

Energy Community Workshop on the energy storage technologies

# Energy storage technologies in the new TEN-E Regulation

Online event, 14 November 2023

Davor Bajs Energy Community Secretariat

# Predicted timeline for TEN-E adoption in the EnC



**Energy Community** 

# **ECS** activities



| When?                  | Activity  |
|------------------------|---|
| Q3-Q4/2022             | Analysis of the new regulation, internal discussions  |
| Q1/2023                | EC-EnC discussions on implementation and timing   |
| Q2-Q3/2023             | Coordination with EC, organisation of workshop, discussions with the contracting parties  |
| Q4/2023                | <ul> <li>Ministerial Council adoption of the adapted Regulation TEN-E 2022/869</li> <li>Preparation of the PECI selection process in 2024</li> </ul>  |
| Q1-Q2/2024             | The new PECI selection process, coordination of the groups, proposal of the list of<br>Projects of Energy Community Interest  |
| Q4/2024                | Support for the Ministerial Council to adopt the list   |
| Q1/2025 and afterwards | <ul> <li>Monitoring of the implementation,</li> <li>Support to CPs,</li> <li>Organisation of the process, coordination of the groups and preparation of proposals for the EnC list (every two years)</li> </ul> |

# **TEN-E – eligible electricity infrastructural categories**



- high and extra-high voltage overhead transmission lines, crossing a border or within a Contracting Party territory including the exclusive economic zone, if they have been designed for a voltage of 220 kV or more, and underground and submarine transmission cables, if they have been designed for a voltage of 150 kV or more;
- energy infrastructure for offshore renewable electricity;
- energy storage facilities, in individual or aggregated form, used for storing energy on a permanent or temporary basis in above-ground or underground infrastructure or geological sites, provided they are directly connected to high-voltage transmission lines and distribution lines designed for a voltage of 110 kV or more;
- any equipment or installation essential for the previous categories to operate safely, securely and efficiently, including protection, monitoring and control systems at all voltage levels and substations;
- smart electricity grids involving at least two Contracting Parties;
- any equipment or installation essential for the high and extra-high voltage overhead transmission lines having dual functionality: interconnection and offshore grid connection system from the offshore renewable generation sites to two or more Contracting Parties;

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### **Criteria for the assessment of projects - general**



PECI project shall meet the following general criteria:

(a) the project should be eligible according to TEN-E (some energy storages are eligible)

(b) the potential overall benefits of the project outweigh its costs

(c) the project meets any of the following criteria:

(i) it involves at least two Contracting Parties by directly or indirectly, via interconnection with a third country, crossing the border of two or more Contracting Parties;

(ii) it is located on the territory of one Contracting Party, either inland or offshore, including islands, and has a significant cross-border impact.

# Criteria for the assessment of projects - specific



For electricity transmission, distribution and storage projects, the project contributes significantly to:

- sustainability through the integration of renewable energy into the grid,
- the transmission or distribution of renewable generation to major consumption centres and storage sites, and
- to reducing energy curtailment, where applicable, and
- contributes to at least one of the following specific criteria:
  - (i) market integration, including through lifting the energy isolation of at least one Contracting Party and reducing energy infrastructure bottlenecks, competition, interoperability and system flexibility;
  - (ii) security of supply, including through interoperability, system flexibility, cybersecurity, appropriate connections and secure and reliable system operation;

## Criteria for the assessment of projects - additional



The project provides:

- at least 225 MW installed capacity and
- has a storage capacity that allows a net annual electricity generation of 250 GW-hours/year

#### Energy storage facilities may be in individual or aggregated form

# Summary of criteria for the energy storage projects



GENERAL

Have significant cross-border impact and contributes significantly to:

- Sustainability
- Integration of RES
- Reducing curtailments
  - Electricity Market integration, or
  - SoS (interoperability, system flexibility, cybersecurity, appropriate connections and secure and reliable system operation)

TECHNICAL

# Connected to 110 kV network or above Installed capacity larger than 225 MW Net annual electricity generation of 250 GWh

ECONOMIC

Benefits larger than costs

# THANK YOU FOR YOUR ATTENTION

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