Netherlands solar industry

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Solar power in the Netherlands has an installed capacity of around 23,904 megawatt (MW) of photovoltaics as of the end of 2023. Around 4,304 MW of new capacity was installed during 2023.[1]

Market research firm GlobalData projects Dutch solar PV capacity could rise to 55,000 MW (55 GW) by 2035.[2] Longer-term projections from the Netherlands Organisation for Applied Scientific Research estimate national PV capacity could reach 180 GW by 2050.[3]

2008 Subsidies of 33 euro cents per kWh were introduced[4] but initially failed to attract much development. However, when they were curtailed, the Dutch banded together to make large purchases at discount instead.[5]

2015 The Netherlands saw its capacity grow by around 357 MW during 2015, the fourth highest in Europe in that year, its installed capacity per inhabitant remained low at 83.1 Watts per inhabitant compared to the European average of 186.1 Wp/inhab,[10] in particular compared to its neighbour Belgium at 286.7 Wp/inhab.[10]

2016 The largest solar installation in the Netherlands, the 6 MW array at the Wadden-Island Ameland was officially opened in June 2016.[11] Installed capacity per capita rose to 120.1 W, thirteenth position in the EU and nearer to the EU average of 197.8 W than in preceding years.

2022 A new solar carport measuring 1 kilometer by 500 meters opened in Flevoland. The 90.000 solar panels with 35 MWp will power 10.000 households.[13]

In addition to photovoltaics, solar energy is used extensively for heating water, with 669.313 m2 installed by the end of 2020. Generating a total of 326 GWh heat energy in 2020.[16]

Nearly 80% of solar power installed in the Netherlands in 2017 was for small systems of less than 10 kW, a large part being rooftop Solar PV. Larger systems over 500 kW accounted for just 6.9% of the total. By the end of 2018 private residential rooftop systems had an installed capacity of 2,307 MW, businesses rooftop systems 1,662 MW whilst solar parks amounted to 444 MW.[19]

In 2017 solar panels were installed in a cycle path in Blauwestad.[25] The solar panels were removed at the end of 2021 because of the reconstruction of the cycle path and the public space around it.[26]

In April 2017 the first heated solar cycle path was installed in the Bovenbuurtweg in Ede. The panels would

stay free of snow and ice during the winter.[27] In February 2020 the solar panels were replaced with panels with a different surface coating to make the cycle path less slippery.[28] However by 2021 the solar panels were gone and replaced by a surface made of bricks.

In May 2018 a 20 meter long solar road with 48 solar panels opened on the N401 near Kockengen. The trial was supposed to last 2 years, but was stopped a year earlier on 16 May 2019 because of safety concerns. The rough surface had worn down and had become too slippery to safely drive on. In that time the solar road geretated around 2,200 kWh of electricity. The trial was seen as a success.[29]

In September 2018 solar panels were installed in the road surface of one of the shoulder lanes of the A2 motorway near Maarssen. The solar panels cover an area of 25 square meters.[31]