup>17</sup> ACER, [Annual Report on the Results of Monitoring the Internal Electricity Markets in 2015](#), September 2016.

<sup>18</sup> European Court of Auditors, Improving the security of energy supply by developing the internal energy market: more efforts needed, Special Report No 16, December 2015.

<sup>19</sup> [Enforcement of the Third Internal Energy Market Package](#) (SWD(2014) 315).

the non-conformity checks led to infringement procedures in eight of these EU pilot schemes. Apart from systematic compliance checks, the Commission can also carry out ad hoc checks. Again, as of July 2016 there were two infringement procedures pending from ad hoc checks.<sup>20</sup>

The Commission regularly reports on infringement processes.<sup>21</sup> In the last six months, a few of the Commission's monthly infringement packages have dealt with the third energy package, particularly in relation to national incumbent system operators being given unfair advantage in terms of operating interconnectors to other EU countries. The ECA, in its review of the internal energy market, noted three areas in the third energy package where progress was still needed: the functioning of national regulators, transmission system operators and different types of price regulations.

## 4. Current proposals and evaluation of the legislation

### 4.1 The Commission's evaluation

The [evaluation](#) covers both the energy market design, i.e. the third energy package<sup>22</sup> and the security of electricity supply (SoS).<sup>23</sup> Aside from a general overview, there is also an [annex](#) summarising existing reviews covering specific aspects of the retail market. The evaluation appears to draw mainly on earlier Commission reports and consultations as well as the ACER's annual monitoring reports. The evaluation is not very clear on how and to what extent it has drawn on the various pieces of evidence. It does not contain any discussions about potential limitations of the data used and does not provide any baseline against which the achievements of the legislation can be assessed.

The Commission's Regulatory Scrutiny Board noted in its [initial comments](#) in relation to the impact assessment (IA) report on Energy Union Governance that it could have been more linked to the IA about renewables; the same could potentially be said about linking this evaluation to the review of renewables.

Overall, the evaluation concludes that competition and consumer choice have increased, but that barriers to cross-border trade remain, that there is lack of choice in the retail market, and that better cooperation between regulators is still needed. The legislation has in part also become obsolete as it pre-dates the rise in renewable energy use and advances in digital technology. In terms of security of electricity supply, the report concludes that the legislation has had limited impact as it has generally been superseded by more recent legislation.

The report notes that 17 Member States still have some form of price regulation. While competition on the wholesale market has increased, and wholesale prices have gone down, a few Member States (France, Italy, Poland, Romania and Slovakia) have seen no real change in actors on their markets. In addition, in the majority of countries, 70 % of the retail electricity market share is still in the hands of a few dominant providers.<sup>24</sup> In terms of interconnections, there are still insufficient incentives for TSOs to increase cross-border availability. The report also notes that consumer prices are still high in many countries, mainly due to non-contestable charges. A recent increase in state interventions, particularly in relation to renewables, has also had distortive effects on the electricity market.

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<sup>20</sup> [Commission's evaluation of the Third Energy Package and SoS](#) (SWD (2016) 412).

<sup>21</sup> See, for example, 'Monitoring the Application of EU Law 2015 Annual Report', SWD (2016) 230.

<sup>22</sup> Directive 2009/72 on common rules for the internal market in electricity, Regulation 714/2009 on conditions for access to the network for cross-border exchanges in electricity, Regulation 713/2009 establishing an Agency for the Cooperation of Energy Regulators.

<sup>23</sup> Directive 2005/89 concerning measures to safeguard security of electricity supply and infrastructure investment.

<sup>24</sup> This means that the retail household market for small competitors is above 30 % - only 8 out of 29 countries, according to the Council of European Energy Regulators (CEER) whose members include Norway and Iceland but not Slovakia.

