

HARVEST

MOONRIVER.ENERGY

WORLDWIDE

moonriver.energy is a **concept** developed by movingpower GmbH. The modularised concept for generation of what we call customised green fuel (CGF) is a game changer in developing a worldwide decentralized power-to-gas infrastructure. Our concept is flexible: each of its four modules can be customised on demand and have clear defined interfaces between each other. Our concept drives the energy transition: making CGF-production customisable and predictable - both in technical and economical terms.

The four **generation modules** of the moonriver.energy concept are *harvest*, *produce*, *capture* and *merge*. We harvest the givings by nature - sun, wind, hydro and geothermal power and generate green electricity. With this green electricity, we produce green hydrogen by water electrolysis. From the flue gases of various industries, we capture carbon dioxide by amin gas treating. We merge the green hydrogen with the captured carbon dioxide to synthetic methan or any other customised green fuel.

The three **business modules** of the moonriver.energy concept are *sell*, *save* and *sustain*. They reflect the two approaches to power-to-gas: the aspect of energy storing and carrying with green hydrogen; and the aspect of carbon dioxide capture and its keeping in an infinite cycle without emitting it in the atmosphere - Carbon Capture and Looping (CCL).

Our concept is **proven**: our power-to-gas plant in Werlte, Germany produces green hydrogen since 2013, and synthetic methan since 2018. Currently, we are scaling-up this pilot plant with our **moonriver:alpha** project in Bulgaria with 20 MW



photovoltaics; 4 MW wind powerplant, 10 MW green hydrogen production, carbon dioxide capture and methanation.

For more information on our concept, visit our website moonriver.energy.

Location moonriver:alpha:

Voivodinovo, Bulgaria

Type:

Power-to-X

Production modules:

Harvest, Produce, Capture, Merge

Capacity moonriver:alpha:

20 MW_{el}

