



Network Code on Electricity Balancing DSO Associations views on the final version of 23 December 2013

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DSOs acknowledge improvements in the Code

- **DSOs are now taken into account when developing the terms and conditions related to Balancing.**
Article 26(1) establishes that “(...) each Connecting TSO shall coordinate with other concerned TSOs and concerned DSOs.”
- **New formulation on “Imbalance Settlement Period” (Article 58) gives enough room for thorough national CBA taking into account also effects on retail market and distribution level (capabilities of the metering system).**

But the key concern in article 22 raised several times to ENTSO-E prevails

- Article 22 states that:

“If there is not an agreement on cost allocation between the Connecting TSO, or if no national legislation is in place, the DSO shall bear all costs resulting from curtailment of Article 68 Reserve Providing Units connected to the Network Code on Ancillary Services Control and Regulation.”

The article clearly:

- 1) Goes against existing EU legislation: NRAs are the ones to introduce costs on DSOs!
- 2) Does not treat TSOs and DSOs in the same way;
- 3) May increase the bill of electricity consumers
e.g. a collectivization of market risks;
- 4) A potential major risk for financial impact on DSOs: has not been assessed.

More
explanation

ASSESSMENT of the POSSIBLE IMPACTs on DSOs

We have evaluated congestion costs at TSO level in Europe. It has to be taken into account that the congestion costs calculation and criteria varies widely from country to country (i.e. in France those costs are not paid for;

If most of the new participants in Balancing Markets will be connected at DSO level: is the code introducing 3 billion € to DSOs?

Country	management costs (M€ per year)
GERMANY	165
FINLAND	20
UK	363
THE NETHERLANDS	7
SPAIN	700

These countries represent 40 % of EU population.

~ 3 billion € per year at TSO level

Article 22(3) has more implications for the accomplishment of the Framework Guideline...

... the NC on Electricity Balancing “shall facilitate wider participation of demand response and renewable sources of energy”.

DSOs do not know possible financial impacts and cannot retrieve costs through Network Tariffs.

Article 68 of the NC
LFCR

DSOs not incentivised to prequalify a reserve providing unit or group.

The NC would not facilitate the participation of aggregation and demand, and thus hinder the development of Smart Grids and System Services as foreseen in EED.

Furthermore, DSOs need technical information to ensure the security of their grid and quality of service

→ 1. **DSO needs access to the relevant information from the bids in order to detect those constraints**

- Operation schedules (as early as possible and at the latest at GCT);
- Activations of units in congested zones.

→ 2. Asking for **‘locational information’** in the standard product characteristics (art. 28(5)) is important but insufficient

- Information on location of the connection of every unit within a bid, incl. the electrical node (in transmission or distribution network) is needed.



Amendment suggestions were already made by the DSOs during the public consultation.

**More
explanation**

Conclusions & Recommendations

Delete article 22(3)

Provide DSOs with the
technical information they
need



Thank you for your attention!

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1. European Union Existing Legislation

- **Third Energy Package (2009/72/EC)**

Article 37: “Duties and powers of the regulatory authority” states:

“1. The regulatory authority shall have the following duties:
(a) fixing or approving, in accordance with transparent criteria, transmission or distribution tariffs or their methodologies; (...)”



- 1) Article 22(3) conflicts with the duties of NRAs;
- 2) The Third Package has never foreseen that TSOs would take over NRAs’ duties and decide upon the costs to be allocated to DSOs.

In addition, the article contradicts Framework Guidelines on Electricity Balancing: “The Network Code on Electricity Balancing shall concur with the competences of National Regulatory Authorities (NRAs), deriving from Article 37(6)(b) of the Electricity Directive.”

1. European Union Existing Legislation

... and it also overtakes the EED objective.

- **Energy Efficiency Directive (2012/27/EU):**

Article 15: “Energy transformation, transmission and distribution” states “1.(...) Member States shall in particular ensure that national energy regulatory authorities, through the development of network tariffs and regulations, within the framework of Directive 2009/72/EC and taking into account the costs and benefits of each measure, provide incentives for grid operators to make available system services to network users permitting them to implement energy efficiency improvement measures in the context of the continuing deployment of smart grids.”

2. Lack of reciprocity between TSOs and DSOs

- **Articles 56(5) and 57(3):**

“The proposals of common settlement rules of intended exchanges of energy between TSOs shall ensure fair and equal distribution of costs and benefits between TSOs.”



**Difference of treatment between TSOs and DSOs is
NOT justified.**

3. No impact assessment for consumers

- DSOs can only retrieve costs through network tariffs.
- Article 22(3) does not specify where the DSO income stream, that is to support any compensation payments, would come from.
- Any DSO income is unlikely to be related to the value of the service to the TSO.



