

Feedback from the EU-wide island community

Policy and multi-level governance briefing

Status report

Clean Energy for EU Islands

Feedback from the ground and Multi Level Governance activities

This document brings together the updates on the development of the national policies across nine EU countries as described by nine official Supporting organisations in the EU-wide island community. Feedback from the island communities and their close collaborators on their decarbonisation, which offers a major contribution to the EU's goal for carbon neutrality by 2050, is one of the main activities of the Clean Energy for EU Islands Secretariat.

A mix of national organisations has provided the policy briefs: from island associations, to academic institutions and renewable energy organisations; their names are indicated. These organisations share a broader focus on the (sustainability of the) island communities, and based on this they have been requested to provide a 'State of play' of the environment for the clean energy transition on islands.

The inputs of the Supporting organisations provide different perspectives on the multi-stakeholder energy planning on the islands, and exhibit some of the discussions on the joint efforts across all levels of governance to decarbonise the EU islands.

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Croatia – The Island movement

Policy brief

03.02.20

Introduction to the current policy

Croatia's policies have been in the process of re-evaluation and significant work was carried out in 2019to improve the broader institutional environment for renewable energy. One of the strategic documents drafted in 2019 was the Strategy of energy development of Croatia that stresses that the country has a great potential in wind and solar (each 8-10000 MW). Islands play key role in the country's transition to 100% RES and energy independence.

Short assessment: pros and cons of the policy

The decision of the Croatian government to focus on the topic of the islands' energy transition during its Presidency in 2020 is a significant step for strengthening the energy transition on the islands and beyond. This has facilitated a shift in the mind-set of key energy institutions that now develop financial measures aimed at the transition of islands towards RES. One of the topics that needs to be highlighted is the topic of prosumer concepts which need strong public polices as well as linking RES to industries and the development of Corporate Power Purchase Agreement.

New regulations or policies in the horizon

The new legislation in 2020 will focus on aligning the RES policies to the EU Directive on RES which provides further support to the transition to clean energy. Croatia will in 2020 start implementing the premium model in RES projects which is an important step in the energy transition. This has been announced as part of the RES regulation since 2016 but has not been implemented since then. Four years have left a gap in RES investments as well as lack of growth of local energy communities. In addition, the Croatian NECP has a target of 36.4% of RES which would make Croatia one of the countries in EU with the highest RES percentage.

Policy gaps

The national and local RES community has worked hard in the last three years to bring the topic of renewable energy transition into the focus of the public policies. In 2019, the awareness increased as a result of continuous strategic work. Significant additional work is, nevertheless, required in the area of the implementation of the RES public policies through the creation of RES measures and financial mechanisms to facilitate the energy transition in both mainland and islands. In the Integrated Energy and Climate Plan, which was introduced on December 31st of 2019, particular attention is paid to the 2030 targets, which include the reduction of greenhouse gas emissions, energy from renewable sources, energy efficiency and electricity interconnection.

LINKS TO FURTHER READING

All information is available <u>here</u>.

Denmark – Samsø Energy Academy

Policy brief

12.02.20

Introduction to current policy

After more than 20 years of decentralized energy development based on feed in tariffs for solar and wind and progressive tax deductions for income from renewable energy cooperative ownership, Denmark is now facing a more centralized policy. This is mainly due to the technological development and the scale of projects. Wind projects are now mainly offshore and very large both in technology and budget. Solar parks are blooming and are similarly of large scale and budget. In short the policy today favours centralized large scale renewable energy projects. The new policy makes sure that Denmark has very high ambitions about renewable energy in the system. This leaves Denmark in the lead of EU countries and the renewable energy penetration in the future is still much higher than the EU average.

Almost all Danish islands are connected to the grid with few exemptions of very small islands that have their own generation system. Being connected to the Danish backbone grid, the islands' role is unclear but it seems that maybe islands can provide service, storage, some jobs and demonstration.

LINKS TO FURTHER READING

- * Danish grid: <u>www.energinet.dk</u>
- * The connection to the EU directive is clear in this <u>document</u>.

Short assessment: pros and cons of the policy

Pros

The connection to the grid makes island consumption relatively greener and climate friendly. Islands will benefit from the plan of the Danish energy system to be independent from fossil fuels by 2050.

Cons

The more centralized policy leaves no real room for local projects. Large-scale projects are too expensive and too big for small communities.

LINKS TO FURTHER READING

* The Danish Energy Model

A recent policy development is to stress energy efficiency. The buildings code will lead to smarter consumption.

Also, a new system will provide compensation for the disadvantages from shadow, noise, loss of real estate value etc., to those neighbouring renewable energy installations.

The municipality where the installations are located will be due to receive a fixed amount of 88,000 dkk/MW capacity installed. This reward can, then, be allocated to local initiatives, such as energy savings, storage, EV infrastructure and public solar projects.

