



RE-EMPOWERED

Renewable Energy EMPOWERing
European & INdian Communities

RE-EMPOWERED will develop and demonstrate novel tools in EU and India to provide a complete solution for all stages of a Microgrid / Energy Island and Multi-Microgrid applications.

www.reempowered-h2o2o.com

The project

The main goal of RE-EMPOWERED is to develop and demonstrate solutions for energy transition of local energy systems based on multi-energy Microgrids,interconnecting multiple energy vectors. The benefits will be demonstrated leading to an increased share of renewable generation and higher energy efficiency of the wider local energy system.

RE-EMPOWERED will develop a complete set of solutions for local energy systems that will be demonstrated in four pilot sites, two European and two Indian,complementary in terms of size, organisational and technical maturity. The solutions will range from planning tools for designing or upgrading energy systems, to control and optimization tools for the management of microgrids, interoperable platforms for the integration of the available energy carriers, the digitization of the system and advanced hardware infrastructure for upgrading the local systems.

Key features



2
CONTINENTS



4
PILOTS



7
INDIAN
PARTNERS



7
EUROPEAN
PARTNERS



5
COUNTRIES



10
TOOLS



The pilots

1

BORNHOLM
Denmark

3

GHORAMARA
India

2

KYTHNOS
Greece

4

KEONJHAR
India

The objectives

RE-EMPOWERED objectives are organized in 3 pillars, each one comprising a set of objectives. The first pillar includes 4 Technical Objectives (TO), the second pillar 3 Socio-economic Objectives (SO) and the third pillar 2 Coordination Objectives (CO).

1 **Increased energy efficiency, RES utilization and reliability**

Optimal operation, high flexibility and efficiency.
Higher RES penetration and utilization.
Reliable and resilient operation.
Digitalization and ICT deployment.

2 **Fostering sustainable and economic community development**

New business models and financing tools.
Community engagement, training and energy community development.
Improved energy access and environment quality.

3 **Exchange, replicability and scalability in EU and India**

Knowledge exchange and training between EU and India.
Use case replicability across EU and India.



EcoTools

◆ **ecoEMS/ecoMicrogrid**

Energy Management Systems

◆ **ecoDR**

Smart Meter – Load controller

◆ **ecoConverter**

Power electronic converters for dc/ac microgrids

◆ **ecoVehicle**

Electric vehicle charger

◆ **ecoPlanning**

Energy Planning tool

◆ **ecoCommunity**

Citizen engagement digital platform

◆ **ecoPlatform**

Cloud-based interoperable platform

◆ **ecoResilience**

Cyclone Resilient infrastructure for PV and Wind turbines

◆ **ecoMonitor**

Water quality monitoring

Lead partners:



Partners:



Deloitte.



Imperial College
London



 RE-EMPOWERED EU-India Project

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 GitLab re-empowered



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