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(Re-)Designing the internal market for electricity

Impact Assessment ([SWD\(2016\) 410](#), [SWD\(2016\) 411](#) (summary)) of Commission proposals for (1) a Directive of the European Parliament and of the Council on common rules for the internal market in electricity (recast) ([COM\(2016\) 864](#)), (2) a Regulation of the European Parliament and of the Council on the internal market for electricity (recast) ([COM\(2016\) 861](#)), (3) a Regulation of the European Parliament and of the Council establishing a European Union Agency for the Cooperation of Energy Regulators (recast) ([COM\(2016\) 863](#)), and (4) a Regulation of the European Parliament and of the Council on risk preparedness in the electricity sector ([COM\(2016\) 862](#))

Background

This note seeks to provide an initial analysis of the strengths and weaknesses of the European Commission's impact assessment (IA) accompanying the above mentioned proposals¹, submitted on 30 November 2016 and referred to Parliament's Committee on Industry, Research and Energy (ITRE).

'A resilient energy union with a forward-looking climate change policy' was one of the ten priorities set out by Commission President Juncker in his [political guidelines](#) for the 2014-2019 Commission. In January 2014, the Commission published a communication entitled '[A policy framework for climate and energy in the period from 2020 to 2030](#)', which was followed, in February 2015, with the Commission's [energy union strategy](#). The legislative proposals covered by the IA are part of this strategy and were announced in the [Commission work programme 2016](#). The four legislative proposals were published in the clean energy for all Europeans package – a package of eight legislative proposals and several other measures 'that aim to modernise the economy and boost investments in clean energy related sectors [and] at accelerating, transforming and consolidating the EU economy's clean energy transition thereby creating jobs and growth in new economic sectors and business models'.² The legislative proposals in the package cover electricity market design, security of supply, energy efficiency, renewable energy, and governance of the energy union, and are earmarked for priority treatment in the [joint declaration](#) of the European Parliament, the Council and the Commission on the EU's legislative priorities for 2017.

The development of an internal energy market is a process that saw its first major step in 1996, with the first energy package. This laid the foundations for a free electricity market and provided for a partial opening of the market. The second energy package in 2003 enabled new electricity and gas suppliers to access the market and allowed consumers the possibility to choose their electricity and gas supplier. The third energy package in 2009 sought to further liberalise the internal energy market.

The four legislative proposals covered by the IA (the proposals) are the next step in this gradual development of the internal energy market, but also serve to bridge the EU's energy market policies and its policies on climate change, renewable energy and energy efficiency. Their aim is 'to improve the functioning of the internal

¹ For 'EU Legislation in progress' briefings on the proposals see: Erbach, G., [Common rules for the internal electricity market](#), EPRS, European Parliament, February 2017; Erbach, G., [Internal market for electricity](#), EPRS, European Parliament, February 2017; Erbach, G., [New rules for the Agency for the Cooperation of Energy Regulators \(ACER\)](#), EPRS, European Parliament, March 2017; and Erbach, G., [Risk-preparedness in the electricity sector](#), EPRS, European Parliament, March 2017.

² Communication from the Commission: clean energy for all Europeans ([COM\(2016\) 860](#)).

electricity market in order to allow electricity to move freely to where and when it is most needed, empower consumers, reap maximum benefits for society from cross-border competition and provide the right signals and incentives to drive the right investments compatible with climate change, renewable energy and energy efficiency ambitions' (IA, p.25).³

Problem definition

The problem definition in the IA determines the methodological structure of the whole IA. The specific objectives set by the IA correspond directly to the four problem areas identified by the IA and a set of policy options is selected to address each of the said problem areas. The IA continues by assessing the impacts and comparing the options separately for each of the four problem areas. Thus, in certain respects, the IA resembles four distinct IAs, one for each problem area identified. This structure contributes towards a clear and orderly treatment of the relevant arguments in a vast and complex policy setting.

The IA identifies four problem areas:

- I) a market design that is not fit for an increasing share of variable decentralised electricity generation and technological developments;
- II) existing uncertainty about sufficient future investments in electricity generation and uncoordinated capacity markets;
- III) insufficient account taken by Member States of what happens across their borders when preparing for and managing electricity crisis situations; and
- IV) slow deployment of new services, low level of service, and questionable retail market performance.

For each of these problem areas the IA pinpoints corresponding drivers.

