WOLF
ENERGETIK

THE FEREDOX® PROCESS -

KEY TECHNOLOGY FOR HYDROGEN APPLICATIONS

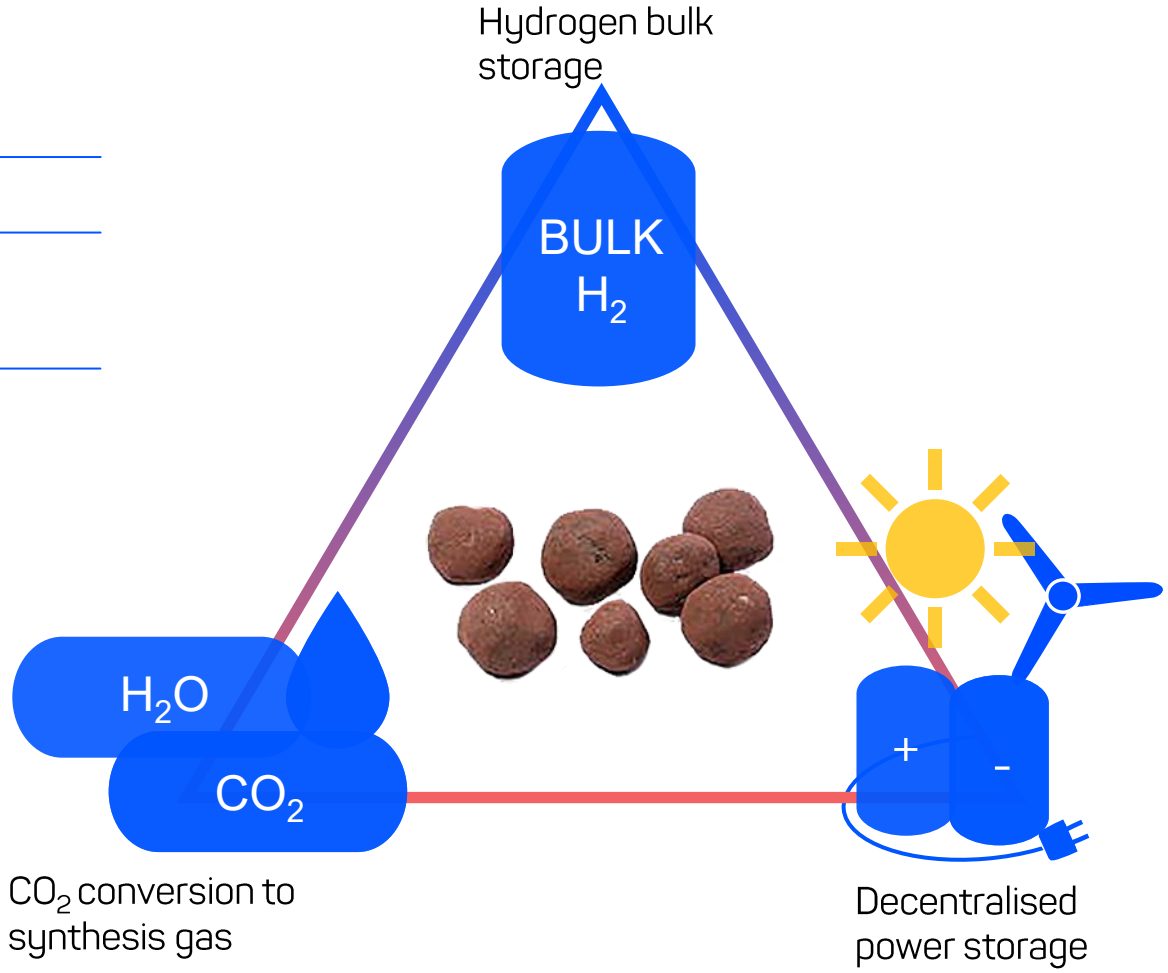
FEREDOX® – Applications in the energy and basic industry

