



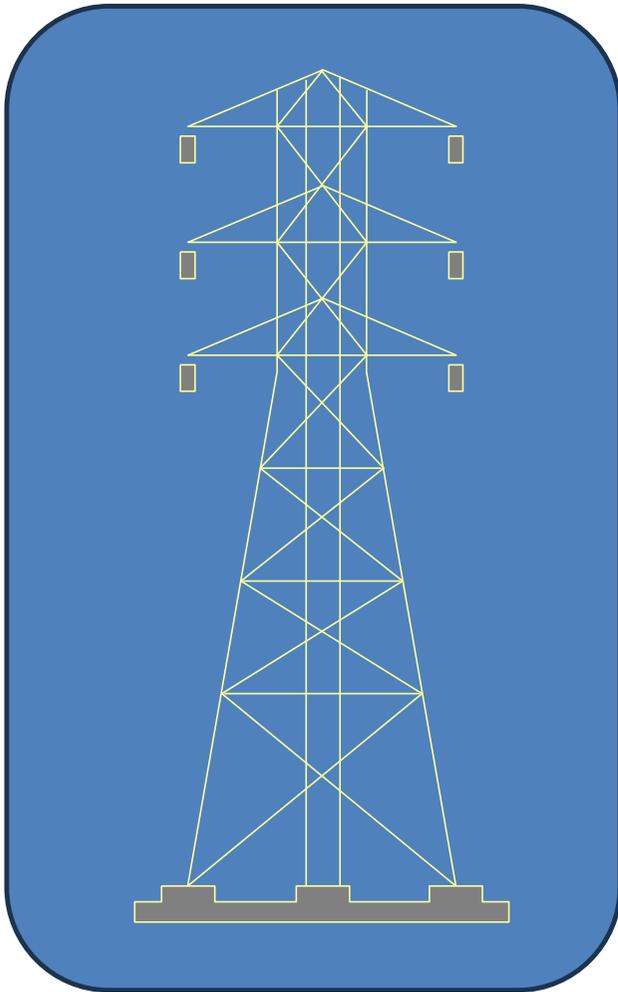
Energy Community Workshop on the adapted TEN-E Regulation and the forthcoming PEI selection process

# Eligible categories under revised TEN-E: electricity and project definition

*Online event, 21 November 2023*

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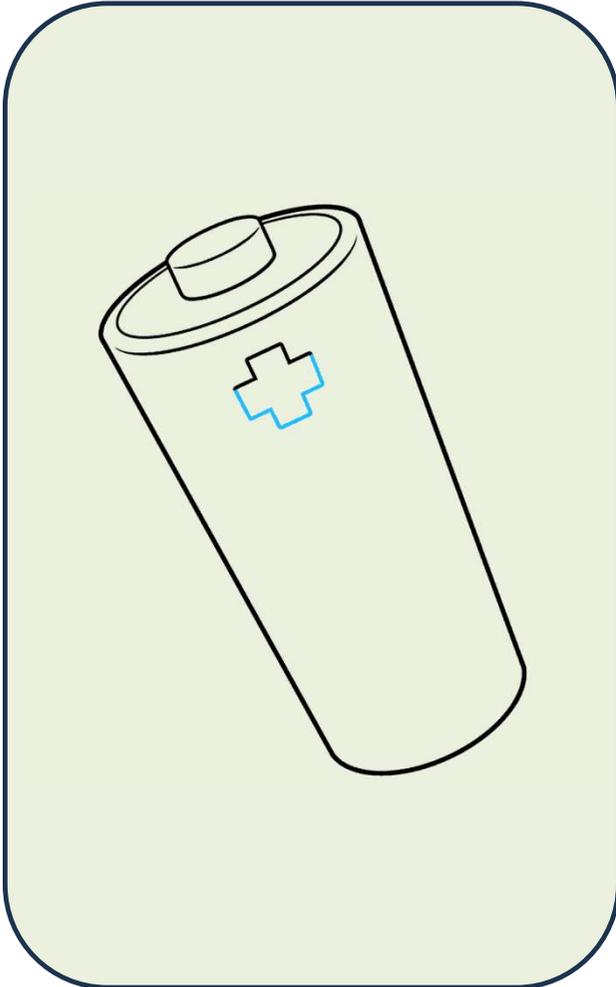
# TEN-E: eligible electricity infrastructural categories



