

What are the key innovations in energy planning for the Faroe Islands?

The key innovations of this paper for islands, and global energy transition planning, are: The central incorporation of social perspectives into the energy planning for the Faroe Islands via explicit elicitation of criteria weights of local stakeholders.

Can the Faroe Islands convert their energy system to renewable sources?

A number of researchers have studied the conversion of the Faroe Islands' energy system to renewable sources. These studies looked at a single island or more broadly [ 51, 53] and their primary focus was on the techno-economic optimization of the new system.

Will Faroese achieve 100 percent green electricity by 2030?

The Island's power company, SEV, has a stated goal of achieving a "100% green electrical energy onshore by 2030." Furthermore, there are incentives in place to encourage Faroese consumers to purchase heat pumps and electric vehicles while the district heating system is also being expanded [53].

What technical scenarios were developed for the Faroe Islands?

Different technical scenarios were developed for the Faroe Islands based on the goal of achieving 100% green electrical energy production by 2030 along with greater electrification of transport, industry and heating. This section describes the key characteristics of these scenarios and some of the main energy system-related assumptions.

Is offshore wind power a development preference for the Faroe Islands?

In the case of the Faroe Islands, offshore wind power was not directly evaluated for development preference. However, in narrative analysis offshore technologies were suggested to be preferable to onshore technologies.

Are the Faroe Islands self governing?

The Faroe Islands are a self-governing part of Denmark, see Fig. 1, and have a population of just over 50,000 that is spread unevenly over the islands. Nearly 90% of the islands' population is connected on the same electricity grid but the southernmost island of Suðuroy has a separate grid that serves most of the

# FAROE ISLANDS PROTECTION OF SOLAR SYSTEM



remaining population.



This study focuses on the power system of Suðuroy, Faroe Islands, which is in the transition towards 100% renewables. The impact of three events on the frequency and voltage responses has been simulated based on 2020, 2023, 2026 and 2030 and with different settings using a measurement validated model.

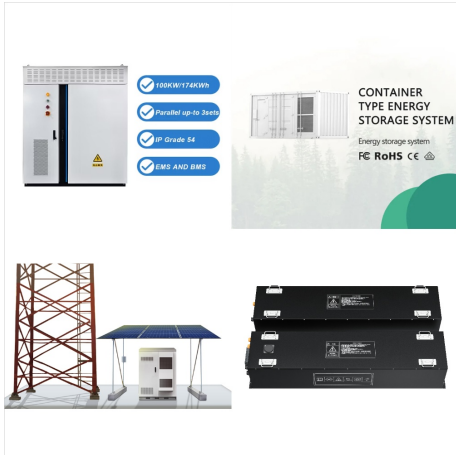


No doubt the world will continue to take note of SEV and the Faroe Islands as they achieve energy autonomy through global collaboration and lead the world in adopting fully sustainable energy. Hitachi Energy is proud to work with customers like SEV in driving the evolution of the grid itself.



This paper seeks to expand the understanding of geographic islands' positions and concerns while also helping local planners in the transition to renewable sources through the use of an integrated decision platform on the Faroe Islands.

# FAROE ISLANDS PROTECTION OF SOLAR SYSTEM



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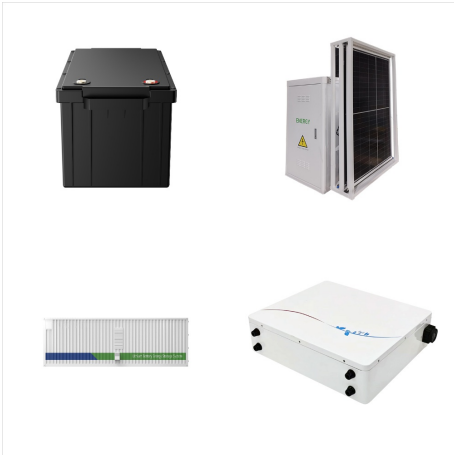


Small PV system installed in 2013 at T?rshavn, Faroe Islands, to gain insight in system performances under the specific meteorological operation conditions at 62?N, 7?W.



New reports show that wind and solar power are the highest priorities for sustainable power generation in the Faroe Islands, together with current hydropower production. Power storage capacity needs to be added to the electricity grid, but tidal energy production remains too expensive

# FAROE ISLANDS PROTECTION OF SOLAR SYSTEM



This study explores the integration of offshore wind energy and hydrogen production into the Faroe Islands' energy system to support decarbonisation efforts, particularly focusing on the maritime sector. The EnergyPLAN model is used to simulate the impact of incorporating green hydrogen, produced via electrolysis, within a closed energy system.



SEV announced its plans to reach 100% green energy on shore in the Faroe Islands by 2030, when the company officially opened the H?ahagi wind farm on 9 October 2014. The Government agreed with the green course in the coalition agreement in 2015, laying a very strong foundation for the green course for both SEV and the Faroe Islands as a whole.



The first field solar PV plant in the Faroe Islands has been inaugurated. It is located on an abandoned football field in the village of Sumba, the southern most village on the southern most island of Su?uroy. The 250 kWp plant, which is expected to generate approximately 160 MWh pr. year, is a test site, albeit not a big one.

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One of the Nordic islands playing a significant role in advancing green energy initiatives for places that are isolated or distant is the Faroe Islands. The Faroe Islands, like all other countries in this part of the world, are undergoing a green transition in energy production and energy use.