

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

The revised TEN-E Regulation in the Energy Community and the PECI selection process

Online event, 21 November 2023

Davor Bajs, Adam Balogh Energy Community Secretariat



The revised TEN-E Regulation in the Energy Community

"Old" TEN-E REGULATION (347/2013)



REGULATION (EU) No 347/2013 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 17 April

2013 on guidelines for trans-European energy infrastructure and repealing Decision No 1364/2006/EC and amending Regulations (EC) No 713/2009, (EC) No 714/2009 and (EC) No 715/2009

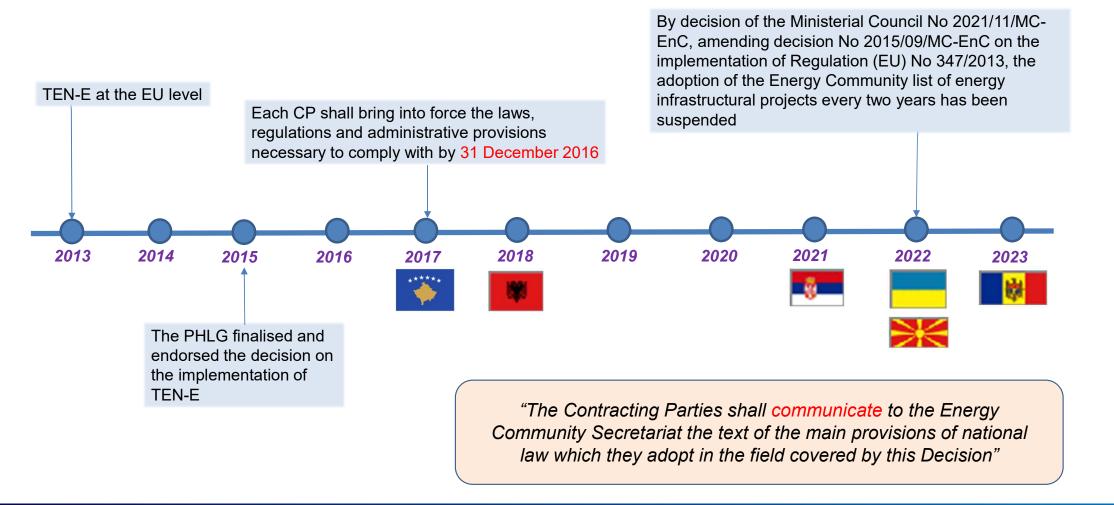


DECISION OF THE MINISTERIAL COUNCIL OF THE ENERGY COMMUNITY D/2015/09/MC-EnC: On the implementation of Regulation (EU) No 347/2013 of the European Parliament and of the Council on guidelines for trans-European energy infrastructure



