European Commission

Clean energy for EU islands: Renewable Energy Community On Linosa (RECOnLi)

Linosa, Italy

Clean energy
for EU islands

Renewable Energy Community On Linosa (RECOnLi)

Publication date: 31/01/2023

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Dissemination Level: Public

Published by
Clean energy for EU islands
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Executive summary

The Renewable Energy Community On Linosa (RECOnLi) project on Linosa, Italy, foresees the installation of a photovoltaic (PV) power plant on public land with a capacity of 405 kW, 40 kW installed on the public school rooftop and ten PV systems for private households with a total capacity of 120 kW, as well as a lithium-ion storage system with a capacity of 1.2 MWh and 0.35 MW to ensure a reliable supply of electricity from the PV systems to be installed by 2026. With this aim, the Municipality of Lampedusa and Linosa applied to the second call for proposals of the Clean energy for EU islands secretariat to receive technical assistance in planning the steps needed to realise an energy community on the island of Linosa. This project was presented and selected under the name "Renewable Energy Community on Linosa" (REConLi). The goal of the technical assistance is to support the RECOnLi project regarding regulatory options for the collective self-consumption from the planned PV installations, to provide proposals for further user engagement, as well as to assist with the energy system model for the storage sizing.

The options for collective self-consumption in Italy were first analysed, namely renewable energy self-consumers acting collectively (collective self-consumption) and renewable energy communities (RECs). The collective self-consumption approach is not a viable alternative in this project, since it requires that the members are in the same building or condominium. The option of setting up a REC is in accordance with the requirements of the project. The planned photovoltaic system of 405 kW is expected to be eligible for self-consumption incentives as soon as the new regulation becomes fully adopted, which is expected to happen in the beginning of 2023. Currently support is given to plants up to 200 kW. As members of the REC, other than the municipality also households, SMEs and educational organizations can participate, among other entities. The legal entity that will be created is not restricted to certain forms, but it requires that its statutes or articles of association include certain provisions regarding the non-profit purpose of the REC, the effective control by the members specified by the decree, the open and voluntary participation and the safeguarding of the rights of the members. The statutes should also specify how the received incentives and remuneration are shared among the members. Concerning the management of the production plants, it was found that while the REC must own or have full availability of the generation facilities, the management of the PV installations as well as the accounting can be performed by third parties, who are commissioned to do so by the REC and are under its control.

The second task of the technical assistance involved the provision of guidance and recommendation of strategies and activities to engage the locals in the energy transition of the island in general, and in the energy community or initiative that could arise in the framework of this project. This report therefore presented the different aspects of community engagement in the context of energy communities, listing the possible interventions that can be performed within the engagement strategy. It also provided relevant sources where further information can be found, as well as tips and recommendations.

The last task of the technical assistance focused on the simulation used to define the size of the storage components. The assistance consisted in validating the model and supporting the development of different storage scenarios to allow higher penetration of renewable energy production. While a storage of 300 kWh and 160 kW would be sufficient for the foreseen installed photovoltaic plants, it is advised to install a larger 1.2 MWh and 0.35 MW storage system that can support larger penetration of PV and is more cost effective and future proof.