

Clean energy for
EU islands:
Study on regulatory barriers and
recommendation for clean
energy transition on the islands
Italy

Study on regulatory barriers and recommendations for clean energy transition on the islands - Italy

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Readers' Guide

This Study on legal and regulatory barriers for the clean energy transition on Italian islands is the result of a consultative process. Based on an inventory of the current legislation and information gathered via surveys and interviews, the Clean energy for EU islands secretariat has brought together relevant stakeholders to identify barriers to the clean energy transition on Italian islands, and formulated recommendations to overcome them.

After an introduction and explanation of the methodology, the first Chapter of this Study provides an overview of the existing policy and legislation for clean energy on Italian islands.

The second Chapter contains the identified priority legal and regulatory barriers, based on the survey and the interviews (see Annex 1 for a detailed assessment), and the recommendations, based on the Focus Group Meetings and in-person National Stakeholder Meeting (see Annex 2 for more information).

Introduction

Small size, remoteness and climatic vulnerability lead to an unfavourable geographic condition and make islands susceptible to external factors. While islands are particularly vulnerable to climate change, they enjoy a naturally high potential of renewable energy sources to harness. Many islands have abundant renewable energy potential, which can be tapped to foster decarbonisation. While access to reliable, clean, and competitive sources of energy remains a main concern of island communities in the EU, islands present unique opportunities to become leaders in clean energy transition.

While it is often technically and financially possible to develop renewable energy projects on islands, EU, national, regional, and local legal frameworks are not always fit for purpose. This Study is the third deliverable of the Task Force 2 – Think Tank on legislation and regulation for islands of the Clean Energy for EU Islands Secretariat. It builds further on the Regulatory inventory of legal and regulatory information on clean energy development for 15 Member States, available online at the [website](#) of the Clean energy for EU islands secretariat.

This **Study** identifies existing and emerging legal, regulatory and policy frameworks that foster the development of local decarbonised energy systems on Italian islands. It aims to provide insight into whether the legislation supports or poses obstacles for islands to develop and implement their plans. It processes gathered inputs from literature review, surveys, interviews, and workshops and highlights best and worst practices, inspiring examples, failures and their lessons learned, however without making concrete recommendations.

Methodological approach

Different methods of information collection were used by the Think Tank to complete the information needs for the study:

- Desk research completing the information for the selected Member States was conducted.
- In-depth surveys were created and sent to the consortium's network. Nineteen five stakeholders were engaged, and the response rate was 15.80%.
- Information templates were sent to regulators, national authorities, and relevant stakeholders.
- 17 semi-structured open-ended interviews (Annex 1 for more details) with national and regional legislators, regulators and academic institutions and relevant actors (local DSOs, citizens, authorities, businesses, and communities) of local energy initiatives were organised. This helped clarify the rationale behind, and interpretation of existing legal developments. In these interviews we identified the key actions drivers, opportunities, and obstacles for the implementation of the action plans they encountered, including possible ways to address, or overcome them (See Annex 1 for more details).
- Two online Italy Focus Group discussions were held. One was organised on 16 February 2022 to discuss the identified barriers. The second one was held on 13 April 2022 to discuss the formulated recommendations to overcome the barriers (see Annex 2 for more details).
- A National Stakeholder Meeting was held in Italy on 11 October 2022 (see Annex 2 for more details).
- Experiences from local stakeholders, available through one-on-one contacts, articles in local newspapers or as part of communication provided by (local) advocacy groups were integrated. The contacted actors included those that were identified during the project work

from Phase I of the Secretariat and project experiences that arise from the technical assistance in Task Force 1.

Policy and Legislation for clean energy on Italian Islands

Introduction to the Italian Energy Market – Relevant Actors

Throughout the Study several key stakeholders in the Italian Energy Market will be referred to. Therefore, hereunder a short overview of these actors and their role is given.

The Italian electricity market was born in 1999. The European Directive on the creation of an internal energy market (Directive 96/92/EC)¹ was transposed thanks to the Legislative Decree of 16 March 1999, n.79,² known as the Bersani Decree.

Before 1999 **Enel** was the single operator of the electricity market, which was de facto operating under a State monopoly. After this date the sector was also opened to other private companies, with the possibility for new accredited players to produce electricity and sell it on the market.

Until 2021, established by Law N. 481 of 1995,³ the **Ministry of Economic Development** was the reference authority for the energy and gas market. It has carried out regulatory and control functions relating to tariffs, quality of services, market forms, competition, concessions, accounting and administrative separation, verification and control, complaints and requests, dispute settlement, information, and transparency.

By Law Decree March 1, 2021, n. 22,⁴ the Italian Government reorganised the responsibilities of the ministries and established the **Ministry of ecological transition (MiTE)**. MiTE replaced the Ministry of the environment and the protection of the territory and the sea, and assumed its responsibilities. MiTE additionally assumed the responsibilities of the Ministry of Economic Development, concerning energy policies.

ARERA⁵ is the Italian Regulatory Authority for energy, grids, and environment. It performs regulation and control activities in the fields of electricity, natural gas, water services, waste cycle and district heat. It is also the authority responsible for protecting consumers and promoting competition and efficiency in the electricity and gas sector.

ENEA⁶ Italian National Agency for New Technologies, Energy and Sustainable Economic Development. It focuses on applied research, technology transfer and technical and scientific assistance to companies, associations, territories, central and local administrations in the fields of energy, environment, and sustainable economic development.

The manager of energy services in Italy (GSE)⁷ is responsible for promoting the development of renewable energy. It is a joint-stock company founded in 1999 and owned by the Ministry of Economy and Finance. Until 2005 GSE was known as GRTN (National Transmission Network Operator). The management of the national electricity network was transferred to TERN. The focus of the GRTN shifted to the promotion of renewable energy, energy transition and sustainable

¹ <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A31996L0092>

² <https://www.normattiva.it/uri-res/N2Ls?urn:nir:stato:decreto.legislativo:1999-03-16:79>

³ <https://www.normattiva.it/uri-res/N2Ls?urn:nir:stato:legge:1995-11-14:481&vig=>

⁴ <https://www.normattiva.it/uri-res/N2Ls?urn:nir:stato:decreto.legge:2021:22-art4>

⁵ <https://www.arera.it/it/index.htm#>

⁶ <https://www.enea.it/it>

⁷ <https://www.gse.it/en/>

development, thereby renaming it the GSE. The GSE directs and coordinates the *Società Acquirente Unico* (AU), the *Gestore dei Mercati Energetici* (GME) and the *Ricerca sul sistema energetico* (RSE).

Terna, National Electric Grid S.p.A.⁸ is an Italian company listed on the stock exchange. The main shareholder, the Ministry of Economy and Finance, through the Cassa Depositi e Prestiti owns 29.99% of its capital. The company is the manager and main owner of the national high voltage electricity transmission grid with over 98% of the national electricity infrastructure. It is also responsible for the transmission and dispatching of electricity on the high and very high voltage network throughout the Italian territory and therefore for the management of safety (e.g., it resolves large-scale disruptions) and the balance between the supply and demand of electricity. Furthermore, Terna is in charge of the planning and development of the National Transmission Grid (RTN). It provides for the maintenance and development of the RTN in respect of the environment and combines knowledge and technologies to improve efficiency and create value for shareholders and the communities in which it operates.

Italian islands and their governance

Italy has 450 islands with a high diversity in size, population, and distance to the mainland. 10.9 % of the Italian population (6,500,922 people) lives on the islands.⁹ The largest and most populated Italian islands in the Mediterranean, Sicily, and Sardinia, have regional governments, defined by the Italian constitution. Smaller islands are governed by the overarching region. In many cases these smaller islands consist of their own municipality.

General Policy

The **Integrated National Energy and Climate Plan** (NECP) for Italy for the period 2021-2030 sets the target for renewables at 30% in gross final consumption of energy in 2030. In the electricity sector, renewable energy generation is projected to reach almost 55% in 2030 (compared to 34.1% in 2017). For heating and cooling a share of 33.9% is set for renewables. In the transport sector, Italy aims to reach 22% by 2030. In the NECP, Italy indicates Italian small islands as the areas for exploring the technologies and the pathways for the energy transition; islands are put forward as innovative laboratories. The islands could work with the university or national research and development centres that can help accelerate energy transition.

Regarding **Strategic Energy Planning**, the Decree of Ministry of Economic Development of 14 February 2017¹⁰ defined objectives and incentive methods for renewable energy in the small Italian islands non-interconnected with the electricity grid of the mainland. Specifically, it established the minimum development objectives for the production of electricity and thermal energy from renewable sources, and the methods for supporting the investments needed for their realisation. With resolution no. 558/2018/R/EFR ARERA regulates the tariffs and the remuneration system for electricity and thermal energy from renewables and access modes, transposing the Ministerial Decree dispositions. By the end of 2020, the goals of the use of renewable energy sources set on the non-interconnected islands were supposed to be achieved. Annex 1 of the Decree presents the

⁸ <https://www.terna.it/it>

⁹ Istituto Nazionale di Statistica ([Link](#))

¹⁰ https://www.mise.gov.it/images/stories/normativa/decreto_ministeriale_14_febbraio_2017_energia_isole_minori.pdf

minimum development objectives of the use of renewable energy sources for each non-interconnected island.

More recently, in December 2021 the Minister of Ecological Transition published a program for financing clean transition plans on the minor islands, called the **Green Islands Program**.¹¹ The Program has a budget of EUR 200 million which is provided through the resources of the National Recovery and Resilience Plan. The Program aims at strengthening the Municipalities of the 19 minor non-interconnected islands for the implementation of integrated energy and water efficiency projects, sustainable mobility, waste cycle management, circular economy, production of renewable energy and various end use applications. Funds have been already allocated to the islands.¹² Once the municipality selects an area of intervention, it proposes the project to the Ministry, explaining how it meets the technical requirements requested. The Ministry has set up an evaluation committee, which will be in charge of the evaluation of the proposals and the following granting of the public financing. The commission will also monitor the implementation of the plan, being in charge of undoing the grant.

Regulatory best practice

The Decree of the Ministry of Economic Development of 14 February 2017 has been proven very useful for all Italian Islands. On Salina Island for example, a project of 200 kW PV has been developed for the association of hoteliers of Salina. Via the Decree this project receives Feed-in Tariffs, which is now, with high energy prices, particularly relevant. Also, for Pantelleria the Decree was effective: the municipality has presented 5 projects on energy efficiency in municipal buildings that have been all financed via the Decree.

Insular systems, have higher investment and operating costs. These costs should normally be reflected on the electricity prices the consumers pay monthly. The above-mentioned Ministerial Decree (and other more specific related decisions) provide for a system of **unified prices** in the whole Italian territory aiming to minimise the differences in the prices between the islands and the mainland that can lead to discrimination.

Splitting the extra cost of electricity production on islands on all Italian inhabitants – the system of unified prices – is on the one hand good to avoid discriminating local secluded populations, where costs for energy production is significantly higher. On the other hand, the fact that companies operate in a “de facto” monopoly regime, somehow “promotes” the use of fossil fuels, making the competition with renewable sources less effective. On several small non-interconnected islands, Distribution System Operators (DSOs) also produce and sell energy and are thus not unbundled. The Decree of the Ministry of Economic Development of 14 February 2017 contains provisions obliging energy producers to increase the share of renewables in order to achieve their contribution. In that sense, the system of unified prices can be turned into a measure stimulating renewable energy developments.

Energy transition on the small islands could be implemented much faster. It is however important to keep in mind that the small islands have characteristics, which directly or indirectly affect the energy transition:

- Low expert capacity for the energy issues on the island and lack of leading examples;

¹¹ <https://www.mite.gov.it/pagina/pnrr-isole-verdi>

¹² https://www.mite.gov.it/sites/default/files/archivio/bandi/ISOLE_VERDI_%20Allegato_1_ParteA.pdf

- Limited constant population and seasonality due to tourist season;
- Land use, tourism, water, and waste issues are of high or higher priority than the energy generation, as discussed in a study by ANCIM (National Association of Municipalities of the Minor Islands) and ENEA (Italian National Agency for New Technologies, Energy and Sustainable Economic Development);¹³
- RES-e limited to PV only (no wind due to visual impact; no biomass due to the absence or discontinuity of fuel production);
- Scarcity / lack of areas for the construction of ground photovoltaic systems;
- Authorisation difficulties also for plants in industrial areas.

Italian national stakeholders in collaboration with the MiTE and GSE are actively involved in analysing the potential and planning for energy transition on small Italian islands. One such study is published in 2021 analysing 27 small islands in Italy.¹⁴ It reiterates that a clear framework of rules and policies with a 2030 perspective must be built in order to give strength to ambitious environmental and climate actions in the Italian Minor Islands. It presents two recommendations: (i) Create at the Ministry of Ecological Transition a steering committee for climate and environmental transition in the smaller islands, which will define the interventions and objectives concerning energy, waste, water, mobility and sustainable tourism, and (ii) Draw up a climate and environmental sustainability plan for each island, with clear targets for 2030, outlining solutions to achieve an energy model centred on renewable sources and addressing the challenges of proper circular management of the water and waste cycle.

Renewable energy

Support systems

Italy supports a wide range of technologies for electricity generation, including onshore and offshore wind, PV on building with asbestos removal, biomass, biogas, geothermal and hydropower. For renewable energy systems, several types of support mechanisms exist, depending on the technology, size, and use of the installation.

For heating and cooling main renewable energy technologies supported include aerothermal, geothermal, solar thermal and biomass.

Italy supports the production of electricity and thermal energy from renewable sources on non-interconnected islands via a specific support system. Electricity production plants with a power of a minimum of 0.5 kW, connected to the island's electricity grid and powered by locally available renewable sources, can receive a feed-in tariff for the share of electricity produced and fed into the grid, and a feed-in premium for the portion of electricity produced and instantly consumed on site. In addition, subsidies are available for the installation of systems with thermal solar panels to cover the consumption of hot water or for solar cooling and the installation of heat pumps dedicated only to the production of domestic hot water.

In the transport sector, Italy supports the use of biofuels and electric vehicles through a subsidy on the purchase of electric vehicles. The MiTE runs island specific programs such as for example a 15

¹³ <https://www.enea.it/en/publications/volume-pdf/the-minor-islands-between-sun-sea-and-wind.pdf>

¹⁴ <https://www.isolesostenibili.it/wp-content/uploads/2021/07/Rapporto-ISOLE2021-ISBN-online.pdf>

million program for energy efficiency in transport covering electric vehicles, bike sharing, electric/hydrogen busses, etc.

