

# MASERA

## Microgrid for Affordable and Sustainable Electricity in Remote Areas

Maria BRUCOLI  
EDF Energy R&D - UK

Kévin CHOLETAIS  
EDF R&D - France

Stéphane JAMET  
Enedis - France



### MASERA MICROGRID IN THE REIDS DEMONSTRATION CLUSTER

EDF R&D has signed a Research Collaboration Agreement with NTU to develop an innovative microgrid solution in the REIDS microgrids cluster in Singapore. ENEDIS is supporting EDF in the project execution. Other French and Singaporean partners are involved (startups, vendors, contractors).



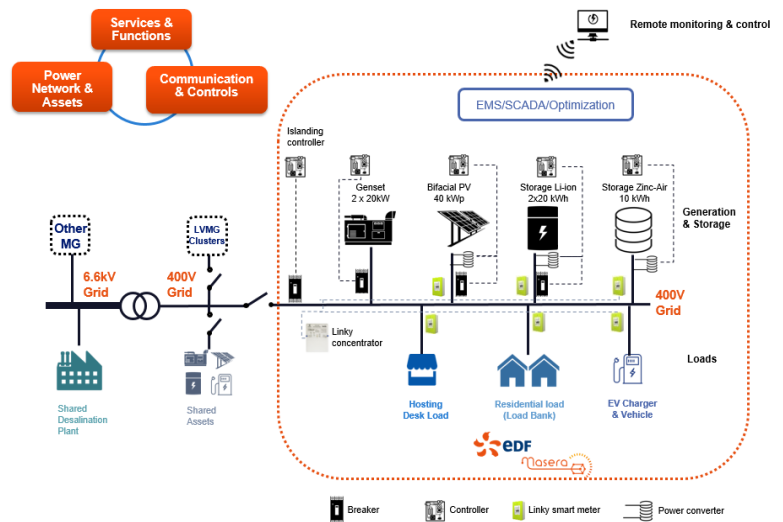
### INNOVATION INSIDE

MASERA demonstrates that innovative and rugged solutions can be complementary, ensuring overall efficiency and affordability.

### OUR OBJECTIVES

MASERA aims at offering a better quality of life to local communities, through access to sustainable, affordable and reliable electricity, leveraging innovative technologies.

- 1. Develop low-carbon energy generation, increasing RE penetration
- 2. Propose a low-cost approach
- 3. Experiment new low-cost storage solutions
- 4. Promote new flexible loads
- 5. Ensure resiliency and reliability
- 6. Propose innovative controls
- 7. Develop a complete solution (design, construction, O&M...)



### MASERA: FROM THE REIDS CLUSTER TO INDUSTRIAL APPLICATIONS

Benefiting from its sound expertise and references in the microgrids area, EDF will leverage the REIDS infrastructure, as well as the active collaboration with NTU and ENEDIS, to derive industrial solutions based on the MASERA demonstrator.

In France, ENEDIS will benefit from this international experience to develop new services towards local authorities and local communities.



Integration of **second-life EV batteries** with new **zinc-air** batteries (EDF spin-off).



Advanced EDF control and energy management systems, ensuring **standardization, interoperability, remote control and cybersecurity.**



Maximization of **renewable energy** generation leveraging local flexibilities (active loads and energy storage).