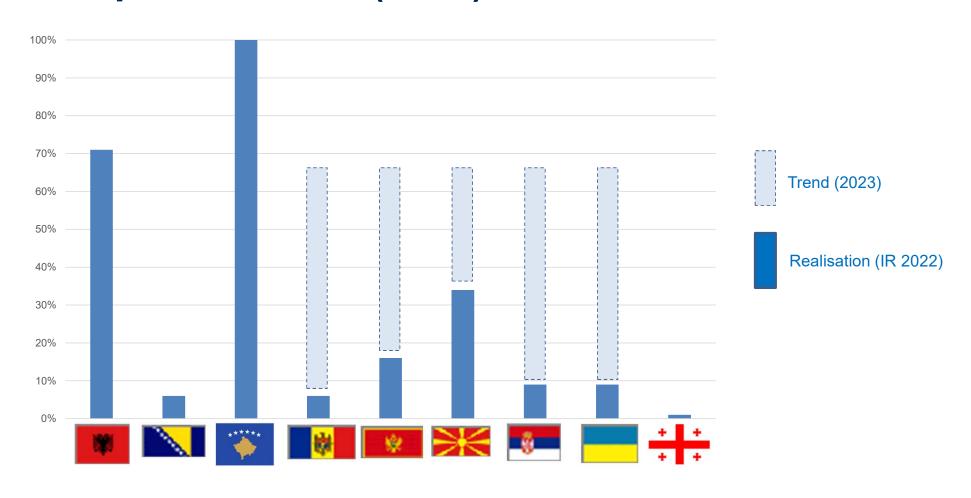
MC Decision on the "old" TEN-E





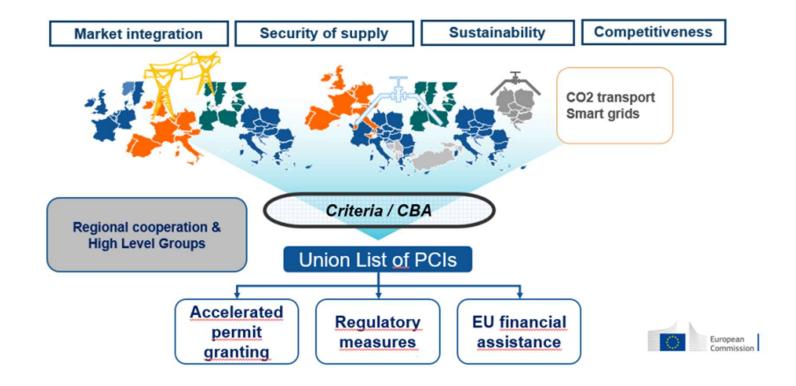


Level of implementation (2022)





The trans-European energy networks policy



Source: European Commission - Webinar: The revised TEN-E Regulation, 10 May 2022

Main topics/differences: PMI projects



Old TEN-E*

*REGULATION (EU) No 347/2013 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 17 April 2013 on guidelines for trans-European energy infrastructure and repealing Decision No 1364/2006/EC and amending Regulations (EC) No 713/2009, (EC) No 714/2009 and (EC) No 715/2009

Union list of projects of common interest

PCI: A project necessary to implement the energy infrastructure priority corridors and areas set out in the Regulation.

Revised TEN-E*

*REGULATION (EU) 2022/869 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 30 May 2022 on guidelines for trans-European energy infrastructure, amending Regulations (EC) No 715/2009, (EU) 2019/942 and (EU) 2019/943 and Directives 2009/73/EC and (EU) 2019/944, and repealing Regulation (EU) No 347/2013

Union list of projects of common interest and projects of mutual interest

PCI + PMI*

*A project promoted by the Union in cooperation with third countries

Article 4(2) on PMIs:

- the project is in line with Policy objectives;
- overall benefits outweigh its costs within the Union;
- the project is located on the **territory** of at least one Member State and on the territory of at least one third country and has a significant cross-border impact;
- high level of **convergence of the policy frameworks** of the third country:
 - o a well-functioning internal energy market;
 - o security of supply based, inter alia, on diverse sources, cooperation and solidarity;
 - o an energy system moving towards the objective of climate neutrality;
- the third country involved **support** the priority status of the project and **commit** to complying with a similar timeline for accelerated implementation;

Main topics/differences: Categories



Old TEN-E

Revised TEN-E

Eligible infrastructure categories:

- High-voltage overhead lines
 (cables ≥ 150 kV; lines ≥ 220 kV, ΔGTC ≥500 MW)
- Electricity storage (U ≥ 110 kV, 225 MW, 250 GWh/y)
- Smart electricity grids (U ≥ 10 kV, TSOs and DSOs from 2 MS, to satisfy all criteria, 50 000 users, consumption 300 GWh/y, 20% covered by RES)
- Gas pipelines, storage, LNG/CNG, other equipment
- Oil pipelines, pumping stations and storage
- Carbon-dioxide pipelines, facilities for liquefaction and storage

- High-voltage overhead lines
 (cables ≥ 150 kV; lines ≥ 220 kV, ΔGTC ≥500 MW, decreases isolation and ΔGTC ≥200 MW)
- Electricity storage (U ≥ 110 kV, 225 MW, 250 GWh/y)
- Smart electricity grids (U ≥ 10 kV, TSOs and/or DSOs from 2 MS, to satisfy at least two criteria, 50 000 users, consumption 300 GWh/y, 20% covered by RES)
- Offshore grids (cables ≥ 150 kV; lines ≥ 220 kV)
- Smart gas grids, Hydrogen pipelines, storage, other equipment and facilities, Electrolysers (at least 50 MW of capacity)
- Carbon-dioxide pipelines, facilities for liquefaction and storage

