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## **EUGINE CONTRIBUTION** **TO THE EC PUBLIC CONSULTATION ON RISK PREPAREDNESS**

### **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Many provisions of Directive 2005/89 have been superseded by more recent EU legislation, mainly by the Third Energy Package.[1] The Third Energy Package defines the role of the transmission system operators ('TSOs')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

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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.

## 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

Please explain

Risk preparedness plans may help Member States think about all possible risks potentially affecting the electricity security of supply in their region. This means not only risks which are already well known (failures, conflicts, etc.) but also new and upcoming types of risks (growing shares of non-dispatchable generation sources, terrorism, hacking, etc.).

The EU power system is now indeed entering a completely new era: renewable energy sources are playing a steadily increasing role in the EU power system. Due to wind and sun intensity variations, it is not always possible to precisely foresee RES output and to match electricity production with demand. Therefore the EU power system needs flexibility solutions to complement variable RES and ensure the electricity security of supply at all time.

The European energy system today does not suffer from a shortage in overall supply capacities, nor will it in the medium term. The real challenge of the next years will be the 'flexibility issue': the balancing of production and consumption of electricity in real time. In order to meet and counter this challenge, the power system of the future requires increased flexibility. Member States should consider how to provide this flexibility, including through flexible generation capacity, i.e. capacity which may be switched on/off rapidly ('startup time') and whose power production may be increased or decreased quickly (high 'ramp rates').

As a consequence, at least articles 1 and 3 of directive 2005/89/EC should be updated. In article 1, the directive should not only aim at ensuring "an adequate level of generation capacity" but also "an adequate type of generation capacity": Member States should make sure that the power system entails enough flexible generation capacity to adequately back-up variable renewable energy sources and ensure a high level of security of supply. In article 3, paragraph (f) should be updated to specify that Member States should take into account "the need to ensure sufficient transmission and generation reserve capacity for stable operation, especially flexible capacity backing up variable renewable energy sources"

flexible energy

\*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?

Yes, this would help consider all potential threats and adopt appropriate measures to mitigate these specific 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)?

Yes, Member States should have a plan to adapt the power system to the most relevant challenges on the supply side. This naturally includes the increasing need for flexible power generation.

Among the supply side measures, Member States should for example assess the 'variations risk preparedness' of the power system. Using the criteria of 'start-up' and 'ramp-up' times of generation capacity, they should check whether the installed production capacity would be able to instantaneously cope with a sudden and unexpected variation of the power produced by variable renewable energy sources.

- d) assess the expected impact of existing and future interconnections?
- e) identify roles and responsibilities?

Yes, roles and responsibilities have to be clearly defined to avoid that important tasks are either neglected or duplicated. A wrong concept of roles and responsibilities can be detrimental to the security of the EU energy system.

- f) identify how Member States co-operate or intend to co-operate amongst each other to identify, assess and mitigate risks?

Yes, because our grid becomes more and more a European grid rather than a simple juxtaposition of national grids. Therefore cooperation and harmonisation are key for a functioning grid.

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

YES

Yes, a common template for risk preparedness plans would avoid misunderstandings and make it much easier to compare the plans drafted by the different EU Member States. This may be an opportunity for them to better identify good practices of other Member States and to replicate them.

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

National

Regional EU

We need a pragmatic approach on this, depending on the interconnections available between the Member States. For the moment, a regional approach would probably be most appropriate. Later, when all interconnections will be built and operational, a European approach will definitely make sense to define an optimal risk preparedness system.

\*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

Taking into account their key role in the EU power system, DSOs may have useful data, experience and ideas to share in the framework of the risk assessment procedure and the preparation of the risk preparedness plans.

### **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.

#### **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.

## **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.