The identification of the problems appears to be based on sound evidence, underpinned by the quantification of arguments where possible, and extensive literature, as well as external expertise. Territorial differences are also taken into consideration. As part of the problem description exercise, the IA analyses the potential development of the problems under the current regulatory framework (IA, pp.79-80). As suggested in the Commission's better regulation toolbox,⁴ a retrospective evaluation of the existing legislative framework in the relevant field – regulation of electricity markets and security of electricity supply – feeds into the problem definition.

Objectives of the legislative proposal

Given the complexity of the problems and the numerous underlying drivers, the IA identifies several objectives, which it organises in hierarchical order. At the highest level is one general policy objective, which is accompanied by four objectives. Each one of these four objectives is clearly directly linked to one of the problem areas and each one of them has a number of sub-objectives attached to it (IA, p.85). In the section on 'Monitoring and Evaluation', the IA sets out the operational objectives for the preferred options.

The objectives provide a clear link between the analysis of the problem and the options for policy response. In the multi-tiered breakdown of objectives, however, the distinction between the sub-objectives and the operational objectives appears to be quite blurred, as can be seen from the 'objectives tree' below. It should be borne in mind that the Commission's better regulation guidelines and the better regulation 'toolbox'⁵ require operational objectives to be option specific and set after the identification of the preferred option, and when such a methodology is followed one would expect the operational objectives to be completely distinct from the objectives identified earlier in the IA process.

³ For more background information on the topic see: Erbach, G., [Understanding electricity markets in the EU](#), EPRS, European Parliament, November 2016 and Šajin, N., [Electricity Prosumers](#), EPRS, European Parliament, November 2016.

⁴ [Tool 11](#) of the Commission's better regulation toolbox.

⁵ [Tool 8](#) and [Tool 13](#) of the Commission's better regulation toolbox.

General Policy Objective Making electricity markets more secure, efficient and competitive, whilst ensuring that electricity is generated in a sustainable way, and remains affordable to all.
Objective Adapting market design for the cost effective operation of variable, decentralised generation, taking technological developments into account.
Sub-objectives <ul style="list-style-type: none"> • Removing current market distortions between different methods of generating electricity. • Making the market more flexible and adapting it for the cost effective operation of renewable sources of electricity. • Improving market participation and inciting technological change.
Objective Facilitating investment in the right amount and type of resources, to ensure security of supply, whilst limiting the distortive effects of uncoordinated capacity mechanisms.
Sub-objectives <ul style="list-style-type: none"> • Strengthening price formation and improving market functioning to reduce the need for state intervention. • Making state interventions for future generation capacities more efficient and compatible with the internal electricity market.
Objective Improving Member States' reliance on each other in times of system stress and reinforcing their coordination and cooperation at times of crisis situations.
Sub-objectives <ul style="list-style-type: none"> • Improving risk assessment and preparedness. • Improving transparency and information sharing. • Improving coordination in emergency.
Objective Addressing the causes and symptoms of weak competition in energy retail markets.
Sub-objectives <ul style="list-style-type: none"> • Decreasing government intervention in retail price setting. • Reducing information asymmetry between market actors and transaction costs around data management. • Removing barriers to switching and improving the comparability of offers in the market. • Enabling consumers to take full advantage of market opportunities by actively managing consumption and self-generated electricity. • Protecting energy poor and vulnerable consumers in a more targeted and less distortive manner.

Operational objectives
Problem Area I - Adoption of: <ul style="list-style-type: none"> - measures directed at removing market distortions deriving from different treatment to generation from different sources; - measures aiming at providing for liquid and better integrated short-term markets; - measures directed at removing barriers preventing demand response from participating in energy and reserve markets; - Adoption of: measures aiming at strengthening the role of ACER; measures to clarify the role of national regulatory authorities at regional level; criteria for enhancing the transparency and monitoring obligations of the European Network for Transmission System Operators for electricity (ENTSO-E); rules

for formalising the role of distribution system operators at European level.
Problem Area II - Adoption of: <ul style="list-style-type: none"> - measures aiming at improving electricity markets price signals; - specific requirements to align national capacity mechanisms (CMs) by requiring that ENTSO-E propose a methodology for an EU-wide resource adequacy assessment, and requiring Member States to rely on the assessment; - rules aiming at enhancing compatibility between CMs.
Problem Area III - Adoption of: <ul style="list-style-type: none"> - measures aiming at improving risk assessment and preparedness; - rules aiming at improving coordination in emergencies; - measures aiming at improving transparency and information sharing.
Problem Area IV - Adoption of: <ul style="list-style-type: none"> - measures aiming at reducing regulatory intervention in retail price setting; - measures aiming at protecting energy poor and vulnerable consumers; - measures directed at removing barriers to market entry for new supply and service companies; - measures aimed at increasing consumer engagement and choice.

