Joint DSO Presentation

Data Exchange, DSO/TSO Co-operation and Interpretations

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Data exchange
Background

- **In some MS, TSOs seem to believe, that**
  1. no justification is required where they deem something necessary pursuant to the SO GL.
  2. they can seek as much data as they want (rather than need) once it is on the list per SO GL.
  3. as the SO GL provides for recovery of costs, the DSO should not care if TSOs data exchange demands are going to be onerous, costly and invasive.

- **SO GL does not require CBA** whereas the Connection Codes do.

Data exchange
Background

As a DSO we

1. **seek to comply** with genuine system security requirements

2. **have our own growing security concerns**, so may require increased data exchange and observability ourselves

3. cannot justify or pursue without justification provisions which exceed what is absolutely necessary to maintain operational security

4. **believe that cost recovery would only be possible where it is established that a cost is genuinely justified and an efficient means of achieving an objective.**

Data exchange

Proposal

We find that the following principles are needed and require ACER confirmation:

1. **Data exchange requirements that are in addition or more onerous to the current/historic requirements should be robustly justified**

2. **Data exchange requirements which are justified should be demonstrated to be cost effective**

3. **No new data exchange requirements should be introduced if the same objective can be achieved in a more efficient manner**
   - i.e. TSO cannot demand direct monitoring or sight of every element where the DSO can provide them with a subset or summary of data at the TSO/DSO interface which achieves the same informational or computational objective

4. **No new data exchange requirements should be introduced if the TSO already has means of obtaining the same information**.

5. **As a starting point, relevant data from distribution grids and its clients are managed by the DSOs.**
   - As such, provided the DSO **is cooperating** with the TSO and can provide a viable alternative achieving the same purpose as a TSO proposal, the DSO view should have the same or greater weight when setting out data exchange implementation approaches regarding distribution system data.

TSO/DSO co-operation

What are the meaning and the requirements of the DSO/TSO co-operation ("in co-operation with")?

- A meeting, no need for TSOs to take DSO views on board, or
- Basic rules of engagement?

Example:

- If in initial meetings between the TSO and DSO implementation teams a specific implementation issue is discussed, the TSO should not independently approach third parties and seek to progress the issue in a manner not agreed with the DSO.
- Genuine cooperation should mean
  - Transparency
  - no circumvention of the cooperative process
  - Consensus
  - Where there is no consensus, acknowledging each others positions fully, to the appropriate authorities.

TSO shouldn't be considered to be genuinely working in cooperation with the DSO, as required by the codes, if they pursue code objectives outside of the code implementation process.

Interpretations
Existing / New SGUs

- Guideline System Operation, article 2 defines the SGUs for which the requirements in the guideline are applicable:
  - (a) existing and new PGMs, classified as type B, C and D;
  - (b) existing and new transmission-connected demand facilities;
  - (c) existing and new transmission-connected CDSs;
  - (d) existing and new demand facilities, closed distribution systems and third parties if they provide demand response directly to the TSO;
  - (e) (...) ;
  - (f) existing and new HVDC systems.

➢ **A lot of discussions on how to interpret 'existing':**
- Does it mean existing SGUs have to comply with requirements of connection codes?
- **DSO interpretation: NO, existing SGUs are involved in the GL SO only with their available capabilities. If not, this would mean retrospective application, for which a CBA is needed.**

Example: all new type B PGMs shall be capable of exchanging information in real time (or periodically with time stamping) → this does not mean that existing type B should have the same possibility of exchanging information. Of course, if they already had the capability, then it can be used.