## **OVERHEAD TRANSMISSION LINES AND CABLES**

- 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;
- any equipment or installation falling under energy infrastructure category referred to in point above, enabling transmission of offshore renewable electricity from the offshore generation sites (energy infrastructure for offshore renewable electricity);

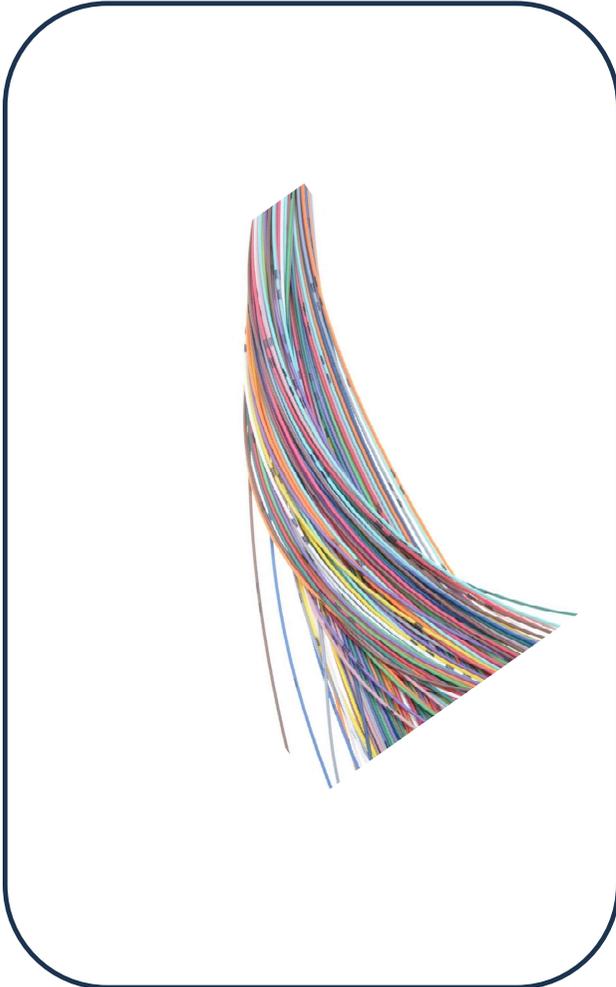
## ENERGY STORAGE FACILITIES



- **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.

# TEN-E: eligible electricity infrastructural categories

## **PROTECTION / MONITORING / CONTROL SYSTEMS**



- any equipment or installation essential for the previously listed systems to operate safely, securely and efficiently, including protection, monitoring and control systems at all voltage levels and substations.

