EEB
European Environmental Bureau

RENEWABLES BEST PRACTICES

Solutions for nature-positive, community-led renewable energy in Europe

EEB
European
Environmental
Bureau

EEB
European
Environmental
Bureau

Factsheet

Renewables Best Practices: solutions for nature-positive, community-led renewable energy in Europe

Transitioning to 100% renewable energy should be a top priority for Europe. To achieve that goal, the deployment of renewable energy assets must happen at unprecedented speed and scale. This requires comprehensive ecosystem-based planning, administrative simplification, and public participation.

This collection of best practices showcases twelve different examples of initiatives and projects from across Europe that demonstrate how transitioning to renewables can be done in harmony with nature and local communities. These examples were identified through a mix of desk research and exchange within the EEB's Climate & Energy working group.

This factsheet aims to constitute a short guide, a 'cheat sheet' for decision makers and environmental organisations in the upcoming implementation of the EU Renewable Energy Directive. In particular, we present good practices on spatial planning, civil society, involvement, and the acceleration of permitting for renewable energy plants and infrastructure. These can be helpful to sway the Strategic Environmental Assessments and the acceleration of renewables permit-granting – required under EU law – at all government levels.

Authors:
Cosimo Tansini, Erica Gentili, Nicoleta Lipcaneanu

Published in May 2023

European Environmental Bureau (EEB)
EC register for interest representatives: 06798511314-27
Rue des Deux Eglises 14-16
1000 Brussels, Belgium
+32 (0)2 289 1090
eeb.org

RENEWABLES BEST PRACTICES

EEB European Environmental Bureau

Nature positive renewables

Agrivoltaics demo program

by Enel Green Power
ES, GR, IT

In 2020, Enel Green Power launched a new experimental Agrivoltaics programme to find the best farming and animal husbandry solutions to integrate photovoltaic plants, in order to make them coexist with agricultural activities and foster sustainable land management. Nine demonstration sites in Europe have been realised under this programme in southern Europe - two in Greece, five in Spain, and two in Italy. Collaborations were established with partners from the research, industry, startups, and NGO community to identify arable land and farming activities that can coexist with solar power plants without having to significantly modify the layout of the plant, thereby containing costs and maintain competitiveness while fostering agroecological practices that can protect and restore biodiversity.

Isera highway solar plant

by Autostrada del Brennero Spa, Comune di Isera
Italy (IT)

In 2009, 3,994 solar PV modules were installed on a sound-absorbing barrier on the highway segment in the municipality of Isera. The solar plant is 1,067 meters in length and up to 5.6 meters in height, sheltering the town from the noise coming from the highway and at the same time producing clean energy for the area. This solution allows the construction of solar PV plants without the need to occupy any new land. The systems has a peak power output of 730 kWp, and guarantees on average an electricity output of around 750,000 kWh per year, which corresponds to the domestic consumption of over 250 households. The cost of the barrier was EUR 5.8 million and was supported by the the “V Conto Energia” national support scheme.

Solar Farm in Klein Rheide

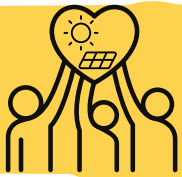
by Wattmanufactur GmbH
Schleswig-Holstein, DE

After the gravel pits in Klein Rheide had been depleted, the landowner was searching for a constructive way to reuse his land. Thanks to an agreement between the land owner and the municipality, this solar park was built in three construction phases from 2015 to 2019. The solar park in Klein Rheide features several solutions for the combined use of land for energy production and extensive agriculture, a combination that can promote biodiversity if certain conditions are met. Thanks to good planning, extensive agricultural management and the implementation of measures to increase biodiversity, the Klein Rheide solar park is among the most species-rich solar parks in Germany.