This is an opportunity for islands. Islands could host such installations and then receive funding according to the installed capacity.

LINKS TO FURTHER READING

* Amendment to the Act on the Promotion of Renewable Energy, the Act on Natural Gas Supply and the Act on Electricity Supply

Policy gaps

The intention with the Danish policy is to meet the goal of 70% reduction of greenhouse gas by 2030 and become fossil free by 2050. This is planned to happen via a combination of increasing energy efficiency, upscaling renewable energy production, reuse of waste and introduction of EV infrastructure.

However, all these are general goals with no particular provisions or opportunities for islands.

France – Iles du Ponant

Policy brief

16.01.20

Introduction to the current policy

Current French policy is mainly oriented towards a gradual exit from fossil fuels and the development of renewable energies. The PPE (Multi-year Energy Programming) which is currently being validated intends to specify the energy policy objectives.

Regarding the energy renovation of buildings, the actions consist essentially of financial support for energy saving works (in the form of grants, tax credit, zero-rate loans, etc.).

It is important to support the islands in their energy transition process because some of them are not interconnected to the French electricity network and electricity is produced from fuel oil.

In addition, the islands are small territories where the possibilities of experimentation are multiple, everything is measurable and the population is motivated to participate.

Short assessment: pros and cons of the policy

Pros

- Across France, users pay the same price for electricity, regardless of whether they live on the mainland or on islands. On non-connected "îles du Ponant" the cost of production is on average 8 times higher than on the mainland.
- The establishment of an over-the-counter (OTC) purchase price for electricity produced from renewable sources on small non-interconnected metropolitan islands.

Cons

- The heavy regulations (particularly on the islands) which slow down renewable energy projects.
- The OTC purchase price for electricity produced from renewable sources on non-interconnected islands, which is not clearly defined to date therefore not validated by ERC (Electricity Regulatory Commission).
- Tidal power is not supported enough by the French government.
- The OTC price is not really correlated to investment cost and the need of public subsidies remains necessary.

LINKS TO FURTHER READING

* Multi-annual energy planning France

The adoption of PPE ("programmation pluriannuelle de l'énergie" should be effective within the first weeks of March 2020).

A CTE "Contrat de transition écologique" between government and the islands should be approved soon for non-connected "iles du Ponant" based on energy transition and give new goals and means on several operational projects.

Policy gaps

- OTC purchase price for electricity on connected islands is the same as on the mainland for "îles du Ponant". Therefore, the return on investment is considered far too long to enable the renewable production of, for instance, solar power.
- Lack of incentivising compensation for demand response and energy flexibility.
- Lack of new electricity sales tariffs modulated according to local renewable energy production.

Greece – DAFNI network

Policy brief

17.02.20

Introduction to the current policy

Renewable Energy Sources (RES) operation and remuneration and RES tendering schemes are described in Law 4414/2016 adjusting Greek legislation to the provisions of decision 2014/536/EE. In 2014, a net metering system for autonomous producers was for the first time introduced in Greece. The net metering process is described in FEK B' 3583/2014. Furthermore, "virtual net metering" was introduced in 2016 as an amendment to Law 3468/2006. Especially city/regional councils, schools, universities, farmers and farming associations will be allowed to develop PV and wind power projects located at a considerable distance from the place of the actual power consumption.

National and regional policies on the energy transition and decarbonisation of the islands stem mainly from the National Energy and Climate Plan (NECP), which promotes a radical transformation of the country's electricity sector, as renewable energy should reach over 60% of final electricity consumption by 2030. The plan envisages the promotion of electro-mobility with the recent Law 4643/2019 establishing the regulatory structure for its further development. Specifically, for the islands the NECP in accordance with the ten-year development plan of the Greek TSO foresees the interconnection of most isolated islands with the mainland grid. Grids in Non-Interconnected Islands (NIIs) have been judged to be saturated by the Regulatory Authority for Energy (RAE Decision 2016/616), which has set specific limits on the maximum available power for the installation of such units. On the contrary, measures to enhance the installation and permitting of RES stations and the adoption of solutions that combine RES and storage in NIIs are also foreseen by the NECP. For example, Law 4495/2017 contains provisions for Specific Pilot Projects in NIIs.

The responsibility for operation and management of NIIs has been assigned to the Greek DSO (HEDNO S.A.), which also acts as the island generation, transmission system and market operator in full accordance with the "Non-Interconnected Island Power Systems Management Code", which is issued by the Regulatory Authority for Energy.

Law 4513/2018 introduced the concept of energy communities in Greece as a step towards energy democracy. The law aims to enable local actors (citizens, municipalities, local businesses, universities etc.) to get actively involved in the clean energy transition with some special provisions for islands.

