



3rd Legislative Package Input
Paper 3: Network Regulation –
Overall Framework

An EREG public document

Ref: C07-SER-13-06-3-PD
5 June 2007

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1 Background

In its Green Paper on A European Strategy for Sustainable, Competitive and Secure Energy the concept of a European Grid was put forward by the European Commission. It was stated that consumers need a single European Grid for real European electricity and gas market to develop and that this can be done by ensuring common rules and standards on issues that affect cross-border trade.

As stated in ERGEG's response to the European Commission's Communication "An Energy Policy for Europe", the future European grid will comprise national networks which are joined together more effectively than today and operated as part of an integrated whole.

It is evident that the European grid needs to be defined in law so that the obligations and duties of various organisations and networks as part of the European grid are clear. The definition of the European grid will provide a basis for the division of tasks of national regulatory authorities and the Regulators' Council. Accordingly, the definition will identify the relevant authority that has the mandate to tackle and make decisions on certain issues. Similarly, the definition will be decisive for the fact which pieces of legislation the transmission network operator is to follow with regard to its either domestic or cross-border/European activities.

This paper sets out a proposition for a comprehensive EU-level regulatory framework for electricity and gas networks necessary to provide secure and reliable network services and an integrated electricity and gas network to European consumers. Such a well integrated electricity and gas network is a prerequisite for a competitive market to develop.

2 European grid – definition

The aim of this part of the legislation is to create the required regulatory framework for the establishment of a European grid. The scope of the duties and obligations to be placed upon regulators, TSOs and other bodies will depend upon the definition of the European grid. A clear definition is therefore required for the purposes of the legislation.

A *Proposal for electricity*

The EU Electricity Grid is defined by the capability of national transmission systems to efficiently and securely serve the needs of European electricity customers and network users related to the full implementation of the European Internal Electricity Market. The specific functionality and services of the EU Electricity Grid will be detailed in the respective Guidelines according to the Regulation (see Appendix 1).

To achieve this it is proposed that high level public interest objectives are set in legislation which define the expected minimum performance of the European grid, and that the best available means of achieving these objectives are subsequently established through the establishment of Guidelines including technical standards which are subject to regulatory oversight. The objectives must imply that the service provided by the European grid is intended to achieve a level of security of supply and promotion of competition justified by cost-benefit analysis.

B ***Proposal for natural gas***

The European Gas Grid definition will refer to trans-European gas infrastructure networks whose purpose it is to help develop the internal gas market, and whose purpose it is to link major gas sources both inside and outside the European Community with those regions where natural gas is consumed in the Community. The establishment of the European Gas Grid therefore requires community-wide collaboration, builds on the improvement of the interoperability of national networks and relates to the facilitation of accessing them. This paper provides a provisional definition of the European Grid.

Transmission in the European Grid involves the crossing of at least one intra-Community frontier and contributes to the efficient operation of European high-pressure interconnections. Transmission in the European Grid is carried out by the entity or entities responsible in each Member State for high-pressure natural gas grids, with the exception of distribution grids. The definition of the scope of the European Gas Grid shall therefore cover those transmission pipelines that are predominantly used for cross-border transportation of natural gas or that make natural gas available at national borders and interconnection points.

Legal instrument

Definition set out in a new Regulation

3 **Obligations on TSOs relating to the European grid**

In order to ensure that TSOs, in developing, operating and maintaining their networks, do so in a way that meets European as well as national needs for the integrated market, specific obligations must be placed upon each TSO in European law. National requirements already exist as regards national networks – in European law obligations are needed to ensure the development, maintenance and operation of the European grid, as defined above. These obligations must be in three parts: first, that each TSO is obliged to develop, operate and maintain their network so that it meets the objectives set out in European law; second that in order to achieve this outcome each TSO is compliant with a new Regulation and Guidelines including approved technical standards relating to the European grid; and third, that each TSO must co-operate with other relevant TSOs in order that collectively they can achieve these outcomes.

Proposal

Obligations are placed on each EU TSO relating to the European grid. These obligations should require each TSO to develop, operate and maintain their network for the integrated market so that it meets the public interest objectives set out in European law; that they comply with a new Regulation and its Guidelines including approved technical standards; and that they co-operate with other relevant TSOs in achieving these objectives.

Legal instruments

The obligations on each TSO should be incorporated into a new Regulation and Guidelines under a new Regulation.

4 Establishment of technical obligations to European grid

In order to determine whether TSOs are best achieving the obligations set down, at a high level, in European law, each TSO must be obliged to take all reasonable steps to have in place, in co-operation with other TSOs, technical criteria for the development, operation, and maintenance of the European grid.

The objectives and rules set in Guidelines under a new Regulation will set out minimum performance criteria for the European grid through technical standards/codes. Besides, additional performance criteria may be set on a regional level where appropriate.

