



# **EREGG Draft Comitology Guidelines on Fundamental Electricity Data Transparency**

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## INFORMATION PAGE

### Abstract

This document (Ref. E10-ENM-02-07) presents ERGEG's draft advice on Comitology Guidelines on Fundamental Electricity Data Transparency for public consultation.

The final advice on the Comitology Guidelines will be prepared following the consultation and will be submitted to the European Commission, which may proceed to make them legally binding guidelines through comitology procedure.

### Related Documents

#### CEER/ERGEG Documents

- [1] ERGEG Advice on the Comitology Guidelines on Transparency, Initial Impact Assessment, 7 September 2010, Ref. E10-ENM-05-01
- [2] ERGEG, Guidelines of Good Practice on Information Management and Transparency in Electricity Markets, 2 August 2006, Ref. E05-EMK-06-10, [http://www.energy-regulators.eu/portal/page/portal/EER\\_HOME/EER\\_PUBLICATIONS/CEER\\_ERGEG\\_PAPER\\_S/Guidelines%20of%20Good%20Practice/Electricity/ERGEG\\_GGPIMT%20Transparency%20in%20Electricity%20Markets%20-%20August.pdf](http://www.energy-regulators.eu/portal/page/portal/EER_HOME/EER_PUBLICATIONS/CEER_ERGEG_PAPER_S/Guidelines%20of%20Good%20Practice/Electricity/ERGEG_GGPIMT%20Transparency%20in%20Electricity%20Markets%20-%20August.pdf)
- [3] Report on Transparency, 13 September 2007, Electricity Regional Initiative, Northern Regional Electricity Market, [http://www.energy-regulators.eu/portal/page/portal/EER\\_HOME/EER\\_INITIATIVES/ERI/Northern/Final%20docs/Report\\_on\\_Transparency1.pdf](http://www.energy-regulators.eu/portal/page/portal/EER_HOME/EER_INITIATIVES/ERI/Northern/Final%20docs/Report_on_Transparency1.pdf)
- [4] "Implementing the 3rd Package: next steps", CEER/ERGEG, 18 June 2009, Ref. C09-GA-52-06a, [http://www.energy-regulators.eu/portal/page/portal/EER\\_HOME/EER\\_PUBLICATIONS/CEER\\_ERGEG\\_PAPER\\_S/Cross-Sectoral/2009/C09-GA-52-06a\\_Implementing\\_3rdpackage\\_18-Jun-09.pdf](http://www.energy-regulators.eu/portal/page/portal/EER_HOME/EER_PUBLICATIONS/CEER_ERGEG_PAPER_S/Cross-Sectoral/2009/C09-GA-52-06a_Implementing_3rdpackage_18-Jun-09.pdf)

#### External Documents

- [5] Directive 2009/72/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in electricity and repealing Directive 2003/54/EC. <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:211:0055:0093:EN:PDF>
- [6] Regulation (EC) No 713/2009 of the European Parliament and of the Council of 13 July 2009 establishing an Agency for the Cooperation of Energy Regulators. <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:211:0001:0014:EN:PDF>
- [7] Regulation (EC) No 714/2009 of the European Parliament and of the Council of 13 July 2009 on conditions for access to the network for cross-border exchanges in electricity and repealing Regulation (EC) No 1228/2003. <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:211:0015:0035:EN:PDF>

## Table of Contents

<b>1</b>	<b>SUBJECT AND SCOPE .....</b>	<b>4</b>
<b>2</b>	<b>DEFINITIONS .....</b>	<b>4</b>
<b>3</b>	<b>FORM OF PUBLICATION .....</b>	<b>5</b>
<b>4</b>	<b>CONTENT OF THE TRANSPARENCY REQUIREMENTS AND TIMELINES FOR PUBLICATION.....</b>	<b>6</b>
4.1	Load .....	6
4.2	Transmission and interconnectors .....	7
4.3	Generation.....	10
4.4	Balancing.....	11
<b>5</b>	<b>MONITORING .....</b>	<b>13</b>
	<b>ANNEX 1: GENERATION TYPES .....</b>	<b>14</b>

## 1 Subject and scope

1 These Guidelines aim at:

- 1.1 establishing a minimum common level of fundamental data transparency that is a precondition for the efficient functioning of wholesale electricity markets;
- 1.2 defining a minimum common level of publication of the defined data on a fair and non-discriminatory basis across all Member States; and
- 1.3 developing a central information platform to enable all market participants to establish a coherent and consistent view of the European wholesale electricity market.

