



Introduction to the Unit Investment Costs assessment



Scope - Unit Infrastructure Costs vs PCI and PMI Monitoring

	Unit Infrastructure Costs	PCI and PMI Monitoring
Projects' status	Only commissioned projects ₁	(mostly) non-commissioned projects
List of projects	All relevant projects ₂	Projects in the latest PCI and PMI list
Data collection tool	UNIC	MONIP
Frequency data collection	Every 3 years	Yearly

^{1 -} except for smart gas grid equipment and projects related to hydrogen or carbon dioxide; 2 - ACER collects data for all projects corresponding to Annex II of TEN-E Regulation and meeting a set of thresholds ((1)Transportation pipelines / transmission lines: length of more than 5 km and/or (2) Associated equipment (protection, monitoring, and control systems, integrating ICT components, etc.): historic costs of more than EUR 20 thousand).



List of categories for UIC data collection

Electricity infrastructure category

- Overhead lines
- 2. Underground cables
- Submarine cables
- 4. Offshore transmission
- 5. AC Substations (incl. transformers)
- Offshore AC Substations (incl. transformers)
- Offshore DC Substations (incl. converter transformers)
- 8. HVDC Converters
- 9. Electricity storage
- Smart equipment & network efficiency assets
 - Advanced conductor
 - APFC
 - Capacitive Transfer System
 - Digital twin
 - Dynamic Line Rating (DLR)
 - SSSC
 - STATCOM
 - Storage as a Transmission Asset
 - Superconductor
 - Synchronous Condenser
 - Voltage regulator/booster
 - Topology optimisation software
 - Other

Smart gas grid infrastructure category

- . Pipelines
- 2. Compressor station
- 3. Clean gas plant
 - Biogas-biomethane
 - Biogas injection
 - hydrogen injection
 - Blending
 - Other
- 4. Purification plant
- 5. Advanced metering equipment

Hydrogen infrastructure category

- 1. Pipelines
- 2. Compressor stations
- 3. Storages
- 4. Processing facilities
 - Liquefaction
 - Regasification
 - Compression
 - Purification
 - Pumping
 - Other
- 5. Other equipment
 - Other equipment related to hydrogen infrastructure

Electrolyser facilities

- 1. Electrolyser facility
- 2. Other equipment

Carbon dioxide category

- 1. Carbon dioxide pipelines
- 2. Carbon dioxide Facilities
 - CO2 storage facility
 - CO2 capture facility
 - Other

List of categories for UIC indicators data collection

(following Annex II of TEN-E)

Infrastructure for blending gas, biomethane and hydrogen

- 1. Pipelines
- 2. Compressor stations
- 3. International stations
- 4. Gas storages
- 5. LNG projects



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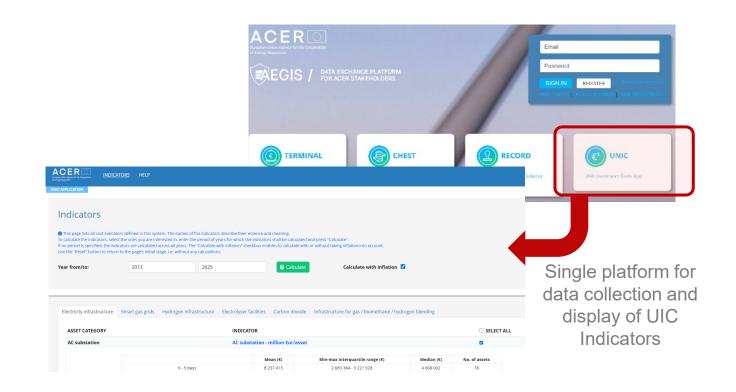
Under the <u>TEN-E Regulation</u> (Article 11(9)), ACER is required to establish and publish a <u>set of indicators</u> and corresponding reference values every three years for the comparison of unit investment costs (UICs) for comparable projects of the energy infrastructure categories listed in <u>Annex II</u>.



ACER published the first set of UIC indicators in April 2023.