The development of the technical standards/codes must be undertaken collectively by EU TSOs and it is proposed that for each electricity and gas a body (association) of European TSOs is established in EU law as the institutional means to undertake this task. The establishment of *ETSOpus/GIEplus* is addressed in the separate Paper 4 “*ETSOpus/GIEplus*” (C07-SER-13-06-4-PD).

Technical obligations set in European law will be one trigger for investment in the grids (there will be others, as commercial investment is not precluded) and will provide the basis for operating, maintaining and forward planning of the electricity and gas European grid.

The resulting investment plans will be subject to approval by national regulators (which could take place *ex-ante* or *ex-post*), and the TSO will be able to make a reasonable return on investment through tariffs charged to network users, as well as to recover their efficiently incurred operating costs.

Proposal

EU wide legislative tools under a new Regulation, named here Guidelines, are required to define in detail the technical extent of the European grid and to fulfil the services required. Some of these Guidelines are already defined under Regulation 1228/2003, i.e. Congestion Management Guidelines, Inter-TSO Compensation Guidelines and Tarification Guidelines, but amendments to these are required in the new Regulation to include European grid and its functions.

These new/amended Guidelines shall include technical standards/codes either on EU wide or regional level. TSOs individually are obliged to co-operate with each other to have in place technical standards/codes which must be approved by regulators (the European System of Energy Regulation is dealt with in the separate Paper 2 “Legal and Regulatory Framework for a European System of Energy Regulation” (C07-SER-13-06-2-PD).

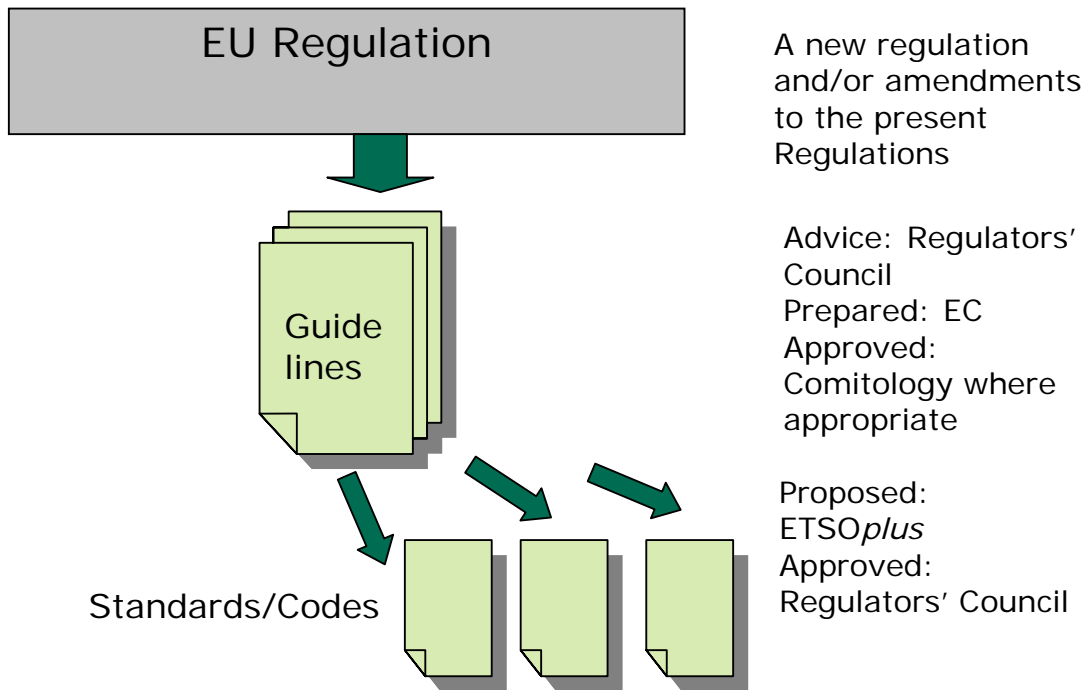
The Guidelines required for European electricity grid under the new Regulation are described in Appendix. Some of these Guidelines shall include technical standards/codes e.g. Balancing Market Guidelines, Operational Security Guidelines, Connection Guidelines, Grid Planning Guidelines.

Network users will be required to provide information and to behave in ways, which allow TSOs to fulfil their European grid obligations.

Legal instruments

The obligations should be incorporated in the new Regulation. If *ETSOplus* or *GIEplus* fail to have in place approved technical standards/codes the Regulators' Council of the ESER will be able to impose a solution, as envisaged in the separate paper 4 “*ETSOplus/GIEplus*” (C07-SER-13-06-4-PD). The objective of each standard/code will be set out in new Guidelines under Regulation.