## 2 Definitions

- 2.1 To ensure that the data to be disclosed as required by these guidelines are consistent and comparable across the various providers of data, it is necessary to have clear, understandable, transparent and common definitions for each data item that is to be delivered and displayed at the central information platform.
- 2.2 The party responsible for running the central information platform shall develop the detailed definitions for each data item specified in these guidelines. These definitions are to be prepared in a transparent manner and to be consulted publicly before their application. The Agency for the Cooperation of Energy Regulators (ACER) shall provide an opinion on these detailed definitions.
- 2.3 The detailed definitions of the data items shall be published at the same information platform where the information required by these guidelines is published.
- 2.4 The definition of timing used is CET (Central European Time).
- 2.5 The following definitions shall be used:
  - 2.5.1 **Available Transmission Capacity (ATC)** is that part of Net Transfer Capacity (see below), which remains available after each phase of the allocation procedure for further commercial activity;
  - 2.5.2 **Bidding area** is a geographical area where market participants place bids/offers and where they are settled in accordance with that area's price;
  - 2.5.3 **Consumption unit** is a resource which receives electrical energy for its own use; here Transmission System Operators (TSOs) and Distribution System Operators (DSOs) are not considered to be consumption units;
  - 2.5.4 **Generation unit** is understood as an electro-mechanical, or electronic facility for generation of electricity;
  - 2.5.5 **Market time unit** is the longest period during which the market price is calculated. Market time unit can vary from 15 minutes to 1 hour depending on local market designs. When the market time units of two bidding areas are not the same and a data item has to be published for those two bidding areas, market time unit is the shortest possible common time period for the two bidding areas;

- 2.5.6 **Net Transfer Capacity (NTC)** is the technical term for transmission capacity of paragraph 5 in the Annex of Regulation (EC) 714/2009. Net Transfer Capacity is the Total Transfer Capacity deducted by Transmission Reliability Margin;
- 2.5.7 **Offered capacity** is a part or equivalent to the ATC that is offered by the transmission capacity allocator to the market;
- 2.5.8 **Total load** is the sum of power generated by generation units in the networks of TSOs and DSOs, from which the export-import balance of exchanges on interconnections between the bidding areas and the power absorbed by energy storage resources is deduced;
- 2.5.9 **Vertical load** is the total amount of power flowing out of the transmission network to the distribution networks, to directly connected end-consumers or to the consuming part of generation.

### 3 Form of publication

- 3.1 Transmission System Operators and those electricity generators, electricity consumption units and distribution networks that are located in the control area of the Transmission System Operator shall provide all information and data specified in these guidelines to enable publication according to the requirements of the definitions.
- 3.2 A central information platform for publishing the information specified in these guidelines shall be established by ENTSO-E.
- 3.3 Generators, consumption units and distribution system operators who are the providers of the information specified in these guidelines are responsible for submitting the information to the Transmission System Operator in whose control area they are located.
- 3.4 Transmission System Operators shall be responsible for providing their own information and forward information received from other parties for publication on the central information platform according to the requirements of these guidelines. If before the implementation of these guidelines Transmission System Operators, generators, consumption units and Distribution System Operators have submitted the information to the local or regional platforms, these platforms can be used to provide the information for publication on the central information platform.
- 3.5 On the central information platform, the market time units related to various transparency requirements and the relevant bidding areas shall be published.
- 3.6 The information referred to in Article 4 of these guidelines shall be made available and disclosed in the following manner:
  - 3.6.1 without undue delay and according to the timing requirements defined;
  - 3.6.2 on a common European website provided by ENTSO-E;

- 3.6.3 the website is to be easily accessible to the public, free of charge for the information specified in these guidelines and without any need to register or otherwise sign on with ENTSO-E;
  - 3.6.4 update on a regular/rolling basis; the update frequency shall be according to the changes that take place and the duration of the service;
  - 3.6.5 information shall be stored for 3 years by the central information platform;
  - 3.6.6 in a user-friendly manner, in downloadable format that allows for quantitative analyses;
  - 3.6.7 on a non-discriminatory basis;
  - 3.6.8 in consistent units as required by these guidelines; and
  - 3.6.9 in English.
- 3.7 Information regarding load, interconnection and transmission, generation and balancing as required by these guidelines shall be published on the common European central information platform.
- 3.8 In addition to disclosing the information on the central information platform, the same information, or parts of it, can also be provided on the websites of Transmission System Operators and other parties, given the definitions/standards from these guidelines are used.

