



Building the Central European RFNBO Hydrogen Market

*Cross-border cooperation between the Moravian-Silesian
Region and the Silesian Voivodeship*

H2 Forum 2026

30.09 - 01.10 2026, Ostrava



TAURON GROUP

A MODERN ENERGY GROUP WITH A CONCENTRATION OF ASSETS IN THE SOUTHERN POLAND



Distribution

- ✓ Number of customers: 5.9 million
- ✓ Power distribution: 51.3 TWh
- ✓ Regulatory value of assets: PLN 21.4 billion



Sales

- ✓ Number of Customers: 5.8 million (5.4 million B2C, 0.4 million B2B)
- ✓ Electricity sales: 30.8 TWh



RES

- ