

Consultation Paper on risk preparedness in the area of security of electricity supply

Fields marked with * are mandatory.

Introduction

In its Energy Union Strategy, the Commission announced its intention to propose new legislation on security of electricity supply in 2016, as part of a broader set of initiatives to reform the EU framework governing electricity markets.

The *Communication launching the public consultation process on a new energy market design*, COM(2015)340 ('Market Design Communication'), opens the debate on how to reform markets to ensure that they are suitable for an interconnected EU-wide electricity market, provide clear price signals for new investments and facilitate the further development of renewables, promote regional cooperation and coordination, and provide a truly European dimension to security of electricity supply.

This questionnaire complements the Market Design Communication by raising targeted questions relating to security of electricity supply. In particular it raises detailed questions on how Member States should prepare themselves and co-operate with others, with a view to identify and manage risks relating to security of electricity supply.

1. CURRENT LEGAL FRAMEWORK RELATING TO SECURITY OF ELECTRICITY SUPPLY

A fundamental objective of national and EU energy policy is to ensure security of energy supply, i.e., to ensure that energy (including electricity) is available to all when needed. In fact, Article 194 TFEU sets out that the aim of EU Energy policy is to ensure security of energy supply in the Union.

Directive 2005/89 creates a general framework on security of electricity supply, but leaves it by and large to Member States to define their own security of supply standards and policies, as long as the latter 'are not discriminatory and do not place an unreasonable burden on the market actors' (Article 3, paragraph 4).

Many provisions of Directive 2005/89 have been superseded by more recent EU legislation,

mainly by the Third Energy Package.[1] The Third Energy Package defines the role of the transmission system operators ('TSOs') regarding security of supply, reinforces TSO co-operation by putting into place ENTSO-E, and provides for a harmonization of technical standards and operating procedures through the development of network codes and guidelines. The latter mainly aim to achieve a more coordinated approach between TSOs when it comes to ensuring operational security.[2]

Whilst important steps have been taken to improve cooperation between TSOs, security of supply objectives, standards and procedures are mostly defined at a national level.

Whilst the Directive calls upon Member States to take account of 'the possibilities for cross-border co-operation in relation to security of electricity supply,' it provides neither rules nor tools for organising such cross-border co-operation in a structured manner. In practice, co-operation across Member States is still rather limited, although some voluntary co-operation is starting to take place at regional level. Moreover, in 2012, the Electricity Coordination Group ('ECG') was created as a forum to exchange information and foster co-operation across Member States, in particular as regards security of supply. So far, it discussed the need and importance of generation adequacy assessments in the EU, but it has not been given operational tasks.

The co-existence of national, often uncoordinated, rules and approaches entails risks, both from a security of supply as well as from an internal market perspective.[3]

The Market Design Communication discusses important aspects relating to security of supply, such as the need for common criteria and a common methodology for purposes of assessing the adequacy of the electricity system, and the need for a more joined-up approach when it comes to addressing risks relating to an insufficient investment in generation capacity. It also explores ways to further enhance co-operation between TSOs as well as between TSOs and Distribution System Operators ('DSOs').

This questionnaire complements the Market Design Communication. It looks in particular at the role of national authorities in preventing and managing risks related to security of supply, and at how the latter co-operate in a cross-border context.

2. RISK IDENTIFICATION AND MANAGEMENT

Ensuring security of electricity supply requires conducting regular assessments of whether the electricity system is adequate (i.e., capable of meeting demand) and whether it is secure (i.e., physically resistant to shocks etc.). It also requires defining adequate responses, once risks are identified.

TSOs and, increasingly, DSOs have important responsibilities when it comes to guaranteeing operational security, in particular in the short term (e.g., TSOs carry out balancing activities).

Beyond operational security, it falls on Member States to identify the types of risks relating to security of supply, to set standards of acceptable risks, and to take action (or ensure that relevant action is taken) to prevent the various risks from happening. In the absence of clear pan-European rules, it appears that approaches considerably vary across Member States.