LINKS TO FURTHER READING

- * National Energy Action Plan
- * Energy Communities Law
- * Law 4414/2016
- * Law 4495/2017
- * Law 4643/2019
- * FEK B' 3583/2014
- * Law 3468/2006 (amended)
- Ten-year development plan

Short assessment: pros and cons of the policy

The policies are fairly ambitious and in line with national and regional environmental commitments towards a carbon neutral Europe, while if implemented correctly, they will eliminate the islands' energy isolation, reduce the dependence on fossil fuels and ensure security of energy supply.

On the other hand, bureaucracy and lack of subsequent supporting ministerial decisions or other underpinning actions in the past might constitute a challenge for a smooth implementation of these policies. Securing the necessary financing can also prove very challenging, especially in isolated areas, such as the Greek islands.

Finally, current management practices and market infrastructure have already reached their limits and cannot support the future complexity of island systems with multiple market participants. Therefore, the deployment of advanced management facilities by the Operator is inevitable.

LINKS TO FURTHER READING

- * National Energy Action Plan
- * HELAPCO's observations on the National Energy Action Plan
- * HWEA's observations on the National Energy Action Plan

New regulations or policies in the horizon

The Long-term Strategy for 2050, currently under consultation, sets the policy scope for Greece. Some innovative policies and measures proposed are:

- 1. Extreme interventions to improve energy efficiency.
- 2. Large-scale circular economy.

3. Electricity in all areas and in uses or means of transport where relevant technologies are immature today.

4. Behaviours and organizational interventions that reduce car activity and trucks.

5. Development of chemical storage of electricity through hydrogen.

6. Sector coupling through the production and distribution of climate-neutral hydrogen carbon and direct use of hydrogen in certain industrial applications in transport and gas distribution.

7. Application of carbon dioxide capture, use and underground storage.

LINKS TO FURTHER READING

* Long-term Energy Strategy

Policy gaps

- The acceleration of the licensing process for RES projects is needed and could potentially be achieved through the establishment of a single licensing point at regional level.
- Spatial planning legislation for RES installations adjusted to the islands characteristics and co-planning / co-development mechanisms are not yet in place allowing the rise of significant conflicts between investors and islanders.
- Legislation regarding licensing and operation of innovative technological solutions, however important for the islands' clean energy transition, e.g. smart microgrids, small wind turbines and energy storage plants is still not in place.
- More specific incentives and sources of funding should be offered at a local level, giving all stakeholders the opportunity to participate in the energy transition as members of energy communities.
- The uptake of electro-mobility and demand side management requires a comprehensive legislative and regulatory framework.
- Centralized, stand-alone storage applications that could enable the reduction of RES curtailments in non-interconnected islands with economies of scale are not foreseen in the existing regulatory framework for islands.
- Very small non-interconnected island electrical systems cannot operate efficiently under liberalized electricity market conditions and better fit collective citizen-centered solutions.

Ireland – The Irish Islands Federation

Policy Brief

14.05.20

Introduction to current policy

SEAI Supports

Support for the populated off shore islands under the various SEAI home grant programmes as follows:

- 1. Retrofitting of Homes and Communities
 - Better Energy Homes: 50% additional payment on current grant measures for homeowners living on populated off shore islands.
 - Warmer Homes: This is a 100% grant funded programme subject to eligibility criteria irrespective of location in Ireland.
 - Communities Programme: The Communities grant programme awards funding to community based energy efficiency. The marking system does favour island communities and they typically score well under this approach. SEAI has supported island communities under this programme every year since 2012 including 2019.
 - With the support of SEAI's Better Energy Community scheme, approximately half of the Árainn residential and various commercial properties have been undergone energy efficient retrofits including; building fabric upgrades, solar thermal installations, air source heat pumps and photovoltaic. Similar work has also been carried out in Inis Meain at a smaller scale.
- Development of 1,500 SEC's by 2030 we already have 80% of Irelands offshore island residents as members of the SEC Network.
 SEAI provides SECs with 100% grant support to develop an Energy Master Plan. Aran was one of the first energy master plans completed and has been instrumental in the success of Aran in multiple Horizon 2020 and Interreg research projects including REACT
- 3. Potential for the development of a sub group of Sustainable Energy Communities (SECs) Coastal Communities

Through the SEC Network and with the new panel of mentors due to start early in 2020, groups with shared opportunities will be supported to share and collaborate on projects. One such group is expected to be off shore island SECs. We would envisage this aligning with the EU Clean Energy for Offshore Islands programme and worked collaboratively with this programme in support of our SEC Island members.