RENEWABLES BEST PRACTICES

EEB European Environmental Bureau

Community-led renewables



Zeewolde community wind farm

by De Nieuwe Molenaars cooperative
Flevoland, NL

The onshore wind park in Zeewolde is the largest wind power project worldwide that is entirely community-owned: it is composed of 83 wind turbines, owned by over 200 farmers and local residents. It has been estimated that around 300,000 households will benefit from the green energy produced on this site. The project was developed with the participation of the local community, which can invest and participate in the shares of the projects by means of the cooperative New Millers (De Nieuwe Molenaars). The cooperative was funded in 2019, when 181 initial members invested in participations to realise the new wind farm.

Brixton Solar Community

by Repowering London Ltd
London, UK

In 2011 a group of Brixton residents came together to fight climate change and successfully installed 82 kWp of community-owned solar photovoltaic panels across two social housing estates in Brixton. These projects were the first of their kind in the UK and brought environmental, social and economic benefits to one of the nation's most deprived communities. This work continued in 2014 with the installation of an additional 52 kWp on a futher housing estate. Investors in the Brixton Energy Solar projects are now seeing a healthy return on their investments. Income is flowing into the ring-fenced Community Fund, which has been used to create educational grants for young people from the local estates on which these projects are located.

Ecopower energy cooperative

by Ecopower CVBA
Belgium (BE)

Founded in 1992 as a cooperative under Belgian law, Ecopower has three main goals: (1)To invest in renewable energy; (2) To supply 100% green electricity to its cooperative members; (3) To promote a rational use of energy and the cooperative business model in general. Ecopower gathers financial resources from as many cooperative members (shareholders) as possible and uses these funds to invest in renewable energy projects. The renewable electricity produced, along with the profits, flows back to the shareholders and customers. One share costs 250 euro and is fixed for a period of 6 years in order to avoid huge fluctuations in the capital. Every single shareholder has one vote in the general assembly, regardless of the number of shares he/she owns. Ecopower caps annual dividends to a maximum of 6% per share. The financial surplus can then be used to finance less profitable projects.

RENEWABLES BEST PRACTICES

EEB European Environmental Bureau

Civil society participation

Offshore Wind and Marine Protection in the Belgian North Sea

by Belgian Offshore Platform and 4Sea
Belgium (BE)

The **Belgian Offshore Platform** (BOP), an association of investors and owners of wind farms in the Belgian North Sea territorial waters, and **4Sea**, a coalition of environmental organisations (Bond Beter Leefmilieu, Greenpeace Belgium, Natuurpunt and WWF-Belgium), work together for the development of **wind energy to benefit both nature and climate**. Based on extensive scientific research, the BOP and 4Sea have developed a declaration of intent supporting good spatial planning in the North Sea area, focusing both on the transition from fossil energy to renewables in a cross-border offshore network, and on the protection of marine biodiversity in Natura 2000 sites. This multistakeholder approach allowed project developers and environmental NGOs to jointly adopt criteria to develop wind farms in Natura 2000 sites and on appropriate mitigation measures to reduce the pressure on marine environment and biodiversity.

Strategic Planning for Wind Power

by Burgenland Federal State
Burgenland, AT

Since the early 2000s, Burgenland started developing a participatory approach to spatial planning for onshore wind projects. With one third of the state's territory under nature protection, suitability zones had to be defined conditionally. With the 2011 Regional Framework for Wind Turbines, Burgenland became the first Austrian state with a **clear and firm legal basis** for the realisation of wind farms. **Exclusion zones** (protected areas) are designated first, while the remaining areas are examined for the possible combined effects of wind farms on ecosystems and settlements. **Suitable areas** for wind power are designated through a process involving several stakeholders: project developers, municipalities, environmental NGOs. This results in a 'bottom-up' approach where the inputs for zoning usually comes from the developers after they have held initial talks with property owners and municipalities. Among its benefits are a high degree of **planning reliability** for operators of wind power plants and for communities, a **simplified decision-making** procedure for local authorities, and **improved participation** from nature conservation organizations and residents.