The Market Design Communication discusses the need for a joint approach to assess system adequacy, meaning the ability for supply to meet demand at all times. The questions hereunder

focus on how Member States act to mitigate various types of risks, once an assessment has been made, in different time frames (e.g., to mitigate possible risks in the given season). It also focuses on how Member States could best work together on a cross-border basis to mitigate risks.

[1] Directive 2009/72/EC and Regulation 714/2009.

[2] The most relevant Network Codes in this context are those related to the operation of the electricity system (cf. network code on Operational Security (NC OS), on Load-Frequency Control and Reserves (NC LFCR), on Operational Planning and Scheduling (NC OPS) and on Emergency and Restoration (NC ER).

[3] See the Report on the Implementation of Directive 89/2005 (COM (2010) 330 final), and the proceedings of the Electricity Coordination Group, as referred to amongst others in the Communication on a European Energy Security Strategy (2014)330 final. See also the political declarations of 8 June 2015 in favour of more regional co-operation on security of supply (see Press release IP/15/5142, http://europa.eu/rapid/press-release_IP-15-5142_en.htm).

INFORMATION ABOUT YOU

* Are you responding to this questionnaire on behalf of/as:

between 1 and 5 choices

- Individual
- Organisation
- Company
- Public Authority
- Other

* Please describe briefly the activities of your company/organisation and the interests you represent

EURACOAL - the European Association for Coal and Lignite- is the umbrella organisation of the European coal industry. EURACOAL's mission is to highlight the importance of coal within the EU to security of energy supply, to energy price stability, to economic added value and to environmental protection. EURACOAL seeks to be an active communicator, with the aim of creating an appropriate framework within which the European coal industry and coal consumers can operate.

* Which countries are you most active in?

between 1 and 29 choices

- Austria
- Belgium
- Bulgaria
- Croatia
- Cyprus
- Czeck Republic
- Denmark
- Estonia
- Finland
- France
- Germany
- Greece
- Hungary
- Ireland
- Italy
- Latvia
- Lithuania
- Luxembourg
- Malta
- Netherlands
- Poland
- Portugal
- Romania
- Slovakia
- Slovenia
- Spain
- Sweden
- United Kingdom
- Other

Questions:

* 1. Whilst Directive 89/2005 imposes a general obligation on Member States to ensure a high level of security of supply, the Directive does not specify what measures Member States should take to prevent risks. Would there be an added value in requiring Member States to draw up a plan identifying relevant risks and preventive measures to respond to such risks (risk preparedness plans)?

- YES
- NO

Please explain

As presented in the preamble of the consultation, Article 194 TFEU sets out that the aim of EU energy policy is to ensure security of energy supply in the Union. With this objective in mind, the analysis from ENTSO-E Yearly Statistics & Adequacy Retrospect 2013 shows that non-usable capacity (that has unintentional temporary limitations for various reasons, e.g. the availability of primary energy sources, including wind and solar) is increasingly affecting Net Generating Capacity for TSOs. In October 2013, the highest-ever level of non-usable capacity was registered, both in absolute values (252.9 GW) and as a share of Net Generation Capacity (25.5%).

Furthermore, peak loads happen around the same weeks in neighbouring countries (e.g. France, Netherlands and Belgium shared 17 January 2013 as the year's peak load; UK's peak load was just a day earlier, on 16 January 2013). Therefore relying on electricity imports from neighbouring countries should be considered carefully and not only as a mathematical summation of the available capacity of interconnectors. Therefore, EURACOAL considers that risk preparedness plans are necessarily in order to achieve the main aim of the EU energy policy. Furthermore, such risk preparedness plans can increase transparency for all stakeholders.

- *2. If yes, what should be the minimum requirements such risk preparedness plans should comply with? For instance, should they:

between 1 and 7 choices

- a) explain the various types of risks?
- b) identify the demand side measures Member States plan to take (e.g., use of interruptible contracts, voluntary load shedding, increased efficiency, emergency savings)?
- c) identify the supply side measures Member States plan to take (e.g., increased production flexibility, increased import flexibility)?
- d) assess the expected impact of existing and future interconnections?
- e) identify roles and responsibilities?
- f) identify how Member States co-operate or intend to co-operate amongst each other to identify, assess and mitigate risks?
- g) other elements?