- 5. EV and EV Charging Infrastructure rollout There was a 3yr pilot involving 10 electric vehicles deployed in partnership with SEAI. The vehicles were removed after the culmination of the pilot. There are currently 9 privately owned EVs in Árainn. There are also 8 electric bicycles for hire. At the time of the pilot home chargers were also provided. SEAI EV grants and home charger grants are available nationally, including the offshore islands.
- 6. SEAI Research, Development and Deployment Programme (RDD) The SEAI National Energy Research Database which has details of all RDD projects supported from 2015: <u>https://www.seai.ie/data-and-insights/seai-research/researchprojects/</u>

In 2017, Inis Oirr participated in the following RDD project: <u>https://www.seai.ie/data-and-insights/seai-research/research-projects/details/microgrids-in-rural-and-isolated-communities-in-ireland-model-development-using-the-island-of-inis-oirr-as-a-case-study</u>

Note on communities element of RESS scheme

The **Climate Action Plan** launched by Government in June 2019 includes a suite of actions to decarbonise the electricity sector and boost the quantity of renewable generation in order to meet Ireland's ambitious target of 70% of electricity demand by 2030. Action 28 refers to the design and implementation of a new **Renewable Electricity Support Scheme (RESS)** scheme.

Government approved the high level design of the **RESS** in July 2018. This scheme will assist Ireland in meeting Ireland's renewable energy contributions towards the recast Renewable Energy Directive's EU wide renewable energy target of 32% out to 2030. The scheme is being designed within a competitive auction based, cost effective framework and the scheme will be the main incentivisation scheme to provide for renewable electricity ambition of 70% by 2030. Competitive auction will ultimately determine the precise mix of renewable projects and technology diversity, including solar and offshore wind will occur naturally as the scheme matures. The timelines for each auction are in line with the timelines in the <u>Climate Action Plan</u> available on the Department's website. The RESS scheme will also be funded through the Public Service Obligation mechanism.

The new Renewable Electricity Support Scheme (RESS) will act as a catalyst for change and the diversification of the energy system. This new scheme will drive the delivery of clean, renewable energy in Ireland for the next couple of decades. But importantly, it will also mobilise local and community involvement in renewable energy projects.

Measures included in the scheme to enable a framework for communities will include;

- A mandatory requirement for all projects looking for support under RESS to offer investment opportunities to local citizens and communities.
- A requirement for all projects to pay a community benefit of €2/MWh (€2 per megawatt hour). This fund will be set up and co-ordinated by developers to support local projects in the vicinity surrounding the development.
- The establishment of a national community benefit register.
- Financial supports for community-led projects.
- Independent legal, technical and financial advice for community-led projects.

Short assessment: pros and cons of the policy

Regarding RESS: With this enabling framework in place all projects supported in the new scheme will have significant community participation and benefits arising.

New regulations or policies in the horizon

It is expected that the first RESS auction (RESS-1) process will commence by the end of 2019 and the detailed design of the scheme will be published at this time.

Italy – National Research Council

Policy brief

16.01.20

Introduction to current policy

When it comes to the 20 Italian non-interconnected islands, currently the supply of energy is guaranteed by diesel thermo-electric power plants owned by companies, which are as well the owner of the distribution grids (local companies in 12 islands, Enel production in 8, plus an ongoing project to install an underwater cable to connect Capri with the mainland).

The average cost of electric production in the small islands is around 6 times more expensive than in the mainland. The exceeding cost is shared on the bills of the entire Italian population, and every year around 80 MLN \in are given to the companies mentioned above in order to cover the costs of transportation, of the plant maintenance and of the distribution of electricity on islands.

Despite the current situation, the Ministry of Environment and the Ministry of Economic Development (under which the energy sector is included) are pushing towards the use of renewable energy sources and on energy efficiency activities on islands through grants, loans and funds. Unfortunately, the implementation of these activities is not easy, due to a complicated bureaucracy and other obstacles. Since 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. Moreover, the Ministry of Cultural Heritage (MIBAC) has to give a formal and authorizing 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.

Recently, the budget law 2020 established the Investment Fund for the small islands, with budget of \in 14.5 million for the year 2020, \in 14 million for 2021 and 13 million \in for the year 2022. The Fund will finance infrastructure projects or redevelopment of islands territory.

Short assessment: pros and cons of the policy

The actual situation, splitting the extra cost of electricity production on islands on all Italian inhabitants, if on one side is good for not discriminating local populations for the fact of living on islands, on the other side, the fact that companies operate in a "de facto" monopoly regime, somehow "promotes" the use of fossil fuels, making the competition with renewables sources unfair. One of cons of Italian policy regards bureaucracy for authorization of renewable energy plants. Moreover, in restricted areas the path for authorization of Superintendence (MIBAC) is still complex and difficult.

