

## Renewable Materials in the Petrochemical Industry on the Example of Shell Energy and Chemicals Park Rheinland

Shell is aiming to become a net-zero emissions energy business by 2050 or sooner, by improving its own operations over time, addressing energy efficiency and capturing or offsetting unavoidable greenhouse gas emissions.

Following this ambition, Shell Rheinland, the largest refinery in Germany, has already started to invest into the energy transition into an sustainable asset. The processing of sustainable feedstocks and renewable Energy will play a crucial role in the future Shell Energy and Chemicals Park Rheinland. Shell aims to eventually process substantial, industry-scale amounts of renewable feedstocks, which would form the basis for a whole suite of new value chains. In an initial, first-phase step, these feedstocks will be targeted to include:

- Green Hydrogen & Power
- Bio Feedstocks
- Circular Feedstocks

Rheinland is just completing the construction of the world's largest PEM hydrogen electrolyser. Subsequent onsite expansions are already being developed and target to take this capacity to 100MW. Bio Feedstocks were co-processed last year already, and further opportunities exist to expand bio feedstock processing. Shell entered the alliance to stop plastic waste and target to process up to 1 mln tonnes of plastic waste.