## **4 Content of the transparency requirements and timelines for publication**

### **4.1 Load**

- 4.1.1 Transmission System Operators shall be responsible for collecting and sending all relevant data on load in their control area to the central information platform. The consumption units and Distribution System Operators that are located within the TSOs' control area shall provide the TSOs with all the relevant data that are required to fulfil the obligations of these guidelines.
- 4.1.2 If a Transmission System Operator is not able to measure total load value, it is allowed, until the end of 2013, to publish vertical load. The load is given in MW per market time unit per bidding area.
- 4.1.3 Transmission System Operators shall be responsible for submitting to the central information platform for publication at least the following load data:
  - 4.1.3.1 hourly actual vertical load at the latest 1 hour after the operational hour (H+1);
  - 4.1.3.2 a day-ahead estimate of the total load per market time unit per bidding area the day before the operational day at the latest at 11h; the day-ahead hourly estimated load has to be updated, if necessary;
  - 4.1.3.3 a week-ahead estimate of the total load per bidding area per day, for every day of the coming week W average data on peak and off-peak market periods (14 individual data), each Friday at the latest at 11h. Week ahead estimated loads shall be updated, if necessary;

- 4.1.3.4 a month-ahead estimate of the total load per bidding area one week before the monthly capacity auction, at the latest 15<sup>th</sup> calendar day of the “delivery” month, for each week average data on peak and off-peak market periods;
  - 4.1.3.5 a year-ahead estimate of the total load per bidding area for the following year, in week 51 or 1 week before the yearly capacity auction, at the latest 15<sup>th</sup> calendar day of the month before the “delivery” year, for each month average data on peak and off-peak hours;
  - 4.1.3.6 year-ahead forecast margin including peak-load forecast in week 51 or 1 week before the yearly capacity auction, at the latest 15<sup>th</sup> calendar day of the month before the “delivery” year;
  - 4.1.3.7 ex-ante information on the scheduled unavailability of consumption units. Any scheduled unavailability of a consumption unit is required to be reported/published if the scheduled unavailability of this consumption unit equals or exceeds 100 MW (i.e. difference between maximum consumption capacity and the available consumption capacity  $\geq$  100 MW) and lasts for more than 1 hour. Data to be reported to the Transmission System Operator shall include the name of the consumption unit, location, start and estimated stop date (day, hour) of the unavailability, unavailable power (unavailable consumer load capacity) and the bidding area. Data to be published shall include start and estimated stop dates (day, hour) of the unavailability, unavailable power (unavailable consumer load capacity) and the bidding area. An update is to be reported and published, without undue delay, in the case of changes to the reported non-availabilities;
  - 4.1.3.8 ex-post information on the planned and unplanned unavailability of consumption units. Any unavailability of a consumption unit is required to be reported and made public if the scheduled unavailability of the consumption unit equals or exceeds 100 MW (i.e. difference between maximum consumption capacity and the available consumption capacity  $\geq$  100 MW) and lasts for over 1 hour. Data to be reported to the Transmission System Operator shall include name of the consumption unit, location, start and estimated stop date (day, hour) of the unavailability, unavailable power (unavailable consumer load capacity) and the bidding area. Data to be published shall include start and stop dates (day, hour) of the unavailability, unavailable consumer load capacity and the bidding area.
- 4.1.4 A harmonised method for preparing a load forecast shall be developed by ENTSO-E and utilised by the Transmission System Operators. The description of the load forecast method needs to be made public.

## 4.2 Transmission and interconnectors

- 4.2.1 Transmission System Operators shall submit annually to the central information platform the information on expansion and dismantling projects in their national transmission grids per bidding area with the estimated impact (MW) also on the interconnection capacity for minimum the next three following years. For every transmission line and interconnector project, the TSOs shall make the name of the assets concerned public. Also, the location, type of asset, the impact on interconnection capacity and the estimated date of completion must be made public on the central information platform.