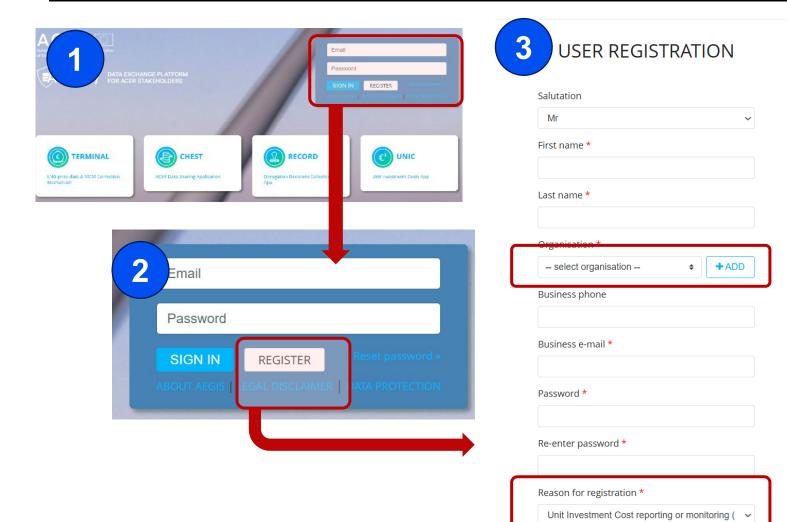
These indicators and their reference values can be used for various planning and evaluation processes, including:

- supporting TYNDPs;
- assessing and selecting projects of common and mutual interest (PCIs/PMIs);
- informing cross-border cost allocation (CBCA) decisions.





Registration to the tool



- 1. Access <u>AEGIS Platform</u>
- 2. Click on "Register"
- 3. Submit user registration form
 - Indicate organisation and reason for registration



Steps for data submission

1

Open the UNIC Application.

- 2
- On the "PROJECTS" page, you have an option to view your draft projects or enter a new project.

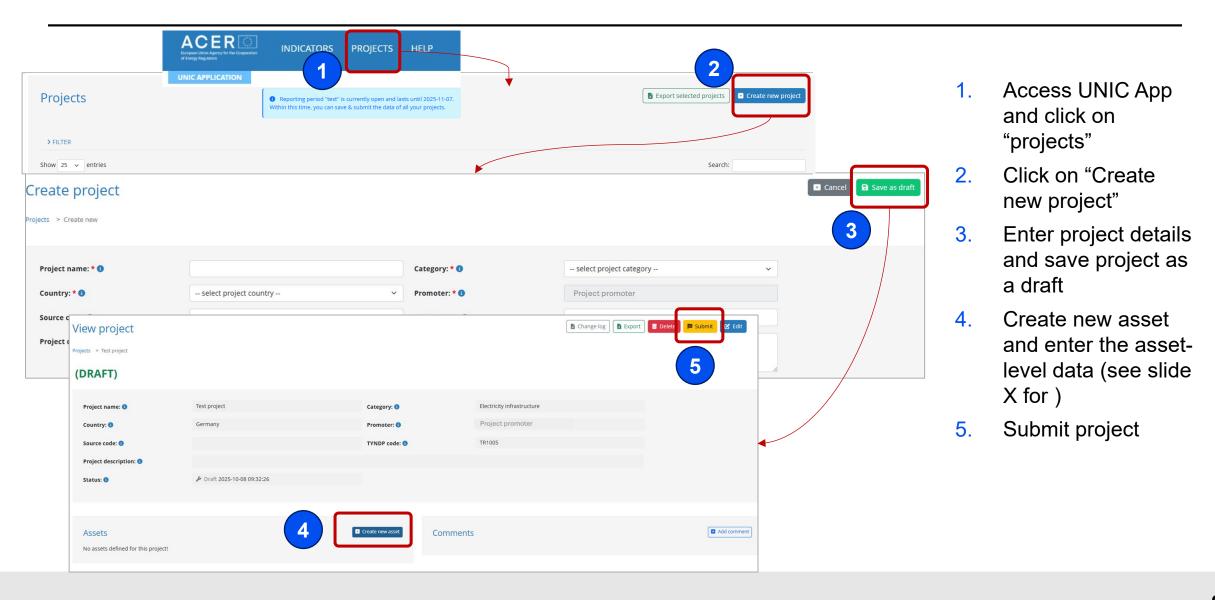
- **3** Each project can consist of many assets, therefore you should enter all relevant assets under each project.
- Once all data is correctly filled in and complete, please to not forget to submit your project (Only now respective NRA and ACER have an access to your data in order to be able to review the project)
- If NRA sees certain inconsistency related to the project they can place a comment in the tool, and project promoter will receive an email with a comment and is able to amend project's data and resubmit the project.