LINKS TO FURTHER READING

- * Decree by the Ministry for Economic Development
- * State budget for the financial year 2020 and multi-year budget for the three-year period 2020-2022
- * Interventions on energy efficiency, sustainable mobility and adaptation: climate impacts in small islands

The Italian Government is working on a "Framework law for the development of the marine smaller islands, lagoon and lake". The Framework law plans to promote sustainable development on services, improvement of infrastructures and environment and historical, artistic, archaeological protection. Also, the law provides an increase of Development Funds in order to financing interventions in a capital account provided for by DUPIM (single programming document for small islands), PIST (integrated development project of territory) and others.

LINKS TO FURTHER READING

* Framework law for the development of the smaller islands, marine areas, lagoons and lakes

Policy gaps

The Italian policies could be improved on two different aspects. The first concerns legal issues, in particular the process of authorization issued by Authority.

The second one regards infrastructural point of view, in particular the storage: in order to overcome the difficulty of RES energy production, the implementation and installation of storage systems will increase the efficiency and stability of the grids. Last but not least, cultural and social issue are connected with the implementation of the concept of "prosumers" and of "energy community", still very far from Italian islands' mind.

The Netherlands – Energie Samen

Policy Brief

04.03.20

Introduction to the current policy

1. National Climate Agreement (June, 2019) 50% local ownership

During the UN climate summit in Paris, the Conference of Parties (COP21), in 2015, the Netherlands agreed to a new UN Climate Agreement. To this end, the Netherlands has drawn up the Climate Agreement with the ambition of reducing greenhouse gas emissions in 2050 by 80 to 95% of the 1990 emission level. Every municipality must get started with the Climate Agreement, for example through the Regional Energy Strategies (RES). The same holds for the Wadden Islands.

Climate Agreement (goal: 49% renewable energy production in 2030): In order to ensure that the projects for the construction and operation of renewables on land succeed, in areas with opportunities and ambitions for renewable generation, parties work together in the development, construction and operation. This translates into a balanced distribution of ownership in an area where the aim is to have 50% ownership of the production of the local environment (citizens and businesses). Investing in a solar and/or wind project is entrepreneurial and requires co-investment and taking risks. The aim of the ownership ratio is a general target for 2030.

It's a non-binding community energy target for 50% local ownership. It is up to the local municipalities to take up this target (or not) in local planning policy.

2. Spatial law (Provincial and Local)

Spatial planning is the process that regulates the way in which the living space is planned and used and it involves a large number of rules. In The Netherlands, not the national government, but Province and Municipality are in charge of spatial policy. Individual and common interests are taken into account. In short: adapting society and space as well as possible. The scientific areas that play a role in this are planning, landscape architecture and urban planning. But issues such as the environment and the economy also play a major role in spatial planning.

Four of the five Wadden Islands are situated in de province of Fryslân. The most recent Frysian spatial policy now allows small wind turbines; with a maximum up to 15 meters height of axis. And only to cover the energy need of an agricultural business. Building new wind-turbines in the province was hardly allowed for the past 10 years or so. The province of Noord Holland, where the island of Texel is situated, has an even more restricted policy for wind-turbines.

3. Nature protection act / Natura 2000

The new Nature Protection Act contains prohibitions: activities that are harmful to protected animal and plant species are prohibited. Natura 2000 is a European network of protected natural areas on the territory of the member states of the European Union. The Waddensea and big parts of the Wadden islands are **Natura 2000** and/or National Park (Nationaal Park Schiermonnikoog and Nationaal Park Duinen van Texel).

4. Tourism policy (Provincial and Local)

Islands have their own local tourism policy. Tourists are an important source of income. Tourists also consume a lot of energy. Only Texel and Ameland have sustainable goals in their own tourism policy (mobility, transport and energy).

The Frisian Wadden Islands Tourist Implementation Program that has been drawn up by the province of Fryslân concerns the municipalities of Vlieland, Terschelling, Ameland and Schiermonnikoog. This program is not about sustainable energy, more about promotion of sustainable tourism, PR and nature.

5. Local policy 'protected townscape'

The municipal policy aims at protecting and, if possible, strengthening the cultural-historical and spatial values of the areas that have been designated as protected villages. The Wadden islands have a lot of historic buildings in town which have restrictions (monuments).

We could not find policy or plans on how the islands are going to involve monumental buildings (houses, museums as well as other historic buildings) respect the protected townscape and still involve them in a sustainable future and keep the energy price for heating affordable.

6. Sustainable Wadden Islands local implementation policy

All Wadden Islands have their own implementation policy, except Ameland. The implementation program describes the steps that the islands are taking towards becoming self-sufficient in energy and water.