## 4.2 The proposals

The main aim of the proposals is to continue the integration of the internal market, increase flexibility and ensure that the market can cope with a continued rise in renewable energy. The proposals are linked with those relating to [energy efficiency](#), [building energy efficiency](#), [renewables](#) and [energy union governance](#) that came out simultaneously. Some of the key points of the proposals are summarised below.

- Increased flexibility to allow more real time trade in electricity so that all types of energy sources have equal access to the market. This will particularly ensure that renewables such as wind and solar can compete properly.
- Scarcity pricing - there will be a gradual phase out of price caps and a move to more demand-led pricing (scarcity pricing). While scarcity pricing should be default in the whole sale market, Member States will still be allowed to intervene to protect vulnerable households in the retail market as the removal of price caps should not jeopardise the stability of end customer price.
- Smart metering - consumers can request smart meters, and the data which will be key to be able to have a demand driven market, should be made available in a non-discriminatory manner.
- Distribution System Operators (DSOs) have so far mainly passed electricity on from the transmission grids to the end consumer. With more renewable energy produced locally, there will be more onus on them to actively manage their grids. Therefore a European DSO entity is proposed. This network would coordinate the operation and planning of DSOs, to ensure for example, better integration of renewables and the digitalisation of the networks.
- Regional Cooperation Centres (ROCs) - TSOs will need to formally cooperate regionally to coordinate for example capacity allocation and conduct risk assessments for security of supply. ROCs will also be responsible for long-term needs assessments.
- Bidding zones are areas where wholesale prices are uniform. They should reflect demand and supply and investment should be price led and aim to relieve congestions. At present, bidding areas are generally based on national borders. Reviews of bidding zones will be undertaken to ensure that they are efficient so that decisions can be taken on whether to split them up.
- Capacity Mechanisms (CMs) are used to safeguard energy supply by paying generators to keep plants open or build new ones in case it is needed. CMs will still be allowed but under strict conditions and as a last resort once other market reforms have been undertaken. However, new plants used for these purposes need to comply with an emission limit of 550g CO<sub>2</sub>/kWh. Existing plants will need to comply with the same limits five years after entry of force of this legislation, ultimately phasing out the use of coal plants to guaranty energy security.
- Priority dispatch for renewable energy will be allowed under certain conditions.
- The ACER is given more responsibility for example in relation to network codes, as well as being given the task of coordinating ROCs.

## 5. EU-level reports, evaluations and studies

### [Final Report of the Sector Inquiry on Capacity Mechanisms](#), European Commission, November 2016

The inquiry covered 11 countries: Belgium, Denmark, Germany, Ireland, Spain, France, Croatia, Italy, Poland, Portugal and Sweden. As part of the inquiry, over 200 public bodies, energy regulators, network operators and other market participants in these countries were sent questionnaires, 124 of which were returned.

The report concluded that some countries had genuine reasons to use capacity mechanisms to safeguard their energy supply. However, the report also identified market reforms that could eliminate the need for capacity mechanisms, such as removing price caps and replacing them with prices that reflect the actual value of additional resource adequacy. These market reforms should be undertaken before capacity mechanisms are deployed. All in all, the sector inquiry identified 35 capacity mechanisms in the 11 Member States. These mechanisms could generally be divided into two groups: 1) targeted ones, i.e. support is given only to the additional capacity needed on top of what is provided by the markets, and 2) market-wide support, where all applicable market participants are included. The report concluded that depending on the issue, different capacity mechanisms should be used. However, it also noted that some capacity mechanisms were designed in a way that meant that they hampered competition; in these cases, the Commission would work with Member States to ensure these schemes were in line with State aid rules.

#### **Review of current national rules and practices relating to risk preparedness in the area of security of electricity supply, prepared for the European Commission, July 2015**

This report reviews the legal framework and the practices across Member States in relation to the security of electricity supply. The report is based on desk research across Member States, interviews with stakeholders and some case studies. In particular it centres on how Member States prepare and respond to security of supply risks and emergency situations. It also attempts to identify any gaps and inconsistencies in individual Member States' plans. The report found significant variations across the EU, particularly in terms of the level of planning and the details set out. While the national TSOs have a key role across the EU in risk and emergency planning, their specific national remit could vary significantly. All in all, the report found that while there were differences, Member States addressed the issues in a comparable way thanks to existing EU reporting requirements, although further increased consistency in terms of detailed criteria would facilitate regional cooperation.