APPLICATIONS

Simple and safe hydrogen storage

Decentralised power storage as a system with electrolysis and fuel cell

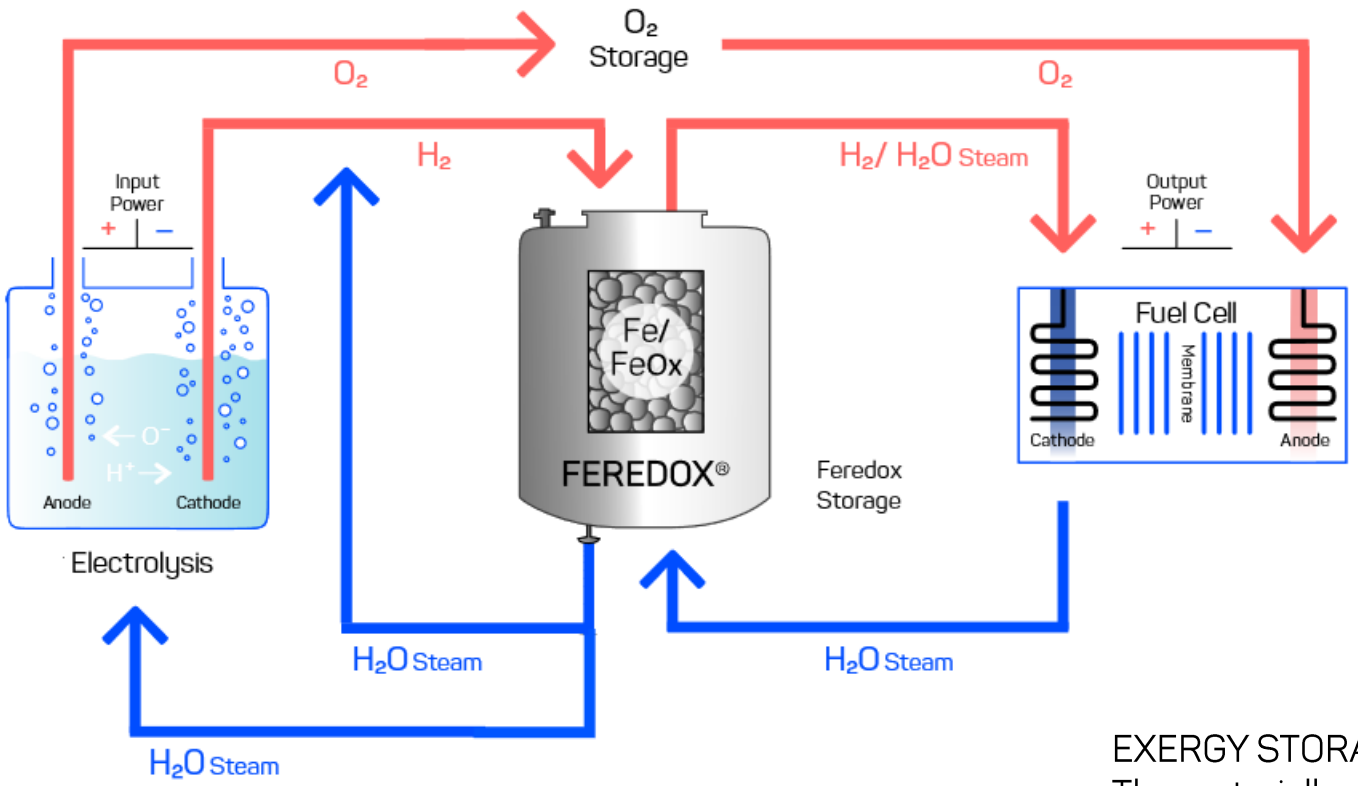
CO_2 conversion to synthesis gas for the production of renewable hydrocarbons



Wolf Energetik is technology provider for the FEREDOX® process, developing technical know-how for the efficient transfer of the technology into industrial use.