- 4.2.2 Transmission System Operators shall publish all relevant data concerning the available transmission capacity and interconnector capacity on the basis of the best possible forecast on the central information platform. For this, Transmission System Operators shall submit to the central information platform for publication at least the following information:
- 4.2.2.1 planned outages on interconnections and in the transmission grid that reduce available interconnection capacities, if the impact on capacity is equal to or greater than 100 MW during at least one market time unit. This information is to be published one week before the yearly transmission auction, at the latest 5<sup>th</sup> calendar day of the month before the capacity auction, or if no capacity auctions are conducted, at the latest in week 51. The Transmission System Operators shall report to the central information platform the assets concerned, the place (including affected bidding area), the type of asset, the start and estimated stop dates of the outage and the impact (MW) on available transmission capacity and the reasons. Data to be published shall include the type of asset, the bidding area, the start and estimated stop dates of the outage and the impact (MW) on available transmission capacity and the reason for the outage. The information is to be updated with changes without undue delay;
  - 4.2.2.2 details on actual outages in the transmission grid and on interconnection immediately after the real time and at the latest H+1 after the occurrence. The Transmission System Operator shall report to the central information platform the asset concerned, the place (including effected bidding area), the type of asset, the start and estimated stop dates of the outage, the impact (MW) on available transmission capacity. The reasons for the outage should be published latest on the next day. Data to be published shall include the type of asset, the bidding area, the start and estimated stop dates of the outage, the impact (MW) on available transmission capacity and the reason;
  - 4.2.2.3 in case of explicit capacity auctions, the offered capacity (MW) in the explicit capacity auction sufficiently in advance to the auction. In view of year-ahead, month-ahead and week-ahead auctions, publication should be done sufficiently in advance and no later than one week before the auction;
  - 4.2.2.4 in case of implicit auctions, the offered day-ahead capacity (MW) as soon as TSOs have provided capacity value to the institution responsible for the implicit auction;
  - 4.2.2.5 for each border, estimated net transfer capacity (MW) for the next day (per hour), the next week (per day, each peak and off-peak), the next month (per week, each peak and off-peak) and the next year (per month) of capacity. This must be published daily, latest at 07h CET;
  - 4.2.2.6 estimated hourly available transmission capacity (MW) between the bidding areas for the intraday market for the next day, at the latest at 18h CET. Data should be updated after each change;
  - 4.2.2.7 for DC links, information on any restrictions placed on the use of available cross-border capacity through the application of ramping restrictions or intraday transfer limits.



- 4.2.3 In the case of the flow-based allocation for the daily capacity, Transmission System Operators shall also submit to the central information platform for publication:
- 4.2.3.1 non redundant flow-based parameters containing PTDF matrix and margins (MW) associated to the critical branches per market time unit, at the day D-1 before the (implicit or explicit) auction day for D;
  - 4.2.3.2 flow-based allocated capacities (MW) per non-redundant critical branches, in D-1, 2 hours after auction (implicit or explicit).
- 4.2.4 Transmission System Operators shall submit to the central information platform for publication information on the use of transmission and interconnection capacity. The following information shall be disclosed:
- 4.2.4.1 for explicit auctions, the total capacity nominated between bidding areas at the latest two hours after each nomination step;
  - 4.2.4.2 for explicit auctions, the capacity (MW) offered by Transmission System Operators, the capacity (MW) requested by the market and capacity allocated to the market, the price of the capacity and the congestion revenue of transmission system operators at the latest two hours after each auction;
  - 4.2.4.3 for implicit allocation, the allocation results (MW), equal to net positions of each bidding area, the price of each bidding area (euro/MWh) and congestion income per each bidding area;
  - 4.2.4.4 a report on where and why cross-border congestions occurred for the month M-1;
  - 4.2.4.5 if applicable, a yearly report on where and why structural congestion exists if structural internal congestion is limiting cross-border capacity. This report shall indicate where the limiting constraint in the transmission network is located, to what extent this constraint affects the level of transmission capacity (how many hours/days/weeks/months in the year) and all possible corrective measures that could be implemented to increase the yearly capacity, together with their estimated cost. The methodology and projects for achieving the long-term solution shall be described;
  - 4.2.4.6 aggregated realised commercial and physical flows as closely as possible to real time, by market time unit, including a description of the effects of any corrective actions taken by the Transmission System Operators (such as curtailment, reduction of grid feed-ins or withdrawal and grid related measures) for solving network or system problems;
  - 4.2.4.7 cross-border transfer capacity (MW) reserved as priority rights between the EU Member States and perimeter countries per product period. The information is to be updated as soon as there is a modification in the information.