How to submit the data

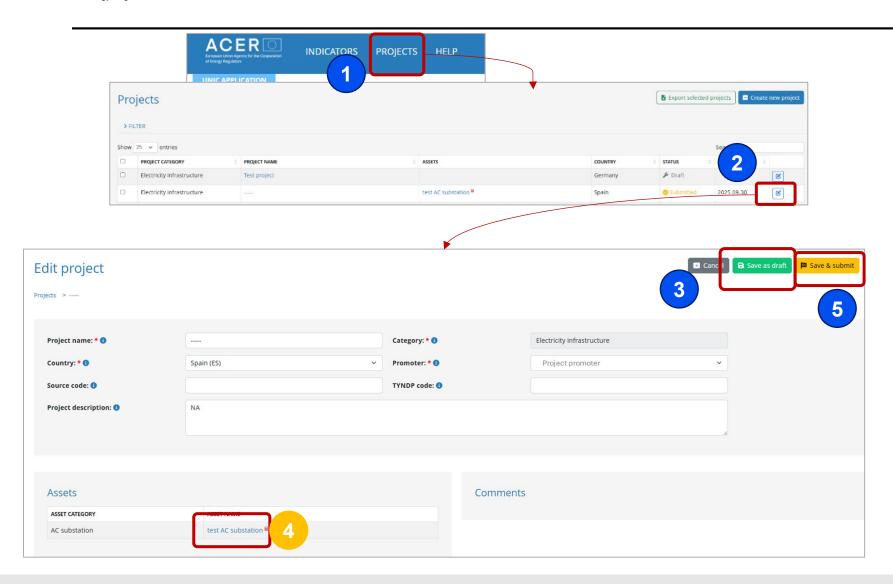


Enter new project data





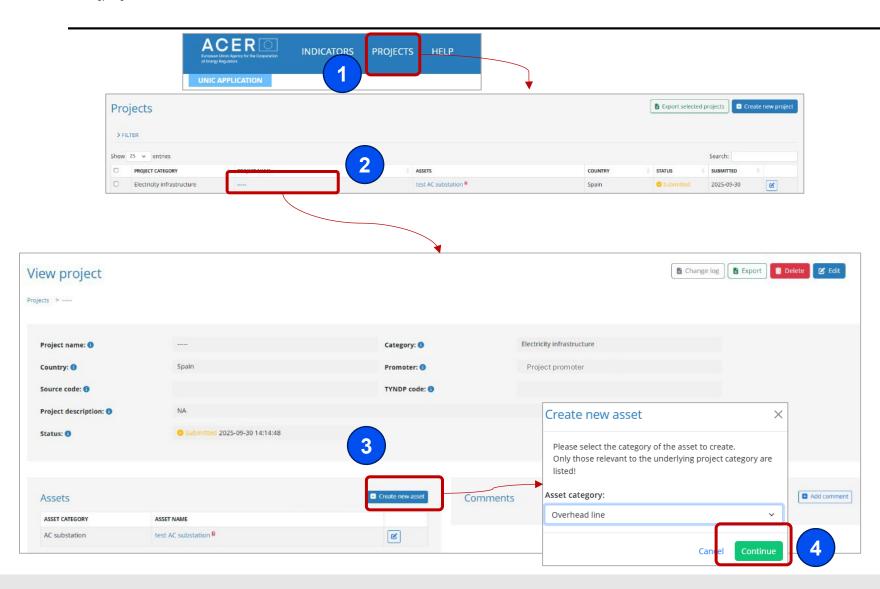
Edit project data



- Access UNIC App and click on "projects"
- Click on "Create new project"
- Enter project details and save project as a draft for any intermediate version
- (if needed) access asset to edit details (see slide X)
- 5. Submit project



Add an asset to a project



IMPORTANT: An asset can only be added once the project has been created

- 1. Access UNIC App and click on "projects"
- Click on the project name (NOT on edit button₁)
- Click on "Create new asset"
- 4. Select an asset category and click on continue to access the asset form (after filling in the data and clicking save the asset will be added to the project)



