PRESS RELEASE

SACYR WATER LEADS A RENEWABLE, BLUE ENERGY EUROPEAN PROJECT

- **Life Hyreward's goal is to generate electric energy ("blue energy") from brine generated in desalination processes.**
- **The proposed hybrid process will allow to recover up to 20% of the energy used in reverse osmosis processes and reduce the brine's salinity before dumping it back to the sea.**

Madrid, December 14, 2021.- Sacyr Water leads project **Life Hyreward**, which arises with the goal of making desalination processes by combining reverse osmosis and reverse electrodialysis (RED) more sustainable.

The project has the collaboration of partners from the consortium of the Dutch sister companies **REDstack** (a spin-off of WETSUS, the Netherland's European center of excellence for sustainable water technology) and **Pure Water Group**, which offer a solid base of specialized knowledge in the development and commercialization of electromembrane technologies.

As proposed on Life Hyreward project, integrating RED processes with conventional reverse osmosis processes will allow to **recover up to 20% of the energy used** in the reverse osmosis process, generating clean and renewable energy from brine, reducing the CO2 emissions of the desalination process. Moreover, it also reduces the brine's salinity before dumping it back to the sea.

Reverse electrodialysis is a process to generate electric energy from the salinity gradient between two solutions of different salinity. This energy is known as **blue energy,** and it is completely **renewable and sustainable**, CO2-free.

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PRESS RELEASE

Project LIFE HYREWARD will use the brine from reverse osmosis processes, that utilize sea water as a high-salinity current, and waste water as a low-salinity current and harness the osmotic gradient between them to generate electric energy.

Life Hyreward

Life Hyreward (LIFE20 CCA/ES/001783) is financed by the European project LIFE. This project started on November 1, 2021 and has a duration of three and a half years, and a €2.2 million budget.

The first experimental stage will be developed on **the desalination plant in Alicante, run by Sacyr Water,** with the support and collaboration of the **Mancomunidad de los Canales del Taibilla**, owner of the facility, and will optimize RED technology, to generate power.

The second experimentation phase will be carried out in a purification plant to study the dirtying of membranes caused by waste water, as well as the possible transmission of organic micropollutants through the ionic exchange membranes

2021-2025 Sacyr Sustainable Action Plan

Sacyr bases its strategy on sustainability **to add sustainable and innovative value to its projects and services**, supporting the development of the societies where the company operates, and contributes to the United Nations' 2030 Agenda.

The **2021-2025 Sacyr Sustainable Action Plan** condenses the group's commitment to fight against climate change, with the goal to be carbon neutral before 2050; increasing the group's investment on environmental protection by 50% and doubling the investment on innovation until 2025.

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