Short assessment: pros and cons of the policy

1. National Climate Agreement (June, 2019) 50% local ownership

As a result of the Climate Agreement and the associated legal obligations, all municipalities must start using sustainable energy. Ameland already took this direction, years ago. That makes the leader position even more challenging. Ameland wants to show that the energy transition on a small scale is possible. In fact, Islands are a great example for inspiration and ambition. Islands are a great source of knowledge and a testing ground for pilot projects and experiment.

Probably not all islands are familiar with the possibilities of 50% local ownership of locally generated sustainable energy and how to organize this or develop it themselves. The 50% ownership of new sustainable energy projects still needs to sink in at the islands. There is a need of information, advice, investment possibilities and project development support.

Guidelines for 50% local ownership are missing in the Climate Agreement. The Environmental Act does not provide concrete guidelines for this. It is up to local governments to give substance to this pursuit of local ownership. As a result, the interpretation of this concept varies widely and continues to differ between municipalities.

2. Spatial law / Space Regulation (Article 9 Sustainable Energy)

Provincial and Local

If an island wants to be self-sufficient they need more energy sources than only sun: wind energy for example. They need permission from the provincial government and change of regulations concerning wind. Islands could also participate in a collective wind farm at sea.

Small turbines are good for a local farmer to become energy independent but not for the entire island or its community to participate in and help the island to become self-sufficient.

One island (Schiermonnikoog) took the challenge but did not succeed to get provincial permission for wind energy. It took a lot of time and energy and the result was disappointing and demotivating. It is important to involve residents on islands well in their own environment, certainly when it comes to change of environment.

3. Nature protection act / Natura 2000

The code of conduct 'Sun on land' is signed by 9 Dutch nature and environmental organisations. This code of conduct excludes National Parks and Natura 2000 areas from solar parks.

The initiator and the signatory parties have agreed that National Parks and Nature 2000 areas should not be considered as a possible location for a solar park. However the code of conduct is not binding, it's not without obligation as well. This code affects all islands and mostly the island Schiermonnikoog. The island Schiermonnikoog is a National Park and 2/3 is Natura 2000. The only locations for solar that remain are the village and a small piece of 'polder'.

The - well-intended - agreement on nature and the environment is sometimes in conflict with the desire for the realization of self-sufficient islands. It requires creativity and decisiveness to find the right balance and to explore options (and impossibilities) well.

The balance between decarbonisation of islands and nature protection is a challenge. Nature is a unique selling point of the islands which of course needs to be respected.

Pro: Protection of nature.

Cons: Legal restrictions on protected nature areas. Technology can compete with nature. More creativity, knowledge and new technical solutions are needed for islands like Schiermonnikoog to become self-sufficient in energy. It's a real challenge.

4. Tourism Policy

Tourism is an important source of income. Tens of thousands of tourists come to the islands every year. They consume a lot of energy during the year. The sustainability policy on the islands is not about energy use of tourists except for mobility. It mostly aims at inhabitants and local industry and businesses. It is (mostly for emotional and economic reasons) complicated for the islands to involve the touristic sector within the sustainable ambitions. The fear of losing tourists and/or obstruct their carefree holiday experience, is an issue.

Development:

World Heritage visitors are more often internationally oriented and prosperous, spend more at their destination, stay longer and are more interested in the "Exceptional Universal Value" (OUV). As a result, they are also more interested in how they can contribute to conservation or sustainability. (Sustainable Tourism in the Wadden Sea, 2013)

All islands want some kind of electric (luggage) transport. For this they want to cooperate with the shipping companies. For example, Doeksen (Terschelling / Vlieland) wants to set up a system for electric luggage transport together with the municipalities starting with transport from the ferry terminal in Harlingen to the island destination. It already takes this into account when purchasing two new ships.

The municipality Ameland is focusing on transport from home to holiday address. The municipality is committed to the joint development of a new, sustainable transport

concept. For the time being, conflicting interests impede this. Schiermonnikoog also wants a good solution for luggage transport. In recent years an entrepreneur has offered electric luggage transport, but this project was recently stopped because it turned out not to be profitable. If there is a good plan, the municipality wants to see if this can be taken over on the island.

Pro: Sustainable tourism is booming. If done well, a self-sufficient sustainable island is good for marketing and positive PR and it will boost tourism.

Cons: Visitors have no direct interest in being energy-efficient (at rental of cottages and accommodations energy costs are included). The issue is: how to motivate, reach and involve tourists, and how to reach the owners of rentals, campsites, cottages, hotels, restaurants and cafes, without them having to be afraid of losing their customers.

We think this topic could be discussed in a comprehensive manner in the Wadden Sea Tourist Consultation (TOW). This is a platform for information exchange and discussion between the Wadden authorities and the organizations in the tourism sector.

5. Local policy 'protected townscape'

Many houses at the island are monuments or part of the protected townscape. Conflicting interests arise (measures necessary for sustainability can conflict with measures necessary for protected townscape). This can lead to conflicts and problems. It even disturbs social cohesion especially in small communities.

