DSO ENTITY
DSOs FOR EUROPE

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Network Code Demand Response Public Workshop #1

24 April 2023
Brussels

Agenda

Time	Subject	Owner
14:00-14:10	**1. Introduction** a. Welcome	Torsten KNOP / Fabio GENOESE
14:10-14:20	**2. The drafting process and working method** a. Timeline b. Roles and interaction: TSO-DSO development team, drafting committee. c. Draft structure	Torsten KNOP / Fabio GENOESE
14:20-14:40	**3. Focus on general requirements for market access** a. Presentation	Paul de WIT / Giao DO
14:40-15:00	**4. Focus on prequalification requirements and processes** a. Presentation	Georg HARTNER / Philipp MEIER
15:00-15:20	**5. Focus on market design for local services** a. Presentation	Yvonne RUWAIDA / Olivia ALONSO
15:20-15:40	**6. Focus on TSO-DSO and DSO-DSO coordination, data exchange requirements, network development plans and voltage control** a. Presentation	Daniel DAVI ARDERIUS / Robert KIELAK
15:40-16:00	**7. Questions & answers**	All

1. Opening & Introduction

1. Establishment of DSO Entity in June 2021 – a **united voice for DSOs in the EU**

An EU association legally mandated by EU Regulation 2019/943

> Art. 52.1: Distribution system operators shall ***cooperate at Union level through the EU DSO Entity***, in order to promote the ***completion and functioning of the internal market for electricity***, and to promote optimal management and a coordinated operation of distribution and transmission systems.

A body of cooperation and expertise between all DSO in the EU

A body of cooperation and expertise between all DSO in the EU

- DSO – TSO cooperation
- Network Codes & Guidelines
- Facilitating demand side flexibility and users access to market
- Facilitating integration of RES
- Digitalising the DSO systems
- Data management/cybersecurity

DSO Entity is the main European organisation for representing Electricity Distribution System Operators (DSOs)

Network Codes & Guidelines

Participates in drafting of Network Codes and Guidelines relevant for DSO grids

- Joint proposal with ENTSO-E on **Network Code Cybersecurity (14/1/22)**
- **Upcoming Network Code Demand-side Flexibility**
- **Review of existing network codes**

DSO/TSO cooperation

Promotes optimal and coordinated planning and operation of DSO/TSO networks

- **MoU** with ENTSO-E (DSO-TSO work plan)
- Cooperation on **Network Codes**
- Joint initiative on **Vision 2050**

Sharing best practice

Expert Groups and forum provide expertise and enable exchange of views

- **Various forms of knowledge sharing** with DSO Entity's members
- Via **project teams** (e.g. events, expert tables)
- **DSO radar reports**

ENTSO-E: 39 TSOs operating one of the world's largest interconnected grids

*Figure date: 2018

- ✓ ENTSO-E is the association for the **cooperation** of the European transmission system operators (TSOs).
- ✓ 39 member TSOs, representing 35 countries and serving about 500 million citizens, responsible for the **secure and coordinated operation** of Europe's electricity system.
- ✓ ENTSO-E is also the **common voice of TSOs in Europe**.
- ✓ ENTSO-E **serves the interests of society by optimising social welfare** in its dimensions of safety, economy, environment, and performance.

ENTSO-E: 39 TSOs operating one of the world's largest interconnected grids

ENTSO-E is the association for the cooperation of the European transmission system operators (TSOs)

