

Clean energy for EU islands

Workshop series: Future-proofing electricity systems

Introduction

The Clean Energy for EU Islands Secretariat (the secretariat) is conducting a study on connection policies and management of energy systems under conditions of non-synchronised generation in non-interconnected EU islands. The goal of this study is to further the understanding of the existing grid regulatory and operating constraints and help prepare the grid regulation and operating procedures for increase uptake of renewable energy sources (RES) and technologies, and sustainable decarbonisation. The study identifies 10 use-case non-interconnected islands or group of island systems. These use cases are chosen to represent the geographical, governance and technological variety of non-interconnected islands. Within the framework of this study, the Secretariat is organising 11 workshops:

Series of 6 online thematic and technical workshops: Future-proofing electricity systems (September - end of December 2023)

An online workshop series titled: Future-proofing electricity systems. The goal of these workshops is to create a platform for open discussion between DSOs, TSOs, regulators, and governments. RES producers and EU wide associations are included where needed. The topics of the workshops are defined based on the challenges identified in the ten use-cases. The goal is to help define guidelines for overcoming the identified grid constraints.

5 in-person workshops (November 2023 - March 2024)

In-person workshops will be organized in Greece, Italy, Spain, Portugal and French Polynesia and will be focused on the topic relevant for non-interconnected electricity grids of the use cases. The current indicative dates and topics are provided here¹:

- Greece, February 2024 on the topic of hybrid power plants and interconnections
- Italy, November 2023 on the topic of DSO concessions
- Spain, November 2023 on the topic of stand alone batteries
- Portugal, January 2024 on the topic of security of supply and demand side management
- French Polynesia, March 2024 on the topic of higher uptake of RES and security of supply

¹ These workshops are still in planning and stakeholders are still contacted to align on time, location and topics. This is indicative.

Online workshop series: Future-proofing electricity systems

The aim is to create a space for exchange and learning between EU islands DSOs, TSOs, regulators and governments. RES producers and EU wide associations are included where needed.

The first workshop is big-picture and sets the stage for the rest of the workshops introducing the main aspects needed for safely operating the non-interconnected grid with integrated RES. Topics include: requirements for RES asynchronous producers, use of Battery Energy Storage Systems (BESS), demand side management and flexibility of the system, and what is needed for the last mile to go to 100% RES integration. The workshop series closes with the workshop focused on de-risking investment in RES from planning, government, and DSO/TSO, and RES generator point of view.

The language of the series will be in English. Depending on the attendance and request of participants, the Secretariats has resources for one-way translation (in French or Italian) for two workshops. However, most workshops are meant to be an interactive session between the participants, and hence synchronous translation for few participants is difficult.

The workshops will be prepared by sending template slides and Miro boards to be shared with the participants prior to the workshops. Practical solutions will be filtered from the input and the feasibility of the measures and who can implement them will be assessed.

The focus of the workshops is on technical challenges to integrate RES from an EU policy and regulatory perspective. Non-technical issues can be addressed but will not be the emphasis of the workshops.

Workshop series rules:

- Attendance is invitation-only for the organisations invite. Organisations can choose which and how many people participate in each of the workshops within workshop series.
- Stakeholders involved: DSOs, TSOs, regulatory agencies, government organisations relevant for RES integration policy and operation of non-interconnected islands' electricity systems.
- You can register for all workshops or for each one separately (see registration link below). Please register for each workshop. Registration for each workshop will be open until the actual workshop.
- Workshops are interactive and made to exchange experiences and lessons learned.
- Preparatory materials for each workshop will be provided at the latest 1 week before the workshop.
- If asked to provide 1 slide ppt please send your slides at least 1 day ahead of the workshop.
- Working language: English.

Registration link: https://ec.europa.eu/eusurvey/runner/workshop_electricity_systems

Workshop 1: Key Aspects of grid operation

The key aspects of safely operating non-interconnected systems with high share of asynchronous RES generation

Date: 11 October 2023, 10:00-12:30 CEST

Duration: 2.5 hours

Stakeholders invited: DSOs, TSOs, Regulators, Governments (local, regional, national depending on the island)

Focus: Network codes and regulation, concrete examples

Agenda:

5'	Welcome	Secretariat
10'	Energy transition and decarbonisation of island systems: Focus on electricity grids and non-interconnected islands	Tadhg O'Briain, DG ENER
15'	Key challenges of the grids and key aspects (connection, operation, planning and market) of grid codes - presented in Miro <ul style="list-style-type: none"> Common framework for minimum requirements and additions based on changing conditions Interconnections Responsibilities and costs Long term planning of the grid 	Secretariat
30'	Examples of low-RES penetration including drivers and challenges	Participating DSOs
5'	Break	
30'	Examples of high-RES penetration including drivers and challenges	Participating DSOs
15'	Presentation on how DSOs will finance upgrades and smart grids	Julien Dieler, DG ENER
25'	Breakout sessions: <ul style="list-style-type: none"> Requirement and rights for RES asynchronous generation Use of BESS Demand side management and flexibility Last mile - move to 100% RES <p><i>The Secretariat presents the key aspects of the following workshops and receive feedback from DSOs and Regulators on what is missing and needs to be addressed - co-designing the workshops.</i></p>	Secretariat
15'	Conclusions from the breakout sessions	Secretariat
5'	Closure and next steps	Secretariat