Please explain

Identifying the risks would be a first step towards finding solutions to ensure security of supply. ENTSO E was concerned about non-usable capacity, but other risks could be revealed as well.

Demand-side measures alone, especially if based on voluntary behaviour, would only increase the uncertainty for the TSOs in planning the necessary availability of generation; hence, increasing the risks to energy supply.

Supply side measures are a way to fine tune the necessary generation capacity in order to match load. Both grid managers and generation operators are well accustomed to this, therefore the operating system will have less complexity and hence less risks.

There are now clear responsibilities assigned for ensuring security of electricity supply in Member States and these roles and responsibilities should continue. Any subjugation of these roles by EU-level entities should bear also the full burden of responsibility for security of supply.

*3. Do you think that it would be useful to establish a common template for risk preparedness plans?

YES

NO

Please explain

EURACOAL considers that several indicators should be used to assess risk preparedness plans.

“De-rated” capacity margin for power generation, this being a measure of the amount of excess supply above peak demand, expressed as a percentage:

de-rated capacity margin (%) = (total available de-rated capacity - peak demand) / peak demand

“De-rating” means that the capacity figure is adjusted to reflect the availability of particular types of power plants. Thus, it gives an indication of the output from a particular source that is likely to be technically available at times of peak demand. For example, a coal-fired power plant might be assumed to be available for 85% of the time, whereas a wind turbine might be available for 17-24% of the time, depending on its location.

Attention should be given to interconnections that cannot always cover generation inadequacy if the neighbouring countries do not have excess reliable available capacity. Weather conditions determine peak load and often coincide around the same weeks in neighbouring countries. For this reason, the shares of indigenous energy in Member States are an important measure of energy security. The following performance measure is proposed which includes the security benefit of holding energy stocks (e.g. oil, gas or coal), expressed as a percentage:

$$\frac{(\sum \text{indigenous energy production} + \sum \text{energy stocks})}{(\sum \text{indigenous energy production} + \sum \text{energy imports} - \sum \text{energy exports})}$$

Where indigenous energy production relates to the production of electricity (e.g. from hydro, nuclear or renewable sources), then a multiplier should be applied to reflect the higher value of electrical energy. Similarly, where electrical energy is stored, it should be given a higher weighting than fossil fuel stocks.

We also consider that a security-reserve should be introduced wherever necessary, in order to establish a higher degree of security of supply.

*4. Given that electricity markets are increasingly interlinked, should risk preparedness plans be prepared at the national, regional or EU level?

- National
- Regional
- EU

Please explain

EURACOAL agrees that risk preparedness plans should be co-ordinated across the EU. However, the value of some indicators should be country specific, to reflect local climate conditions and to keep the right of each Member State to select its own energy mix.

*5a. Do you see a role for the Commission in assessing these plans? Would you see an added value of having the plans peer reviewed, at a regional or EU level?

The Commission could provide recommendations for risk assessment plans and identify possible future capacity limits that endanger security of supply, in line with what ENTSO-E is doing now in its Yearly Statistics & Adequacy Retrospect. Also, the Commission could identify interactions and cross-border effects.

However, the ultimate responsibility for security of supply should remain in the hands of a single entity. Given the right of each Member State to select its own energy mix, this means that the responsible entity will be a national one (i.e. national grid managers) and any impositions on them from an EU-entity would dilute their responsibility and conflict with their core objective.

This does not mean less Energy Union, but an Energy Union where there are clear responsibilities.

*5b. What role do you see in this context for the Electricity Coordination Group?

The Electricity Coordination Group could share best practices and problems that national administrations are facing in ensuring security of supply.

*6. What level of transparency should be given to the plans? Who should be informed of what?

