D-HYDROFLEX

Demo # 3: Technical factsheet

Demo title: “Salto de Touro” run-of-river (RoR) hydro power plant

Tasga Renovables offers the program its HPP plant in Touro, as well as its hybridization proposal to produce green hydrogen. The aim is to validate the hybridization of the HPP by considering its operating conditions and the environmental implications of the proposal, establishing useful guidelines for its application in similar plants in the EU

Major Impact Factors:

- Increasing the knowledge of hybrid power plants with H2.
- Model and algorithms for hybrid RoR plant operation.
- Monitoring of environmental parameters for hydro plant operation.
- Facilitating market penetration of H2 technology.
- Improvement of environmental and economic sustainability of existing RoR power plants.

DEMO LEADER

TASGA Renovables

“We hope to improve our knowledge on the operational possibilities of the HPP plant and the water quality, both for green hydrogen production and avoiding disturbances resulting from the latter process”.– Manuel Tourón, TASGA RENOVABLES S.L.

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Technology Types:

- Plan optimization
- Data Collection and Integration
- Runoffriver model
- Weather, energy and faults prediction

Components:

- Weather prediction module
- Runoff river prediction module
- Data acquisition and monitoring system
- Optimal planning system

Fields of Application:

- Operational efficiency
- Water Resources Prediction
- Water Resources Optimization
- Hybridization with RES
- Energy and hydrogen markets

Expected Benefits:

- Hybridization with green hydrogen
- Increased monetary benefits
- Optimal water resources usage
- Green hydrogen market penetration

Technology Readiness Level (TRL):

- **Decision support tool for hybrid HPPs** TR4→TRL6
- Weather, flow and production forecasting TR4→TRL6

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