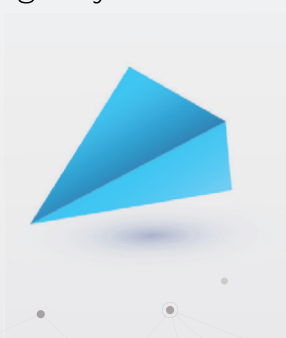




H₂ REFUELLING STATION

- ▶ **Hydrogen daily filling capacity** 200-2000 kg/day
- ▶ **Containerized size filling capacity** 200-1000kg/day
- ▶ **Nominal Filling Pressure** 35 or 70 MPa
- ▶ **Power supply** 400V, 50Hz



CONTAINERIZED HOUSING

EQUIPPED AND FACTORY TESTED, FAST INSTALLATION

- Standardized type of container based on capacity
- Explosion proof lighting, ventilation
- H₂ detector, flame detector
- Automatic firefighting system as an option

GAS DISTRIBUTION UNIT

DISCHARGE OF H₂ FROM GENERATION UNIT (1-3MPa)

H₂ COMPRESSION UNIT

PRESSURISING OF HYDROGEN TO REQUESTED VALUE FOR STORAGE

1st

STAGE COMPRESSION
UP TO 45 MPa

2nd

STAGE COMPRESSION
UP TO 70 MPa

3rd

STAGE COMPRESSION
UP TO 87,5 MPa

HYDROGEN COOLER

COOLING OF HYDROGEN DURING PROCESS OF DEPRESSURING

DIMENSION BASED ON REQUIRED REFUELLING CAPACITY

HYDROGEN STORAGE TUBE VESSELS

STORAGE OF HYDROGEN

Type of pressure tube based on nominal capacity and pressure, standard (PED 2014/68/EU)

Max. operated pressure 3 – 50 MPa

Max. operated pressure 50 – 100 MPa

Storage capacity 1 - 6 m³ water volume per unit

HYDROGEN DISPENSER

REFUELLING OF HYDROGEN FOR PUBLIC OR INDIVIDUAL TRANSPORTATION

/ CARS FROM STORAGE VESSELS

Capacity 1,1 – 4 kg/min

Rated filling pressure 35 MPa / 70 MPa

Dispenser type TK 17 / TK 16

Relative humidity 20 – 95%

Units – kg / Nm³

Standard – (SAE J2601-1/2), (SAE J2600:2002)



WEH TK16 – 35 MPa

FILLING, SELF SERVICE,
HIGH FLOW NOZZLE

NOMINAL DIAMETER (DN) 8 mm

PRESSURE RANGE

PN=25 MPa | PS=35 MPa
PN=35 MPa | PS=45 MPa

TEMPERATURE RANGE

-40 °C up to +85 °C

MATERIAL Corrosion resistant

SEALING MATERIAL Hydrogen compatible

DESIGN

With plastic thermal protection,
gas recirculation and data interface
acc. to SAE J2601 protocol.

WEIGHT

Approx. 2.4 kg

CONFORMITY / TESTS / APPROVALS

SAE J2600:2002 Data interface:
SAE J2601 / ATEX resp.
SAE J2601 / NEC Class 1 Zone 1



WEH TK17 – 35-70 MPa

ENR(EXCHANGEABLE NOZZLE RECEIVER)
FAST FILLING, SINGLE HANDED
SELF SERVICE

NOMINAL DIAMETER (DN) 4 mm

PRESSURE RANGE

PN=35 MPa | PS=49 MPa
PN=70 MPa | PS=87.5 MPa

TEMPERATURE RANGE -40 °C up to +85 °C

MATERIAL Corrosion resistant

SEALING MATERIAL Hydrogen compatible

DESIGN

With plastic thermal protection, cold
protection, hand grip with magnet,
exchangeable data interface acc. to SAE TIR
J2799 and integrated purging line

WEIGHT Approx. 2.4 kg

CONFORMITY / TESTS / APPROVALS

Fuelling nozzle: SAE TIR J2799,
tests acc. to SAE J2600: 2002
IR data interface: ATEX, NEC or KTL