Generally available support schemes, whose details are provided in the Regulatory inventory,¹⁵ are:

- Auction and Registry (FER1 Decree)¹⁶ - The incentives provided in the FER 1 decree are accessible through two types of auctioning systems: auctions for large plants (above 1 MW) and registers for plants (up to 1 MW) for onshore wind, PV, hydropower, and sewage gas.
- Feed-in tariff I (tariffa onnicomprensiva) - All plants except for PV plants with an installed power between 1 kW and 1 MW are entitled to choose this feed-in tariff in alternative to the premium tariff (Art. 7, c. 4 DM 06/07/12). Depending on their size, plants may access this scheme directly or after undergoing listing in a register with capacity limits set per year.¹⁷
- Feed-in tariff II (Ritiro dedicato):¹⁸ Electricity generated from renewable energy sources and fed into the grid can be sold on the free market or to the GSE on a guaranteed minimum price.
- Net Metering (scambio sul posto):¹⁹ A scheme that allows prosumers to feed their excess (not used) electricity into the grid and get compensated for it. It supports onshore wind, PV, geothermal, biogas, biomass, and hydro technologies.²⁰
- Tax regulation mechanisms (Reduction in value-added tax): renewable energy generation is promoted through VAT tax deductions.
- Subsidy (Conto termico):²¹ Installing heat pumps, biomass and solar thermal installations for heating purposes is supported through subsidies aimed at the redevelopment of buildings.
- Tax regulation mechanism (Ecobonus²² & Superbonus²³): Promotes greater efficiency and the renewable energy sources for heating and cooling, by providing a 110% tax deduction of the expenditure.
- Financing for the Energy Redevelopment of the buildings of the Central Public Administration (PREPAC).²⁴ The goal is to contribute to the energy requalification and the improvement of the energy efficiency of at least 30% per year of the covered area of the public building stock.
- Support of RES-H infrastructure addresses municipalities, as they must include RES technologies in district heating and cooling networks in their development plans.
- RES-H building obligations: All new buildings and buildings undergoing major refurbishment must integrate installations generating heating or cooling from renewable energy sources.
- Subsidy (eco bonus): Vehicle buyers receive incentives if they purchase environmentally friendly vehicles, including electric vehicles.
- Subsidy (Decreto biometano):²⁵ Producers of advanced biofuels receive a subsidy which can be increased through expansion investments.
- Biofuel quota (obbligo di immisione):²⁶ This scheme defines the share of biofuels that suppliers need to include in their fuel supply to the transport sector.

¹⁵ <https://clean-energy-islands.ec.europa.eu/index.php/regulatory-inventory>

¹⁶ <https://www.gazzettaufficiale.it/eli/id/2019/08/09/19A05099/sq>

¹⁷ <https://www.gse.it/servizi-per-te/fonti-rinnovabili/gestione-incentivi/tariffa-omnicomprensiva>

¹⁸ <https://www.gse.it/servizi-per-te/fotovoltaico/ritiro-dedicato>

¹⁹ <https://www.gse.it/servizi-per-te/fotovoltaico/scambio-sul-posto>

²⁰ The abolition of "scambio sul posto" has been arranged with the legislative decree 199/2021 (transposition of the Red Directive II), in application of the regulatory measures envisaged by the PNIEC.

²¹ <https://www.gse.it/servizi-per-te/efficienza-energetica/conto-termico>

²² <https://www.energiaenergetica.enea.it/detrazioni-fiscali/ecobonus.html>

²³ <https://www.energiaenergetica.enea.it/detrazioni-fiscali/superbonus.html>

²⁴ <https://www.gse.it/servizi-per-te/efficienza-energetica/prepac>

²⁵ <https://www.gse.it/servizi-per-te/rinnovabili-per-i-trasporti/biometano/incentivi>

²⁶ <https://www.gse.it/servizi-per-te/rinnovabili-per-i-trasporti/obbligo-di-immisione-in-consumo>

RES projects authorisation process

Local authorities implement legislation following state guidelines. The type and scope of the authorisation depends on the plant's size and location. Ground-mounted PV and onshore wind projects in Italy mostly undergo the Single Authorisation, the Single Regional Authorisation, or the Single Environmental Permitting procedures. For small-scale rooftop PV systems, a Communication Procedure is mainly applied while the Single National Model for the Construction, Connection and Operation of Small Photovoltaic Systems is applied for the approval of small rooftop PV systems below 200 kW.²⁷ There are no specific permitting rules for islands.

Grids

The Italian electricity grid provides non-discriminatory access for renewable energy sources and grid operators are obliged to give priority dispatch. There are 128 local DSOs. The country has a smart meter penetration rate of 98.5%. The electricity supplier switching rates for household customers in 2018 was 9.1%.²⁸

In Italy, district heating networks are managed at the local level. A national framework legislation provides an obligation for all municipalities above 50,000 inhabitants to establish development plans for district heating networks with the aim of increasing usage of the energy produced also from renewable energy sources.

Supported energy efficiency measures

A National Energy Efficiency Fund incentivises investments to implement energy efficiency measures on production plants, production processes and buildings. ENEA publishes annual national report on energy efficiency savings and renewable energy use in buildings.²⁹ A tax regulation mechanism promotes greater efficiency and use of renewable energy sources for heating and cooling, by providing a 110% tax deduction of the expenditure, along with additional PV installations and electric vehicle charging stations. The MiTE also runs specific energy efficiency programs for public buildings on small islands.³⁰

Supporting policies

Italy offers training and certification programmes for installers of renewable energy installations in the housing and buildings sector, in particular for electricity, heating, and construction.³¹ Public authorities fulfil their exemplary role by adhering to the obligation that new buildings and buildings under refurbishment must consider integrating RES as well as the obligation that at least 50% of vehicles acquired by public administrations should be electric, hybrid, or hydrogen powered.

Self-consumption and community energy

The Italian law defines renewable energy communities, renewable self-consumers and jointly acting renewable self-consumers, in accordance with the provision of Renewable energy directive (EU) 2018/2001. Similar rules apply to these configurations as the energy production should not

²⁷ Energy Decree, Law Decree 17/2022

²⁸ <https://www.ceer.eu/documents/104400/-/-/5c492f87-c88f-6c78-5852-43f1f13c89e4>

²⁹ <https://www.energiaenergetica.enea.it/pubblicazioni/rapporto-annuale-detrazioni-fiscali.html>

³⁰ <https://pdc.minambiente.it/it/il-ministero-dellambiente-proroga-i-termini-le-istanze-sugli-interventi-integrati-di>

³¹ Regarding training it is important to mention Italia in class A, a training and information campaign on energy efficiency <https://italiainclassea.enea.it/>

constitute as commercial and/or main industrial activity and should aim at satisfying the energy demand of its nearby members.

A prosumer is defined as a self-consumer in Italian legislation. Based on the Decree 199/2021 and Decree 17/2022 the self-consumer of renewable energy is an end-consumer who can produce and store renewable electricity for his own consumption, by having a RES plant at the site or multiple RES production plants located at the building or site that the consumer can access. The RES plant can be directly interconnected to the end-costumer's site with a direct connection of maximum 10 km. The self-consumer of renewable electricity is allowed to offer ancillary and flexibility services and be a part of the collective self-consumption within the same building or group of buildings.

While electricity can be shared, the activities should not constitute main commercial or professional activity for the prosumer.

Spatial planning

Spatial planning in Italy is a concurrent competence shared between the national and regional government, which is further practices at the regional and local (provinces, metropolitan cities, and municipalities) levels. This is briefly explained in the OECD country factsheet for Italy.³² The Ministry of infrastructure and transport is responsible for spatial planning on the national level. The national government is responsible for the protection of heritage sites and of the natural landscape. According to the Italian Constitution, the national government is tasked with providing a national framework law for spatial planning. Currently the National Law 1150 from 1942, and its subsequent amendments, is referred to for this purpose. There have been multiple unsuccessful attempts in the past decades to approve a new National spatial planning framework law that substitutes the previous one. Mostly due to the fact that the 1150/1942 Law is outdated, it is unclear how spatial planning instruments and practice should interact with sectoral plans and policies - including the NECP. Similarly, it is not clear whether spatial planning should be cogent in relation to sectoral policies or the other way around.

³² OECD (2017), *Land-use Planning Systems in the OECD: Country Fact Sheets*, OECD Regional Development Studies, OECD Publishing, Paris, <https://doi.org/10.1787/9789264268579-en>.

Identified barriers and recommendations to overcome them

The Clean energy for EU island Secretariat's Think tank has identified legal and regulatory barriers, based on the detailed assessment of the current regulatory framework and consultation with relevant Italian stakeholders through survey and the interviews (see Annex 2 for a detailed assessment). For each of the regulatory barriers, the Secretariat identified multiple recommendations. Those barriers and recommendations were presented and discussed within the Focus Group Meetings and the National Stakeholder Meeting (see Annex 2 for more information).

Regulatory barriers are presented in the order of their priority for energy transition on the Italian islands. Some of the identified barriers that were identified via the surveys and interviews are barriers that exist both on the islands and on the mainland. In the recommendations below, the focus lies on the concrete issues encountered by islands with these regulatory barriers.

The table below represents the list of barriers (marked in dark blue) ordered based on their priority, and the proposed recommendations (marked in white).

Barrier 1. Spatial planning and stringent and generic restrictions

Recommendations:

- 1.1 Develop national framework law for spatial planning
- 1.2 Develop Master plans with indications on the regional and local level
- 1.3 Make mandatory expert and local involvement in regional landscape plans

Barrier 2. Lack of attention for the local level within national strategic energy planning

Recommendations:

- 2.1 Set up a taskforce dedicated to islands
- 2.2 Provide assistance with development of energy and climate plans
- 2.3 Mandatory monitoring and reporting of energy and climate plans

Barrier 3. Complex and lengthy permitting procedures

Recommendations:

- 3.1 Provide permitting guidance and capacity building
- 3.2 Create process for monitoring and evaluation of the simplified procedures

Barrier 4. Unified prices and regulated monopolies

Recommendations:

- 4.1 Make an assessment of the unified price scheme
- 4.2 Introduce obligation for suppliers to invest in RES
- 4.3 Redirect fossil fuel remuneration to RES support
- 4.4 Provide capacity building towards DSOs to start implementing regulatory sandboxes on islands

Barrier 5. Grid constraints due to congestion

Recommendations:

- 5.1 Put islands forward as innovative laboratories
- 5.2 Promote and support implementation of storage systems

Barrier 6. Support measures focus on household level and not on community level

Recommendations:

6.1 Introduce possibility of clustered applications

6.2 Raise awareness

Barrier 7. Regulation on energy communities is underdeveloped

Recommendations:

7.1 Prioritise regulatory framework and provide right incentives

7.2 Provide clear communication on procedures

REPowerEU - Proposal for amendment of RED II (and EPBD & EED)³³ and Recommendation on speeding up permit-granting procedures for renewable energy projects

On 18 May 2022 the European Commission has presented the [REPowerEU Plan](#), its response to the hardships and global energy market disruption caused by Russia's invasion of Ukraine. There is a double urgency to transform Europe's energy system: ending the EU's dependence on Russian fossil fuels, which are used as an economic and political weapon and cost European taxpayers nearly EUR 100 billion per year and tackling the climate crisis. There are three main axes:

- [Saving energy](#)
- Diversifying supplies and supporting our international partners
- Accelerating the rollout of renewables

A massive scaling-up and speeding-up of renewable energy in power generation, industry, buildings, and transport will accelerate our independence, give a boost to the green transition, and reduce prices over time. The Commission proposes to increase the headline 2030 target for renewables from 40% to 45% under the Fit for 55 package.

Setting this overall increased ambition will create the framework for other initiatives, including among others:

- A dedicated [EU Solar Strategy](#) to double solar photovoltaic capacity by 2025 and install 600 GW by 2030.
- A Solar Rooftop Initiative with a phased-in legal obligation to install solar panels on new public and commercial buildings and new residential buildings.
- A Commission [Recommendation](#) to tackle slow and complex permitting for major renewable projects, and a targeted [amendment to the Renewable Energy Directive](#) to recognise renewable energy as an overriding public interest. Dedicated 'go-to' areas for renewables should be put in place by Member States with shortened and simplified permitting processes in areas with lower environmental risks. To help quickly identify such 'go-to' areas, the Commission is making available datasets on environmentally sensitive areas as part of its digital mapping tool for geographic data related to energy, industry, and infrastructure.

These two last tools are particularly relevant for islands as renewable energy development is often hampered by spatial planning constraints and complicated permitting procedures. Where relevant, references to these tools are made in text boxes.

On the same day the European Commission (DG ENER) published the report "[Technical support for RES policy development and implementation – Simplification of permission and administrative procedures for RES installations \(RES Simplify\)](#)". The aim of the report is to provide insights on the most important obstacles impeding the diffusion of renewable energy technologies in the permitting and grid connection procedures. It also discusses best practice examples deployed by the EU Member States and general best-practice recommendations which can be promoted with regard to permitting new and repowered renewable energy installations and connecting them to the grid. Relevant recommendations and examples are given throughout the study where relevant.

³³ Proposal for Directive amending Directive (EU) 2018/2001 on the promotion of the use of energy from renewable sources, Directive 2010/31/EU on the energy performance of buildings and Directive 2012/27/EU on energy efficiency

1. Spatial planning and stringent and generic restrictions

Since the second half of the 1970s, the Italian regions started to approve their own spatial planning laws, thereby contributing to increased complexity of the system. Regions are responsible for producing **Regional territorial plans**. At the same time, they prepared the **Regional Landscape Plans** in coordination with the Ministry of Culture and tourism (MIBAC). Regional landscape plans include the framework that defines regional priorities, objectives, and processes, as well as sectoral policies that local level plans and authorities have to follow. Ambiguity in these plans or policies provide for discrepancies in the implementation. Specifically, restrictions for the installation of clean energy projects are often too stringent, and not adjusted to the local island's characteristics. This includes for example, strict regulations for historical building protection hampering PV on rooftops, carports, and industrial sites. Moreover, islands are very often located in protected areas, in national parks, or there are Special Areas of Conservation (SAC), as well as Special Protection Area (SPA). While local authorities are responsible for Municipal General Regulatory Plans, they cannot go against the regional policies and priorities that have been defined by Regional Landscape Plan. The Municipal General Regulatory Plan is the main plan that defines zones and provides for implementation of projects.

On islands, the protection of historical and cultural sites and protection of natural landscape are a priority. This in consequence delays the energy transition and decarbonisation. As a result, unnecessary emissions and climate effects pose a climate risk to those same sites and environments. There is currently no clarity on how clean energy projects can be developed in conservation or protected areas. Such areas can take up the whole island.³⁴

Finally, it is unclear how Maritime spatial planning will integrate energy policy and how this is coordinated with the regional landscape plan or Municipal General Regulatory Plans.

Recommendation 1.1: Develop national framework law for spatial planning

Priority can be given to work on developing a new national framework law for spatial planning. The framework law should provide clarity and guidance on how to integrate sectoral plans and policies within regional, subregional, and local spatial planning instruments and practice. Moreover, it could provide guidelines on how to integrate regional energy plans with the existing Regional Landscape Plans³⁵ so that the clean energy guidelines become binding for the Municipal General Regulatory Plan. While this barrier is as relevant for the Italian mainland as it is for the Italian islands, the lack of this framework disproportionately affects the Italian islands. In many cases the implementation of clean energy projects is hampered.