The objectives as set in the IA appear to be specific, measurable, achievable and amenable to being set within a timeframe. The IA also includes a section which explores the consistency of the objectives with other EU policies.

Range of options considered

In the consideration and comparison of options, the IA chooses to make separate assessments for each of the four problem areas, identifying and assessing several policy options for each of these problem areas. The following table presents all the options considered.

Problem Area I
<ul style="list-style-type: none"> • Option 0 – Baseline: Current market arrangements are retained, existing legislation is implemented by adjusting the technical rules on the operation of electricity markets through network codes and guidelines. • Option 0+ – Non-regulatory option: No changes would take place as this option is ruled as unfit to achieve any of the desired changes. No viable policy option could be identified. • Option 1 – EU regulatory action: Enhance market flexibility by adjusting the market to the increasingly variable production of electricity: <ul style="list-style-type: none"> ○ Sub-Option 1a – Level playing field: Removing differing regulatory rules for electricity generation from different sources of electricity; ○ Sub-Option 1b – Strengthening short-term electricity markets: Enable close to real-time trading of electricity to allow variable renewable sources of electricity to enter the market more effectively; ○ Sub-Option 1c – Demand response and distributed resources: enable consumers to directly react to price signals for consumption/production of electricity, use storage to include distributed sources of electricity in the market, including the balancing market. <p>(The sub-options under this option are cumulative, i.e. the choice of sub-option 1b would include sub-option 1a, and the choice of sub-option 1c would include sub-option 1a and 1b.)</p> • Option 2 – Fully integrated EU market: Change the current regulatory framework significantly to fully integrate the electricity market in order to achieve maximum flexibility. <p>The preferred policy option is option 1c (which encompasses options 1a and 1b).</p>

Problem Area II
<ul style="list-style-type: none"> • Option 0 – Baseline: Current market arrangements are kept in place; • Option 0+ – Non-regulatory option: No changes would take place as this option is ruled as unfit to achieve any of the desired changes. No viable policy option could be identified; • Option 1 – No Capacity Mechanisms (CM)⁶: Remove market distortions, for necessary investments into sufficient generation capacity to be incentivised by the improving price signals; • Option 2 – CMs only when needed according to EU-wide adequacy assessment: Permission can be granted to a Member State to introduce CMs if the European Network for Transmission System Operators for electricity (ENTSO-E) deems them necessary according to their annual EU-wide resource adequacy assessment; • Option 3 – Option 2 + cross border participation: Market design would facilitate cross-border CMs by increasing the compatibility between national CMs; • Option 4 – Mandatory EU-wide or regional CMs: Addressing and assessing adequacy requirements on a regional or EU level by compulsory roll-outs of national CMs based on a EU ‘blue print’ in a region or in all Member States. This option was considered disproportionate and discarded. <p>The preferred policy option is option 3.</p>
Problem Area III
<ul style="list-style-type: none"> • Option 0 – Baseline: National approach to electricity crisis, identification and response according to national rules and requirements; • Option 0+ – Non-regulatory option: Implementation of existing Security of Electricity Supply Directive (SoS Directive) is complete. This option is therefore discarded, as it would not address the problems identified. • Option 1 – Common minimum rules: A set of common rules, established at EU level and implemented by the Member States, is used to develop national Risk Preparedness Plans (‘Plans’); • Option 2 – Option 1 + Regional cooperation: Systematic assessment of rare/extreme risks at regional level, risk preparedness plans would include national measures and pre-agreed measures in a regional context; • Option 3 – Full harmonisation: Regional risk preparedness plan, dedicated agency for cybersecurity, and detailed ‘emergency rulebook’ for emergency handling in Member States. <p>The preferred policy option is option 2.</p>
Problem Area IV
<ul style="list-style-type: none"> • Option 0 – Baseline Scenario: No new legislation, no further efforts to clarify existing legislation, and no non-regulatory measures • Option 0+ – Non-regulatory option: Strengthening the enforcement of existing legislation, Commission guidance to tackle implementation issues, Commission recommendations, and establishment of the EU Energy Poverty Observatory • Option 1 – Flexible legislation: New legislation that provides Member States with leeway to adapt their laws to national market conditions; • Option 2 – EU harmonisation: Extensive safeguards for consumers through new legislation and harmonisation of Member State action. <p>The preferred policy option is option 1.</p>

⁶ Capacity Mechanism (CM): ‘A regulatory intervention that remunerates the availability of electricity resources, instead of the production of electricity (or the avoidance of electricity consumption)’ (IA, p.232).