# TEN-E: eligible electricity infrastructural categories

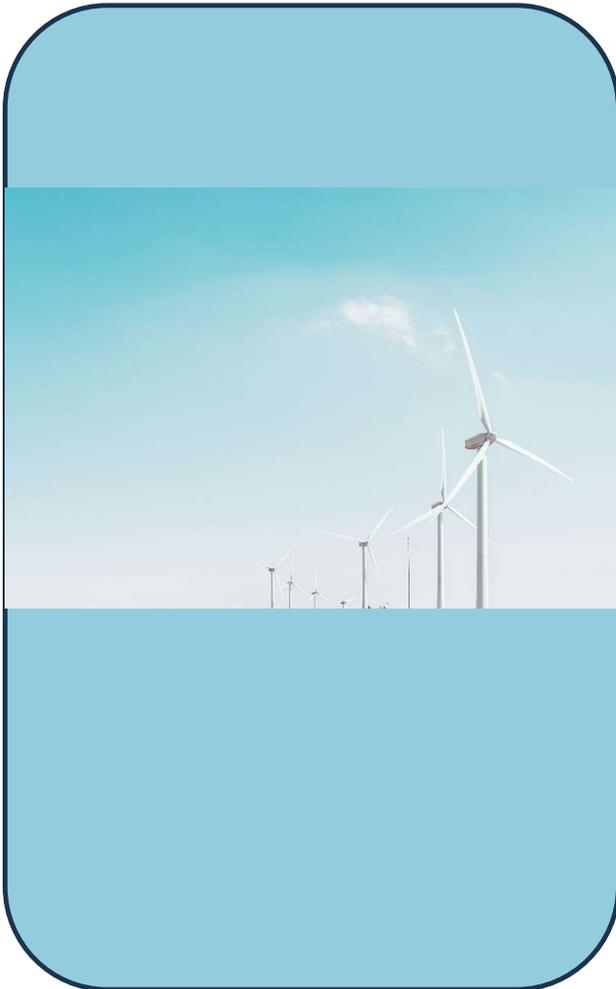
## SMART ELECTRICITY GRIDS



- **smart electricity grids:** any equipment or installation, digital systems and components integrating information and communication technologies (ICT), through operational digital platforms, control systems and sensor technologies both at transmission and medium and high voltage distribution level, aiming to ensure a more efficient and intelligent electricity transmission and distribution network, increased capacity to integrate new forms of generation, energy storage and consumption and facilitating new business models and market structures,..., to support innovative and other solutions involving at least two Contracting Parties with a significant positive impact on the Energy Community 2030 targets for energy and climate and the 2050 climate neutrality objective, to contribute significantly to the sustainability of the Energy Community.

# TEN-E: eligible electricity infrastructural categories

## OFFSHORE GRIDS FOR RENEWABLE ENERGY



- Overhead lines or cables, having dual functionality: interconnection and offshore grid connection system from the offshore renewable generation sites to two or more Contracting Parties participating in projects on the Energy Community list, including the onshore prolongation of this equipment up to the first substation in the onshore transmission system, as well as any offshore adjacent equipment or installation essential to operate safely, securely and efficiently, including protection, monitoring and control systems, and necessary substations if they also ensure technology interoperability, inter alia, interface compatibility between various technologies;

# 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 (overhead lines and cables, storage, smart grids, additional equipment and systems, offshore grids and related infrastructure)
  
- (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, storage, protection/monitoring/control and offshore grids for renewable energy 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 - specific



for smart electricity grid projects,... the project contributes significantly to sustainability through the integration of renewable energy into the grid, and contributes to **at least two** of the following specific criteria:

- (i) **security of supply**, including through efficiency and interoperability of electricity transmission and distribution in day-to-day network operation, avoidance of congestion, and integration and involvement of network users;
- (ii) **market integration**, including through efficient system operation and use of interconnectors;
- (iii) **network security, flexibility and quality of supply**, including through higher uptake of innovation in balancing, flexibility markets, cybersecurity, monitoring, system control and error correction;
- (iv) **smart sector integration**, either in the energy system through linking various energy carriers and sectors, or in a wider way, favouring synergies and coordination between the energy, transport and telecommunication sectors;

As regards smart electricity grid projects ranking shall be carried out for those projects that affect the same two Contracting Parties, and due consideration shall also be given to the number of users affected by the project, the annual energy consumption and the share of generation from non-dispatchable resources in the area covered by those users.

# Criteria for the assessment of projects - additional

## **OVERHEAD TRANSMISSION LINES AND CABLES**

Overhead transmission lines, designed for **220 kV or more**;

Underground and submarine transmission cables, designed for **150 kV or more**;

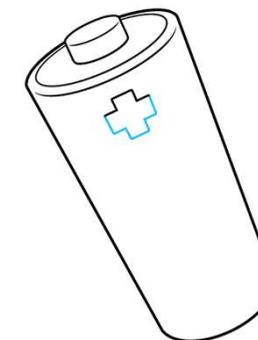
The project has a significant cross-border impact if it increases:

- Grid Transfer Capacity between two or more Contracting Parties for at least **500 MW**;
- Grid Transfer Capacity between two Contracting Parties for at least **200 MW** and decreases energy isolation of non-interconnected systems in one or more Contracting Parties;



# Criteria for the assessment of projects - additional

## ENERGY STORAGE FACILITIES



The project shall be designed for **110 kV or more**.