#### **Energy Union: Key Decisions for the Realisation of a Fully Integrated Energy Market, prepared for the ITRE Committee, European Parliament, April 2016**

This study reviews current internal energy market policies to assess to what extent they are fit for purpose. The report consisted of a review of existing literature and current legislation as well as interviews with experts and case studies. The report concluded that there are some important barriers to effectively achieve an integrated energy market in the EU. For example, the failure of many Member States to properly implement legislation; differing national market rules as well as the existence of non-market based allocation mechanisms; inadequate governance of large infrastructure projects; insufficient preparedness to integrate increasing renewable energy sources; the increase in wholesale costs due to renewables; and lack of an effective EU funding strategy for infrastructure projects.

#### **Identification of Appropriate Generation and System Adequacy Standards for the Internal Electricity Market, prepared for the European Commission, March 2016**

This study reviews current practices in Member States to recommend criteria for a common methodology in assessing national electricity system adequacy. The report notes that, currently, there are a range of national definitions and policies in relation to security of supply. The report makes a series of recommendations: for example, to ensure a common methodology for adequacy targets<sup>25</sup> based on the 'profitability of investing in generation and transmission compared to the EENS<sup>26</sup> cost for financial consumers'; any investment assessment should be based on a cost/benefit analysis and any common model should take into account renewables, interconnection and demand-side management to system adequacy.

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<sup>25</sup> The ability of the system to deliver electrical energy to all points of utilisation within acceptable standards, and in the amounts desired.

<sup>26</sup> Expected Energy Not Supplied (EENS).

## [European Commission Evaluation of the activities of the Agency for the Cooperation of Energy Regulators \(ACER\) European Commission, January 2014](#)

This mid-term assessment of ACER focuses mainly on the years 2011-2013, due to the recent creation of the agency. Overall, it was felt that the agency has focused on the right priorities, with the development of framework guidelines and opinions on network codes being highlighted as successes in particular. Going forward, the report recommended, among other things, that ACER should take a more active role as an arbiter in cross-border disputes. According to the report, a full evaluation should also be carried out in 2014, to be published in 2015, which will include a recommendation on whether the regulation that established ACER should be amended.

## **6. European Parliament position**

### **6.1. Parliament resolutions**

#### [European Parliament resolution of 13 September 2016 towards a new energy market design](#)

In this resolution, the Parliament welcomes the Commission's communication on a new energy market design, but calls for specific areas to be considered in forthcoming proposals including to:

- ensure that any new market design takes into account appropriate transition periods with cost benefit analysis for any proposal under discussion;
- increase regional cooperation, including a regional system for assessing long-term adequacy needs and for pre-agreed action in the case of a crisis to be included in legislative proposals;
- ensure that electricity interconnection objectives are differentiated by region, reflecting real market flows, and that these are subject to relevant cost-benefit analysis and for them to be based on ENTSO-E 10-year network development plan;
- take into account that optimal use of existing infrastructure is crucial and to reflect this in any upcoming legislative proposal;
- provide a new energy market design which takes into account that the internal electricity market is sensitive to imports from outside the EU, where different rules and regulations apply;
- use capacity mechanisms where they have a cross-border use and move away from capacity mechanisms that are purely national and non-market based;
- facilitate the use of intermittent renewable energy by making legislative changes to promote energy storage systems, clarify the position of storage in the electricity chain, remove regulatory barriers to storage and include a definition of storage that covers its dual nature (electricity uptake and release);
- make sure that proposals include instruments that ensure investment in low carbon generation is market driven, and that there are incentives for investment in smart grid technologies;
- provide ACER with more financial and human resources and ensure that the agency have decision-making power in terms of coordination of increased regional cooperation and cross-border issues and;
- expand its proposals to include the analysis and review of the natural gas market.