West Coast line: planning in dialogue

by Schleswig-Holstein Ministry of Energy, Agriculture, the Environment and Rural Areas & TenneT TSO GmbH
Schleswig-Holstein, DE

The government of Schleswig-Holstein and the TSO TenneT developed an informal dialogue procedure for the realisation of a new transmission line along Northern Germany's West coast, realised in 2013. Design and technology options were discussed with residents, municipalities and NGOs before the permitting phase of the project began. The initiative included a citizens' dialogue - moderated by the environmental NGO Environmental Action Germany (DUH) - a planning dialogue, and a plan approval procedure. On the technical side, 80% of the total new 380kV line was designed to use the same pylons as an existing 110kV line. In a bird migration area, the old line was decommissioned and replaced by a ground cable to prevent the lines from crossing migration routes. On the community side, the largest possible distances to residential buildings and rules for agriculture and nature preservation issues were agreed upon.

RENEWABLES BEST PRACTICES

EEB European Environmental Bureau

Streamlined planning and permitting

National Coordination Scheme

by The Netherlands, Ministry of Economic Affairs and Climate Policy
Netherlands (NL)

The Dutch National Coordination Scheme (Rijkscoordinatieregeling, RCR), based on the national Spatial Planning Act, outlines the procedure to obtain permits and licenses for large-scale renewable projects. It aims at streamlining procedures thanks to the coordination by the national government. In the RCR, the various decisions are taken simultaneously and include consultation with regional authorities. In addition to permits and exemptions, the process can include an integration plan from the government, specifying the destination of the land and the rules for its use. Although different authorities must issue their opinion, the coordination scheme provides for a swift process. Residents and environmental organisations can respond to the projects in two different formal moments and can appeal to the final decision through the Council of State. No further objections are possible after the decision of the Council of State.

Renewable Electricity Support Scheme (RESS)

by Republic of Ireland, Department of the Environment, Climate & Communications
Ireland (IR)

The Irish government adopted the Renewable Energy Support Scheme (RESS) - a competitive auction based, cost effective framework - in 2018 to promote the generation of electricity from renewable sources by providing financial support to renewable electricity projects in Ireland. The first auction under the RESS included a separate category for community projects. Their beneficial treatment aims at enhancing community participation and increase acceptance for onshore wind in local communities. In addition, all projects successful in a RESS auction must establish a dedicated Community Benefit Fund for their local area to ensure that communities can support sustainable initiatives and decide themselves as to what worthy local causes need support. Finally, one of the key community provisions as part of RESS is the Community Enabling Framework which provides end-to-end support to create a community energy sector in Ireland that can flourish sustainably over time

Renewable Energy Acceleration Bill

by Republic of France, Ministry of Energy Transition
France (FR)

In 2023, French legislators adopted the Renewable Energy Acceleration Bill. This act seeks to implement several provisions stemming from the revised EU Renewable Energy Directive (RED). Besides launching the identification of renewable energy "acceleration zones" and setting short timeframes for authorities to examine projects applications therein, the bill includes (1) a definition of "Agrivoltaic" and measures to promote its installation and (2) a mandate to install solar panels on parking lots larger than 1500 m2 on at least 50% of their surface. The latter measure should add 11 GW of solar to the country's energy mix, doubling its existing solar capacity, and seeing car park rooftops providing one fifteenth of the country's electricity. The rules for solar panels on agricultural land distinguish between "Agrivoltaic" solutions - where agricultural activity is maintained - and general solar installations on agricultural or forestry land, defined through a precise set of conditions that must be respected to allow the realisation of solar projects: the land must be uncultivated, and the impact of the solar structures must not affect the soil's agronomic functions.

