



moonriver:plovdiv

BULGARIA

moonriver.energy develops the integrated power-to-gas plant moonriver:plovdiv in Voivodinovo, Bulgaria. The photovoltaic plant on the plot with 200.000 m² will harvest sun and produce green electricity by means of 33.408 modules 600 Wp each. The wind power plant with 5 wind turbines having 800 kW each will harvest wind and produce green electricity. The land underneath the photovoltaic plant will be used for agricultural purpose. A 10 MW electrolysis plant, using alkaline electrolysis technology (AEL), will be able to produce 2.000 Nm³ of green hydrogen per hour. Carbon dioxide shall be captured from flue gases of nearby power plants and/or industrial facilities. The hydrogen and the carbon dioxide shall be merged to synthetic methane. The intention is to produce 2.000 tonnes of synthetic methane per year, and by this, binding 6.000 tonnes of carbon dioxide.

The moonriver.energy modular concept is applied in the design of integrated power-to-gas plant. The project is the first one of a cascade of similar projects, accelerating the way to net zero.

HARVEST

20 MWp photovoltaic plant





4 MWp wind turbines
200.000 m² agriculture

PRODUCE

10 MW AEL plant
producing 1.000 to green H₂/year

CAPTURE

amine gas treating
binding 6.000 to CO₂/year

MERGE

methanation plant
producing 2.000 to CH₄/year