Legal framework for technical obligations to European grid:



5 Compliance

TSOs must have obligations to comply with the EU legislation described above, and therefore be subject to penalties which must be meaningful if they fail to fulfil these obligations. Such regulatory oversight will be undertaken by national regulators, as will enforcement.

6 Transparency and accountability

TSOs must be obliged to prepare and publish reports. In practice, in respect of the European grids reports will be prepared and published by *GIEplus* and *ETSOplus*.

The Chairperson and Boards of *GIEplus* and *ETSOplus* should, upon request, appear before the relevant committees of the European Parliament and the Council to give evidence on the performance of the European grids.

APPENDIX 1: GUIDELINES/STANDARDS FOR EUROPEAN ELECTRICITY GRID

Guidelines/standards which might be required for European electricity grid and its functions are as follows:

Congestion Management

Includes e.g. congestion management methods, capacity calculation methods and models applied, coordination issues, transparency, congestion income issues.

Balancing Market

Includes e.g. technical requirements for balancing power, balancing mechanism (balancing and settlement), integration of balancing markets, interaction with automatic reserves and intra-day markets.

Common Market Rules

Includes e.g. market design, interaction between different markets (e.g. day-ahead, intra-day, balancing), power exchanges.

Inter-TSO Compensation

Includes e.g. definition of cost base (existing and future grid, losses), method to calculate compensations and payments.

Tarification

Includes e.g. harmonisation of tarification, tarification of generation and load, tarification structure.

Operational Security

Includes e.g. operational planning; planning tools, data exchange, security criteria; transmission capacity calculation; network operation (reserve requirements, maintenance, frequency, voltage, real-time data exchange, disturbance handling, remedial actions); cooperation, coordination and communication between TSOs; restoration (plans, testing); training; roles and responsibilities.

Connection

Includes e.g. general connection requirements for generation (including distributed generation), consumers and DSOs (technical compatibility), voltage and frequency quality.

Grid Planning

Includes e.g. requirements for joint planning, scenarios for planning, timeframe, information exchange between TSOs, planning criteria, security criteria, planning tools and models, update of investment programme.

Information Management and Transparency

Includes e.g. information on load, grid, generation, balancing market, power exchanges, OTC market and retail market.

APPENDIX 2: GUIDELINES/STANDARDS FOR EUROPEAN GAS GRID

Guidelines/standards which might be required for European gas grid and its functions are as follows:

Congestion Management and Capacity Allocation

Includes e.g. congestion management methods, capacity allocation methods (including obligation of adjacent TSO's to apply coordinated CAM at cross border points), capacity calculation methods incl. principles on scenarios applied, coordination issues, transparency, congestion income treatment.

Products and Services

Harmonisation of offered products at cross border points; obligations to coordinate between adjacent TSO's.

Balancing Market

Includes e.g. technical requirements, integration of markets, (could adapt existing ERGEG GGPGGB to include more explicitly market interaction issues).

Common Market Rules

Includes e.g. market design, interaction between different markets (e.g. day-ahead, balancing), hubs.

Tarification

Includes e.g. definition of cost base, methods to calculate entry/exit tariffs for cross border flows that will incentivise/underpin cross border investment, harmonisation of tarification and costing principles, tarification structure, use of auction revenues, backhaul flows, interruptible services.

Operational Interconnection

Includes e.g. network operation (nomination/renomination times and matching processes; shipper & TSO identification codes); gas quality specifications; gas units specifications (for volume, GCV, capacity, chemical composition – impurities etc), interconnection point agreements (in gas OBAs), harmonisation of data exchange protocols.

Connection

Includes e.g. general requirements for connection to the EU Grid for consumers, distribution system operators, power stations.

Operational Security

Includes e.g. operational planning; minimum security and operating criteria/standards needed for EU Grid (e.g. 1 in 50 winters) and how these relate to national criteria/standards; transmission capacity calculation; IT/telemetry co-ordination and communication between TSOs and between TSOs and shippers; outages, maintenance and restoration (plans and testing) of supply; training; roles and responsibilities.

Rights and obligations

includes e.g. defines the rights and obligations on network users including whether access rights are firm/interruptible for both entry/exit capacity; what happens in the event of an interruption/planned maintenance; any information/IT requirements on shippers to ensure TSOs can “operate” EU Grid effectively and take timely operational decisions.

Grid Planning

Includes e.g. requirements for joint planning including scenarios for future market demand for capacity, gas flows, security of supply prospects (e.g. 7 or 10 year statement produced annually). To also take account of possible impact of changes in storage/LNG; information exchange between TSOs and TSOs/GTEplus and ERGEG; planning tools/models to be used; update of investment programme.

Information Management and Transparency

Includes e.g. information on capacity (primary and secondary), load (incl. historical and forecast), supply and demand, balancing market, gas exchanges, OTC market and retail market.