There has not been any formal written follow-up by the European Commission.

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

This resolution endorsed the necessity of ensuring the security of energy supply, decarbonisation, and competitive energy prices. It emphasised the need for a full implementation of an integrated European energy market and insisted on the importance of the next steps to be taken towards achieving an Energy Union. The Parliament referred to the need to meet the 10 % interconnecting target and to ensure better cross-border transmission capacity for electricity and gas, as well as increasing energy security. It also

highlighted the need for electricity 'stress tests' and for a better link between wholesale prices and retail prices in the electricity sector.

The European Commission stated, in its [follow-up](#) to this resolution, that in 2016 it would present a series of legislative proposals which would be decisive in contributing to achieving the 2030 energy and climate targets. It would also present legislative proposals on new electricity market design, security of electricity supply and an integrated research, innovation and competitiveness strategy.

#### [European Parliament resolution of 15 December 2015 on making Europe's electricity grid fit for 2020](#)

This resolution recognised the need to achieve the 10 % electricity interconnection target by 2020, yet noted that 12 Member States remained below this target, and called for them to be supported. It noted that the 10 % target was based on 2002 evidence and did not reflect the existing interconnection infrastructure. It argued that a single interconnection target may not be appropriate for all Member States and urged for a mid-term review and evidence-based complementary interconnection targets agreed by regions. It also called for a strengthened role of the ACER, in particular in relation to the ENTSO-E and NRAs in order to deliver services in an adequate and timely manner.

The European Commission, in its [follow-up](#), reported that it was setting up an expert group to look into regional issues of connectivity. The Commission also stated that it was constantly improving consultation and transparency by inviting stakeholders to the non-confidential parts of the regional groups which evaluates Projects of Common Interest (PCIs). The Commission agreed to investigate further incentives for smart grid investment and also agreed with the Parliament's opinion on strengthening the role of the ACER.

## 6.2 Members' questions

### [Written question by Carolina Punset \(ALDE, Spain\) and Javier Nart \(ALDE, Spain\), October 2016](#)

This question relates to the Commission's interim report on its Sector Inquiry on Capacity Mechanisms in the Electricity Sector, and asks for clarification in certain areas – in particular, whether the Commission will present a figure for the amount of capacity payments made by Member States to generate electricity using fossil and nuclear fuels. It also asks whether the Commission will assess to what extent these capacity markets have distorted electricity markets, and what steps will be taken to ensure that capacity mechanisms are properly justified from the point of view of security of supply, the internal energy market, decarbonisation policies and climate agreements.

No answer available yet.

### [Written question by Paul Rübzig \(EPP, Austria\), April 2016](#)

This question relates to the forthcoming energy market design proposal. It references the European Court of Auditor's report on the internal market to illustrate some current failures. Clarification is sought in terms of how the new market design will be better implemented at a national level; how the European institutions can best contribute to this process; and how the Commission plans to ensure the removal of price regulation.

### [Answer given by Mr Arias Cañete on behalf of the Commission, June 2016](#)

The Commission concurs that implementation is key and notes that it has put significant resources towards transposition and non-conformity checks. Clarification and dialogue is also important and the forthcoming legislation will provide an opportunity to clarify rules that have so far caused problems. The Commission will seek to phase out regulated prices and is in discussion with Member States which have price regulation in place to see how to best deal with these issues without vulnerable end-consumers being affected negatively. The topic of price regulation will also be part of the new proposals.

### [Written question by Zigmantas Balčytis \(S&D, Lithuania\), April 2016](#)

This question asks whether the Commission intends to outline EU-wide cost-effective principles when developing renewable energy to ensure a level playing field. The question makes reference to the European

Court of Auditors' recommendations that cost-effectiveness needs to be at the centre of any EU support to renewables (see ECA's [Special Report Number 6](#) from 2014) and to the Commission's own communication on the importance of a coordinated regional approach for renewables.