Main topics/differences: Smart grids (electricity)



Old TEN-E

Revised TEN-E

Criteria for smart grid candidate PCI (contributes to all)

- integration and involvement of network users with new technical requirements with regard to their electricity supply and demand;
- efficiency and interoperability of electricity transmission and distribution in day-to-day network operation;
- · network security, system control and quality of supply;
- optimised planning of future cost-efficient network investments;
- · market functioning and customer services;
- · involvement of users in the management of their energy usage;

Criteria for smart grid candidate PCI / PMI (contributes to at least two)

- 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;
- market integration;
- network security, flexibility and quality of supply;
- smart sector integration, through linking various energy carriers and sectors, or in a wider way, favouring synergies and coordination between the energy, transport and telecommunication sectors;

Main topics/differences: Hydrogen



Old TEN-E

Revised TEN-E

Criteria for hydrogen projects

No provisions

Criteria for hydrogen projects

Article 4(3)(d)

The project contributes significantly to **sustainability**, including by reducing greenhouse gas emissions, by enhancing the deployment of renewable or low carbon hydrogen, with an emphasis on hydrogen from renewable sources in particular in enduse applications, such as hard-to-abate sectors, in which more energy efficient solutions are not feasible, and supporting variable renewable power generation by offering flexibility, storage solutions, or both, and the project contributes significantly to at least one of the following specific criteria:

- market integration, including by connecting existing or emerging hydrogen networks of MSs, or otherwise contributing to the emergence of an Union-wide network for the transport and storage of hydrogen, and ensuring interoperability of connected systems;
- security of supply and flexibility [...];
- Competition [...];

Main topics/differences: Electrolysers



Old TEN-E

Revised TEN-E

Criteria for electrolysers

No provisions

Criteria for electrolysers (contributes to all) Article 4(3)(e)

- sustainability, including by reducing greenhouse gas emissions and enhancing the deployment of renewable or low-carbon hydrogen in particular from renewable sources, as well as synthetic fuels of those origins;
- security of supply, including by contributing to secure, efficient and reliable system operation, or by offering storage, flexibility solutions, or both, such as demand side response and balancing services;
- enabling flexibility services such as demand response and storage by facilitating smart energy sector integration through the creation of links to other energy carriers and sectors;

Main topics/differences: Smart Gas Grids



Old TEN-E

Revised TEN-E

Smart gas grid projects

No provisions

Smart gas grid projects (contributes to at least one criteria) Article 4(3)(f)

the project contributes significantly to sustainability by ensuring the integration of a plurality of **low-carbon and particularly renewable gases**, including where they are locally sourced, such as biomethane or renewable hydrogen, into the gas transmission, distribution or storage systems... and following specific criteria:

- network security and quality of supply [...];
- market functioning and customer services;
- **facilitating smart energy sector integration** through the creation of links to other energy carriers and sectors and enabling demand response.

Main topics/differences: Monitoring



Old TEN-E

Revised TEN-E

Annual report

Project promoters shall submit an annual report to the national competent authority and the Agency/respective Group by 31 March of each year following the year of inclusion on the list.

3 months after that the Agency submits a consolidated report to the Groups.

Project promoters shall submit an annual report to the national competent authority by 31 December of each year following the year of inclusion on the list.

By 28 February of each year the competent authorities shall submit the report to the Agency and to the relevant Group.

By 30 April of each year in which a new Union list should be adopted, the Agency shall submit to the Groups a consolidated report.