Guidelines for integration of energy transition on Italian islands in the Regional Landscape Plans are needed with or without new a national framework law. Such guidelines could indicate the characteristics of islands and guidance on how to approach local spatial planning on the islands taking into account limited land availability and possible energy resource use. This can also be done through the national taskforce for islands' decarbonisation and energy transition, discussed under Recommendation 2.1 below.

In this process it is important to provide transparent communication. We recommend that the Ministry for infrastructure and transport includes the relevant ministries (Ministry for economic

³⁴ <http://www.parks.it/mappe/Eap.php>

³⁵ https://www.arl-international.com/knowledge/country-profiles/italy#spatial_planning

development, Ministry for culture and tourism and Ministry for ecological transition) as well as relevant regional and local governments and private and civil stakeholders in the preparation of the national framework law and guidelines.

Actors involved:

- **Ministry of Infrastructure and Transport, National Council of Public works**
- Ministry for Ecological transition
- Ministry for culture and tourism
- Ministry for Economic Development
- Regional governments

Recommendation 1.2: Develop master plans with indications on the regional and local level

The creation of a detailed Regional energy master plan that investigates and approves the areas or sites for clean energy development, island by island, is necessary. As islands are part of local government but also covered by the Regional Landscape Plans, they need to be involved in the discussion. The national guidelines mentioned in Recommendation 1.1 as well as the guidelines for “suitable areas” for RES projects³⁶ should guide the development of the Master plan for the clean energy projects on the regional level which includes the specific of the islands. Legislative Decrees 199/2021, 17/2022 and 50/2022 define initial criteria for “suitable areas” for RES installations (as defined in Annex 3). These criteria will be further defined by the guidelines developed by the Ministry for Ecological Transition (MiTE). National decrees and MiTE guidelines will be complemented by suitable regional laws that will identify areas within its regional territory. For the regions that include islands, islands’ characteristics and needs should be taken into account. Such areas can be identified within the Regional Energy Master Plan.

REPowerEU – Renewable go-to areas

Article 1(1) adds a new definition to Article 2 of Directive (EU) 2018/2001, to define ‘renewables go-to area’. Which means *a specific location, whether on land or sea, which has been designated by a Member State as particularly suitable for the installation of plants for the production of energy from renewable sources, other than biomass combustion plants*. Article 1(4) inserts a new Article 15b on the obligation for Member States to identify the land and sea areas necessary for the installation of plants for the production of energy from renewable sources in order to meet their national contributions towards the 2030 renewable energy target. Article 1(5) inserts a new Article 15c on the obligation for Member States to adopt a plan or plans designating ‘renewables go-to areas’, which are particularly suitable areas for the installation of production of energy from renewable sources.

A faster roll-out of renewable energy projects could be supported by strategic planning carried out by Member States. Member States should identify the land and sea areas necessary for the installation of plants for the production of energy from renewable sources in order to meet their national contributions towards the revised 2030 renewable energy target set out in Article 3(1) of Directive (EU) 2018/2001. The identification of the required land and sea areas should take into consideration the availability of the renewable energy resources and the potential offered by the different land and sea areas for renewable energy production of the different technologies, the projected energy demand overall and in the different regions of the Member State, and the availability of relevant grid infrastructure, storage and other flexibility tools bearing in mind the capacity needed to cater for the increasing amount of renewable energy.

Member States should designate as renewables go-to areas those areas that are particularly suitable to develop renewable energy projects, differentiating between technologies, and where the deployment of the specific type of renewable energy sources is not expected to have a significant environmental impact. In the designation of renewables go-to areas, Member States should avoid protected areas to the extent possible and consider restoration plans. Member States may designate renewable go-to areas specific for

³⁶ Guidelines for “suitable areas” are being defined by the Ministry for Ecological Transition (MiTE) and further defined by the regional legislation based on the Decree 199/2021, 17/2022 and 50/2022.

one or more types of renewable energy plants and should indicate the type or types of renewable energy that are suitable to be produced in each renewable go-to area.

The ambiguity when it comes to energy topics in the Regional Landscape Plan in coordination with the MIBAC should also be addressed. Plans should eventually be updated to the needs of clean energy projects with the focus on the islands as the leaders of clean energy transition. National guidelines should place regional energy master plans at the level of Regional Landscape Plans, requiring their integration. This way Regional Landscape Plans will include clear rules and responsibility for adapting the local spatial plans and defining the zoning needed for energy projects.

Additionally, regional, and local authorities should review and reduce the requirements of municipal spatial planning regulations (for example, in regard to visual impact) which hinder the installation of self-consumption systems.

Actors involved:

- **Ministry for infrastructure and transport**
- **Ministry for ecological transition**
- **Ministry for culture and tourism**
- **Ministry for ecological transition**
- **Regional authorities**
- MIBAC branches Superintendencies
- Local governments
- National experts for clean energy
- ENEA
- Regional and local energy agencies
- Academia

Recommendation 1.3: Make mandatory expert and local involvement in regional landscape plans

Aside from preparation of the Master Plan which guides the spatial and strategic planning regarding clean energy implementation from the national level, regional and local governments should assure involvement of the private sectors, local actors, and energy experts in preparation of the Regional landscape plans and local spatial plans.

We also recommend making stakeholder engagement mandatory where relevant part of the legislative procedure. i.e., via specified committees for approval of legislative proposals. This way organisations and trade associations representing the local actors have a formal say in the procedure.

Actors involved:

- **Ministry for infrastructure and transport**
- **Ministry for ecological transition**
- **Ministry of culture and tourism**
- **MIBAC local branches Superintendencies (Soprintendenza)**
- Ministry for economic development
- Regional governments
- Local governments
- Relevant local stakeholders (private sector, civil sectors, academia, experts)

2. Lack of attention for the local level within national strategic energy planning

Both the energy sector strategies and the long-term energy planning are highly centralised. The islands are included in the **NECP** for the period 2021–2030 as innovation laboratories for the development of experimental projects. The Italian NECP does not specify any additional objectives or technology specifications for the Italian islands. Municipalities and local communities are mostly not involved in the process of strategic energy planning. Nevertheless, they are best suited to analyse the problems and needs of their territory and to help avoid the gap between central decisions and local needs. Land use, tourism, water, and waste issues are considered to be higher priority than the energy generation, as discussed in a study by the (National Association of Municipalities of the Minor Islands (ANCIM) and ENEA.³⁷

The islands are considered in the **National Recovery and Resilience Plan (PNRR)** with the allocation of funds and financing dedicated to the energy transition (in the **Green Islands Program**). The plan is currently being translated to the local level.³⁸ The municipalities have already been distributed the approximate budget based on which the projects will be proposed.³⁹ It is indicated that the municipality should select an area of intervention in line with PNRR and propose the project to the Ministry, explaining how it meets the requested technical requirements. For the purpose of PNRR, the MiTE has set up an evaluation and monitoring committee,⁴⁰ which will be tasked with evaluating the proposals and monitoring the implementation of the projects awarded the grants. The small island municipalities might lack the capacity to prepare project proposals. However, there is a running support to provide the technical assistance to the small municipalities⁴¹ to receive technical assistance for preparation of projects for PNRR support.⁴²

While the planning for the use of funds under PNRR seems well planned, such strategy has not been taken for all the clean energy project funding and project implementation. There is a lack of overall monitoring and evaluation of implementation of the clean energy projects on the islands based on the provided loans and subsidies. The lack of such feedback loops leads to significant gaps between national plans and targets and local level implemented projects. In addition, without an evaluation it is impossible to identify bottlenecks and gaps in implementation.

Recommendation 2.1: Set up a taskforce dedicated to islands

The energy sector strategies and the long-term energy planning are highly centralised. To foster the involvement of island stakeholders in national strategic and long-term energy planning and funding distribution, we recommend that MiTE forms an Italian Islands taskforce. The taskforce is a committee of national, regional, and local experts involved with planning and implementation of clean energy projects on Italian islands. It should include representatives of the government, non-governmental sector, academia, private and civil sector.

The clean energy transition on the islands is crucial for sustainable and climate adjusted development of the islands. The taskforce would have a main task of analysing the needs and priorities of the islands, collecting information and feedback from various sectors on the national,

³⁷ <https://www.enea.it/en/publications/volume-pdf/the-minor-islands-between-sun-sea-and-wind.pdf>

³⁸ The municipalities have been asked by mid-April 2022 to send brief technical sheets to the Ministry of the Environment.

³⁹ https://www.gazzettaufficiale.it/do/atto/serie_generale/caricaPdf?cdimg=22A0098700100010110001&dgu=2022-02-18&art.dataPubblicazioneGazzetta=2022-02-18&art.codiceRedazionale=22A00987&art.num=1&art.tiposerie=SG

⁴⁰ <https://www.mite.gov.it/notizie/pubblicati-su-inpa-gli-avvisi-del-mite-il-reclutamento-degli-esperti-supporto-dell>

⁴¹ Less than 5000 inhabitants

⁴² <https://www.ministropereilsud.gov.it/it/comunicazione/notizie/fondo-progettazione-decreto/>

regional, and local level and providing recommendation and guidance on the improvement of planning, implementation, and monitoring of clean energy transition on the islands. The taskforce can also be used to provide guidelines, not only to the national bodies, but also to the regional and local bodies while taking into account overall sustainable development of the islands. The Islands taskforce should ensure representation of island priorities and needs on the regional and national level, as well as among various sectors (energy, environment, culture, tourism, industry etc.).

The Islands taskforce is proposed to be organised by the Ministry of ecological transition in coordination with other national bodies responsible for spatial planning, environment, culture and history and tourism. In addition, it should include representatives of the relevant regional governments, representatives of academia, civil sector, private sector (including energy companies) who are experts and highly involved in the clean energy transition on Italian islands.

The Islands taskforce should be coordinated with existing monitoring bodies such as the PNRR committee mentioned above. The implementation of the Islands taskforce is needed as a short-term action to improve representation of island priorities on the national level. However, it would be useful in the long term to monitor and evaluate implementation of projects and provide feedback to the national level strategic and funding planning in the future.

- **Ministry for ecological transition**
- **GSE**
- Ministry for culture and tourism
- Ministry for infrastructure and transport
- Ministry for economic development
- ENEA
- Regional government
- Local government
- Academia
- Civil sector
- Private sector
- TSO, DSOs

Recommendation 2.2: Provide assistance with development of energy and climate plans

It is recommended to mandate regional targets and the adoption of local or regional energy and climate plans that would be aligned with the NECP and the PNRR. Regional targets can provide clear visions for clean energy development, including but not limited to energy efficiency measures, while local plans provide an overview of energy needs and opportunities at a local level, specifically on islands. Local and regional energy agencies, supported by ENEA can be responsible for the preparation of such plans. In cases where local governments lack capacity to develop their own energy and climate plans the plan could be developed for group of municipalities, islands or on a regional level, aligned with regional energy master plan from recommendation 1.2.

REPowerEU – Regions energy management

Regions and cities are playing a leading role in developing energy saving measures tailored to their local context. They should launch awareness and information and support schemes, energy audits and energy management plans, pledging savings targets, and ensure citizens' engagement such as through the European Mission on climate-neutral and smart cities or the European Urban Initiative under cohesion policy.

In addition to mandatory rules, the Italian islands taskforce could provide guidelines for the development and implementation of local energy and climate plans. Even more, the taskforce – in

coordination with national and regional bodies – could recommend and implement support schemes to provide capacity building and/or technical assistance for the realisation of such plans. These can take the form of, for instance, workshops for municipalities, guidelines for the energy transition and examples of roadmaps from similar municipalities or regions. Where there is not enough capacity on the islands, the taskforce can provide support through technical assistance, via GSE for instance, to engage external support for short-term projects.

Actors involved:

- **Ministry for ecological transition**
- GSE
- ENEA
- Regional governments
- Local governments

Recommendation 2.3: Mandatory monitoring and reporting of energy and climate plans

Strategies and national plans define the targets for the implementation of clean energy projects. However, the implementation of projects at the local level is not monitored, leading to gaps between production and demand. Our recommendation is to introduce mandatory monitoring/reporting of the implementation of the regional/local energy and climate plans. This can be annual or bi-annual and focus on local and regional governments with the guidelines provided by the Italian islands' taskforce.

Actors involved:

- **Ministry for ecological transition**
- GSE
- ENEA
- Regional and local governments

3. Complex and lengthy permitting procedures

Clean energy projects are facing complex and lengthy authorisation and permitting procedures. Within the permitting procedures, the MIBAC must give a formal and authorising opinion on every new plant/installation, through their local branch Superintendencies (*Soprintendenza*). Superintendencies have been interpreting the national and regional laws on a case-by-case basis. Very often they are not present at the decision-making table, even though they are crucial actors, and their approval is necessary for implementation. In addition, representatives of some sectors do not have the knowledge to concretely evaluate the cases and projects presented. In addition, the permissions vary per region.

There are four main steps in the authorisation procedure of renewable energy projects. They include site selection process, environmental assessment, administration authorisation and the grid connection permit. To deal with complex and lengthy permitting procedures, the Italian government has adopted multiple legislations (Decree 199/21, 17/22, 50/22) in the past two years with an effort to accelerate implementation of renewable energy projects and simplify procedures. The simplified procedures address renewable energy projects, with a focus on photovoltaic, wind, and biogas technology. They differ depending on the installed capacity of the projects. The details on the permitting procedures are provided in Annex 3. The adopted new procedures are favourable to RES plants located in “suitable areas”, as defined below. Among RES plants, PV, especially rooftop PV is supported. For example, procedure for rooftop PV with installed capacity below 50 kW is simplified. This installation is classified as ordinary building/house maintenance intervention and is not subject to the acquisition of permits, authorisations, or any other acts of approval, including those provided for under the Code of Cultural and Heritage and Landscape (Decree 17/22).

In addition to the shortening and simplification of procedures for RES, new legislation (Decree 199/21 and 17/22) calls for the identification of suitable areas for installation of wind and PV plants, as a means to reach the goals set under the NECP. Suitable areas will be identified by the regional governments based on the identification criteria defined by the Ministry for ecological transition. Identification criteria will give preference to the use of existing buildings, non-agricultural land, brownfield sites, abandoned and decayed areas, areas where plants of the same source are already installed, etc. Until “suitable areas” are identified by the regional government the following areas will be considered suitable for installation of RES plants:

- Areas where PV is already installed, where renovation, upgrading or reconstruction is possible;
- Agricultural areas within 300 metres of area of industrial use or within industrial site or factories;
- Areas within 150 metres of the highway network;
- Areas, facilities, and infrastructure available to the Italian State Railway.

Until “suitable areas” are identified, the projects will keep being implemented as they were prior to the new legislation. Suitable areas for offshore wind farms should be defined as part of Maritime Spatial Planning. GSE is tasked to prepare a single digital platform from which the suitable areas will be searchable.