While the release of certain technical details could harm public interest, transparent statistical data is unlikely to create any potential dangers. The risk assessment plans should be made accessible to the public. That would give a clearer framework for analysis by potential investors.

- *7. How often should risk preparedness plans be made / be updated? What are the relevant time frames to be covered?

The current ENTSO-E reviews, the Yearly Statistics & Adequacy Retrospect and the Summer Outlook and Winter Review cover yearly and six-monthly periods. EURACOAL suggests that risk assessment plans have a multi-annual analysis period that would provide reliable predictions of future security of supply.

- *8. Given the challenges that DSOs are facing (e.g. integration of renewables, more decentralised systems), should DSOs take an active participation in the assessment of the risks and preparation of the risk preparedness plans? If yes, do you see the need for separate assessments and separate risk plans at the DSO levels? Or do you believe it is more appropriate to ensure an active participation of DSOs in risk assessments

DSOs should be involved in risk assessment and the preparation of risk plans, but not separate risk plans which would only increase unnecessarily the administrative burden. The risk assessment plans should be integrated, including inputs from both TSOs and DSOs.

- *9. Ensuring cybersecurity is an increasingly important aspect of security of supply. What measures should Member States take to protect themselves against possible cyber-attacks or other cyber-related threats? Do you see the need for specific EU rules on cyber security, targeted to the energy field? Given the cross-border nature of cyber security risks, what scope is there for enhancing co-operation (for instance through the exchange of best practices)?

EURACOAL does not have extensive expertise on cyber-security, but we consider that careful consideration should be given towards cyber-attacks and other cyber-related measures. The more decentralised and interconnected the system, the greater the danger of a cyber-attack. The Electricity Coordination Group should be a platform for exchange of best practices.

While there is an increasing danger associated with cyber security, this should not be confused with the objectives of Energy Union.

3. ADDRESSING CRISIS SITUATIONS

Even where actions have been taken to prevent risks, emergency situations cannot be entirely excluded. Disturbances often occur at a local level, but they may also affect much larger areas, going beyond the borders of individual Member States.

Directive 2005/89 requires Member States to ensure that curtailment of supply in emergency situations is based on predefined criteria relating to the management of imbalances by transmission system operators and are taken in close consultation with other TSOs (Article 4(4) Directive 2005/89). It does not specify however what such emergency framework should look like, other than stating that Member States should not take discriminatory measures and should respect the requirements for a competitive internal market. Article 16(2) of Regulation n° 714/2009 imposes an obligation to compensate market participants, except for cases of 'force majeure'.

Steps have been taken to improve co-operation between TSOs in emergency situations, amongst others via the draft network code on emergency and restoration.

Nevertheless, Member States have a role to play in planning for and managing emergency situations, which goes beyond what normally belongs to TSO responsibilities (for instance they need to decide on what sequence to follow in case cut-offs are made, what compensation to offer). At present, there is a wide variety of approaches when it comes to deciding on these issues and cross-border co-ordination is largely absent. In addition, other players such as DSOs also have to assume responsibilities in emergency situations.

Questions:

- * 10. Currently, it appears that in some Member States, detailed emergency plans exist, whereas in others, there are only very summary emergency plans. Should there be an obligation for all Member States to plan for crisis situations, e.g., by including relevant rules and measures in the overall risk preparedness plans?
- YES
- NO

Please explain

By creating risk assessment plans, Member States that do not yet have emergency plans will have to start looking at the problem more carefully. In this way, there will be increased security of supply for consumers, which is ultimately the objective of Energy Union.

While we welcome this proposal (of including relevant rules and measures in the overall risk preparedness plans), we note that some kind of assessment needs to be made of the national security plans. We return to our replies to questions 4 and 5, saying that while the EU can provide co-ordination and recommendations, the ultimate responsibility for security of supply remains at national level, and the EU should not impose obligations, but rather recommendations.