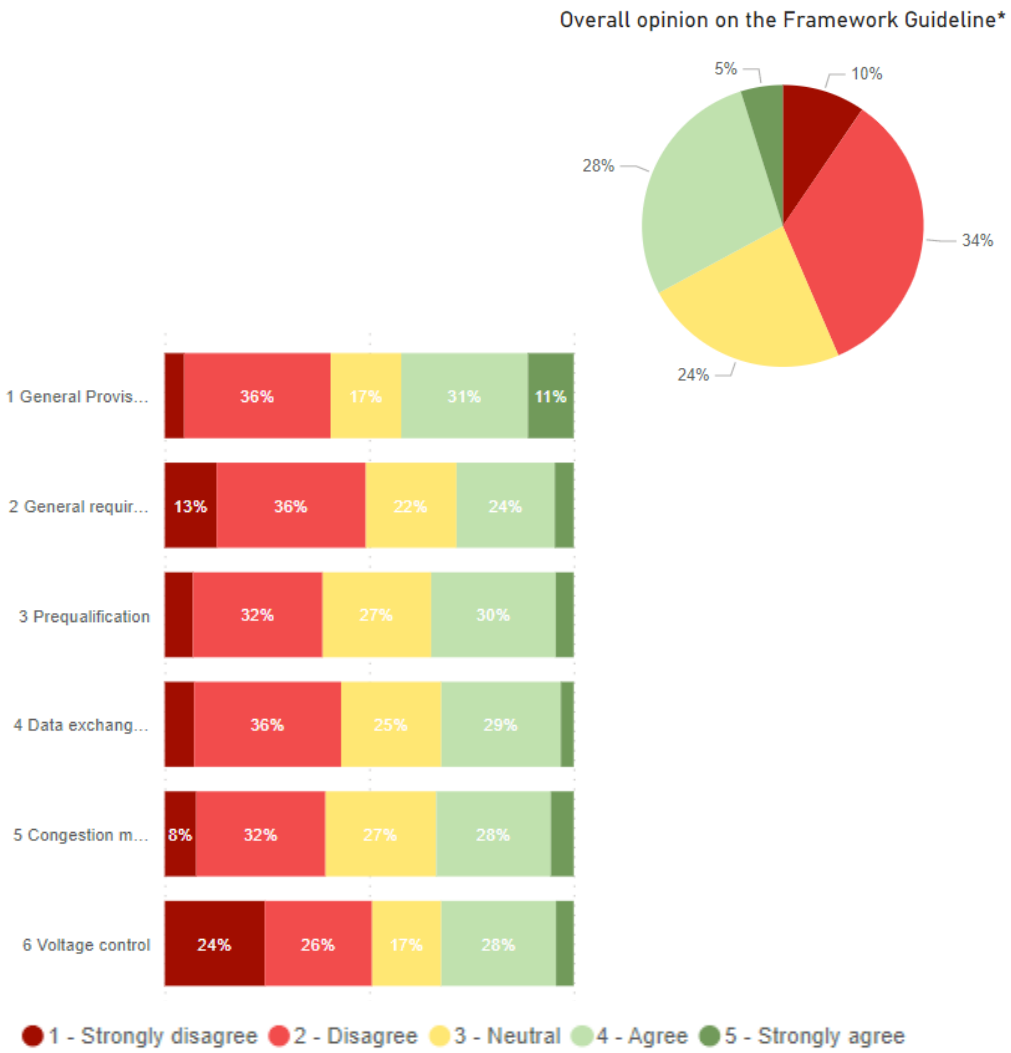
Enabling a secure and sustainable **European energy transition** through:

- European long-term grid planning
- European security analysis
- Technical/market rules
- European platforms
- Standardisation & research
- Regional cooperation

ENTSO-E and its Members fulfil a common mission

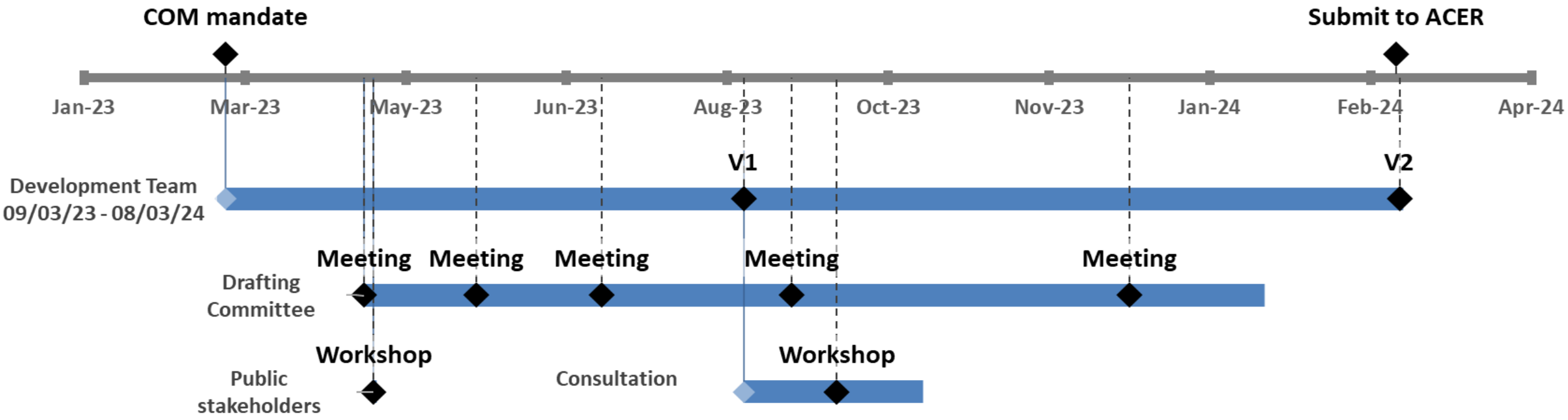
- Ensuring the security of the interconnected power system in all time frames at pan-European level
- Ensuring the optimal functioning and development of the European interconnected electricity markets
- Enabling the integration of electricity generated from renewable energy sources and of emerging technologies, enabling Europe to become the first climate-neutral continent by 2050 .