Finally, the Legislative Decree 199/2021, that came into force in December 2021, introduces accelerated administrative authorisation procedure with Articles 19-24. These simplifications introduce:

- Single digital platform for administrative authorisation

The digital platform will be used for submission of applications that will cover all three procedures (communication procedure, simplified authorisation procedure and single authorisation procedure). The initial version of the platform will start with Single authorisation procedures only. It is to be setup 180 days after the Decree has entered into force.

- Standardised templates will be developed to be used for administration authorisation.

The listed simplification of the procedures is all relatively new and are yet to be completely implemented. Their goal is to accelerate implementation of RES projects and they represent very strong steps in the right direction.

Recommendation 3.1: Provide permitting guidance and capacity building

The Ministry of Ecological Transition is expected to develop guidelines with regards to the “suitable areas” which are to be followed by regions to further identify these areas. The guidelines should include the need to take into account the islands’ characteristics and include islands’ needs and priorities into account when defining the suitable areas on and around the islands.

In addition, as many authorisation procedures have changed, the Ministry should develop guidelines for authorisation and implementation of clean energy projects providing clarity to regional and local stakeholders on how to further implement these regulations. The guidelines can form one official interpretation for all the regions in order to minimise the discrepancy in interpretations of the permitting regulations. In addition to foreseen standardised templates this would help streamline the procedures.

Based on the above-mentioned guidelines, the Ministry, together with ENEA and GSE should organise capacity building through trainings for regional and local stakeholders involved in the permitting procedure. The training should be focused on implementation of the guidelines as well as strategic planning for the clean energy transition, relevant technologies, their characteristics and effect on the environment, historical and cultural sites, agriculture, and tourism.

REPowerEU – RES Simplify - Guidance

The RES Simplify report contains some useful recommendations and examples on guidance

Guidelines for authorities and stakeholders act as a helping hand when it comes to the realisation of renewable projects. They inform and describe the RES-E permitting process and thus increase expertise and knowledge amongst all parties involved. Stakeholders can follow a clear cook-book recipe and have direct access to the standard ingredients (templates for all application documents etc.) they have to use during project permitting.

Actors involved:

- **Ministry of Ecological Transition**
- **GSE**
- **ENEA**
- Regional governments
- Local governments

Recommendation 3.2: Create process for monitoring and evaluation of the simplified procedures

As the strong efforts to simplify permitting procedures are in progress, their implementation needs to be monitored and evaluated. The above-mentioned changes to the legislation affect both authorisation procedures on the national, regional, and local level and the government should require annual feedback from the regional and local level stakeholders on the issues and gaps in implementation. We therefore advise an evaluation of the existing simplified procedure based on the local and regional feedback. The evaluation can identify implementation bottlenecks (e.g., parts of regulation which are still too complex, unnecessary requirements etc.). Stakeholders that have a role in the implementation and execution of the procedure (e.g., the superintendencies, local governments, grid operators) should be involved in the evaluation process and preparation of the further simplified procedure.

A possible simplification can be to explore options for a single permit. For instance, for any clean energy project on the islands or for a specific size and type of the project which is considered priority in strategic documents.

Actors involved:

- **Ministry of ecological transition, Energy department**
- **ENEA**
- Ministry for economic development
- Regional government
- Grid operators
- Local governments

4. Unified prices and regulated monopolies

The system of unified prices that involved sharing the extra cost of electricity production on islands with all Italian inhabitants has two main aspects related to it. On the one hand, it provides political support to islands by decreasing the cost of energy and living, while on the other hand, it decreases motivation or financial interest of local stakeholders to change from fossil fuel-based energy sources to renewables. Therefore, it is seen as a negative price signal.

There are 19 small non-interconnect islands, out of which 11 have vertically integrated electricity companies. For 8 islands the DSOs and suppliers are independent but part of Enel group. The thermal power plants on the islands are generally oversized to assure security of supply during summer peak consumption. The inefficient and fossil fuel-based generation is remunerated for their operation through system charges collected through electricity bills from all Italians.

Such an ecosystem provides low motivation for a clean energy transition and depends on the single energy actor who sees no competition. Island energy companies and local DSOs showed almost no interest in the construction of RES plants, regardless of incentives introduced in 2017 through the Minor Islands Ministerial Decree. A further push is needed through obligations or gradual decrease of support for the production of energy from fossil fuels.

In addition, local DSOs define the maximum installable intermittent RES power for the islands beyond which the DSOs do not want to connect additional systems. The measure is taken to assure grid stability.

ARERA has been working together with the islands' electricity companies to find a way to include these systems in the electricity market. Different options have been tested and resulted in the document *Integrated text on electricity dispatching (TIDE): Overall guidelines* (Document for consultation 322/2019/R/eel).⁴³ The document presents guidelines for the simplified regulation of dispatching in special contexts, with particular reference to non-interconnected islands, extending to them what has already been defined in the case of Italian distribution networks interconnected only with foreign networks. This simplified regulation has the objective of avoiding the distortions deriving from the absence of interconnections with the remaining parts of the national network, guaranteeing effectiveness and transparency, as well as implementing simplified solutions that are suitable for the realities of the island. Further decision, based on the proposed Document for consultation 322/2019/R/eel on the integration of non-interconnected systems, is yet to be adopted.

Recommendation 4.1: Make an assessment of the unified price scheme

The system of unified prices is complex and not transparent to regional and local energy actors relevant for the islands. While the structure of system charges has changed in the past years, it is still complex to comprehend. We recommend that the system of unified prices is evaluated by ARERA (Regulatory Agency for Energy Networks and Environment) in the light of the support of clean energy transition on the islands. The evaluation should take into account the need for more efficient generation, the implementation of demand side management, increase in share of renewable energy generation, electrification of transport etc.

Moreover, a decision based on the *Integrated text on electricity dispatching (TIDE): Overall guidelines* (Document for consultation 322/2019/E/eel), presented above, should be made by the national

⁴³ <https://www.arera.it/it/schedetecniche/19/322-19st.htm>

government. Finally, the system of unified prices should be clearly explained and brought closer to the other stakeholders through a visualised scheme or explanation.

Actors involved:

- **Regulatory Authority for Energy, Networks and Environment (ARERA)**
- Ministry for ecological transition
- DSOs

Recommendation 4.2: Introduce obligation for suppliers to invest in RES

As islands are characterised by a single energy company that acts as a DSO, generator, and a supplier, they should be obliged to have a specific share of energy from locally produced RES in the supply mix.

Such a measure would incentivise the energy company to either invest themselves in the RES generation or to buy electricity from the future small local RES plants. Since 2017 there is already an existing support scheme for the new RES plants and this obligation would provide additional push for the energy companies.

Actors involved:

- **ARERA**
- **Ministry for ecological transition**
- Local energy suppliers

Recommendation 4.3: Redirect fossil fuel remuneration to support for RES and storage

The system charges that all Italian consumers pay in support of the islands should be reformed. Gradually decreasing the remuneration for the operational costs (OPEX), would allow for these costs to be redirected for the clean energy transition and decarbonisation of the Italian islands.

The resources can be used to support the improvement of the local grids, implementation of different storage technologies and of demand side management. This would increase the flexibility of the system and allow for higher integration of RES. The implementation of this measure should be done in coordination with the Italian island taskforce.

Actors involved:

- **ARERA**
- **Ministry for ecological transition**
- Local island stakeholders

Recommendation 4.4: Provide capacity building towards DSOs to start implementing regulatory sandboxes on islands

Implementation of experimental regulatory sandboxes for the integration of new technologies for smart grids is ongoing by ARERA since 2014.⁴⁴

⁴⁴ https://www.iea-isgan.org/wp-content/uploads/2021/10/Regulatory-Sandbox-2.0_For-Publication.pdf

We recommend using the regulatory sandbox approach to allow specific island DSOs to experiment with different designs of electricity tariffs (hourly tariff, time of use tariff, etc.).⁴⁵ The concept of regulatory sandboxes has been made possible in Italy to the DSOs through pilot regulation where DSOs can test various tariffs and local auxiliary services. DSOs are expected to propose regulatory sandbox models to the energy regulator, ARERA and ask for the approval for testing. No regulatory sandboxes have been tested on the islands up to now.

REPowerEU – Innovation and sandboxing

Article 1(3) of the proposed amendments to RED II inserts a new paragraph 2a in Article 15 requiring the Member States to promote the testing of new renewable energy technologies while applying appropriate safeguards:

'Member States shall promote the testing of new renewable energy technologies in pilot projects in a real-world environment, for a limited period of time, in accordance with the applicable EU legislation and accompanied by appropriate safeguards to ensure the secure operation of the electricity system and avoid disproportionate impacts on the functioning of the internal market, under the supervision of a competent authority.'

Consideration 18 of the Recommendation highlights that barriers resulting from permit procedures might also affect the future deployment of innovative decarbonisation technologies needed for climate neutrality. Setting up regulatory sandboxes, that is to say the testing, in a real-life environment, of innovative technologies, products, services or approaches, which are not fully compliant with the existing legal and regulatory framework, could support innovation and facilitate the subsequent adaptation of the regulatory environment to accommodate them.

Member States are encouraged to put in place regulatory sandboxes to grant targeted exemptions from the national, regional, or local legislative or regulatory framework for innovative technologies, products, services, or approaches, to facilitate permit granting in support of the deployment and system integration of renewable energy, storage, and other decarbonisation technologies, in line with Union legislation.

Regulatory sandboxes are ways for authorities, tasked with implementation and enforcing of specific legislation, to test innovative approaches and technologies in real-life situations through time limited implementation of exceptions to the existing legislation. Incentives for clean energy transition on the islands can be tested without a permanent change in legislation. It also gives room to evaluate the success of the experiment. We recommend for ARERA to organise training with island DSOs to inform about the possibility and benefit of using regulatory sandboxes through pilot regulation to test innovative solutions and technologies.

Regulatory sandboxes have already been used in Italy, Austria, Germany, and Netherlands for temporary tests of specific energy tariffs.⁴⁶

Actors involved:

- **DSOs**
- **ARERA**
- Ministry for ecological transition
- Local stakeholders

⁴⁵ <https://www.consilium.europa.eu/en/press/press-releases/2020/11/16/regulatory-sandboxes-and-experimentation-clauses-as-tools-for-better-regulation-council-adopts-conclusions/>

⁴⁶ <https://fsr.eui.eu/regulatory-sandboxes-in-the-energy-sector-the-what-the-who-and-the-how/>

5. Grid constraints due to congestion

Grid infrastructure constraints limiting the share of RES electricity and stringent requirements for RES on islands are a barrier for renewable energy development on the islands. Even though Italian islands have a low penetration of RES in their grids, the congestion of the islands' electricity networks prevents them from developing any more intermittent renewables.

The grid planning is slow and implementation of general rules that apply to the mainland are unfavourable to island characteristics. Moreover, the current regulation does not take into account possibilities offered by coupling RES with storage capacity, use of RES for self-consumption or demand side management that could ease integration of RES or e-mobility with the electricity grid.

Legislation for energy storage has been developing with the inclusion of batteries. However, most of the testing has been done by TSO Terna, on islands of Sicily and Sardinia, where Storage lab has been implemented since 2015.⁴⁷ In addition, in 2021 Terna launched auction for storage facilities, where 23 storage facilities have been chosen to be used for the frequency reserve for Italy mainland. However, regulation for small storage devices that can be used for integration of RES on the islands have not yet been developed. The Decree of the Ministry of Economic Development of 14 February 2017 for Minor islands includes support for innovative solutions and hints at storage systems as a solution. There is a plan to change the Decree to specifically include support for electricity storage systems.

Recommendation 5.1: Put islands forward as innovative laboratories

In the NECP, Italy indicates Italian small islands as areas for exploring technologies and pathways for the energy transition. Islands are put forward as innovative laboratories. The islands could work with ARERA, DSOs, technology providers and research institutes to test the implementation of storage technology in combination with RES plants, e-mobility, and demand side management to provide flexibility on the existing grids. Such pilot projects would help to test what is possible within the island system constraints and to identify barriers in the existing practices and regulation to accelerate energy transition on the islands.

Funds could be allocated for research and innovation. Tax benefits could for instance be introduced, with special focus on energy storage systems that could help provide security of supply in cases of higher integration of RES.

The coordination of such testing and research activities, development of regulation, strategic plans and available funds can be a responsibility of the Italian islands' taskforce.

Actors involved:

- **ARERA**
- **Ministry for ecological transition**
- Academic institutions
- DSOs
- Local governments

⁴⁷ <https://www.terna.it/en/electric-system/system-innovation/pilot-storage-projects>

Recommendation 5.2: Promote and support implementation of storage systems

In order to help the integration of RES into the existing networks an enabling framework (regulation, grid codes and support schemes) need to be adopted that supports implementation of storage devices.

REPowerEU – RE, grids and storage regarded as ‘overriding public interest’

Article 1(10) of the proposed amendment to RED II inserts a new Article 16d to ensure that plants for the production of energy from renewable sources, their connection to the grid, the related grid itself or storage assets are presumed to be of overriding public interest for specific purposes.

Renewable energy sources are crucial to fight climate change, reduce energy prices, decrease the Union’s dependence on fossil fuels and ensure the Union’s security of supply. For the purposes of the relevant Union environmental legislation, in the necessary case-by-case assessments to ascertain whether a plant for the production of energy from renewable sources, its connection to the grid, the related grid itself or storage assets is of overriding public interest in a particular case, Member States should presume these plants and their related infrastructure as being of overriding public interest and serving public health and safety, except where there is clear evidence that these projects have major adverse effects on the environment which cannot be mitigated or compensated. Considering such plants as being of overriding public interest and serving public health and safety would allow such projects to benefit from a simplified assessment.

Regulatory best practice

Frameworks for storage

Few countries currently provide a comprehensive regulatory framework for energy storage, with the majority of jurisdictions currently allowing storage to be defined as “generation” for the purposes of licensing and other regulatory requirements. However, some countries like the UK and Belgium have provided a more elaborate framework, mainly for revenue streams to help different storage technologies to develop, for example capacity markets, ancillary services, and other grid services.

Belgium has changed its Electricity law to have a specific definition of storage:⁴⁸ ‘Energy Storage’ means, in the electricity system, the postponement of the final use of electricity until a time later than that at which the electricity was generated, or the conversion of electrical energy into a form of energy that can be stored, the storage of such energy, and the subsequent conversion of such energy into electrical energy or another energy. ‘Electricity storage’ means energy storage where electricity is taken from the grid via the same installation in order to be fully injected back into the grid later on, taking into account efficiency losses. Noteworthy is that the Electricity Law does not assimilate electricity storage to electricity generation, and consequently a generation licence is not required.

A Capacity Remuneration Mechanism (CRM) was recently introduced in Belgium by the country’s Transmission System Operator. Beginning of October 2021, the first CRM auction was organised to select capacity offers for delivery- period 2025-2026: a (priced) demand curve was set by Royal Decree, and prequalified capacity holders were able to submit bids to the market (for existing or new capacity). Some Battery Energy Storage Systems participated in the auction. Also, ancillary services to maintain frequency and voltage at appropriate levels exist in Belgium and Battery Energy Storage Systems can participate in them.