FEREDOX® – Power storage with electrolysis and fuel cell

PROJECT *FUTURE H DRIVE*



Development of a power storage system for mobile application

TEC4 FUELS

SolydEra

EA Systems Dresden
optimizing your energy applications

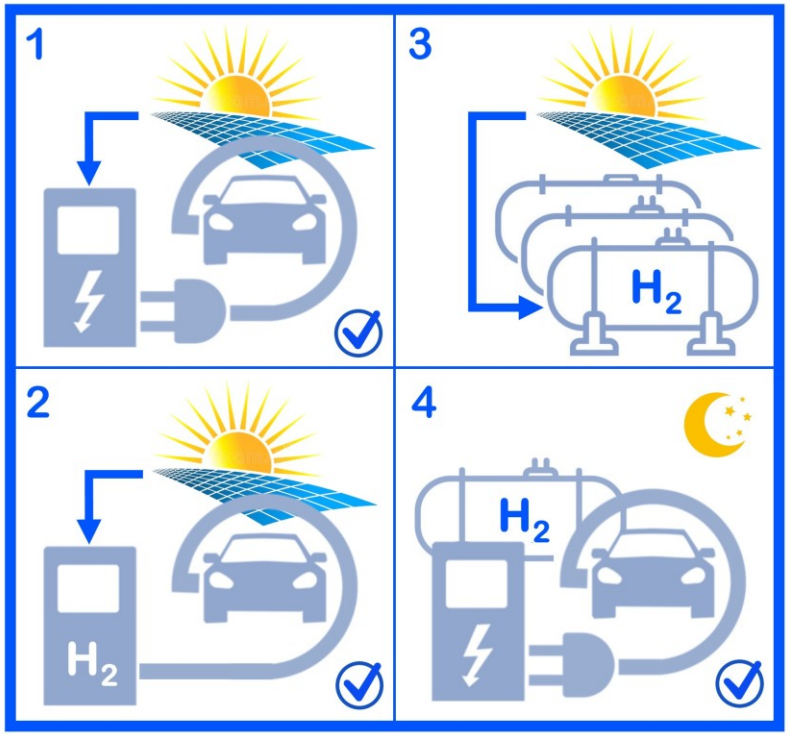
EXERGY STORAGE
The materially closed loop operation is avoiding energy losses by emissions.

REVERSIBLE FUEL CELLS
allow for a very simple and compact power storage architecture.

FEREDOX® ENERGY SHOP – Presentation of customers benefit

BUSINESS MODEL DEVELOPMENT

Operators' business model is heavily overlaid by certificate trading and electricity market services as well as regional value creation concepts



Do you want to offer green electricity and hydrogen at your filling station at the same time? You may not have a sufficient power grid available, but you do have a wind power or photovoltaic system nearby from which you can obtain the electricity?

Then Wolf Energetik's technology is a suitable solution with four benefits:

1. The green electricity can be "refueled" directly at the charging station.
2. The hydrogen can also be refueled directly and beyond this serves as storage for the green electricity.
3. The electrolyzer converts the green electricity that is not currently being used into green hydrogen.
4. When there is no wind or sunshine, the hydrogen can be converted back into electricity via the fuel cell.

Fill up with green electricity at any time and regardless of the weather!

FEREDOX® – *H2RAIL.PRIGNITZ*
Railway application project

ELECTRIFICATION OF RAIL TRAFFIC WITHOUT OVERHEAD LINES

- Long ranges due to high energy density of the on board storage
- Lower energy consumption than state of the art hydrogen drives
- Independent renewable energy railway systems