* 11. If yes, what should be the minimum requirements include? For instance, should Member States be required to:

- a) Identify actions and measures to be taken in emergency situations (market and non-market-based)?
- b) Set out the conditions for suspension of market activities?
- c) Identify categories of 'protected customers' which, in case of a crisis, should not to be subject to a disconnection measure (or only be disconnected by way of a last resort)?
- d) Establish rules for cost compensation?
- e) Indicate how they intend to co-operate with other Member States?
- f) Reflect any other issues in their plans?

Please explain

n/a

4. ROLES AND RESPONSABILITIES

Security of electricity supply is a shared EU objective. This means that, throughout the European Union, relevant governments, public authorities, market actors and stakeholders should work together to ensure security of supply.

Whilst EU law assigns clear roles and tasks to TSOs, Directive 2005/89 has left it largely to Member States to define roles and responsibilities. Also structures for cross-border co-operation are largely lacking, in particular at the regional level, although voluntary initiatives have emerged.

Questions:

12. In relation to risk preparedness, how do you see the roles and responsibilities of:

* a) national governments?

While national governments have to ensure security of supply for their citizens, the management and planning of the system is done by national authorities. Therefore, we see no expansion or diminution of the current role of national governments.

* b) national regulators?

The national regulators have the difficult task of balancing what is desired and what can be done. While a certain level of ambition is required from the regulators, they should act according to the advice of grid managers.

* c) TSOs?

TSOs should be clear and diligent in reviewing risk assessment plans, acknowledging that weather or import availability are wide variables that should be carefully analysed and planned for, using worst-case scenarios.

We live in a world almost entirely dependent on electricity, from elevators in metros stations to baggage handling at airports. Only a few hours without electricity has serious consequences. Security of supply should not be left to the whim of chance or the weather.

* d) DSOs?

As we replied to question 8, DSOs should be involved in risk assessment and the preparation of risk plans, but not in separate risk plans.

* e) European bodies such as ENTSO-E, ACER, and the Electricity Coordination Group?

The European bodies could share best practices and problems that national administrations are facing in ensuring security of supply, including cyber security. Also, they can provide reviews and outlooks on the European energy system.

ACER could be strengthened by having rights and increased competencies in some specific areas of cross-border co-operation and wholesale markets, e.g. dispute arbitration.

* f) European Commission

The Commission should provide recommendations on risk assessment plans and identify possible future capacity limits that endanger security of supply.

* g) other stakeholders, such as consumers?

As we considered in question 2, demand-side measures from consumers, especially if based on voluntary behaviour, would increase the uncertainty for the TSOs when planning necessary availability of generation and hence, increase the risks to energy supply.

* 13. Given the fact that many actors are concerned by security of supply issues, would you see an added value in the designation by each Member State of a 'Competent Authority', responsible for coordinating security of electricity supply issues at national level?

YES

NO

Please explain

There are already responsible authorities for the supply of energy in Member States. Another "Competent Authority" will only dilute the responsibility of already established national regulators or become a paperwork exercise. It would be an unnecessary administrative burden.

* 14. If it is decided to strengthen regional co-operation on a more structural basis between various players (e.g., when drawing up risk preparedness plans), how should regions best be defined?

The regions should be defined according to regional electricity markets, e.g. Central Western Europe (CWE): Germany, France, Belgium, Luxembourg, Netherlands, Austria, Switzerland; Nordpool (NP): Norway, Sweden, Finland, Denmark, Estonia and Lithuania, Latvia; Central Eastern Europe (CEE): Poland, Czech Republic, Slovakia, Hungary, Romania and Slovenia.

If you would you like to share additional information related to this consultation, please send it within the consultation period by e-mail to the following address:
ener-electricity-sos@ec.europa.eu

NEXT STEPS

The consultation process launched by the Market Design Consultation and this questionnaire, together with further reflections and engagements with Member States and stakeholders, should pave the way for a revision of the relevant EU rules over the course of 2016.

The Commission intends to publish a document summarizing the main outcomes of this consultation. It also intends to publish the individual responses to this questionnaire, unless the respondent asks explicitly to keep its response confidential and/or not to disclose its identity.

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