In the United Kingdom, there are at least six markets that batteries can operate in, covering wholesale, balancing, ancillary services, time-of-use, stabilisation, and infrastructure. National Grid issues contracts for short-term generating capacity to cover sudden failures at power stations and other significant network issues. These typically cover events lasting a few seconds or minutes in duration. As a result of these characteristics, the differing services are typically available to different classes of generators (or demand reduction technologies), each having different technical and regulatory requirements. Some of these markets include: Short Term Operating Reserve (STOR), Demand Management (DM), Fast Reserve and Frequency Response. Energy storage is particularly suitable for both Fast Reserve and Frequency Response since both of these services require the rapid (second-by-second) provision of reliable power which energy storage technologies are ideally placed to deliver.

⁴⁸ Article 2.62 and 2.6 of the [Electricity Act](#)

The UK Government provides for funding to install new renewable energy storage technologies in the country under the Longer Duration Energy Storage Demonstration (LODES) competition.⁴⁹ As part of this initiative, the government has awarded GBP 6.7m (USD 9m) to 24 projects across the country under the LODES competition, which is worth GBP 68m (USD 91m) of capital funding in total.

Until recently, few countries had a specific support system for storage. Some countries, like the exemplary list below, provide support for (residential/small-scale) storage either as ‘stand-alone’ or combined with PV.

- Since 2019 Flanders (Belgium) grants rebates (premium) for the purchase of domestic batteries to encourage solar power self-consumption.⁵⁰ The Flemish government has extended the premium until 2024 and released additional budgets. The rates are as follows: 0-4 kWh: EUR 225 per kWh, 4-6 kWh: EUR 187.5 per kWh, 6-9 kWh: EUR 150 per kWh, Above 9 kWh: no additional premium. Maximum premium per battery: EUR 1725, max 40% of invoice incl. VAT.
- In Germany, the KfW funding for renewable energies (Program 270) has been very successful. It is a low-interest promotional loan for (among others) the construction, expansion, and acquisition of systems for the use of renewable energies, such as battery storage and photovoltaic systems. With the KfW 270 development loan, you finance up to 100% of the investment costs for an electricity storage system or the acquisition costs of a photovoltaic system in general.
- In Malta, a subsidy is given for an installation of new PV system with an inverter and battery storage facilities.⁵¹ It covers 80% of eligible costs of the Battery Storage up to a maximum of EUR 3,600 per system and EUR600 per kWh.
- In the Azores region of Portugal, a specific subsidy for projects on production and storage of electricity from renewable resources covers 25% percent of the eligible costs, up to a maximum of EUR 4,000 per establishment.⁵²
- In Ireland, the Solar PV scheme provides subsidies for the purchase and installation for roof-mounted PV (up to 2 kWp and with battery storage up to 4 kWp). The 2 kWp of PV systems are subsidised (EUR 900 per kWp). If the roof-mounted PV is combined with battery storage, then an additional grant for further 2 kWp is offered (EUR 300 per kWp). Consequently, the maximum level of support reaches EUR 2,400 (chapter 2 Solar PV Scheme).
- Austria has launched a rebate program for solar-plus-storage installations offering homeowners EUR 250 per kW of solar rooftop generation capacity and EUR 200 per kWh of storage.

Based on the results from innovative projects and regulatory sandboxes in Italy⁵³ and experiences from other EU member states, an enabling framework needs to be defined between ARERA, relevant ministries, and DSOs operating on the islands. Storage systems can also help provide security of supply for the non-interconnected islands and decrease the dependence on the oversized thermal plants and use of fossil fuels.

Actors involved:

- **ARERA**
- **Ministry for ecological transition**
- **DSOs**
- Academic institutions
- Local governments

⁴⁹ <https://www.gov.uk/government/collections/longer-duration-energy-storage-demonstration-lodes-competition>

⁵⁰ [Decision of the Flemish Government of 28 June 2019](#)

⁵¹ Promotion of Renewable Energy Sources in the Domestic Sector – Grant Scheme 2021/RES; <https://www.rews.org.mt/#/en/sdgr/463-2021-renewable-energy-sources-scheme>

⁵² PROENERGIA. DLR 14/2019/A & Ordinance 73/2019

⁵³ Regulatory sandboxes are possible in Italy as pilot regulation where DSOs can test various tariffs and local auxiliary services. DSOs are expected to propose regulatory sandbox models to the energy regulator, ARERA and ask for the approval for testing. No regulatory sandboxes have been tested on the islands up to now. (Based on the interview with ARERA)

6. Support measures focus on household level and not on community level

The support scheme for renewable energy and energy efficiency on the islands based on the Ministerial Decree of 2017 is directed towards a household level, but not to energy communities. As a result, not many communities have seen the light so far. When wanting to develop RES projects each household would have to require changes in the spatial restrictions. This procedure is very lengthy and complex today. Therefore, the only initiative group of household might have to join in a community or collective initiative, would be to collectively apply for changes in spatial restrictions. The collective application of households for incentives for clean energy projects is not possible right now.

Recommendation 6.1: Introduce possibility of clustered applications

The Decree should be reviewed to allow for the submission of clustered applications. This way citizens and local stakeholders or communities could organise themselves in clusters to apply for similar support measures. This can be done through an energy community, cooperative or organised by a third party, such as energy service company (ESCO).

The advantages of collective or cluster applications for support are a faster implementation of the clean energy measures and the creation of standardised solutions that can be rolled out on Italian islands. The procedure of applying for incentives could also involve facilitators that provide energy advice and provide funds for technical assistance, to help prepare such clustered applications.

Actors involved:

- **Ministry for ecological transition**
- **GSE**
- **ENEA**
- Local stakeholders

Recommendation 6.2: Raise awareness about existing incentives

In order to raise awareness to islands on the incentives provided by the Decree of 14 February 2017, systematic action of regional and local stakeholders should be organised. Local municipalities should have clarity on the existing support schemes so that they can provide guidance to the local stakeholders or at least be able to direct them to transparent and easily accessible explanation online.

REPowerEU – Facilitating citizen and community participation

To facilitate citizen and community participation, Member States should stimulate the participation of citizens, including from low and middle-income households, and energy communities in renewable energy projects, as well as take measures to encourage passing the benefits of the energy transition on to local communities thus enhancing public acceptance and engagement.

Actors involved:

- **GSE**
- **Ministry for ecological transition**
- **ENEA**
- **Local governments**
- Regional and local energy agencies

7. The regulation on energy communities is underdeveloped

Energy communities are a rather novel concept not only for Italian islands but for the whole country. Italy adopted measures on Renewable energy communities (RECs) and incorporated them into national law (Law 8/2020),⁵⁴ introducing the term collective self-consumers (CSC) and RECs for collective energy actions on a temporary basis, based on directive (EU) 2018/2001. The related implementing measures, mainly referring to pricing, are the ARERA Resolution no. 318 of 2020⁵⁵ and the Ministerial Decree of 16 September 2020.⁵⁶ The Legislative Decree 8 November 2021, n. 199,⁵⁷ that transposes EU 2018/2001 on the promotion of the use of energy from renewable sources, including incentives for RECs, and self-consumption configurations. While the phase from January 2021 onwards was considered as a transitory experimental stage only for REC and CSC, a basic definition for Citizen Energy Communities (CEC) was adopted in November 2021 with Legislative Decree 8 November 2021, n.2010.⁵⁸

GSE launched a web portal⁵⁹ through which applications for the allocation of incentives for RECs and CECs are to be submitted. However, there are currently very few active energy communities on the mainland. One example energy community has been formed on the island Ventotene⁶⁰ in the Tyrrhenian Sea.

Moreover, traditionally energy companies need to adhere to strict regulations and obtain a permit to act as an energy supplier. Such complex administration and legal barriers do not make it attractive for citizens to start a community.

It is worth noting that the PNRR,⁶¹ in Mission 2: Green Revolution and Ecological Transition (Section M2C2), provides for a total investment of EUR\$ 2.20 billion⁶² to boost and support energy communities. The objective is to spread and reinforce the practice of energy self-production in small and remote areas where it is necessary to strengthen the economy situation and social impact. For this purpose, public administrations, households, and micro-enterprises will be identified in municipalities with less than 5000 inhabitants.

Recommendation 7.1: Prioritise regulatory framework and provide right incentives

We recommend prioritising further enabling regulation for energy communities. The regulation should provide a clear advantage to forming an energy community. The support can be in the form of incentives for specific projects, tax benefits, technical assistance for starting an energy community and simplified procedures for clean energy projects. Moreover, the regulation for energy communities on the islands could be coupled with the regulatory sandboxes to allow controlled environments for testing of the new tariffs and innovative technologies.

REPowerEU - facilitating citizen and community participation

⁵⁴ <https://www.gazzettaufficiale.it/eli/id/2020/02/29/20G00021/sq>

⁵⁵ <https://www.arera.it/docs/20/318-20.htm>

⁵⁶ https://www.gazzettaufficiale.it/atto/serie_generale/caricaDettaglioAtto/originario?atto_dataPubblicazioneGazzetta=2020-11-16&atto.codiceRedazionale=20A06224&elenco30giorni=true

⁵⁷ <https://www.normattiva.it/uri-res/N2Ls?urn:nir:stato:decreto.legislativo:2021-11-08:199>

⁵⁸ <https://www.normattiva.it/uri-res/N2Ls?urn:nir:stato:decreto.legislativo:2021-11-08:210>

⁵⁹ https://supportogse.service-now.com/csm?id=invia_segnalazione

⁶⁰ <https://www.themavor.eu/fr/a/view/ventotene-becomes-the-first-energy-community-island-in-the-mediterranean-9106>

⁶¹ <https://italiadomani.gov.it/content/dam/sogei-ng/documenti/PNRR%20Aggiornato.pdf>, page 129 – 130.

⁶² <https://italiadomani.gov.it/Interventi/investimenti/promozione-rinnovabili-per-le-comunita-energetiche-e-l-auto-consumo.html>

Member States should implement simplified permit-granting procedures for renewable energy communities, including for the connection of community-owned plants to the grid and reduce to a minimum production licensing procedures and requirements, including for renewables self-consumers.

The [EU Solar Strategy](#) highlights that better information is key to enhance clarity and predictability on the benefits of selfconsumption for potential investors, citizens and SMEs. Investment costs, financial support, increase of property value, network tariffs, generation and consumption profiles and return on investment are all relevant factors impacting investments. One-stop-shops in Member States should share such information and give citizens advice on both energy efficiency measures and solar energy projects in an integrated manner, from the technical requirements to administrative steps and support measures.

Community energy projects still face significant barriers, including difficulties in securing financing, navigating licencing, and permitting procedures or developing sustainable business models. In addition, as they are often initiated by a group of volunteers, they suffer from limited time and lack of access to technical expertise. Member States should establish appropriate incentives and adapt administrative requirements to the characteristics of energy communities. An integrated 3-step “learn-plan-do” programme could help energy communities build technical expertise and secure access to financing. The assessment and removal of existing barriers would level the playing field with more professionalised and established market participants.

Actors involved:

- **Ministry for ecological transition**
- ARERA
- GSE

Recommendation 7.2: Provide clear communication on procedures

To enable energy communities, communication is important. The Ministry of ecological transition and GSE, together with regional government should provide clear and transparent communication about advantages and disadvantages of forming an energy community, guidance on how to start a community and available support. This should be easy to access and written clearly in easy language. Designing the level and details of communication can also be a task for the Italian islands’ taskforce.

Local and regional offices, municipalities or contact points that could provide more information on clean energy transition, existing legislation and possible procedures might be an option for improving the communication with the local stakeholders who are tasks to take initiative.

Actors involved:

- **Ministry for ecological transition**
- GSE
- Regional and local offices and Municipalities

Conclusions

The Clean energy for EU islands secretariat conducted an analysis of the legal and regulatory framework which supports clean energy projects in Italy. The resulting Regulatory inventory is publicly available [online](#). Based on the analysis of the inventory and information gathered via surveys and interviews, the Clean energy for EU islands secretariat has brought together relevant stakeholders in Focus Groups and a National Stakeholder Meeting to identify barriers to the clean energy transition on Italian islands, and formulated recommendations to overcome them. This mission has gained in importance since the publication of the [REPowerEU](#) package.

Italy has been adopting and implementing regulatory solutions to support energy transition and specifically islands transition. This has been done through the Decree of the Ministry of Economic Development of 14 February 2017 and other legislation in the past two years.

Italian islands still have low (less than 10%) share of RES in their energy systems. While support systems for clean energy projects are available, islands have not been active enough in using this national support. One of the main barriers to this development have been too stringent planning regulation. Spatial planning guidelines from the national level are needed to harmonize the spatial legislation between different regions. In addition, in this study we recommend developing regional master plans which indicate suitable areas where energy projects can be implemented to speed up and simplify procedures for such projects.

Italy's Recovery and Resilience Plan included a focus on islands. Implementation started with the action to identify ready projects and help island municipalities to develop these projects. Moreover, there is a national committee which will monitor implementation of projects that receive funding. This approach is in line to what is needed for the islands. However, it is recommended that such approach is taken for all funding and for implementation of National Energy and Climate Plan. Therefore, we recommend setting up a national Island Taskforce which will have a mandate to represent island priorities and challenges on the national level and help shape policy which will support energy transition on the islands. The taskforce can help identify gaps and create opportunities for local stakeholders to receive assistance in preparation and implementation of local energy and climate plans.

In parallel to support and increased visibility of island stakeholders and their challenges, there is a need to re-assess unified pricing for the islands. The system operators on non-interconnected islands are not incentivised to change the current system. We recommend that the support for fossil fuels be redirected to clean energy. Suppliers should be required to provide a specific share of renewable electricity to their consumers and island DSO should be supported through capacity building to enable them to use regulatory sandboxes and to start making changes to the existing system. The changes require ARERA to intervene and find an optimal pricing scheme to match the energy transition goals.

However, even with all the proposed changes the grid constraints pose a barrier. To increase RES integration capacity of existing grids, they need to be more flexible. Electricity storage systems are currently mainly used in Italy for TSO level management. However, with the right remuneration schemes, storage systems can be deployed on the islands as well.

Engagement of local stakeholders is crucial for successful energy transition. While awareness raising is needed to provide more information on the opportunities and benefits that energy

transition can bring to the local stakeholders, they are often stopped by complexity of the procedures. Most support systems are provided for a single household. However, community applications would make administration easier for consumers and would help accelerate the use of the provided funds. Energy communities are one form of community involvement in energy projects. Clear and supportive regulation is needed to accelerate their.

The proposed recommendations are in line with existing activities in Italy but require improved and clear regulation, monitoring of implementation and feedback from local stakeholders to the national government for strategic planning and increased engagement .

Annex 1 – Detailed analysis of the survey results & results of the interviews

This chapter presents the identified barriers to clean energy projects on the Italian islands. The barriers are identified through the survey results and conclusions from the interviews with the selected stakeholders.