The options described above are labelled as ‘high level options’. Each of these high level options encompasses a package of measures to address the drivers of the relevant problem area. These measures are described in detail in the annexes to the IA. The IA distinguishes between two types of discarded options: those which, although considered and included in the list of high level options, are discarded at that stage, and those which were considered but discarded at the outset.

Non-regulatory options are discussed for every problem area, but are discarded before the assessment of the impacts for problem areas I, II and III. The non-regulatory approach is retained and assessed for problem area IV. The retained options appear to be presented and analysed in a balanced manner.

Scope of the impact assessment

The IA systematically analyses the economic and the administrative impacts for each of the retained policy options. It also explores the stakeholders affected and how they are affected, identifying consequences for producers and other operators in the electricity industry, for businesses and other end consumers, and for public authorities on a local, national and EU level in particular. It evaluates the effectiveness of the options in achieving the identified objectives and their efficiency in doing so.

The IA proposes that environmental and social impacts of the options are indirect and are not assessed in depth for all options. Environmental impacts are analysed generally per problem area, rather than per policy option, and no assessment is made for policy options under problem area III, as the IA anticipates that those options would have a ‘very limited impact, if any, on the environment’ (IA, p.192). With regard to the environmental impacts of the market design measures (problem area I) the IA acknowledges that the analysis of impact is complex and that the impacts ‘cannot ... be examined in isolation from all other complementary energy and climate policies’ (IA, p.158).

Social impacts, including impacts on health, are analysed in one section covering all the problem areas. Although the IA considers it impossible to quantify such benefits, it claims that the proposals would have a positive impact on the energy bills of households, going some way towards addressing energy poverty. It also suggests that the proposals would lead to an increase in job demand in the power sector and to other positive effects on the job market emanating from higher EU industry competitiveness, due to lower energy costs. The IA also considers it relevant, under problem area IV, to assess the impact on fundamental rights in regard to data protection.

Although the IA does not include a specific section on the matter, considerable attention is paid to the regional/territorial dimension and the differing impacts the reformed electricity market could have on different regions of the EU.

Subsidiarity/proportionality

The IA includes a section on subsidiarity in which it first considers the legal basis of the proposals (Article 194 TFEU). The section then continues by discussing, for each of the problem areas, why the identified objectives cannot be achieved by the Member States acting independently, and consequently considering the added value of action at EU level. Furthermore, the annexes assessing detailed measures for each of the regulatory policy options also include a section assessing the subsidiarity of each measure.

Proportionality does not have a dedicated section, but is a consideration taken into account in the comparison of options and is a determining factor in ruling out certain options. A section on proportionality is included in the explanatory memoranda accompanying the proposals, which outline the compromises made in the proposals for the sake of proportionality.

With the deadlines for submission of reasoned opinions on subsidiarity staggered between 8 March 2017 and 17 May 2017 for the four proposals, at the time of writing, no national parliaments had issued a reasoned opinion.

Budgetary or public finance implications

Budgetary and public finance implications do not seem to be addressed in the IA, but are discussed briefly in the explanatory memoranda accompanying the proposals. These state that budgetary impacts will arise from the increase in tasks carried out by the Agency for the Cooperation of Energy Regulators (ACER), and refer to the legislative financial statement accompanying the proposed recast of the ACER regulation for more detail.

SME test/Competitiveness

SMEs are considered in the IA as both a category of consumers of electricity and as providers of electricity. With regard to SMEs as providers of electricity, the IA briefly observes that SMEs would particularly benefit from the lower barriers to entry that the new market design would afford. It does not appear, however, that any efforts were made to specifically measure the impacts of the proposals on SMEs, whether as consumers or as providers of electricity.

Competitiveness is part of the general objective of the proposals as stipulated in the IA, and as such is an underlying consideration throughout. The IA also highlights how the proposals contribute to the research, innovation and competitiveness strategy of the Union. The IA argues that the retained options, especially those under problem area II, will encourage investment in renewable sources of electricity, leading to improvement in the long-term competitiveness of an energy system based on such renewable sources. The IA also maintains that the possible savings in energy costs for enterprises can be expected to improve their competitiveness.