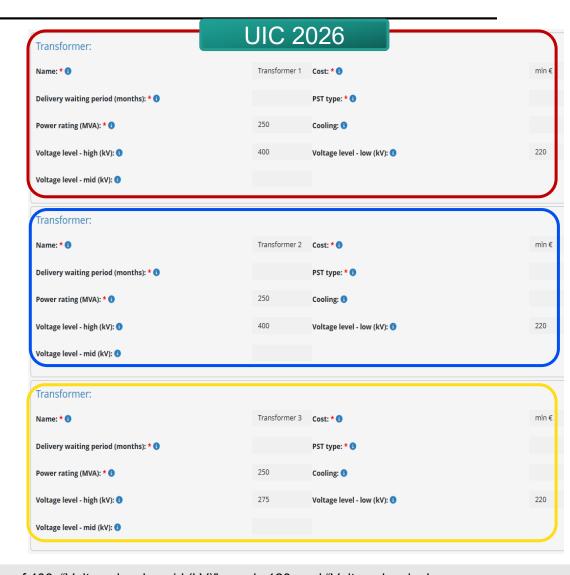
Changes with respect to 2023 edition



Changes with respect to 2023 exercise — Unlimited number of transformers



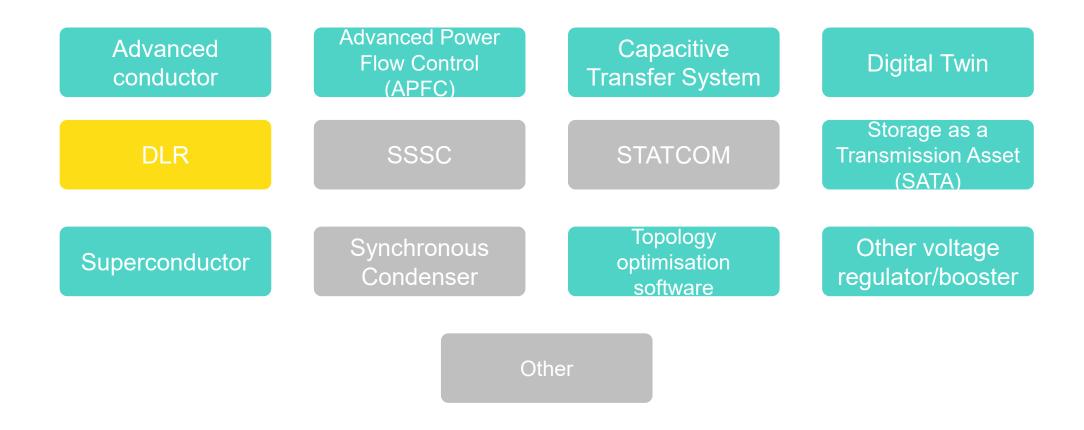
- All data submitted in UIC 2023 is kept
- Users can add more than 3 transformers.
- Voltage level field (string) is split into 3 integer fields¹



^{1:} If 3 levels were indicated (e.g. 400/120/33) for the former exercise, "Voltage level – high (kV)" takes a value of 400, "Voltage level – mid (kV)" equals 120, and "Voltage level – low (kV)" equals 33; If 2 levels were indicated (e.g. 400/110), "Voltage level – high (kV)" takes a value of 400, "Voltage level – mid (kV)" equals 0, and "Voltage level – low (kV)" equals 110. Same logic is expected to be followed by users when filling in the data.



Changes with respect to 2023 exercise – Additional smart grid and network efficiency subcategories



New subcategory — Included in 2023 but with additional fields in 2026 — No change from 2023



General fields (if not applicable fill in with "0")

Changes with respect to 2023 exercise – Additional smart grid and network efficiency subcategories

Asset characteristics					
Type of smart or network efficiency equipment: * 1	Synchronous condenser	Ampacity (MVA) - If applicable: * (1)			
Average capacity increase (MW) - If applicable: * (1)		Length covered by the asset (km) - If applicable: * (1)			
Number of circuits covered - If applicable: * (1)		Number of items installed (add "0" for DLR): * 1	1		
Voltage (kV) - If applicable: * (1)		Advanced conductor - Type: 1	select	~	
DLR - Conductor temperature in degrees Celsius: 1		DLR - Number of atmospheric sensors: 1			
DLR - Number of conductor temperature sensors: 1		DLR - Type: 1	select	~	
SATA - MWh: 🐧		SSSC - Type: 1	select	~	
SSSC - rated reactive power (MVAr): 1		Superconductor - Type: 1	select	~	
Voltage regulator / booster - Type: 1	select v				

Asset-specific fields

Thank you. Any questions?

The contents of this document do not necessarily reflect the position or opinion of the Agency.









ACER role and governance



- Supporting the integration of energy markets in the EU (by common rules at EU level). Primarily directed towards transmission system operators and power exchanges.
- Contributing to efficient trans-European energy infrastructure, ensuring alignment with EU priorities.
- Monitoring energy markets to ensure that they function well, deterring market manipulation and abusive behaviour.
- Where necessary, coordinating cross-national regulatory action.
- Governance: Regulatory oversight is shared with national regulators. Decision-making within ACER is collaborative and joint (formal decisions requiring 2/3 majority of national regulators).
 Decentralised enforcement at national level.
- Headquartered in Ljubljana, Slovenia. Engaged across the EU.