

APPLICATIONS OF HYDROGEN SOLUTIONS

1 INDUSTRIES DECARBONISATION
Direct reduced iron, oil refining, reduction of fossil fuel consumption (gas, coal)



2 FUEL-CELL TRANSPORT
All types of vehicles, hydrogen refuelling stations



3 LOW-CARBON ENERGY SECTOR
Turbogenerator cooling, energy storage, power generation, methane-hydrogen blends



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ROSATOM

HYDROGEN

**Technologies,
investment,
projects**





STEAM METHANE REFORMING WITH CO2 CAPTURE

under 0.25 kWh/Nm³ of H₂ energy consumption

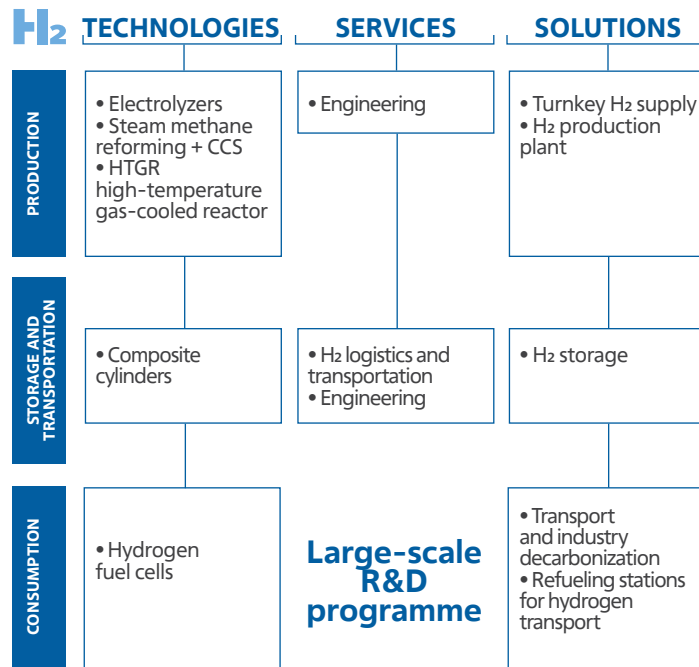
from 1000 Nm³/h production capacity

up to 98% CO₂ capture

≥99.99% H₂ purity

service life:
40 years

ROSATOM IS DEVELOPING ITS OWN RANGE OF HYDROGEN ENERGY TECHNOLOGIES AND SERVICES



ELECTROLYSERS BASIS FOR LOW-CARBON SOLUTIONS FOR HYDROGEN PRODUCTION

from 5 to 100 Nm³/h hydrogen production rate

up to 1.5 MPa H₂ pressure

≥99.999% H₂ purity

Type:

- membrane
- alkaline
- matrix

2024

FIRST ELECTROLYSERS FULLY MADE LOCALLY IN RUSSIA



2028

LAUNCH OF ROSATOM TECHNOLOGY OF STEAM METHANE REFORMING WITH CO₂ CAPTURE