The survey for Legal and regulatory barriers for clean energy on Italian islands has been sent to 95 contacts, representing 70 stakeholders from national and local governments, over academia to energy associations and NGOs. In addition, the survey was publicly accessible and could have been forwarded to more contacts or organisations which we cannot account for. The survey has been completed by 15 responders. However, the response rate cannot be evaluated as the survey was publicly available as well.

Responders of the survey are representatives of 9 stakeholder groups. The responders are relatively distributed among the different stakeholders with island municipalities representing 13 %, national government bodies 13 %, academia 26 %, The rest of the stakeholder groups (Network Operator (TSOs and DSOs); Energy supplier, Other (and island organisation), citizens, consumer associations, energy industry) are represented with 6 % of respondents or 1 representative.

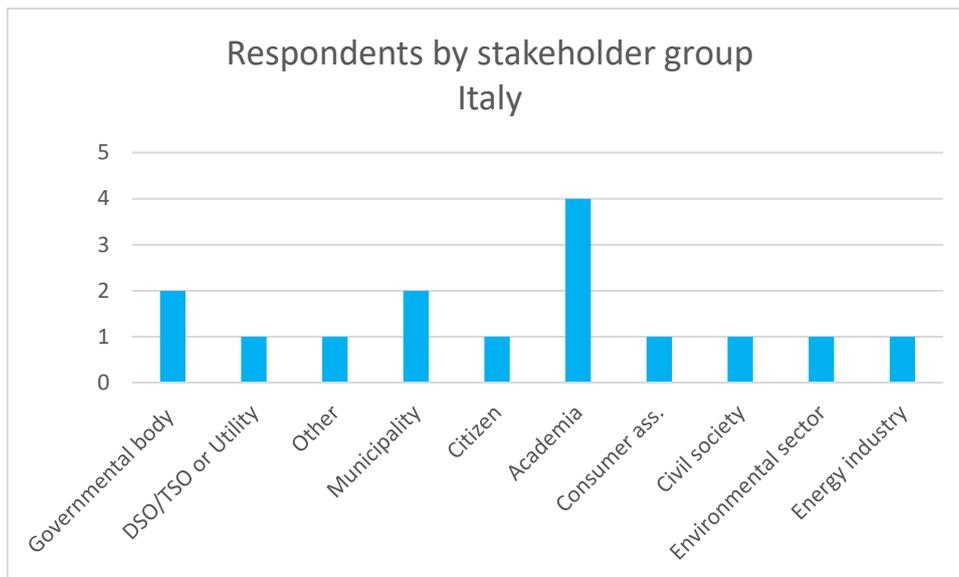


Figure 1 - Overview of the respondents by stakeholder group

Aside from the surveys, seventeen semi-structured interviews were organised with representatives from the Ministry for ecological transition, Gestore Servizi Energetici (GSE), Regulatory energy agency (ARERA), ENEA, Unione Nazionale Imprese Elettriche Minori (UNIEM), Associazione Nazionale Comuni Isole Minori (ANCIM), Sapienza University of Rome, Politecnico di Torino, Greening the islands, SINLOC, Società Elettrica di Favignana, Salina Municipalities, Pantelleria municipality.

The main barriers that were identified were the following:

- The lack of strategic and long-term energy planning, at national, regional, and local level, is seen as a major barrier. It is indicated that small municipalities lack the capacity to develop such plans without support.
- Unified prices and regulated monopolies, although considered necessary, do not provide the right incentives for clean energy development on the islands

- On the smaller islands, there is a lack of clarity regarding financial, social, or environmental benefits to islanders and the municipalities are not well informed about the available support systems, and they lack the technical people/capacity to apply for it and to deal with energy subjects.
- Long permitting procedures is a major barrier. Complicated bureaucracy, spatial planning constraints and differences in interpretation of legislation are some of the underlying reasons.

These and other barriers are elaborated upon in more detail in the sections below.

General

Survey results:

The survey has asked the respondents to give their opinion on the following three statements regarding strategic energy planning for clean energy on Italian islands using a Likert scale. The results are presented in numerical form showing the average from all responses. The numerical representation is from 1-5, with 1 representing strong disagreement to 5 representing strong agreement.

Barrier	Rating
Island(s) energy plans would help align local and national regulation, spatial plans, restrictions for clean energy	4.3
National obligation for islands to develop energy action plans would lead to accelerated realisation of clean energy projects on islands	4.3
Islands should be better integrated in the National Energy and Climate Plans	4.3

If we take into account only statements that were agreed and strongly agreed upon, or equal or above rating of 4.0, all three statements were agreed upon by the respondents.

Interview results:

From the interviews with Italian stakeholders, the following **general barriers** for clean energy development on Italian islands have been retained:

- While the Decree of the Ministry of Economic Development of 14 February 2017 (described in the section on Policy and Legislation above) allows municipalities to have access to the required funds for clean energy projects, small municipalities have little teams lacking expertise, manpower and time to develop strategic energy plans.
- There is a lack of awareness that renewable energy is needed and there is a lack of support from the national and regional level.
- Besides this Decree of 2017, no island-specific policy or strategy has been developed.
- It is useful if there is a local plan for energy use and the locations. But in cases where islands are too small and do not have capacity then having an obligatory action plan for the islands could be counterproductive as some islands do not have capacity to do this. So having such a plan on a regional level or national level in some cases might be better.
- Existence of local energy plans, like CETA that would define islands potentials, priorities and plans for energy transition would make it easier to harmonise with regional/national governments and make sure that the needed restrictions are changed and lifted.

From the interviews with Italian stakeholders, the following **remarks** for clean energy development on Italian islands, regarding **unified energy prices and regulated monopolies**, have been retained:

- Splitting the extra cost of electricity production on islands on all Italian inhabitants is, on the one hand good for not discriminating local populations for the fact of living on islands, where costs for energy production is significantly higher. On the other hand, the fact that companies operate in a “de facto” monopoly regime, somehow “promotes” the use of fossil fuels, making the competition with renewable sources unfair.
- The fact that subsidies, based on this system of unified energy prices, are still given to diesel generators on the islands, the local companies are not incentivised to look toward renewables or any changes.
- Regarding regulated monopolies, most of the small islands have Enel for the production and distribution of electricity. It is difficult to quantify as a barrier. Enel has objectives to decarbonise, so it can actually be advantageous to have a monopoly although diversity in general contributes.

Renewable energy

General

Survey results:

The survey has asked the respondents to rate the following four **general barriers to renewable energy** projects on Italian islands based on their importance using Likert scale. The results are presented in numerical form showing the average from all responses. The numerical representation is from 1-5, with 1 representing not at all important to 5 representing very important.

Barrier	Rating
Lack of long-term planning developed at regional/island level (e.g., lack of clear renewable energy targets)	4
Lack of clarity regarding financial, social, or environmental benefits to islanders	4.1
Stringent regulations for historical building protection hampering PV on rooftops, carports, industrial sites	3.9
Lack of awareness-raising campaigns and/or increasing capacity of the stakeholders for developing clean energy projects	3.6

If we take into account only barriers that are considered important or very important, or equal or above rating of 4.0, there are two very important barriers considered by respondents. They include from least to most important:

- Lack of long-term planning developed at regional/island level (e.g., lack of clear renewable energy targets)
- Lack of clarity regarding financial, social, or environmental benefits to islanders

Both of the barriers are rated “very important” by the respondents classified under the Network Operator (TSOs and DSOs) and Energy supplier, the environmental sector and citizens or civil society stakeholder groups, respectively.

Interview results:

From the interviews with Italian stakeholders, the following **general barriers for renewable energy** development on Italian islands have been retained:

- This Decree of the Ministry of Economic Development of 14 February 2017 provides significant incentives for res-electricity on non-interconnected islands however islands are not valorising them enough. It also provides incentives for RES-thermal which needs to be used more. Most of the RES-thermal incentives are on the household level/single building.
- Implementation of RES on the larger islands like Sicily and Sardinia is much easier – they are also regional governments, there is more space, and they have more capacity to deal with energy projects. However, on the smaller islands, the municipalities are not well informed about this support system, and they lack the technical people/capacity to apply for it and to deal with energy subjects.
- Limited access to storage capacity is the main problem for non-interconnected small islands.
- The application for the incentives or doing energy actions in Italy is not so easy and can be complex for the citizens.

RES projects authorisation process (permitting and spatial planning)

Survey results:

The survey has asked the respondents to rate the following eight **barriers** to renewable energy development **regarding permitting and spatial planning** on Italian islands based on their importance using Likert scale. The results are presented in numerical form showing the average from all responses. The numerical representation is from 1-5, with 1 representing not at all important to 5 representing very important.

Barrier	Rating
Complex administrative procedure	4.3
Long permitting procedure with durations above 2 years	4.6
Lack of exemption from authorisation/permits for small-scale systems (PV, battery, EV chargers)	3.3
Land use changes need to be approved at national level	3.3
Spatial planning legislation related to protected areas restrictions and RES installations not adjusted to the local island’s characteristics	4.1
Renewable energy projects seen as conflicting to environmental protection of the islands/area around islands.	4.0

Lack of long-term vision on how different land use on islands (renewable energy project, agriculture, tourism, cultural heritage, natural protection, etc.) are coordinated to assure sustainable economic development.	3.7
Spatial planning restrictions for RES projects cover entire islands without detailed analysis.	3.5

If we take into account only barriers that are considered important or very important, or equal or above rating of 4.0, there are 4 very important barriers considered by respondents. They include from least to most important:

- Renewable energy projects seen as conflicting to environmental protection of the islands/area around islands
- Spatial planning legislation related to protected areas restrictions and RES installations not adjusted to the local island's characteristics
- Complex administrative procedure
- Long permitting procedure with durations above 2 years

Interview results:

From the interviews with Italian stakeholders, the following **barriers** for renewable energy development, **regarding permitting and spatial planning**, on Italian islands have been retained:

- The development of renewable energy projects is not easy, due to a complicated bureaucracy and other obstacles.
- Islands are very often located in protected areas, in national parks, or there are Special Areas of Conservation (SAC), as well as Special Protection Area (SPA), there are several environmental constraints and prohibition to install RES plants.
 - In this regard it is important to mention that the Ministerial Decree of 2017 has 2 lines of action, (i) one aimed at local authorities and (ii) one aimed at network operators. As for the first line of action, in which Pantelleria actively participated, the Decree was effective so that the municipality of Pantelleria has presented 5 projects on energy efficiency in municipal buildings that have been all financed. As for the part addressed to network operators, the situation is not clear, as "pilot" projects should be financed but there are limits based on a regional standard that identified unsuitable areas including the IBA (Important Bird and Biodiversity Area) for the installation of wind farms, not even small ones. Pantelleria has been marked entirely as an IBA area, and we know that the island is nicknamed – the island of the wind – and therefore because of this regional rule, it is not possible to exploit this important resource that the island possesses. Talking about photovoltaics instead, we have to consider large portions of land which is not suitable for a small island, also considering the protected areas and the protection of the historical / cultural heritage. We need a targeted regulatory intervention for the classification of suitable areas through an environmental study that maps in detail the territory. Pantelleria for its location and for its territory could be energetically independent and green thanks to the multiple resources it could exploit. However, this momentum is absent because it is not economically convenient for the network operator.
- The MIBAC has to give a formal and authorising opinion on every new plant/installation. The role of MIBAC is to protect the landscape, and this often means adding other difficulties to the renewable energy plants.

- As mentioned above in the Policy and Legislation section, there is a simplified procedure for ground mounted PV and onshore wind. However, the local branches (*Soprintendenza*) of the MIBAC interpret the national and regional laws on a case-by-case basis. One official interpretation of the regulations would be helpful in this regard.
 - For example, on Pantelleria most of the buildings have the typical Dammuso roof on which it is not possible to install photovoltaic systems since it is a vaulted roof. In addition, Pantelleria has a landscape plan protected by the superintendence, a national park authority and 80% of the territory is subject to constraints, which all together does not leave many possibilities for the installation of renewable energy systems.

Grids

Survey results:

The survey has asked the respondents to rate the following three **barriers regarding grids** on Italian islands based on their importance using Likert scale. The results are presented in numerical form showing the average from all responses. The numerical representation is from 1-5, with 1 representing not at all important to 5 representing very important.

Barrier	Rating
Insufficient capacity linked to obsolete infrastructure	3
Limited sustainable back-up options to assure security of supply	3.1
Lack of systematic approach to grid development needs for integration of RES	2.8

If we take into account only barriers that are considered important or very important by average response of all respondents, or equal or above rating of 4.0, there are no 'important' barriers considered by respondents.

Interview results:

From the interviews with Italian stakeholders, the following **barriers** for renewable energy development, **regarding the grid**, on Italian islands have been retained:

- One challenge from an infrastructural point of view, is the topic of storage: in order to overcome the strong seasonal variation of consumption and intermittency of RES energy production, the implementation and installation of storage systems will increase the efficiency and stability of the grids and assure security of supply.
 - Having a storage system would guarantee greater stability of the network during the summer, where the demand for energy is much higher than in winter.
 - Moreover, a storage system would give the possibility to implement other opportunities on the island such as a water desalination system, or the development of electric-only vehicles that themselves act as storage for electricity.
- Many islands have old grid infrastructure which is unable to integrate distributed energy resources. Policy and appropriate funding for upgrading the grids is needed. An interviewee indicated that since Enel is on most islands the grid operator, and since they have set for themselves the objective to decarbonise, they will invest in upgrading the grid.

Energy Efficiency

Survey results:

The survey has asked the respondents to rate the following five **barriers to energy efficiency** on Italian islands based on their importance using Likert scale. The results are presented in numerical form showing the average from all responses. The numerical representation is from 1-5, with 1 representing not at all important to 5 representing very important.

Barrier	Rating
Energy efficiency in generation/transport/use is not considered the first priority in strategic documents/regulation	2.9
Absence of local funds to encourage energy efficiency projects among stakeholders	3.3
Lack of access to funding for local governments	3.3
Lack of incentives for energy management and monitoring systems	2.8
Lack of clear regulations for energy service companies	2.6

If we take into account only barriers that are considered important or very important, or equal or above rating of 4.0, based on the average response of all respondents there are no 'important' barriers considered by respondents.

Interview results:

From the interviews with Italian stakeholders, the following **barriers for energy efficiency** on Italian islands have been retained:

- As mentioned above in the section Policy and Legislation, the ministry of environment runs specific energy efficiency programs for public buildings on small islands. However, although the goal of the program was to support islands, it was unsuccessful and received little applications. This was due to the fact that the mechanism of the selection process was too tailored to the mainland, and it was not well adapted to islands specificities.
 - The problem lies at the Regional level, in the sense that there is no clear communication, and the Region does not really promote actions that facilitate or incentivise these projects
- While before there were no funds for energy efficiency renovations for residential buildings, there now exists a national subsidy for energy efficiency measures especially for the improvement of building envelope which covers more than 100 % of the costs.⁶³ All buildings can apply. This is a possibility that exists until 2023 and has started during the pandemic. This should be used by individual buildings as it provides them literally free money to assume lower energy consumption of buildings. However, there is insufficient awareness of the local population about the opportunities and benefits of energy efficiency. The existence of national and dedicated support schemes is not always known.