## 4.3 Generation

- 4.3.1 Generators have to submit all relevant generation data specified in these guidelines to the Transmission System Operator of the control area within which they are located without undue delay and immediately after the information – or changes in already provided information - is available or the respective decision is taken. Transmission System Operators shall be responsible for submitting the information to the central information platform for publication without any undue delay.
- 4.3.2 The information on generation shall include at least the following information:
- 4.3.2.1 ex-ante information on the total sum of generation capacity (MW) installed for all existing generation units larger than 1 MW installed capacity, for each year per production type as defined in Annex 1 of these guidelines, at the latest 15th calendar day of the month before the first year which data refers to;
  - 4.3.2.2 information about the installed capacity (MW) annually for the 3 following years for each generation unit (installed and planned) with an installed capacity larger than 100 MW. This publication shall contain the power plant name, the unit name, the installed capacity, the location (postal address, control and bidding area) and the production type as defined in Annex 1 of these guidelines, at the latest 15th calendar day of the month before the first year which data refers to;
  - 4.3.2.3 ex-ante forecast of available capacity (MW) annually for the 3 following years for each generation unit (installed and planned) with an installed capacity larger than 100 MW. This publication shall contain the power plant name, the unit name and the installed capacity;
  - 4.3.2.4 ex-ante information on planned unavailability of generation units larger than 100 MW. Generators shall report to the Transmission System Operators, and optionally directly to the central information platform immediately after the planning decision the power plant name, the unit name, the bidding area, the installed capacity, the location, the production type such as defined in Annex 1 of these guidelines, the start and estimated stop (day, hour) of the unavailability and the unavailable capacity. Any expected unavailability of a generation unit is only required to be reported if the unavailability of this generation unit exceeds 100 MW and lasts for over 1 hour. An update is required in the case of changes to the reported non-availabilities without undue delay. As soon as new information on e.g. changed timing of planned outages is available this needs to be updated accordingly;
  - 4.3.2.5 ex-post information on planned and unplanned unavailability of generation units with more than 100 MW of installed capacity per generation unit. Generators shall report to the Transmission System Operators and additionally if they so wish, directly to the central information platform immediately after the outage the station name, the power plant name, the bidding area, the installed capacity, the location, the production type such as defined in Annex 1 of these guidelines, the start and stop (day, hour) of the unavailability and the unavailable capacity. Information on unplanned unavailability of a power generation unit is only required to be reported if the unplanned unavailability of this generation unit is

more than 100 MW of installed capacity and the unavailability lasts for more than 1 hour;

- 4.3.2.6 estimated aggregated information per market time unit on the scheduled generation of all generation units with more than 100 MW of installed capacity per bidding area for each hour of the following day, to be published D-1, at 18.00 at the latest;
- 4.3.2.7 ex-post information on the filling rate of the water reservoir and hydro storage plants in aggregated form (MWh) per bidding area on the third working day of the W+1. A comparison to the value of the year before has also to be given. This is to be published for each bidding area only in countries with more than 15% feed-in of this type of generation per year or for bidding areas with more than 30% feed-in of this type of generation per year;
- 4.3.2.8 actual unit by unit generation output for generation units equal to or greater than 10 MW installed generation capacity, updated as changes occur, at least every 15 minutes;
- 4.3.2.9 actual aggregated hourly generation output per generation type, as defined in Annex 1, to be published H+1;
- 4.3.2.10 ex-ante forecast of day-ahead generation (MWh) of wind power and solar power in each bidding area for each quarter of an hour for the following day in countries with more than 1% feed-in of wind or solar power generation per year or for bidding areas with more than 5% feed-in of this type of generation per year. Update is required in case of changes;
- 4.3.2.11 actual generation of wind and solar power (MWh) in each bidding area for each quarter of an hour in countries with more than 1% feed-in of wind or solar power generation per year or for bidding areas with more than 5% feed-in of this type of generation per year, to be published H+2, update if necessary on the basis of settled values.

