

## Aran Islands wind energy project Technical assistance for Aran Islands, Ireland

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Comharchumann Fuinneamh Oileáin Árann, in coordination with Údarás na Gaeltachta, applied to the second round of the Clean energy for EU islands technical assistance in March 2022. The purpose is to receive financial support on a wind energy (Aran Island) project that is currently under feasibility study.

The Aran Island wind energy project aims to install a 900-kW wind turbine on Inis Meáin Island, the largest of the three Aran Islands' islands. The aim is to generate renewable energy for the three islands and make the Aran Islands independent of the electricity that currently comes from the mainland, in County Galway, Ireland.

The wind turbine for the Aran Islands project can generate an annual energy output of around 3 472 MWh per year at an average wind speed of 9,32 m/s. The model wind turbine for this project is the Enercon E-44 / 900-kW wind turbine.

The Aran Islands team wanted assistance in designing the financial business model for the Aran Islands wind energy project, as well as financing options, through the technical assistance of the Clean Energy for EU Islands experts.

Regarding the most important financial model indicators for the Aran Islands wind energy project:

- Net Present Value (NPV): €2 856 050,61
- Internal Rate of Return (IRR): 22%
- Estimated payback time: 5 years
- Benefit cost ratio: 2,13
- WACC: 8,23%
- LCOE: €0,04

The financial model demonstrates that the Aran Islands wind energy project is likely to be successful in reaching its objectives of assuring secure, reliable, affordable, and clean energy for the Aran Islands community.