#### [Answer given by Mr Arias Cañete on behalf of the Commission, July 2016](#)

The Commission acknowledges that national renewable support schemes can have cross-border effects and that the current Renewable Energy Directive (RED) gives Member States the choice to design their own schemes. However, it also points out that current legislation and guidance do encourage collaboration, and that the form of support scheme is only one factor influencing investment in renewables. Other important factors influencing a renewable investment decision include grid access, permit procedure and public acceptance. The forthcoming revision of the RED will include exploration of further cooperation mechanisms.

## **7. European Commission stakeholder consultations**

### [Consultation on a new Energy Market Design](#)

This consultation received 320 replies and was carried out between July 2015 and October 2015. Around 50 % of the submissions came from industry associations, 26 % from suppliers, intermediaries and customers active in the energy sector, 9 % from network operators and another 9 % from governments and regional authorities.<sup>27</sup>

In terms of electricity market adaptations, most stakeholders agreed with the need for scarcity pricing taking regional differences into account, linking scarcity pricing<sup>28</sup> with incentives for investment, speeding up the development of cross-border balancing markets, and integrating renewable energy sources (RES) into the market. However, opinions were divided over the phasing out of public support schemes for RES. Generation adequacy brought a consensus among stakeholders over an 'energy only' market, the need for a common method for generation adequacy assessment, aligned adequacy standards and a common EU framework for cross-border participation in capacity mechanisms. Retail issues were identified, such as a lack of dynamic pricing for consumers and regulatory barriers to demand response. In relation to regulatory framework/governance, there was a clear lack of consensus over strengthening the role of the ACER and the ENTSO-E, although the majority of stakeholders are in agreement with closer cooperation between TSOs.

### [Consultation on risk preparedness in the area of security of electricity supply](#)

This consultation was carried out in parallel with the internal market design consultation and received 75 replies in total. The main stakeholder groups were suppliers, intermediaries and customers active in the area of energy (39 %) and associations and EU bodies, such as ENTSO-E and ACER (37 %). This consultation complemented the one on the new market design; some issues were therefore covered in both consultations.

Stakeholders generally agreed that Member States should be required to create risk preparedness plans on a regular basis and with a common template. Content-wise, most stakeholders believed it was too early to decide on the exact content of these plans. Nevertheless, the definition of risks, cybersecurity, risk assessments and standards, including a common methodology for assessing risks, preventative measures and the identification of actions to be taken given emergency situations, were all common themes to be included. Stakeholders were divided over who should draw up the plans, ranging from TSOs, DSOs and an individual competent authority in each Member State. While some replies argued that the plans should be made at national level, a large amount of replies urged for a more regional, cross-border approach. Most respondents agreed there should be a system of peer reviews concerning oversight, with the ACER and the ENTSO-E providing stronger support in cross-border cooperation.

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<sup>27</sup> [Preliminary results from the public consultation on Electricity Market Design.](#)

<sup>28</sup> Scarcity pricing is price formation reflecting actual demand and supply.

## 8. The European Economic and Social Committee (EESC)

During the December 2015 EESC [Public Hearing](#) 'The new energy market design: Fit for the future?', experts from EU institutions, as well as consumer and business organisations, explored the challenges and the opportunities of developing a new energy market design. Indeed, they also pointed out regulatory, technological and financial measures needed to facilitate this transformation. Some of the issues discussed included the role of the consumer in a more demand-led system, the integration of renewables and the need for more flexibility as well as long-term capacity in the system.

The 2014 EESC [Public Hearing](#) 'Securing Essential Imports for the EU Energy: New opportunities - or new threats?', was held by the Employers' Group of the EESC in cooperation with the Croatian Employers' Association, Croatian Chamber of Economy and Croatian Chamber of Trades and Crafts. With a wide range of experts, a number of presentations were given on the EU's dependence on imports of energy, regional progress on security of energy supply, infrastructure and strategic projects, and climate change and renewables.