FLOW RATE DURING PURGING 500 l/h



HPU

H₂ FLOW: 5 - 1200Nm³/hr
PURITY: 99.9999%
PRESSURE: 1 - 3MPa



H₂ BUFFER TANK:
VOLUME: 2.0m³;
MAX. PRESS: 3MPa

HPU

HYDROGEN POWER UNIT

RFS

REFUELLING STATION

LOW PRESSURE
H₂ COMPRESSOR: 40MPa



LOW PRESSURE
H₂ STORAGE TUBE:
Storage pressure: 40MPa
Water volume: up to 6m³

MIDDLE PRESSURE
H₂ COMPRESSOR: 70MPa



MIDDLE PRESSURE
H₂ STORAGE TUBE:
Storage pressure: 70MPa
Water volume: up to 6m³

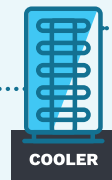
HIGH PRESSURE
H₂ COMPRESSOR: 87,5MPa



HIGH PRESSURE
H₂ STORAGE TUBE:
Storage pressure: 87,5MPa
Water volume: up to 6m³

RFS

H₂ 35 MPa

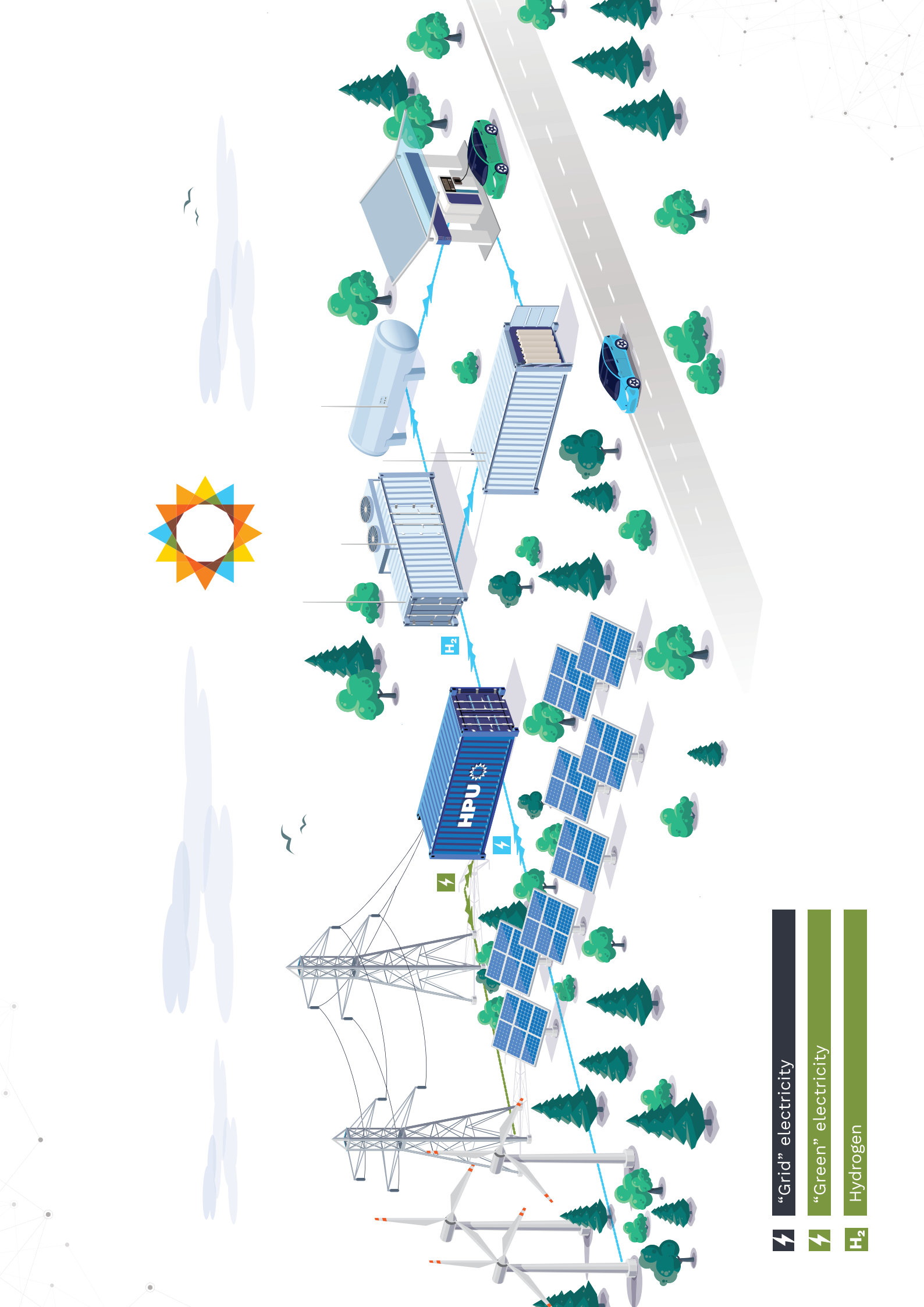


COOLER



H₂ DISPENSER

H₂ 70 MPa



“Grid” electricity



“Green” electricity



Hydrogen