## **4.4 Balancing**

- 4.4.1 Transmission System Operators shall submit to the central information platform for publication at least the following information on the balancing market and balancing market rules:
  - 4.4.1.1 rules on balancing and the methodology for calculating imbalance charges;
  - 4.4.1.2 if applicable, a description on how cross-border balancing between two or more control areas is carried out and the conditions for generators and load to participate;
  - 4.4.1.3 volume of contracted balancing reserve capacity. Publication shall include the generation capacity that will be procured through tenders, auctions and bilateral contracts or via legal obligations. The publication shall be organised by the type of reserve (primary, secondary and tertiary reserves). This information shall be published per control/bidding area no later than two hours before the next

procurement process takes place and shall relate to the real time unit. If a market has special types of reserves, activation of these kinds of reserves shall be published separately. Furthermore, if specific peak load reserves are activated this information has to be made public. For the manual activated reserves, the totality of available bids for up and down regulation for each operational hour shall be published;

- 4.4.1.4 ex-post information on actual use of the activated reserves by reserve product, that is volumes of e.g. (for ENTSO-E Continental Europe) primary, secondary and tertiary reserves by market time unit, where relevant, to be published after the operating hour.
  - 4.4.1.5 volume and bids and offers used (referring also to the network constraints or production/consumption imbalance). Publication shall occur no later than two hours after the operating hour by market time unit.
  - 4.4.1.6 average and marginal prices paid by transmission system operators for balancing resources. Prices paid by the Transmission System Operators for up and down regulation respectively shall be published for each relevant market time unit and each relevant kind of reserve product. If the balancing power is acquired through an auction, prices shall be published accordingly for each hour. The information is to be published at least 2 hours before the following procurement procedure;
  - 4.4.1.7 if applicable, reservation prices or capacity payments paid to generators or load and their pricing methodology according to the time unit for which the payment is made (e.g. month, year, etc.);
  - 4.4.1.8 imbalance prices per market time unit and price setting methodology, at least 2 hours before the following procurement procedure;
  - 4.4.1.9 volumes of the imbalances per market time unit and actually used volumes of manually and automatically activated reserves inside control areas, after the operating hour by market time unit;
  - 4.4.1.10 financial balance of the control area on a monthly basis. This publication shall include the expenses for balancing energy and power at the balancing market, payments resulting from imbalance pricing and difference between expenses and income. The publication shall be done at latest at the last calendar day, three months after the operational month. If settlement is preliminary, the figures shall be updated after the final settlement;
  - 4.4.1.11 market information on the type of balancing bids/offers used (generation technology, load, export/import activation time) for each day of the month M-1.
- 4.4.2 Regarding cross-border balancing exchanges, the Transmission System Operator shall submit to the central information platform for publication the following additional data, after the operating hour by market time unit:
- 4.4.2.1 volumes of exchanged bids and offers per procurement step;

- 4.4.2.2 maximum and minimum prices of exchanged bids and offers per procurement step;
- 4.4.2.3 volume of balancing energy activated in various control areas

## **5 Monitoring**

- 5.1 The national regulatory authorities as defined in Article 35 of the Directive 2009/72/EC<sup>1</sup> shall ensure the compliance with these guidelines regarding the obligations placed on Transmission System Operators, generators, consumption units and Distribution System Operators. The Agency for the Cooperation of Energy Regulators shall ensure compliance with these guidelines regarding the obligations set on ENTSO-E.
- 5.2 Where appropriate to fulfil the aims of these guidelines the regulatory authorities shall cooperate with each other, with the Commission and the ACER in compliance with Chapter IX of the Directive.

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<sup>1</sup> DIRECTIVE 2009/72/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 13 July 2009 concerning common rules for the internal market in electricity and repealing Directive 2003/54/EC

## **Annex 1: Generation types**

### **Thermal power plants**

- Nuclear
- Lignite
- Hard coal
- Gas
- Oil
- Waste

### **Hydraulic power plants**

- Run-of-river plant
- (Pump) storage

### **Renewable energy plants**

- Wind
- Solar
- Other renewable energy