⁶³ Superbonus, Ecobonus, Bonus Casa tax deduction schemes are available here: <https://detrazionifiscali.enea.it/>

Self-consumption and community energy

Survey results:

The survey has asked the respondents to rate the following **barriers to community energy projects** and energy sharing on Italian islands based on their importance using Likert scale. The results are presented in numerical form showing the average from all responses. The numerical representation is from 1-5, with 1 representing not at all important to 5 representing very important.

Barrier	Rating
Although a legal framework is in place, lack of implementation of the concepts of prosumers and energy communities	3.5
Lack of institutionalised platforms for information exchange, awareness raising and capacity building on local or regional level	3.6
There is no clear motivation for islanders to participate in an energy community	3.6
Lack of political support for community/citizen involvement	3.6
Community energy initiatives have to meet the same requirements as traditional energy companies	3.6
Lack of financial/funding mechanisms for collective/community involvement in clean energy projects	3.3

If we take into account only barriers that are considered important or very important, or equal or above rating of 4.0, based on the average response of all respondents there are no barriers considered 'important' by all respondents.

Interview results:

From the interviews with Italian stakeholders, the following **barriers for self-consumption and community energy** on Italian islands have been retained:

- Energy communities are new to Italy in general not just for islands. The Ministry has tried to get people to start building energy communities but up to now there are not many results on the mainland in general and on islands as well. One of the main barriers is that the regulation needs to be (further) developed.
- Another barrier is the presence of local constraints (e.g., Salina): there are not enough locations to install PV on municipality property (e.g., schools and gyms) leading to small installation capacities compared to the energy needs. Citizens and residential buildings should be more involved.
- As the support scheme for renewable energy on the islands based on the Ministerial Decree of 2017 is theoretically more convenient - at household level - than the complex legal framework for energy communities, there are few energy communities being developed. The only use case for energy community initiatives would be to ask for changes in the spatial restrictions as a community as this procedure for each individual consumer is very lengthy and complex.

Other barriers

Socio-economic barriers or issues discussed in the interviews:

- Limited stable population on the small islands
- There is a general shortage of and area for solar PV development
- Cultural and social issues are connected with the implementation of the concept of “prosumers” and of “energy community”; they are still very far from the Italian islands’ mind.

Technical barriers or issues discussed in the interviews:

- Wind farms on Italian islands do not seem to be possible due to environmental and other constraints. Focus could be on PV and other RES thermal options such as solar thermal or HPs.

Measures to overcome the identified barriers

Survey results:

The survey has asked the respondents to rate the following eleven **measures for overcoming the barriers** for clean energy projects on the Italian islands based on their importance using Likert scale. The results are presented in numerical form showing the average from all responses. The numerical representation is from 1-5, with 1 representing not at all important to 5 representing very important.

Measures	Rating
Compromises between environment conservation, agriculture, preservation of historical sites, tourism, and sustainable and clean energy	3.9
Involvement of key stakeholders in preparation of island specific strategic document	3.9
Subsidies for fossil fuels are redirected to support clean energy projects through the avoided GHG emissions method	3.8
Capacity building or advisory services on clean energy projects for islands	3.9
Regional/local one-stop shop for clean energy projects on the islands	3.6
Single permit for clean energy projects on the islands	3.4
Tax benefits for energy efficiency	4.2
Energy efficiency programs managed on regional/local level	3.6
Develop enabling framework (clear regulation and financial mechanisms) for operation of energy services companies	4.0
Incentivising co-ownership of clean energy projects by islanders to increase their support for clean energy	3.6
Create enabling framework for energy communities, cooperatives, and other community energy initiatives	4.0

If we take into account only measures that are considered important or very important, or equal or above rating of 4.0, there are three very important measures considered by respondents. They include from least to most important:

- Develop enabling framework (clear regulation and financial mechanisms) for operation of energy services companies
- Create enabling framework for energy communities, cooperatives, and other community energy initiatives
- Tax benefits for energy efficiency

Interview results:

From the interviews with Italian stakeholders, the following **measures to overcome some of the above-mentioned barriers** for clean energy development on Italian islands have been retained:

Regarding strategic planning:

- Beyond that Decree of 14 February 2017, other island specific regulations and policy are needed. The islands should be treated specifically because of their territorial peculiarity, any planning imposed from the central government, generalised, and not adapted to the specific territory of reference creates damage and disorientation. It is essential to focus on the local reality, giving voice to the territories and local administrations because they know exactly the problems and needs giving possible concrete solutions.
- An interviewee indicated that lack of long-term planning at island level – in light of the lack of capacity and resources of the island municipalities – can be overcome by developing a Clean Energy Transition Agenda with the assistance from the Clean Energy for EU islands Secretariat
- The local awareness of the possible benefits from clean energy projects should be increased

Regarding unified energy prices and regulated monopolies:

- The Decree of the Ministry of Economic Development of 14 February 2017 contains provisions obliging energy producers to increase the share of renewables in order to receive their contribution. In that sense, the system of unified prices can be turned into a measure stimulating renewable energy developments.

Regarding renewable energy in general:

- When assessing correlation between all barriers presented in the survey the two barriers ‘lack of long-term planning developed at regional/island level (e.g., lack of clear renewable energy targets)’ and ‘lack of clarity regarding financial, social, or environmental benefits to islanders’ are both highly correlated to the proposed measure of ‘Capacity building or advisory services on clean energy projects for islands.’ This means that capacity building would be a suitable measure to overcome these barriers.
- Citizens should have greater tax benefits on investments made in renewable sources.

Regarding spatial planning and permitting:

- To cope with the discrepancy in interpretations of the permitting regulations by the local branches (*Soprintendenza*) of the MIBAC, one official interpretation (and guidelines) could be developed. In order to cope with the difficulties and to find a solution, all the actors should sit at the table, especially the bodies responsible for the protection of constraints, and define in a clear, definitive, and unambiguous way what are the conditions to advance with the development of renewable energy in the restricted areas. The creation of a detailed Master Plan that investigates and approves the sites island by island is necessary. To do this, it is

necessary to have a discussion with all the interested parties who give the necessary and unambiguous approvals at that time

- In accordance with the Renewable Energy Directive, Italy is currently defining the areas where RES plants could be located. This is done in collaboration with regional governments, but (island) municipalities are not yet involved. Islands should be heavily involved.
- Simplifying procedures through regulation for the small renewable energy and for small non-interconnected islands. PV is the technology that is the most preferred for the islands - since it can also be installed on the roof and does not require additional land, does not have visual impact (Wind), does not have constant source of resource (biomass). Italy is currently in the process of simplifying the authorisation process for smaller RES on the islands
- Modify the regional regulations that incorrectly identify areas unsuitable for RES with particular reference to wind power.

Regarding the grid:

- Policy and appropriate funding for upgrading the grids could be put in place
- A framework for energy storage could be developed.

Regarding energy efficiency:

- There is a very generous support scheme for energy efficiency, but the Ministry would have to check how much it is being used by the islands specifically. Local communities and municipalities need to be informed and trained about the opportunities.
- The region should be more active and proactive in the management of energy efficiency programs, and it should also adopt a different communication that is clearer and more proactive.

Regarding energy communities:

- Simplified energy community regulations for islands.
- Regarding the lack of interest in energy communities, an interviewee indicated that an information campaign or a one-stop shop would be helpful.

Examples of islands/projects as best practice:

- Some islands, as Ischia island, Isola d'Elba, Pantellaria, Salina,⁶⁴ are more active than others. For example, the small island of Ventotene in the Tyrrhenian Sea of Italy has set up an energy community.⁶⁵
- Thanks to the collaboration between the mayor of the island, ENEL, La Sapienza University of Rome and the Polytechnic University of Turin, a feasibility study for a renewable energy community was prepared which aims at making Ventotene a zero-emission island. The island with 740 inhabitants, will work together to install distributed photovoltaic systems (with the experimentation of mixed organic panels consisting of a photosensitive layer, anthocyanin, obtained from blueberries) and low-capacity wind systems. This shows as example of an island collaborating to accelerate energy transition.

⁶⁴ [Green Salina Energy Days](#)

⁶⁵ <https://www.themayor.eu/fr/a/view/ventotene-becomes-the-first-energy-community-island-in-the-mediterranean-9106>

- Lightness:⁶⁶ European project founded by Horizon 2020 research and innovation programme under grant agreement No 953020. The Lightness project aims “to empower citizens to generate, share and sell renewable energy and thereby contribute to making the European energy sector more sustainable and democratic”. Lightness project does not refer to islands but more generally to energy communities.

⁶⁶ <https://www.lightness-project.eu/>

Annex 2 – Italy Stakeholder Meetings

Italy Focus Group

Italy Focus Group invited members:

- Ministry of Ecological transition
- GSE
- ARERA
- ENEA
- ISPRA
- Enel
- Terna
- ANCI
- Politecnico di Torino
- Sapienza University of Rome
- ANEV
- Greening the islands
- Pantelleria municipality
- Legambiente per le Energie Rinnovabili
- Società Elettrica di Favignana S.p.A
- Salina Municipalities

First Italian Focus Group (IEFG1) meeting

Title	CE4EUI - Italy Focus Group - Study on regulatory barriers and recommendations for clean energy development on islands.
When	Wednesday, 16 February 2022, 10:00-12:00 CET.
Where	Online
Speakers	Lucija Rakocevic, Marta Veronesi
Language	English, Italian
List of attendees	CE4EUI Secretariat Politecnico di Torino the Ministry for ecological transition Sapienza University of Rome and ANEV (Italian wind energy association) Gestore Servizi Energetici (GSE) Greening the islands National Association of small Island municipalities (ANCIM) Enel the Environmental Commission at the Italian Parliament

The resulting discussion among all stakeholders focused on the following barriers:

- Role of the islands
- Lack of concreteness for the energy actions on the islands from the national level
- Homogeneity of national, regional, and local plans when it comes to energy
- Priorities of local communities are not heard
- Electricity companies and the unified price of the cost of energy
- Lack of a long-term strategy and monitoring or the feedback loop to the strategic energy planning
- Not all islands are considered in the incentive plans
- A single technology solution being photovoltaics are supported while other renewable energy sources are not considered
- Non-achievement of the results foreseen in the Minor Islands Decree
- Authorisation procedure - environmental and landscape constraints
- Authorisation procedure - the Superintendencies
- Authorisation procedure - regional differences
- Lack of technical skills - local consciousness

Second Italian Focus Group (IEFG2) meeting

Title	CE4EUI - Italy Focus Group - Study on regulatory barriers and recommendations for clean energy development on islands.
When	Wednesday, 13 April 2022, 10:00-12:00 CET.
Where	Online
Speakers	Lucija Rakocevic, Marta Veronesi
Language	English, Italian
List of attendees	CE4EUI Secretariat Politecnico di Torino, regional partner Sapienza University of Rome National Association of small Island municipalities (ANCIM) Enel Politecnico di torino, Spatial planning

The second Italian Focus Meeting focused on the Recommendations for the first tree priority legal and regulatory barriers highlighted in this Study.

The discussion concentrated on the following recommendations identified for the three main barriers (see Figure):

1. Complex and lengthy permitting procedures
One-stop shop for clean energy projects
Evaluate simplified procedure and establish single permit
Permitting guidance and capacity building
2. Spatial planning and stringent and generic restrictions
Develop national framework law for spatial planning
Master plan with indications on the regional and local level
Make mandatory expert and local involvement in regional landscape plans
3. Lack of attention for the local level within national strategic energy planning
Set up a taskforce dedicated to islands
Assistance with development of energy and climate plans
Mandatory monitoring and reporting of energy and climate plans
Review the Minor Islands Decree

National Stakeholder Meeting

Title	CE4EUI - Italy National Stakeholder Meeting - Study on regulatory barriers and recommendations for clean energy development on islands.
When	Wednesday, 11 October 2022, 10:00-16:00 CET.

The National Stakeholder Meeting was held in Rome (Italy), bringing together representatives from the national government and islands stakeholders.

During the NSM on legal and regulatory barriers and solutions to clean energy transition on Italian Islands, a diverse group of stakeholders discussed the first tree barriers identified in the Study and how the proposed solutions could be implemented.

The participants agreed that one of the critical points is how to involve and make it compulsory for superintendencies their participation in the decision-making assemblies and taskforces where the various plans and their application (spatial planning, energy master plan etc.) should be decided.

It was also stressed that local participation is extremely important. Already existing assemblies (such as the Conference of Regions and Autonomous Provinces, the State–Regions Conference and the Unified State–Regions and Cities and Local Autonomous Conference) were identified. In these assemblies' local actors could participate in order to have voice in the decision-making process.

Moreover, the so-called protected market, i.e., electricity and gas supply services with contractual and economic conditions defined by the Authority, was assessed and discussed. In particular, the protected market affects the islands' dependence on gas and other fossil fuels, and it does not favor and speed up the passage towards clean energy in the islands.

There is already a legislation which support the progressive transition from the protected to the free market, but at the moment it is valid only for users living on the mainland, while the users situated in the isolated island microsystems remain subjected to the enhanced protection market at prices and tariffs regulated by the ARERA.

The stakeholders have wished that the transition to the free market could happen as soon as possible also for the insular territories.

The stakeholders who participated in the discussion at a national level were the Ministry of Ecological Transition - MiTE, the Energy Services Manager - GSE, the Regulatory Authority for Energy, Networks, and the environment - ARERA. Unfortunately, there were no representatives from the regional governments.

The islands' views were represented by ANCIM - National Association of Minor Island Municipalities. Sapienza University of Rome, Politecnico of Turin, Greening the Islands, National Union of Minor Electric Companies – UNIEM, a private company SINLOC leading EU Islands Facility NESOI H2020 project were also present.

Annex 3 – Authorisation procedure for RES projects in Italy

There is a simplified procedure for ground mounted PV and onshore wind. Ground-mounted PV and onshore wind projects in Italy mostly undergo the Single Authorisation, the Single Regional Authorisation, or the Single Environmental Permitting procedures. For rooftop PV systems there are two simplified procedures depending on the size:

- Up to 50 kW rooftop PV plants are considered to be ordinary maintenance interventions and are not subject to the acquisition of permits, authorisations, or any other acts of approval, including those provided for under the Code of Cultural and Heritage and Landscape. (Decree 17/22) and
- the Single National Model for the Construction, Connection and Operation of Small Photovoltaic Systems is applied for the approval of small rooftop PV systems from 50 - 200 kW.

Other rooftop PV with installed capacity above 200 kW follow Communication Procedure as explained below under Administration authorisation.

Authorisation procedure consists of few steps including:

- Site selection process
- Environmental assessment
- Administration authorisation and
- Grid connection permit

In January 2022, the Technical Commission PNRR-PNIEC⁶⁷ of 40 experts was established to carry out environmental assessment procedures for projects of state competence. The Technical Commission is on dependencies and supervised by the Ministry of Ecological Transition.