Interpretations
Observability area / 1

Art. 75, *Methodology for coordinating operational security analysis*

1. By 12 months after entry into force … all TSOs shall jointly develop a proposal for a methodology for coordinating operational security analysis. That methodology shall aim at the standardisation of operational security analysis at least per synchronous area and shall include at least:

(a) methods for assessing the influence of transmission system elements and SGUs located **outside of a TSO's control area** in order to **identify those elements constituting the observability area** and the contingency influence thresholds above which contingencies of those elements constitute external contingencies;

2. The methods referred to in point (a) of paragraph 1 shall allow **the identification of all elements of a TSO's observability area**, being **grid elements of other TSOs** or **transmission-connected DSOs**, **power generating modules** or **demand facilities**. Those methods shall take into account the following transmission system elements and SGUs' characteristics:

(a) connectivity status or electrical values (such as voltages, power flows, rotor angle) which significantly influence the accuracy of the results of the state estimation for the TSO's control area, above common thresholds;

(b) connectivity status or electrical values (such as voltages, power flows, rotor angle) which significantly influence the accuracy of the results of the TSO's operational security analysis, above common thresholds; and

(c) requirement to ensure an adequate representation of the connected elements in the TSO's observability area.

Interpretations

Observability area / 2

Art. 43, *Structural data exchange*

1. Each **TSO shall determine the observability area** of the transmission-connected distribution systems relevant to determine the system state accurately and efficiently, based on the methodology developed in accordance with article 75.

3. The structural information related to the observability area referred to in paragraphs 1 and 2 provided by each DSO to the TSO shall include at least:(a) substations by voltage; (b) lines that connect the substations referred to in point (a); (c) transformers from the substations referred to in point (a); (d) SGUs; and (e) reactors and capacitors connected to the substations referred to in point (a).

Art. 44, *Real-time data exchange*

Unless otherwise provided by the TSO, each **DSO shall provide its TSO, in real-time, the information related to the observability area of the TSO** as referred to in Article 43(1) and (2), including: (...)

- **Will the methodology adhere to the original premise of the Network Codes: cross border issues. More detailed, operator specific issues which have no cross border impact should be outside the remit of this methodology.**
- **What provisions are there to ensure that this provision of information will be in an efficient manner and based on cost benefit if costs arise?**
- **What provisions are there to ensure that DSOs have a meaningful role in determining how observability can be provided to meet the specific technical security requirements identified by the TSO?**

Interpretations - Timing issue – art. 40
(general requirements on data exchange) / 1

Art. 40, Organisation, roles, responsibilities and quality of data exchange

5. In coordination with the DSOs and SGUs, each **TSO shall determine the applicability and scope of the data exchange** based on the following categories: (...)

6. By **6 months after entry into force** of this Regulation, **all TSOs shall jointly agree on key organisational requirements, roles and responsibilities in relation to data exchange.** Those organisational requirements, roles and responsibilities shall take into account and complement where necessary the operational conditions of the generation and load data methodology developed in accordance with **Article 16 of Regulation (EU) No 2015/1222**. They shall apply to all data exchange provisions in this Title and shall include organisational requirements, roles and responsibilities for the following elements: (...)

7. By **18 months after entry into force** of this Regulation, each **TSO shall agree with the relevant DSOs on effective, efficient and proportional processes for providing and managing data exchanges between them**, including, where required for efficient network operation, the provision of data related to distribution systems and SGUs. Without prejudice to the provisions of paragraph 6(g), each TSO shall agree with the relevant DSOs on the format for the data exchange.

- **What is the timing schedule for handling the different paragraphs?**
- **In which order?**

Interpretations - Timing issue – art. 40
(general requirements on data exchange) / 2

- **Is seems that art. 40§5 and art. 40§7 can only be worked on once art. 40§6 is finished. Correct?**
- **When should art. 40§5 be carried out ?**
  - **Art. 40§5 refers to e.g. art. 44 → art. 44 refers to art. 43 → art. 43 refers to art. 75**
- **Art. 75 has to be finished 12 months after entry into force, art.40§7 by 18 months → Does this mean there is only 6 months for art. 43 and 44 ?**
- **In art. 40§6 there is reference to the Generation and Load Data Provision Methodology (GLDPM) in GL CACM art. 16, but no reference to art. 17 (GLDPM) in the GL FCA. Is this reference missing?**

Thank you for your attention!

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