Main topics/differences: Analysis/calculations



Old TEN-E

Revised TEN-E

Scenarios for TYNDP, identification of infrastructure gaps

No provisions

Two chapters added:

- Scenarios for the ten-year network development plans
- Infrastructure Gaps Identification

Offshore grids

No provisions

Two chapters added:

- · Offshore grid planning
- Offshore grids for renewable energy cross-border cost sharing

Main topics/differences: Financing



Old TEN-E

Revised TEN-E

Eligibility of projects for Union financial assistance

- Electricity, gas and CO2 projects with PCI label were eligible for Union financial assistance for studies
- Electricity and gas projects (except PSHPP) were eligible for Union financial support for works under specific conditions:
 - CBA positive (evidence of significant positive externalities, such as security of supply, solidarity or innovation)
 - CBCA decision
 - Commercially not viable

Adoption for the EnC:

- Pre-Accession Assistance (IPA);
- Neighbourhood Development and International Cooperation Instrument (NDICI);
- Ukraine facility;

- All projects with PCI label are eligible for Union financial assistance for studies
- PCIs (except electrolysers but with PSHPP) eligible for Union financial support for works under specific conditions:
 - CBA positive (evidence of significant positive externalities, such as security of supply, flexibility, solidarity or innovation)
 - CBCA decision
 - Commercially not viable

Eligibility of PMI projects to approach CEF: yes under specific conditions

- To comply with certain provision of the CEF Regulation (2021/1153)
- To have positive CBA, CBCA, commercially not viable
- To contribute significantly to Union's overall energy and climate policy objectives



PECI selection process





PECI/PMI selection process: January 2020 – June 2020

6 electricity infrastructure, 20 gas, 3 oil, 0 smart grid candidate projects were evaluated

List of PECI in Electricity

EL_01	Transbalkan corridor
а	New 400 kV OHL SS Kragujevac 2 (RS) – SS Kraljevo 3 (RS), with voltage level upgrade in SS Kraljevo 3 (RS) to 400 kV voltage level
b	New double circuit 400 kV OHL SS Obrenovac (RS) – SS Bajina Basta (RS) with upgrade of SS Bajina Basta (RS) to 400 kV
С	New 400 kV interconnection between SS <u>Bajina Basta</u> (RS) - <u>Visegrad</u> (BA) - <u>Pljevlja</u> (ME)

List of PMI in Electricity

EL_07	400 kV <u>Mukacheve</u> (Ukraine) – <u>V.Kapusany</u> (Slovakia) OHL rehabilitation
EL_09	750 kV <u>Pivdennoukrainska</u> (Ukraine) – <u>Isaccea</u> (Romania) OHL rehabilitation and modernization
а	Upgrade and extension of the internal line within Ukraine; Yuzo Ukrainska- Prymorska
b	Upgrade and extension of the cross-border line between Ukraine and Romania; Prymorska – Issacea







PECI - Gas				
#	Project Name	Cluster		
Gas_13	Albania-Kosovo* Gas Pipeline - ALKOGAP	Supplying Kosovo* competing projects 'cluster		
Gas_26	North Macedonia-Kosovo* Interconnector	Supplying Kosovo* competing projects' cluster		
Gas_11	Interconnector Serbia-North Macedonia	Supplying North Macedonia competing projects cluster		
Gas_09	Interconnector Bulgaria-Serbia (PCI) as a competing project with TurkStream expansion in Serbia (Gastrans project)	N/A		

PMI - Gas			
#	Project Name	Cluster	
Gas_29	SCP Georgian Offtake Expansion for EU LNG Swap	N/A	
Gas_10	Gas Interconnector Serbia-Croatia (Phase I)	N/A	
Gas_28	Trans-Anatolian Pipeline Expansion - TANAPX	Southern Gas Corridor Expansion-TANAPX-SCPFX-IAP	
Gas_22	South Caucasus Pipeline Further Expansion - SCPFX	Southern Gas Corridor Expansion-TANAPX-SCPFX IAP	
Gas_16	Ionian Adriatic Pipeline - IAP	Southern Gas Corridor Expansion-TANAPX-SCPFX IAP	
Gas_4b	Interconnector Greece-North Macedonia	Supplying North Macedonia competing projects' cluster	
Gas_01	Interconnector Bosnia and Herzegovina - Croatia North	Supplying Bosnia and Herzegovina competing projects' cluster	
Gas_03	Interconnector Bosnia and Herzegovina - Croatia South	Supplying Bosnia and Herzegovina competing projects' cluster	





PECI - Oil:

Brody-Adamowo Oil Pipeline (PCI)