The Legislative Decree 199/2021, that came into force in December 2021, introduces ways to accelerate authorisation procedure with Articles 19-24. In addition, the procedures are further simplified with the Decree 17/2022. These include:

Suitable areas for RES generation

- Identification of suitable areas for installation of wind and PV plants needed to reach the goals set under Integrated National Energy and Climate Plan (NECP). Suitable areas will be identified by the regional governments based on the identification criteria defined by the Ministry for ecological transition. Identification criteria will prefer use of existing buildings, non-agricultural land, brownfield sites, abandoned and decayed areas, areas where plants of the same source are already installed, etc. Until “suitable areas” are identified by the regional government the following areas will be considered suitable for installation of res plants:
 - Areas where PV is already installed, where renovation, upgrading or reconstruction is possible;
 - Agricultural areas within 300 m of area of industrial use or within industrial site or factories;
 - Areas within 150 m of the highway network;
 - Areas, facilities, and infrastructure available to the Italian State Railway.

⁶⁷https://www.gazzettaufficiale.it/atto/serie_generale/caricaArticolo?art.versione=1&art.idGruppo=3&art.flagTipoArticolo=0&art.codiceRedazionale=21A04731&art.idArticolo=17&art.idSottoArticolo=1&art.idSottoArticolo1=10&art.dataPubblicazioneGazzetta=2021-07-30&art.progressivo=0

Until “suitable areas” are identified, the project will be implemented as they are currently.

- GSE will prepare a single digital platform from which the suitable areas will be searchable.
- Suitable areas for offshore wind farms should be defined as part of Maritime Spatial Planning.
- Authorisation procedure for RES plants located in the suitable areas will be accelerated. One of the aspects of acceleration is that landscape authority opinion, including within environmental impact assessment, is counted as mandatory and non-binding for the plants located in suitable areas.

Site selection process

Responsible body: Local municipality and MIBAC local branches Superintendencies (*Soprintendenza*)

Duration: 30 days

First step in finding a suitable location for a renewable energy plant is to request a town planning designation certificate (*Certificato di destinazione urbanistica*) from the municipality's technical office, which provides information on the permitted use of a site. (D.P.R. 380/01) This must be issued within 30 days after the request is made. In the case of ground mounted solar PV, the municipalities have the possibility to designate suitable (*aree idonee*) and unsuitable areas (*aree non idonee*) which is produced by regional or local Superintendencies (D.Lgs. 42/2004) with recommendations from the Ministry of Culture and Tourism (MiBAC) (§ 17.1. Annex DM 10/09/2010) as they have the right to reject a project in the administrative process due to landscape protection.

For wind power, the ‘Regulatory plans for the installation of wind power plants’ (*Piani Regolatori per l'installazione di Impianti Eolici*) specify the unsuitable areas which are also determined by the municipal administrations.

For both ground-mounted PV and onshore wind, the lease or purchase of the land on which the plant is to be installed is required.

Environmental assessment

Responsible body: Regional government (PAUR) or Ministry for Ecological transition (PUMA)

Duration: 170 + 100 days for PAUR procedure, longer for PUMA

In Italy, all renewable energy installations with a capacity above 1 MW must prepare and submit to the Region (or the delegated province) a preliminary environmental study (Annex IV-bis DL 152/06).

The Region or province carries out the Strategic environmental assessment and decides whether to proceed with the EIA, in which case a final environmental impact study must be prepared depending on their capacity:

- Single regional authorisation procedure (*procedimento autorizzativo unico regionale – PAUR*) for onshore wind or ground-mounted PV installations between 1 MW and 30 MW. It includes a Single Authorisation Procedure (as described below with small differences) and is managed by regions.
- Single Environmental Permit (*provvedimento unico in materia ambientale – PUMA*) for onshore wind or ground-mounted PV installations exceeding 30 MW. The competent authority at the state level is the Ministry for Ecological transition. The Technical Commission formed by the Ministry for Ecological transition is responsible for reviewing the environmental impact of SEA and EIA procedures.

With the Decree 17/22 the need for EIA has been further lifted for the following cases:

- Agrivoltaic plants which are located within 3 km from a site that is used for industry or commerce;

- PV plants with power capacity up to 10 MW located in the “suitable areas” and
- PV plants with power capacity up to 20 MW located in the area of industrial or commercial use, landfills or restored landfill and abandoned locations, etc.

In the case of PAUR, the project developer submits the EIA application and all other required documents to the competent authority in electronic format.

Additionally, the applicant prepares the public notice, which must include an overview of the project, the EIA application and information on public participation. The competent authority then publishes the documents received online and within 10 days informs the concerned administrative bodies about the publication on their website. From the date of the public notice on the website is also the start date for the periods of consultation, assessment, and adoption of the EIA. The administrative bodies have 30 days to examine the documentation. After verification of the completeness of the application file, a public consultation period commences and remains open for 30 days. During this time the public may submit their observations (Art. 24 (1;2) DL 152/06; Art. 27 (5) DL 152/06; Art. 27-bis (2; 3; 4) DL152/06).

From this step on, the deadlines for the PUMA procedure are slightly different (Art. 27-bis (5) DL 152/06).

When the public consultation ends and all documentation is available, the competent authority has up to 10 days to organise a ‘Conference of Services’ for decision-making process and to invite all administrative bodies concerned. In the conference, the EIA and all the permits required for the implementation and operation of the project applied for by the applicant can be granted (§14-ter L 241/90). The ‘Conference of Services’ lasts 90 days. By law, excluding eventual voluntary changes to the project by the developer (e.g., new placement of turbines, modifications of the connection type, etc.), the maximum duration of the PAUR procedure is 170 days, plus up to a further 100 days for any additional requests and for a new public consultation procedure (§27-bis (7) DL 152/06). In order to speed up project implementations compromised in the Italian Recovery and Resilience Plan (IRRP); related EIA’s must be carried out within a period of 130 days following the day of request (art 20. DL 77/21).

Repowering

There are simplifications depending on the size of modifications. In the event of substantial modifications, Single Authorisation Procedure applies. “Substantial modifications” are defined by the competent authority (local governments) (§5 l-bis DL 152/06). If required, EIA must be carried out (§5 (3) DL 28/11).

The “non substantial” revamping and repowering of powerplants (including photovoltaic and hydroelectric powerplants, and certain wind farms) can be authorised through a Simplified Authorisation Procedure (Art. 30-33 DL 77/21). Modifications without deviations in the physical dimensions, the volume of the structure and the area in which the systems are installed, etc., are not considered substantial.

Administration authorisation

Responsible body: Municipality + grid operator (Communication Procedure), Regional body + grid operator (Simplified authorisation procedure), Regional body + Conference of services (Single Authorisation procedure)

Duration: Unclear (Communication procedure), unclear (Simplified authorisation procedure) 180 days or more (Single Authorisation procedure)

Regions and autonomous provinces implement legislation with great flexibility, in accordance with state guidelines. The type and scope of the authorisation depends on the size and the selected location of the renewable energy system. For small-scale rooftop PV systems, a Communication Procedure is mainly applied. Ground-mounted PV and onshore wind projects in Italy undergo the Simplified Authorisation procedure or the Single Authorisation procedure depending on the size of the installation.

The Legislative Decree 199/2021, that came into force in December 2021, introduces accelerated administrative authorisation procedure with Articles 19–24. These simplifications introduce:

- Single digital platform for administrative authorisation
The digital platform will be used for submission of applications that will cover all three procedures (communication procedure, simplified authorisation procedure and single authorisation procedure). The initial version of the platform will start with Single authorisation procedures only. It is to be setup 180 days after the Decree has entered into force.
- Standardised templates will be developed to be used for administration authorisation.

1. Communication Procedure for small-scale rooftop RE systems

The Communication Procedure (*comunicazione di inizio lavori per attività in edilizia libera*) is applied **to small onshore wind, PV systems up to 1 MW (DL 199/21, 17/22) and other systems under the net-metering scheme** (*scambio sul posto*) that are placed on existing buildings or surfaces not located in areas with environmental and landscape or historical heritage constraints.

The municipal technical office must receive a project design, signed by an authorised planner, which describes the technical characteristics of the project and its compliance with the applicable urban planning and building regulations. Once the permission has been granted, the construction can begin within a period of 30 days.

Declaration of Commencement of Certified Works

It can be applied to existing installations and changes to approved projects that need to implement changes regarding efficiency, design, or commercial modules. Applies only on works that do not lead to an increase of the area occupied by the installations works and that are not subject to an environmental and landscape impact assessment or to the acquisition of any other approval documents (DL 28/11). The project developer must submit the declaration accompanied by a project design signed by an authorised planner and the relevant project documents certifying compliance with the safety, anti-seismic and health and hygiene regulations to the municipality in paper or electronically.

Single Model for PV

The Single National Model for the Construction, Connection and Operation of Small Photovoltaic Systems is a simplified procedure for the approval of small rooftop PV systems between 50 kW and 200 kW. (DM 19/05/2015, amended by Art. 30–33 DL 77/21, 17/22). Other criteria are:

- they are realised at final consumers already equipped with active low-voltage tapping points
- their power does not exceed the power already available at the point of collection;
- the net-metering (*scambio-sul-posto*) subsidy is requested for the system in question;
- there are no other energy production systems at the same extraction point.

Before starting the installation work, the project developer sends the required form electronically to the grid operator. Within 20 working days, the grid operator checks the required amount of work to connect the installation.

If simple work is sufficient, the grid operator forwards the form electronically to the municipality. The municipality verifies the declarations made by the applicant (DM 19/05/2015).

If extensive work is required for the grid connection, the grid operator provides a cost estimate. Once the system is installed, the applicant fills out the “*Modello Unico - Parte II*” form and sends it to the grid operator, who forwards it to the municipality. The municipality verifies the declarations made by the applicant (DM 19/05/2015, 17/22).

2. Simplified Authorisation Procedure

The Simplified Authorisation Procedure (*procedura abilitativa semplificata* - PAS) **is applied to installations below the thresholds of 60 kW for onshore wind and between 1 and 10 MW for PV** (Tab. A DL 387/03, Art. 30-33 DL 77/21, DL 199/21, DL 17/22), which do not fall under the regulations of the Communication Procedure or the Single Model for PV procedure. For this type of authorisation, each Region can extend the scope of application to power plants up to 1 MW (DL 28/11). In addition, plants for **production of bio-methane** (Decree 199/2021), **interconnection facilities to the high and medium voltage electricity grid, agrivoltaic plants⁶⁸ and floating PV plants⁶⁹** (Decree 17/22) are also considered under the Simplified Authorisation Procedure.

The project developer must submit the request for authorisation along with the technical grid connection documents prepared by the grid operator (DL 28/11) to the competent authority at least 30 days prior to construction. The declaration of the project developer should also be accompanied by a detailed project design signed by an authorised planner, which provides proof of compatibility with approved planning regulations and building codes, as well as the compliance with the safety, health, and hygiene regulations.

Following approval, the power plant must be constructed within 3 years. The project developer is obliged to inform the municipality of the date of completion of the works (DL 28/11). Following completion, the designer or an authorised technician must issue a final acceptance certificate, which must be sent to the municipality, certifying the conformity of the works with the originally submitted project and the variation in the cadastral value of eventual annexes DL 28/11). If construction is not completed within the deadline, a new PAS is required.

3. Single Authorisation Procedure

Onshore wind and PV installations exceeding predefined capacity thresholds (PV >10MW, onshore wind >60 kW) are subject to the Single Authorisation Procedure (Tab. A DL 387/03, Art. 30-33 DL 77/21, DL 199/21, DL 17/22). In addition, based on Art. 23 of Decree 199/2021 **maritime state concessions needed for offshore wind farms** will be subject to Single Authorisation Procedure as well. The Single Authorisation Procedure takes place within a ‘Conference of Services’, managed by the competent authority, and is responsible for issuing the Single Authorisation permit (§12 (4) DL 387/03). While quite a few concerned administrative bodies are involved in the decision-making process (DL 387/03), the Ministry of Culture and tourism has a specific role in this

⁶⁸ Agrivoltaic plants - agrivoltaic plants that implement innovative integrative solutions with the assembly of modules elevated from the ground with the possibility of rotation located no more than 3 km away from areas of industrial, artisanal, and commercial use.

⁶⁹ Floating PV plants with installed power up to 10 MW on ponds, water reservoirs and water reservoirs in decommissioned quarries or installed to cover irrigation canals.

conference, as it participates in the authorisation procedure in areas protected by the Culture and tourism and Landscape Code (CHLC) (DL 42/04). If selected site is not in an area protected by the CHLC, the project developer must notify the relevant superintendency in order to verify the existence of protection proceedings or procedures for ascertaining the existence of archaeological assets (§13.3. Annex, DM 10/09/2010).

Within 30 days after reception of the documents, the competent authority calls for a 'Conference of Services' and collects all the opinions and consents from the concerned administrative bodies (§12 (3) DL 387/03). The deadline for the concerned administrative bodies to submit their opinions usually cannot exceed 45 days. If the administrative bodies in charge of environmental, landscape, territorial protection, culture and tourism or the protection of citizens' health are involved in the 'Conference of Services', the duration of the conference is 90 days (unless the laws or regulations establish a different duration) (§14-ter (2) L 241/90). The procedure shall be completed within a maximum of 180 days (§2 (4) L 241/90). Except for cases where the decisions must necessarily be taken, failure to communicate the decision within the specified deadline is considered unconditional consent (§20 L 241/90).

Grid connection permit

Responsible body: Grid operator

Duration: Unclear

The grid connection approval is usually an uncomplicated negotiation with the local grid operator, which leads to a bilateral agreement between the project developer and the grid operator. Renewable energy plants have priority in terms of connection and if required, extension of the grid (art. 29.1 Annex A ARG/elt 99/08).

Renewable energy plants are entitled to grid connection upon demand (art. 3.1 and art. 9.1 DL 79/99). Hence the grid operator is obliged to enter into a contract (*contratto per la concessione*) with the plant operator (arts. 10.14 and 23.10 Annex 1 ARG/elt 99/08). Connection request (application) must be made on the day of the contract conclusion. In case of disputes between the two parties, the Market Directorate (*Direzione Mercati*) of the Regulatory Authority for Energy, Grids and Environment (ARERA) should be invited to resolve the dispute (art. 3 Annex A ARG/elt 123/08).

The procedure for connection steps as prescribed by RG/elt 99/08 follow:

- Application
- Estimation of costs
- Acceptance of cost estimate
- Request for authorisation
- Authorisation procedure
- Commencement of works
- Connection

The costs of connection are borne by the applicant for connection. Renewable energy plants have a discount on connection fees compared to plants fuelled by other fuels. (12 Annex A ARG/elt 99/08. art. 25.1 Annex A ARG/elt 99/08).

The transmission grid operator must connect a plant within the timescales specified in his terms and conditions (art. 23.1 Annex A ARG/elt 99/08 and Terna Network Code, art. 1A .5.8.4). Under special circumstances caused by the covid 19 epidemiological crisis time delays are allowed (123/2020/R/eel).