Summary

Title	Category	Highlights	Link
Agrivoltaics demo program	Nature-positive renewables	Combination of large scale photovoltaic plants with • cultivation of aromatic herbs and flowers to attract pollinators; installation of artificial nests for avian species; open air poultry rearing (Pezouliotika, GR); cultivation of various species (e.g. broccoli, eggplants, peppers) • cultivation of medicinal herbs to attract pollinators (Totana, Valdecaballers, Las Corchas, ES) • cultivation of forage crops; integration of bee colonies; rabbit rearing (Bastardo and Montalto di Castro, IT)	www.enelgreenpower.com
Isera highway solar plant	Nature-positive renewables	• No need to occupy new land • Low impact on ecosystems • Installed peak power: 730 kWp • Average output: 750,000 kWh/year • Households served: 250	www.autobrennero.it
Solar Farm in Klein Rheide	Nature-positive renewables	• Total surface: 27 hectares; Installed peak power: 23 MWp; Households served: 7.200 • Sowing 500 kg of wild flower seeds each year to provide food for wild bees and other native insect species • Corridors to allow safe movement for wildlife; integrated bird houses as well as shelters for bees and bats	www.wattmanufactur.de
Zeewolde community wind farm	Community-led renewables	• 83 wind turbines replacing 220 older and smaller ones scattered on the territory • Installed peak power: 320 MW • Enough to satisfy energy needs of 300.000 households • Additional benefits: job creation, financial support to local projects and initiatives	www.denieuwemolenaars.nl
Brixton Solar Community	Community-led renewables	• 254 investors • Installed peak power: 134 kWp • £183.600 (€207.000) raised through community share offers • Additional benefits: job creation, financial support to local projects and initiatives	www.repowering.org.uk
Ecopower energy cooperative	Community-led renewables	• Enough to satisfy energy needs of 55,000 households • Output: 80 million kWh (2021) • 50,0000 cooperative members • Cooperative structure: one vote per member, dividends capped at 6%, co-decision on where to invest next • Main technologies: wind and solar	www.ecopower.be

Summary

Title	Category	Highlights	Link
Offshore Wind and Marine Protection in the Belgian North Sea	Civil society participation	• Multistakeholder approach to achieve comprehensive and environmentally sound planning • Identification of conditions to ensure compatibility of offshore wind in Natura 2000 sites • Strong focus on mitigation measures for any negative effects and, where possible, create positive effects for biodiversity	www.belgianoffshoreplatform.be
Strategic Planning for Wind Power in Burgenland	Civil society participation	• Quick expansion of renewables generation while complying with clear nature conservation and public participation criteria • Simplified EIA for wind projects below 30MW • Average permitting procedure duration: 6.8 months • In only ten years, Burgenland built up enough wind power (~ 900MW) to cover 140% of its electricity demand • Only 1 legal objection in over 30 permitting procedures	www.burgenland.at
West Coast line: planning in dialogue	Civil society participation	• Early, informal dialogue process in the region with several regional conferences, specialist and citizen dialogues • Clear, transparent and ambitious schedule for planning, approval and construction • Outcomes of the dialogue process (over 2000 participants, circa 400 consultation contributions) had a positive impact and were considered in the project's planning	www.schleswig-holstein.de
National Coordination Scheme	Streamlined planning and permitting	• National level coordination and screening • Large-scale projects: 500MW or higher for power plants • Extensions of the national high-voltage grid at a voltage level of 220 kV or higher • Early-stage public notification of projects • 2 public consultation stages, 1 possibility to appeal	www.rvo.nl
Renewable Electricity Support Scheme (RESS)	Streamlined planning and permitting	• Well defined trajectory for uptake of community projects • Community Benefit Fund for local services/initiatives • Beneficial treatment for community projects • Administrative & financial assistance for community projects	www.seai.ie
Renewable Energy Acceleration Bill	Streamlined planning and permitting	• Consultation of local administration in planning • Simplification of authorisation procedures • Legal clarity and support to dual-use Agrivoltaic applications • Acceleration of renewables deployment on pre-existing structures	www.ecologie.gouv.fr

EEB
European
Environmental
Bureau

eeb.org

A better future where people and nature thrive together