Simplification and other regulatory implications

The administrative burden of the options on businesses and public authorities is systematically analysed for all options. The IA also appears to make a substantial effort to consider the relationship and coherence of the proposals with other legislation, especially laws brought forward in the same package,⁷ and other EU policies. Indeed the IA acknowledges that certain impacts of the options in the proposals cannot be examined in isolation from complimentary policies, and at times cross-references the impact assessments accompanying other initiatives in the package.

Relations with third countries

The IA only touches upon the matter of relations with third countries in the discussion of problem drivers under problem area III, in highlighting the risks to security of supply when critical assets are taken over by third country entities, making these assets susceptible to undue political interference.

Quality of data, research and analysis

The IA is based on a large body of material. It gives details of the studies – in-house and external – ‘conducted mainly or specifically’ (IA, Annex V, p.317) for its purposes, and describes the methodological approaches followed and the specialised energy modelling tools used for quantitative analysis. As an IA of considerable complexity, it makes a substantial effort to make itself accessible, as required in the better regulation guidelines, by giving substantial importance to explanations of methodological aspects.

Also in line with the better regulation guidelines, the IA makes an effort to assess impacts both quantitatively and qualitatively and is transparent about instances where reliable quantitative analysis or information was not available. The IA recognises gaps and uncertainties in the data and is transparent on the modelling limitations and on the assumptions and compromises made. This is done in the core text of the IA and in Annex IV, which deals with the analytical models used in preparing the IA.

⁷ See section ‘Background’ above.

Stakeholder consultation

The IA appears to identify the stakeholders affected by the problems and systematically investigates who will be affected and how, for each of the high level policy options explored. In Annex II, the IA gives an account of the stakeholder consultations conducted in relation to its assessment. Between 2012 and 2015 the Commission conducted four public consultations, each for a duration of 12 weeks: on generation adequacy, capacity mechanisms, and the internal market in electricity; on the retail energy market; on a new energy market design; and on risk preparedness in the area of security of electricity supply. A number of targeted consultations were also conducted. The IA gives a summary of the stakeholders' views for each of the retained policy options, and these views are consistently reflected and considered throughout the IA.

Monitoring and evaluation

The IA outlines a plan for reporting, monitoring and evaluation, by ACER, by the Commission and by the Electricity Coordination Group. It also explains how ACER will be invited, as of 2021, to review its current monitoring indicators 'to ensure their continuing relevance for monitoring progress towards the objectives underlying the present proposals', and provides a number of possible monitoring indicators.

Commission Regulatory Scrutiny Board

The Commission's Regulatory Scrutiny Board (RSB) first issued a negative opinion on the IA on 16 September 2016. Following the submission of a revised new version of the IA, it issued a positive opinion on 7 November 2016. In its second opinion, the RSB acknowledges the improvements made in line with its recommendations and pointed out specific ways in which the IA could improve further, for instance by reflecting better the assumptions on which the analysis relies and risks to which it is subject. The RSB also recommends a stronger analysis on matters relating to consumers and a critical review of modelling results. In general, these suggested improvements appear to have been addressed to some extent.

Coherence between the Commission's legislative proposal and IA

The proposals appear to correspond to the preferred policy options indicated in the IA.

Conclusions

The IA appears to present a good and comprehensive analysis to identify the problems in the status quo, define the objectives of EU action, delineate policy options that can fulfil those objectives, assess the impacts of those options, and choose the best options to address the identified problems. This process seems to be based on sound data and research. In the explanation of the objectives, however, the distinction between what the IA refers to as the sub-objectives and the operational objectives does not appear to be very clear, raising doubts as to whether the sequential process required in the better regulation guidelines has been followed. Finally, the IA's length and complexity somewhat limit its accessibility, although the sixteen page abstract added in response to the Regulatory Scrutiny Board's recommendation goes some way towards addressing this issue.

This note, prepared by the Ex-Ante Impact Assessment Unit for the European Parliament's Committee on Industry, Research and Energy (ITRE), analyses whether the principal criteria laid down in the Commission's own Impact Assessment Guidelines, as well as additional factors identified by the Parliament in its Impact Assessment Handbook, appear to be met by the IA. It does not attempt to deal with the substance of the proposal. It is drafted for informational and background purposes to assist the relevant parliamentary committee(s) and Members more widely in their work.

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