

Technologies for the Energy Transition

Technology Reports for Download

The technology evaluation within the project „Technologies for the Energy Transition“ („Technologien für die Energiewende“) consists of comprehensive technology reports on 31 different fields of technology. These reports have been published as Wuppertal Reports 13.1 and 13.2 (as a compilation), but can also be downloaded individually via the links in the following list. All technology reports are available in German only.

■ Area of technology 1: Renewable energies

- [1.1 Bioenergy](#)
- [1.2 Deep geothermal energy](#)
- [1.3 Photovoltaics](#)
- [1.4 Solar heating and cooling](#)
- [1.5 Solar thermal power plants](#)
- [1.6 Wind energy with an excursion on marine energy](#)
- [1.7 Ambient Heat](#)

■ Area of technology 2: Conventional power plants

- [2.1 Central power stations](#)
- [2.2a Decentral power stations \(fuel cells\)](#)
- [2.2b Decentral power stations \(engines and turbines\)](#)
- [2.3 Carbon capture and storage \(CCS\)](#)
- [2.4 CO₂ reuse](#)

■ Area of technology 3: Infrastructure

- [3.1 Electricity transmission and distribution](#)
- [3.2 Heat transmission and distribution](#)
- [3.3 a Energy storage \(electric & electro-chemical\)](#)
- [3.3 b Energy storage \(thermal, thermo-chemical & mechanical\)](#)
- [3.4 Reuse of natural gas and petroleum infrastructure for synthetic fuels](#)

■ Area of technology 4: Technologies for sector coupling (P2X)

- [4.1 Power-to-gas \(hydrogen\)](#)
- [4.2 a Power-to-gas \(methanisation chemical-catalytic\)](#)
- [4.2 b Power-to-gas \(methanisation biological\)](#)
- [4.3 Power-to-liquids/chemicals](#)
- [4.4 CO₂ capture from digester gas and air](#)

- **Area of technology 5: Energy and resource efficient buildings**
 - [5.1 Energy efficient buildings and building services engineering](#)
- **Area of technology 6: Energy and resource efficiency in the industry**
 - [6.1 Energy efficient process technologies](#)
 - [6.2 Energy efficient cross-sectional technologies](#)
 - [6.3 Electricity generation technologies for use of waste heat](#)
 - [6.4 Low-carbon and resource efficient industry](#)
- **Area of technology 7: Integrative Aspects**
 - [7.1 Electromobility – passenger cars and light commercial vehicles \(energy economic issues\)](#)
 - [7.2 Electromobility – hybrid overhead line trucks \(energy economic issues\)](#)
 - [7.3 Information and communication technologies \(ICT\)](#)
 - [7.4 System integration, innovation and transformation](#)