Proper coordination and cooperation and taking into account divergent interests is relevant.

6. Sustainable Wadden Islands implementation policy

Pro: Policy makes the process and goals transparent and everyone can be involved in goals and activities and can anticipate/participate and contribute ideas. Policy promotes broad support for the goals.

Con: Goals that cannot be achieved can demotivate.

1. Environmental act (2021 in force)

Participation of citizen in environmental and spatial development will be legally anchored in new law (2021). With the use of instruments from the Environment and planning act, governments can achieve goals and ambitions regarding the energy transition.

2. European directive

Implementation in the Netherlands of the directive (EU) 2019/944 of the European Parliament concerning common rules for the internal market in electricity

For the islands, it can be an opportunity to develop their own energy networks in cooperation with each other and thus to be self-sufficient. Currently, there is a problem with power/space on the regular network and this limits the opportunities for the islands in generating electricity. With the current capacity at the regular network the ambitions are restricted and limited by the energy network. If well implemented it can give energy communities a serious change to generate, store and deliver local energy to their customers and be more independent of the regular energy network.

Policy gaps

Collective goals, coordination and cooperation between the Waddenislands concerning sustainable energy generation, storage, transport, energy sharing and smart energy systems.

The mobility topic (the ferries to and from the islands) is a complex topic. The ferry company Wagenborgen (Ameland and Schiermonnikoog) is not really moving towards a sustainable ferry (the contract ends in 2028 so they are not really in a hurry). Ameland thinks about their locally owned ferry company because of this.

Texel has its own ferry (Texelstroom) the runs on natural gas, solar roof (462 panels) and uses electricity from the local energy-cooperation Texel-Energy.

Vlieland and Terschelling (rederij Doeksen) receive soon their 2 new ships on LNG (Liquefied Natural Gas).

Ferries on Texel, Vlieland and Terschelling are locally owned companies. Ameland and Schiermonnikoog are owned by Wagenborgen Passagiersdiensten. Cooperation between islands in mobility would be smart. **There is no collective mobility plan or policy** (ferries, transport, electric or hydrogen vehicles, charging stations etc.).

LINKS TO FURTHER READING

- <u>Dutch Climate Agreement</u>
- * <u>World Heritage Waddensea</u>
- * <u>Natura2000</u>

Laws and regulations of the province islands have to deal with

- * Spatial Regulation (Article 9 Sustainable Energy)
- * Wind energy
- * Environmental code
- * <u>Tourism</u>
- * <u>Texel</u>
- * <u>Vlieland (energy cooperation)</u>
- * Natural gas free communities
- * <u>Terschelling</u>
- * Ameland (Link 1, link 2)
- * Schiermonnikoog (<u>link 1</u>, <u>link 2</u>)
- * Wadden Islands (<u>link 1</u>, <u>link 2</u>)
- * <u>Mobility</u>

Portugal – Coopernico

Policy brief

19.02.20

Introduction to current policy

Portugal has for two decades ambitious goals on renewable energy. During the last two years, Portugal approved the Roadmap for Carbon Neutrality for 2050 and established ambitious goals in the National Plan for Energy and Climate for 2030. Moreover, it has transposed into national law part of the RED II concerning the renewable energy communities and created a new decree where it recognizes collective self-consumption and Renewable Energy Communities, which enables consumers to consume, store and sell self-generated electricity. All the national plans, roadmap and new decree apply equally to the islands.

Regarding transport there are some incentives to buy electric cars which also apply in the islands.

Açores, Madeira and Culatra are aligned with the national policies although maybe some of the goals don't apply or might not be attained by all the islands.

Açores and Madeira are autonomous regions, so in some cases the national legislations have to be adapted to these regions. Culatra and other islands are in the south of the mainland.

Short assessment: pros and cons of the policy

Pros: islands are now able to create their own Renewable Energy Communities or will be allowed to have collective self-consumption. That will be a huge push towards bringing more municipalities into the energy transition because through Energy Communities they can tackle energy poverty, which is a very big concern for them. Tourism is also a very big part of the islands' economy and sustainable tourism appeals to many travellers nowadays, which also incentivises the municipalities to adopt more measures to become more sustainable and green. Also, since the goal for the country is to become carbon neutral by 2050, the islands have to also start adopting new measures in order to achieve those goals.

Cons: the law is very general, so compromises that are more concrete are necessary from the municipalities with actual steps and realistic goals for them to follow and achieve.

New regulations or policies in the horizon

The Regional Secretary of Energy in the Açores is working on the Azorian Strategy for 2030. They will present it in the first semester of 2020.

The new decree (Decreto-Lei n. ° 162/2019) that allows the creation of energy communities will allow islands to create new platforms for local exchange of electricity between their islanders. These parallel markets could be an innovative mechanism to boost the share of renewable sources in the islands.