Direct impact on final customers by transferring the risk taken by a commercial services provider to DSO customers through DSO tariffs.

4. IMPACT on DSOs

- DSOs are wary of the potential costs they would be confronted with due to this article.
- No cost estimation is given by ENTSO-E in the supporting document.



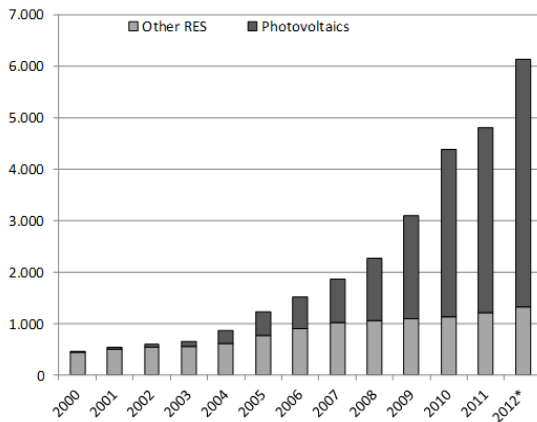
DSOs at risk of facing high and uncontrollable costs.

4. IMPACT on DSOs

Most RES to achieve 20% target by 2020 will be connected to DSO networks.

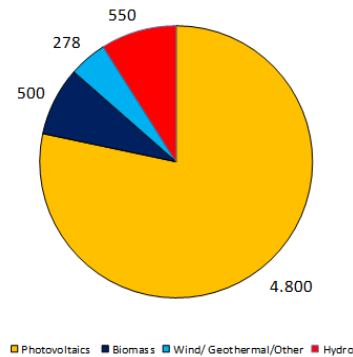
Example #1: E.ON Bayern

Increase of installed capacity from RES (MW)



Peak load at E.ON Bayern grid: ~ 6.000 MW

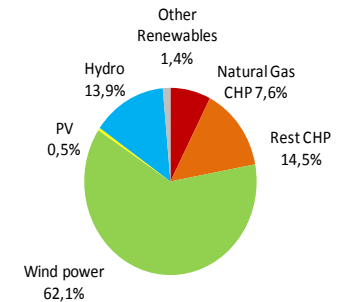
Installed capacity of RES: 6128 MW
Status 31 December, 2012



Number of PV installations: ~ 225.000

Example #2: Galicia, Spain

	Installed Capacity (MW)	Percentage (%)
CHP (Natural Gas)	166,9	7,6
Rest CHP	319,4	14,5
Wind Power	1.369,5	62,1
Photovoltaic (PV)	10,3	0,5
Hydro	306,1	13,9
Other Renewables	31,4	1,4
TOTAL Generation	2.203,6	100



Max. Hourly Average capacity (MW)

Galicia Demand	1.842
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Already today, distributed generation output often exceeds demand at distribution level, and sometimes is even several times higher. In addition, voltage problems are becoming more frequent.

Specific proposals on articles:

- Art 22 Cooperation with DSOs

New (5) *“The Transmission System Operator shall provide the DSO with all necessary information to perform constraint detection, including operation schedules and activations for the relevant distribution areas.”*



DSO is unable to detect the constraints if it is not provided with the relevant technical information of its distribution area

Specific proposals on articles:

- **Art 28(5) Requirements for Standard and Specific Product**

“The Standard Products for Balancing Capacity and Standard Products for Balancing Energy shall consist of at least the following standard characteristics and information related to a bid defined by a fixed value or an appropriate range, depending on the requirements of the system and type of product:

(a) Preparation Period

(b) Ramping Period;

(c) Full Activation Time;

(d) minimum and maximum quantity;

(e) Deactivation Period;

(f) price of the bid;

(g) Divisibility;

(h) minimum and maximum duration of Delivery Period;

(i) location of the connection of units located on the distribution grid within the Bid, including the electrical node. In case of aggregation, a forecasted individual contribution;

(j) Validity Period;

(k) Mode of Activation; and

(l) minimum duration between the end of Deactivation Period and the following activation.



DSOs need to know if the unit is located in their grid and if so, where exactly. Further (regarding aggregation), any restriction of the individual contribution of each aggregated unit has to be visible to the DSO.

Specific proposals on articles:

- Art 31(5): “Unexpected unavailable volumes of Balancing Energy bids of a Balancing Service Provider after the Balancing Energy Gate Closure Time shall be reported and if applicable to the Connection Distribution System Operator by the Connection Transmission System Operator without undue delay by the Balancing Service Provider to the Connecting TSO. Connecting TSOs shall qualify such Balancing Energy bids as invalid within the concerned Common Merit Order List.”



**DSOs need access to information from the bids & operation schedules.
Unexpected unavailability of generation units can have a big impact on
the constraints of the distribution grid.**

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