DESAG DEUTSCHE EISENBAHN SERVICE AG

FEREDOX® – CO_2 CONVERSION for synthetic hydrocarbons

MABANAFT

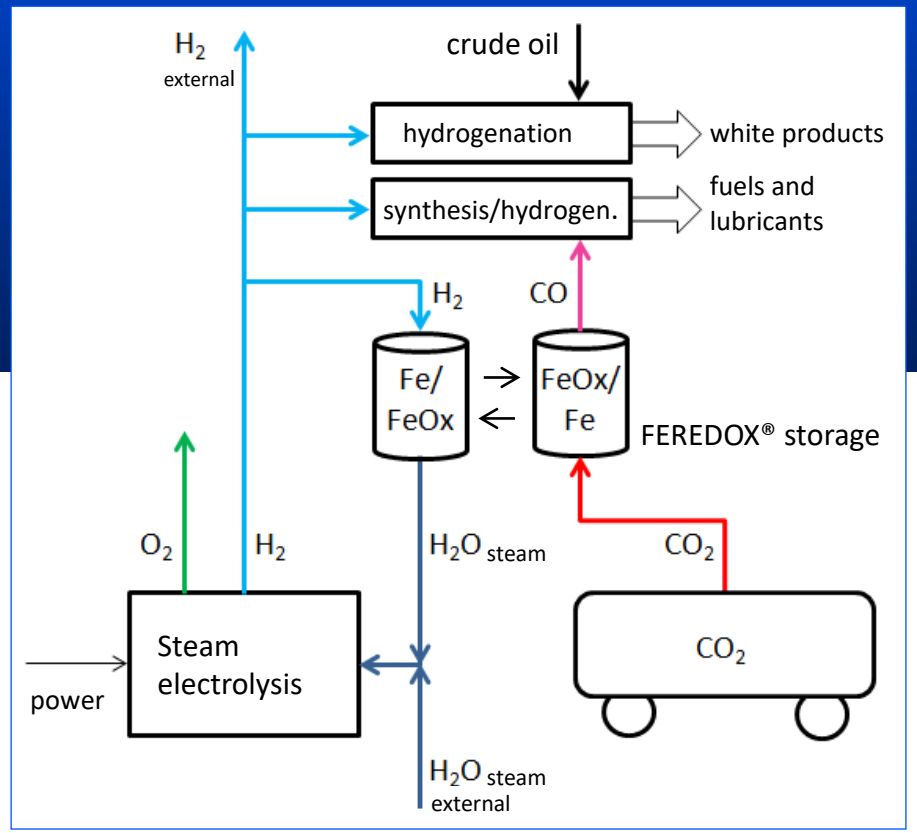
P2X Europe

STRATEGIC PARTNERS

Power-to-liquid Joint Venture for the marketing of E-fuels and petrochemical specialities

Synthesis gas is a hydrocarbon base material in the chemical and oil industry for the production of fuel, combustibles and lubricants (methane, gasoline, Diesel, kerosene, wax).

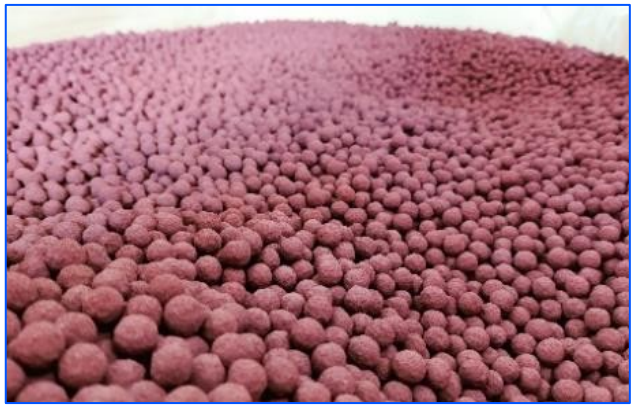
FEREDOX® Application – CO_2 conversion of CO for the synthesis gas production



Production of synthetical hydrocarbons

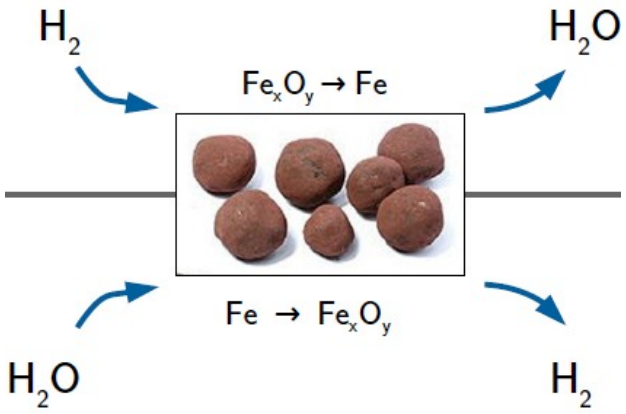
Heavy oil hydrogenation in the petroleum industry to make it more eco-friendly, thus insertion of renewable energy in heavy oils to reduce carbon dioxide emissions

FEREDOX® TECHNOLOGY – Chemical energy storage with iron



Storage material made of specially treated iron masses.

H_2 production plant for 20,000 m^3/hour for the production of town gas, Magdeburg 1974



ADVANTAGES OF THE FEREDOX® TECHNOLOGY

- Efficient power storage of up to 1 MWh/m^3 iron mass and > 50 % overall efficiency
- Safe indirect hydrogen storage with high energy density of up to 60 kg/m^3 iron mass
- Robust industrial process with high cycle stability and long service life
- Very good scalability for large applications

FEREDOX® – The energy storage technology

OUR SERVICES

- Conceptual storage integration
- Basic Engineering and support for Front End Engineering Design (FEED)
- Licensing and know-how transfer
- Commissioning support

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WE transform industries.

STORAGE IS KEY.