Policy gaps

More incentives to help the energy transition, for instance one-stop-shop or funding to help the municipalities achieve that transition.

Spain – University of the Balearic

Policy brief

03.02.20

Introduction to current policy

In order to properly assess the current and projected clean energy transition policy of Spain it is key to understand the previous situation. Between 2011-2016, there was almost no increase in renewable energy installations in Spain, following a very restrictive policy (that restricted even auto-consumption installations) and a deep cut on the premiums for renewable energy.

The new government from June 2018 to December 2019 has adopted a very different approach, supressing the restrictions to auto-consumption, encouraging energy-communities, and facilitating the deployment of renewable energy in islands through special auction conditions. Moreover, it has also published a draft Integrated National Plan on Energy and Climate (PNIEC) for the period 2021-2030, that has already been sent to the EU Commission and which should be definitely approved on the first semester of 2020. Among its key objectives, there is the goal of achieving 42% of electricity from renewables by 2030 and a reduction in GHG emissions of 20% below 1990 levels, which in fact represents a reduction between 35%-40% of current GHG emissions in the next ten years. Besides, there has also been a policy change concerning coal-fired power plants, which were considered as strategic by the previous government and are now planned to be all shut down by 2030. This has also had an impact on Spanish islands, for instance in Mallorca, where the two coal-fired groups of the Es Murterar power plant have been closed in December 2019.

At the island level, a Climate Change Law was approved by the regional Parliament of the Balearic Islands. The law has ambitious objectives both in terms of renewable energy generation as part of the total amount of electricity generation (35% by 2030, 100% by 2050), efficiency (26% by 2030, 40% by 2050) and GHG emissions reduction (40% by 2030, 90% by 2050). The law also prohibits the entrance of diesel cars from 2025 and gasoline car from 2035.

Short assessment: pros and cons of the policy

The deep change in energy and climate change policy has been welcome both by scientists, environmental NGOs, consumers and investors. Unfortunately, the intense electoral year of 2019 (with two general elections, in April and December, as well as regional, provincial, local and European elections) has prevented these policies from being adopted and developed at the necessary pace. However, given the continuity of the government elected in December 2019, it is now to be expected a rapid development and implementation of the new policies.

LINKS TO FURTHER READING

- * Plan Nacional Integrado de Energía y Clima 2021-2030
- * <u>Several guides on auto-consumption, energy communities, efficiency, etc. by the Spanish</u> <u>Institute on Energy Diversification and Efficiency (IDAE)</u>
- Official Summary PNIEC 2021-2030 (Spanish)

- * Llei de Canvi Climàtic de les Illes Balears (Spanish)
- * Aprovada la Llei del canvi climàtic i transició energètica de les Illes Balears
- * Informe Anual del Observatorio de Energía y Sostenibilidad en España 2018
- * Informe sobre sostenibilidad en España 2019
- * <u>El Gobierno plantea el cierre de todas las centrales de carbón y cuatro nucleares hasta</u> 2030

On 21 January 2020 the Government declared the climate emergency and announced a 100 measures to combat climate change. Among them, there's a Climate Change Bill, that will be submitted to Parliament before April 2020 and which will include the full decarbonisation of Spain by 2050. A new National Adaptation Plan will also be developed in the forthcoming months.

At the regional level, a new law on sustainable mobility is being prepared by the government of the Balearic Islands. In the Canary Islands, the government is also preparing a climate change law.

- * <u>Declaración de Emergencia climática y Ambiental</u> (with 100 measures)
- * Official press release and summary of the Climate emergency declaration
- * La llei de mobilitat (de Balears) apostarà pel transport públic, els aparcaments dissuasius i la bicicleta
- * Habrá un primer borrador de la Ley de Cambio Climático

Policy gaps

Maybe the biggest challenge for the decarbonisation of islands in Spain lies in the fact that they do not have the legal powers to take decisions regarding some of the main GHG emitting activities like aviation and maritime transport. Airports and the main ports are dependent on the central government decisions while the islands' governments do not have the capacity to take any decision regarding the number of airplanes or ships arriving at the islands. A clear example of the challenge this supposes in terms of real decarbonisation can be found in the recent decision by AENA (the Spanish authority responsible for Airports) to enlarge the Airport of Mallorca in order to increase the number of flights in 30.000 additional flights each year (in 2019 there were 217.000 flights carrying more than 29 million passengers). It is thus crucial that the authorities of the islands be given the legal power to decide over such infrastructures, which generate a huge amount of direct GHG emissions but also a great amount of indirect emissions, derived from the needs and activities of visitors, in terms of energy consumption, transportation by car in the islands, waste treatment, etc.