The project has a significant cross-border impact if it provides:

- at least **225 MW** installed capacity;
- 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.**

# Criteria for the assessment of projects - additional

## SMART ELECTRICITY GRIDS

the project is designed for equipment and installations at high-voltage and medium- voltage level, involves TSOs, TSOs and DSOs, or DSOs from at least two **Contracting Parties**

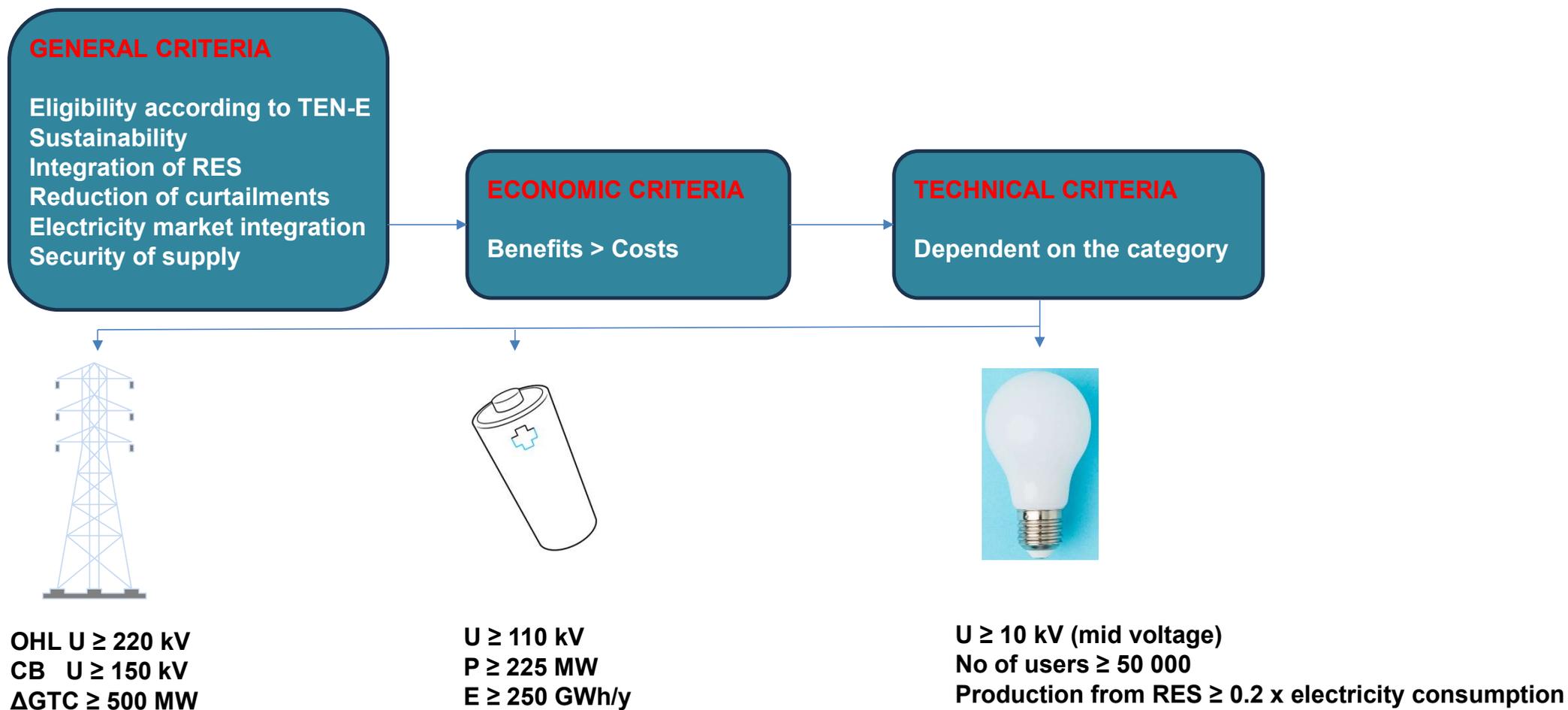


The project shall satisfy at least two of the following criteria (significant cross-border impact):

- it involves **50 000** users, generators, consumers or prosumers of electricity;
- it captures a consumption area of at least **300 GW hours/year**;
- at least **20 %** of the electricity consumption linked to the project originates from variable renewable resources;

**Smart electricity grid project does not need to involve a physical common border.**

# Summary of criteria for the energy storage projects





**THANK YOU**  
**FOR YOUR ATTENTION**

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