

Sustainable Destination Award Good Practice Story

Three seaside tourism islands powered by renewable energy

Good Practice Story on behalf of three Dutch QualityCoast destination: Schouwen-Duiveland, Goeree-Overflakkee, Westvoorne (all in the Top 100 since 2014).

The Dutch municipality of Schouwen-Duiveland has been the first destination in the European Union that was certified according to a GSTC-Accredited destination certification (by Green Destinations). It is an island that works closely together with its two sister islands, Goeree-Overflakkee and Westvoorne. All are QualityCoast Platinum destinations. The three islands are located in the south-west delta of the Netherlands, bordering the North Sea.

On the edge of land and water during the last three years Windpark Krammer is constructed. The first windfarm that is built on the primarily sea defence of dikes, dams and locks on the boarder where the municipality of Schouwen-Duiveland meets the municipality of Goeree-Overflakkee. A windfarm of 34 nature-inclusive and bird-friendly windmills, equipped with a special radar detection system for closely flying protected birds like sea eagles (www.windparkkrammer.nl).

The windfarm is a result of the largest citizens' initiative in the Netherlands in the field of renewable energy by two coöperatives, Zeeuwind and Deltawind, both working in the South West Delta on sustainable energy projects and representing over 11,000 inhabitants in the area. The windfarm produces 1030 Terajoule (TJ) and provides renewable energy for more than 100,000 households. A main reason why the windfarm was officially opened the King of the Netherlands in May 2019.

The current use of electricity in the three island destinations together is 1590 Terajoule. In combination with previous sustainable energy projects, Windpark Krammer ensures the destination is large electric neutral by generating 2115 TJ of renewable energy (source www.klimaatmonitor.nl and Windpark Krammer data).

In fact, all entrepreneurs and accommodations in the field of leisure and recreation located in the destination perform their businesses and activities powered by renewable energy. For a very main part of their businesses and activities are already CO₂-neutral. Nearly all accommodations and amenities are equipped with eco-friendly measures, such as equipment for reducing use of water, waste water, insulating measures, solar panels, etc. Especially Flemish and German guests value eco-friendly behavior and acting.

As a multiplier, the two cooperatives donate a part of the revenues in a so-called Wind fund. Civilians' initiatives are able to apply funding for social economic and sustainable projects. A range

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of projects is already funded and are carried out. For instance, a project to accelerate the number of solar panels on private houses. But also car-share projects in the villages by providing in electric cars, projects in the field of social mobility by electric cars, scooters and bikes by taking elderly and lonely people out for shopping, meetings at community centers or just for a ride. The vehicles are also used for mobility between villages and amenities, like school. During the tourist season these vehicles are available for tourists and guests to provide in their need for mobility. These initiatives connect with the efforts on sustainable transport for transport as mentioned in the best practice Sustainable Transferium (Park & Ride) at Renesse. More electric mobility projects in the electric neutral destination South West Delta of the Netherlands are expected, such as the electric tourist train in Ouddorp in 2020 and, in close cooperation with entrepreneurs, share projects for inhabitants, tourists and guests in order to provide them in means of CO₂-neutral transport (e-bike, e-scooter, e-car) to discover the destination as a whole. Tourists, guests but also entrepreneurs and inhabitants value these projects.

And more is done to generate renewable energy. The last two years three solar parks are established, solar park Zierikzee (<https://solarmagazine.nl/nieuws-zonne-energie/i17556/encavis-koopt-zonnepark-zierikzee>) and solar parks Ooltgensplaat and Melissant (<https://solarmagazine.nl/nieuws-zonne-energie/i17442/sunstroom-sluit-2-zonneparken-aan-50-megawattpiek-zonnepanelen-voor-g>). These parks produce 0.4 TJ in total, enough electric power for nearly 21,000 households. On the lake of Oostvoorne, a Sun on Water project is about to start, testing the use of solar panels on water using the local Fieldlab. Also two bio-digesters are realized in Oude Tonge and Sirjansland which use prunings derived from the destination, produce 0.2 TJ and avoid 700,000 tons of CO₂-emission by re-using CO₂ in greenhouses (<https://www.groentennieuws.nl/article/9112598/drie-telers-sirjansland-openen-unieke-biomassacentrale-voor-warmte-en-co2/>). A similar project will be realized inside the greenhouse horticulture area of Westvoorne by using geothermal energy. Also here greenhouse growers are able to use this clean form of energy instead of regular gas. In addition, a feasibility study is performed to see if houses can be connected to the geothermal source for the leftover heat. A same study is going on in Sirjansland.

In 2020 a Tidal Technology Centre will be finished at the Grevelingendam. In this test centre tidal energy turbines will be tested and improved. The test centre will also be used to apply the best applicable tidal turbines in the lock of the Brouwersdam that will be built to enhance the quality of the water of Lake Grevelingen. Together the tidal turbines will produce another 0.5 TJ

(<https://www.zwdelta.nl/projecten/flakkeese-spuisluis-als-doorlaatmiddel/testimonials/met-het-tidal-technology-centre>, <https://www.zwdelta.nl/projecten/getij-grevelingen>, <https://www.getijgrevelingen.nl>). Also several residential areas in the three municipalities are carried out with geothermal energy sources. For instance 'energy neutral community De Drenkeling', opened in 2019. (<https://www.duurzaamwestvoorne.nl/nieuws/duurzame-nieuwbouwwijk-de-drenkeling-in-rockanje/>). Pilots for aquathermy and green hydrogen as a renewable energy source and for storage of electric power are carried out or about to start.

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Because of the surplus of electric power the municipalities in the destination are able to focus on heat pumps regarding the heat demand of households and companies. The variety in renewable energy sources enables the destination to experiment in finding a solid and reliable mix for the use of renewable energy. Because of the spread of the projects over the destination the electricity networks will be reinforced. As a consequence more opportunities arise to create a comprehensive coverage of charging points for sustainable mobility for inhabitants, tourists and guests to enjoy the destination by using sustainable means of transport. On the 15th of May 2019 Windpark Krammer is officially opened by King Willem Alexander of the Netherlands.