Diversity of stakeholder views



- ACER public consultation on the draft Framework Guideline has shown a variety of different stakeholder views
- Shows the challenge ahead when drafting the new NC but also underlines the importance of stakeholder involvement

2a. Timeline


COM mandate
Submit to ACER
Jan-23
Mar-23
May-23
Jun-23
Aug-23
Oct-23
Nov-23
Jan-24
Feb-24
Apr-24
V1
V2
Development Team
09/03/23 - 08/03/24
Meeting
Meeting
Meeting
Meeting
Meeting
Drafting
Committee
Workshop
Public
stakeholders
Consultation
Workshop

2b. Stakeholder involvement

- Timely and **transparent communication** about discussions in the Development Team
- Support required from stakeholders to ensure that the text to be submitted **reflects the requirements of all major parties**:
  - Drafting Committee
    - Modelled on the **ACER Expert Group**
  - Public consultation
  - Stakeholder workshops

2b. Electricity Regulation Art. 59 (10)

- The ENTSO for Electricity, or where provided for in the priority list referred to in paragraph 3 the EU DSO entity, in cooperation with the ENTSO for Electricity, shall convene a drafting committee to support it in the network code development process. The drafting committee shall consist of representatives of ACER, the ENTSO for Electricity, where appropriate the EU DSO entity and NEMOs, and a limited number of the main affected stakeholders. The ENTSO for Electricity or where provided for in the priority list pursuant to paragraph 3 the EU DSO entity, in cooperation with the ENTSO for Electricity, shall develop proposals for network codes in the areas referred to in paragraphs 1 and 2 where so requested by the Commission in accordance with paragraph 9.

2c. Draft structure

Title I General provisions	
Title II General requirements for market access	Chapter 1 Aggregation models
	Chapter 2 Provision of the service: baseline and measurement
	Chapter 3 Settlement
	Chapter 4 System operators-owned storage facilities
Title III Market Access - Prequalification	Chapter 1 General requirements
	Chapter 2 Product prequalification
	Chapter 3 Product verification
	Chapter 4 Static grid prequalification
	Chapter 5 Requirements on data exchange for prequalification
	Chapter 6 National harmonization of market access processes
Title IV Overall market design for local services	Chapter 1 General principles
	Chapter 2 Products
	Chapter 3 Requirements to local market operators and to TSOs and DSOs
Title V - Distribution Network Development Plans	Chapter 1 General principles
	Chapter 2 Consultation processes at national level
Title VI TSO-DSO and DSO-DSO Coordination	
Title VII Data exchange requirements from grid users	
Title VIII Voltage control	Chapter 1 General principles
	Chapter 2 Products
	Chapter 3 Procurement
Title IX Derogations, harmonization and monitoring	Chapter 1 Harmonization
	Chapter 2 Derogations
	Chapter 3 Monitoring reports
Title X Transitional and Final Provisions	

3. General requirements for market access

Titles	Chapters	Topics
Title I General provisions		• Subject Matter, Definitions, Scope of application, Regulatory aspects • Terms and conditions or methodologies (European, regional, national), Amendments to terms and conditions or methodologies • Public consultation, Stakeholder involvement, Publication • Delegation and assignment of tasks, Recovery of costs • Confidentiality Obligations
Title II General requirements for market access	Chapter 1 Aggregation models	• List of aggregation models • Roles and responsibilities of market parties • Financial compensation • Costs of suppliers/BRPs and benefits of the independent aggregators to other market parties
	Chapter 2 Provision of the service: baseline and measurement	• General • Baseline methodology: definition, calculation and validation • Measurement and metering principles
	Chapter 3 Settlement	• General principles for settlement and data exchange • Use of Measurement and Volumes in Settlement • Imbalance settlement calculation
	Chapter 4 System operators-owned storage facilities	• Criteria to be fulfilled by the tendering procedure, possibility of shared ownership as "second best" solution

3. General requirements for market access

Titles	Chapters	Topics
Title IX Derogations, harmonization and monitoring	Chapter 1 Harmonization	
	Chapter 2 Derogations	
	Chapter 2 Monitoring reports	
Title X Transitional and Final Provisions		• Transitional provisions • Amendments of contracts and general Terms and conditions • Entry into force

4. Prequalification requirements and process

Titles	Chapters	Topics
Title III Market Access - Prequalification	Chapter 1 General requirements	• Prequalification for Service Providers • Applicability of the product prequalification and product verification processes • Criteria for repetition of product prequalification and product verification • Switching of units between SPs or between SPUs/SPGs • Minimum technical requirements for local services
	Chapter 2 Product prequalification	• Requirements for product prequalification • Specific provisions for prequalification process for standard balancing products • Specific provisions for product prequalification process for local SO services
	Chapter 3 Product verification	• Product Verification Requirements • Product Verification Process
	Chapter 4 Static grid prequalification	