## 9. The European Court of Auditors

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

The report reviewed the EU's energy policies and infrastructure spending to assess to what extent these had contributed to the implementation of the internal energy market. The fieldwork was undertaken between mid-2014 and mid-2015. The report found that the EU was still some way from a properly functioning internal market. While the report found some examples of regional trading, over-reliance on a few energy providers and state interventions contributed to a lack of transparency and a failure to ensure energy trading was market-based. Price convergence should be an indicator of an internal market, but the report found that wholesale prices varied substantially, even between neighbouring countries. The report also found that the current energy infrastructure was not sufficiently developed. This meant that many Member States lacked the capacity to deal efficiently with energy imports and exports or act as a transit country. The report made several recommendations, including ensuring that existing legislation was properly implemented, that any infrastructure not used to its full potential be identified and that infrastructure projects be based on an overall assessment of EU-wide needs.

## 10. Conclusion

The new proposals build on previous legislation and continue to gradually implement an internal energy market. In particular, they look to incorporate recent changes, such as the rapid increase in renewables and technological advances relating to the digitalisation of services. They also attempt to clarify previous legislation such as in the case of storage for Transmission System Operators (TSOs) for example. As with the recent proposals on security of gas supply, the Commission looks to incorporate a regional approach as the default option for assessing needs and mitigating risks.

The Commission's evaluation, as well as the review of the implementation process, have shown that, while progress has been made, challenges to create a properly functioning internal market remain. The challenges identified by the evaluation, such as price controls, insufficient cross-border trade, uncoordinated national interventions and issues around regulatory independence, are addressed by the current proposals. However, it is also clear from the evaluation that progress towards a well-functioning and competitive energy market has not been consistent across the EU. Where progress has been made, the effects have been positive, although the evaluation does not look at examples of best practice to assess the best way forward. The EU-wide oversight of national regulators and TSOs is seen as positive, but question marks remain in terms of

whether the suggested changes will be sufficient. Several reviews on the topic have noted that the Agency for the Cooperation of Energy Regulators (ACER) lack sufficient powers to be effective and it is unclear whether the current proposals will properly address this issue. The public consultations also pointed to the dual role of the European Network for Transmission System Operators for electricity (ENTSO-E), as both a lobby organisation and a representative of public interest, as potentially problematic. The creation of a European Distribution System Operator (DSO) could possibly duplicate this issue. The evaluation does not include any assessment around infrastructure legislation or the EU's role in this area; however, it notes that the incentives for private investments have been insufficient so far. It is hoped that the proposed moves to a more flexible and price-driven market should improve investment conditions. As reforms in this area have been ongoing since the 1990s, it will be particularly important to continue to monitor progress and to what extent the new proposals increase competition and a well-functioning, price-led market.

In terms of the Parliament's demands, many of its requests are reflected in the proposals, such as calls for more regional cooperation, for example. They do not, however, include a review of the gas market or interconnectivity objectives differentiated by regions; nor do they look to address to any great extent the issue of external import. In the case of the ACER, Parliament had asked for a substantial increase in resources. While the proposals strengthen the agency's position, the Commission decided not to propose making the ACER into a pan-European regulator, with the increase in budget and staff that such a move would have entailed.

## 11. Other sources of information

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

**ENTSO-E publications** - see <https://www.entsoe.eu/publications/Pages/default.aspx>

### European Commission

- Studies on energy, see <https://ec.europa.eu/energy/en/studies>
- Market analysis reports, see <https://ec.europa.eu/energy/en/data-analysis/market-analysis>

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

- [Understanding electricity markets in the EU](#), Erbach, Gregor, EPRS, November 2016
- [The cost of non-Europe in the single market for energy](#), Del Monte, Micaela, EPRS, 2013

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

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

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