



LIFE HyReward Project has received funding from the LIFE+ Programme of the European Commission under grant agreement LIFE20 CCA/ES/001783.

LIFE HYREWARD PROJECT

Project description


HyReward is a LIFE Pilot Project with the main objective to assess, validate and disseminate a new sustainable desalination process combining Reverse Osmosis (RO) and Reverse Electrodialysis (RED).

The new hybrid process will be eco-friendly, generating 100% clean energy without negative consequences to the environment, contributing to the EU effort for the reduction of GHG emissions and climate change mitigation. LIFE HyReward has been conceived as an effective solution to shape a sustainable future for desalination and ultimately seeks to encourage stakeholders to use it.


Main Objectives

- ☞ To demonstrate the technical feasibility of the combination of RO and RED technologies, maximizing the electrical energy recovery contained in the RO brine.
- ☞ To improve the carbon footprint of desalination.
- ☞ Production of electrical energy through the RED process, reducing the final brine discharge concentration and producing electrical energy for the facility's own consumption.
- ☞ To analyze the transfer of the project results to other sectors and countries.

Duration

 The project started on November 2021 and is expected to conclude on April 2025.

Budget

 The LIFE HyReward project has a budget of €2,230,788.

Partners





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ACTIVITIES

Kick-off meeting

LIFE HyReward Project was launched on November at the REDstack facilities. The consortium met on 3rd and 4th of November in order to hold the kick-off meeting of the project. Moreover, the consortium visited the *Blue Energy* pilot plant installed on the Afsluitdijk (the Netherlands), the first RED technology installation in the world which has been operating continuously since its beginnings in 2014, with a blue energy production capacity of 50 kW.



Logo and Webpage



A new logo has been created for the Life HyReward Project. This project logo will be used in all project communication and dissemination materials. The logo is available at the project's website.

First Monitoring Meeting

The first monitoring meeting of the project with the external monitoring team, took place the 2nd March 2022. The meeting, which was held virtually, was attended by the integrating partners of the consortium (Sacyr Water, REDstack and Pure Water System) and the NEEMO team's expert monitor, Patricia Serrano.



First Progress Meeting and Blue Energy Workshop

First progress meeting of the Life HyReward took place at the Alicante desalination plant, where a technical and economic revision of the project was carried out. Moreover, a training and dissemination workshop was held: Blue Energy powering our sustainable future.

Pilot plant design: Basic Engineering

The basic Engineering of the HyReward pilot plant 1 has been successfully completed. One step closer to generate blue energy generation.





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LATEST NEWS

Dissemination in the AEDyR Technical Conference on "Sustainability: Renewable Energy and Water"

Elena Campos presented the LIFE HyReward Project at the AEDyR Technical Conference, which took place in Madrid last 15th of December.



Dissemination and Networking in the LIFE GREEN SEWER Workshop

LIFE HyReward Project was presented at the online workshop of the LIFE GREEN SEWER project, organized by CETIM, last 8th of March. The event was focused on membrane technology, specifically in forward osmosis technology for treatment and water reuse.



Dissemination and Networking in the LIFE CLEAN UP Workshop

Domingo Zarzo, Innovation and Strategic Projects Manager of Sacyr Water, presented the Life Hyreward Project at the "Wastewater Treatment and Reuse. Research Lines", an innovation appointment that took place last 27th of April in Murcia. The event was held on the closure of the LIFE CLEAN UP project, which aims was to raise awareness of the problems of wastewater treatment and regeneration.



Dissemination in the AEDyR Technical Conference on "Agriculture, Water and Energy"

Patricia Terrero, R&D Sacyr Water Responsible, presented the Life HyReward Project at the first conference on Agriculture, Water and Energy organized by the Spanish Association of Desalination and Reuse. An event that took place on May 26th in Alicante.



Life HyReward will be at the IDA 2022 World Congress

LIFE HyReward will be at the IDA 2022 World Congress! The World Congress will take place during the week of October 9-13, 2022, in the magnificent city of Sydney.