PMI - Oil:

 Transportation of different crudes of oil via Souther Sruzhba pipeline



PECI / PMI PROCESSES 2016 and 2018 (ELECTRICITY)

List of PECI in Electricity

- Transbalkan corridor consisting of the following five PECI projects:

(El_1) 400 kV OHL Resita (Romania) - Pancevo (Serbia)

(E1_1) 400 kV OHL Kragujevac (Serbia) - Kraljevo (Serbia)

(E1_1) 400 kV OHL Obrenovac (Serbia) - Bajina Basta (Serbia)

(E1_1) 400 kV OHL (Bajina Basta (Serbia) - Visegrad (Bosnia and Hercegovina) - Pljevlja (Montenegro)

(E1_3) Grid section in Montenegro

— (El_13) Interconnection between Albania and former Yugoslav Republic of Macedonia: 400 kV OHL Bitola-Elbasan

List of PMI in Electricity

- (E1_06) Interconnection between Romania and Republic of Moldova: Back to back station on 400 kV OHL <u>Yulcanesti</u> - <u>Issacea</u> and new 400 kV OHL <u>Yulcanesti</u> -Chisinau
- (E1_09) Interconnection between Ukraine and Slovakia: Rehabilitation of 400 kV
 OHL Mukacheve V. Kapusany

List of PECI in Electricity

EI_01	Transbalkan corridor
а	New 400 kV OHL SS Kragujevac 2 (RS) – SS Kraljevo 3 (RS), with voltage level upgrade in SS Kraljevo 3 (RS) to 400 kV voltage level
b	New double circuit 400 kV OHL SS Obrenovac (RS) – SS <u>Bajina</u> Basta (RS) with upgrade of SS <u>Bajina</u> Basta (RS) to 400 kV
С	New 400 kV interconnection between SS <u>Bajina</u> Basta (RS) - <u>Visegrad</u> (BA) - <u>Plievlia</u> (ME)
d	<u>Transbalkan</u> corridor - section in Montenegro (OHL 400 kV <u>Čevo-Pljevlja</u> , OHL 2x400 kV and 400 kV <u>Lastva-Čevo</u> , SS 400/110/35 kV <u>Lastva</u>)
EI_02	400 kV OHL Bitola (fyRoM) - Elbasan (AL)

List of PMI in Electricity

EI_06	400 kV OHL Vulcanesti (MD) - Issacea (RO)
EI_07	400 kV <u>Mukacheve</u> (Ukraine) – <u>V.Kapusany</u> (Slovakia) OHL rehabilitation
EI_09	750 kV Pivdennoukrainska NPP (Ukraine) – Isaccea (Romania) OHL rehabilitation and modernisation

2016

2018



PECI SELECTION PROCESS IN 2024 (expectations)

Electricity

- The previous PECI projects in electricity have been mostly not finished
 - Sections 3 and 4 of the Transbalkan corridor
 - OHL 400 kV Bitola Elbasan
- Some TSOs have ideas to construct new interconnections
 - OHL 400 kV Brezna/Montenegro Sarajevo 20/Bosnia and Herzegovina
 - Albania Montenegro line 220 kV, possible refurbishment
 - Kosovo Albania, second line
 - Internal projects with significant cross-border dimension??
- Energy storage projects
 - There are several hydro-pumped hydro storage projects (for example Bistrica/Serbia, Cebren/N.Macedonia)
 - · BESS projects, smaller scale
- Smart electricity grid projects
 - Innovation and cooperation between CPs and different companies needed

Please express informal project submission interests with general project description to the Secretariat by 12 December 2023

Gas Smart Grid, H2 and other categories

- The previous PECI projects in the gas category are not eligible any more for re-selection
- To submit "previous" projects, they shall be re-purposed to comply with the Gas Smart Grid or Hydrogen project categories
- ENCS team remains available for project definition and consultation with regards to project plans prior to the official submission
- Cross-border partner coordination is a way forward. ENCS remains available to facilitate this work
- Please consult the EU PCI and PMI selection process with regards to practical implementation of the new project categories

Please express informal project submission interests with general project description to the Secretariat by 12 December 2023