4. Prequalification requirements and process

Titles	Chapters	Topics
Title III Market Access - Prequalification	Chapter 5 Requirements on data exchange for prequalification	• Principles and requirements for data exchange in the prequalification phase • Principles and requirements for flexibility registers • Procedures for prequalification • Principles and requirements for data management for product prequalification • Principles for data governance and interoperability
	Chapter 6 National harmonization of market access processes	• Principles for national implementation • Table of Equivalences
Title IV Overall market design for local services	Chapter 1 General principles	
	Chapter 2 Congestion Management Products	• List of attributes for congestion management • Requirements for the definition of congestion management products • Products from other wholesale markets
	Chapter 3 Procurement and pricing	

5. Market design for local services

Title	Chapters	Topics
Title I General provisions		• Formal process for establishing common DSOs and TSOs proposals
Title IV Overall market design for local services	Chapter 1 General principles	• National TC for overall market design for local services • Procurement and pricing principles • Principles for interaction between markets • Choosing between options
	Chapter 2 Congestion Management Products	
	Chapter 3 Requirements to local market operators and to TSOs and DSOs	

5. Market design for local services

Formal process for establishing common DSOs and TSOs proposals

NC shall state:

Requirement for a *formal process* for development of common DSOs and TSOs proposal for *national terms & conditions (TC)* in each member state (MS)

- National TC for SPs
- National TC for the overall market design for local services
- National TC for coordination

Common requirements for process establishing common proposals

- Involvement of stakeholders
- Deadlines for submission and NRA approval

Allow NRA to give derogation within maximum period and transparency

FG DR related provisions

- FG (23)

5. Market design for local services

NC shall state:

- Requirements that DSOs and TSOs shall consider for marketbased congestion managment and active power for voltage control
- NC mandate the national TC for 'overall market design for local services', to develop the detailed rules to follow when market-based procurement is applied:
  - Roles and responsibilities and interactions of different entities
  - Procurement and pricing,
  - Coordination between markets,
  - Requirements to local Market operators
  - Transparency rules.

in line with developed principles in the NC

FG DR related provisions

- FG (61) (64a) (65) (81)

5. Market design for local services

NC shall state:

- Procurement and pricing principles:
  - Transparency, cost-efficiency, technological neutrality;
  - Pricing mechanim may be different from those applied in wholesale market and may be set in long term contract.
  - May differentiate between long term and short term products

FG DR related provisions

- FG (20) (63) (88) (90) (91)

5. Market design for local services

NC shall state:

- Principles for interaction between markets:
  - No unduly distortion of wholesale markets
  - Minimisation of withholding capacities
  - No aggravating other system needs
  - Allowing sufficient liquidity in all markets
  - Possibility to propose unused bids to other markets
  - Same bid not selected twice
  - Interoperability and portability aiming at cost efficiency
  - Access for service providers and relevant system operators to the local markets

FG DR related provisions

- FG (62) (64cd) (66)

5. Market design for local services

NC shall state:

- Requirements to and tasks of local market operators
- Requirements to TSOs and DSOs when procuring services
- Transparency and publication requirements

Main FG related provisions

- FG (67) (68) (69) (70) (71)
- FG (93)
- FG (68d)(69)(92)(94)

5. Market design for local services

Para. FG (87) & (89) on options

NC shall state:

- TSOs and DSOs to select the more effective and efficient option
- Principles for the use of congestion management products on the one hand, and non-firm connection agreements on the other, ensuring that markets are not unduly distorted.

FG DR related provisions

- FG (87) (89) Options that TSOs and DSOs shall consider and its assessment.

6. TSO-DSO and DSO-DSO coordination, data exchange requirements, network development plans, and voltage control

Title	Chapters	Topics
Title V - Distribution Network Development Plans	Chapter 1 - General principles	• General principles of planning methodology
		• Development scenarios
		• Local SO services in planning methodology
		• TSO - DSO Coordination
	Chapter 2 - Consultation processes at national level	• Public information processes
Title VI TSO-DSO and DSO-DSO Coordination		• National implementation
		• Levels of coordination
		• General principles for defining coordination area
		• Forecasting and solving Congestion and voltage control issues
		• Data exchange between DSOs and TSO-DSO
		• Closing of open positions
		• Grid prequalification (see if this should be moved to another title)

6. TSO-DSO and DSO-DSO coordination, data exchange requirements, network development plans, and voltage control

Title	Chapters	Topics
Title VII Data exchange requirements from grid users		• Data exchange from grid users
Title VIII Voltage control	Chapter 1 - General principles	• Voltage control
	Chapter 2 - Products	• List of attributes
		• Definition of national products
	Chapter 3 - Procurement	• Principles for procurement
		• NRA assessment

Interactive Q&A

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Thank you!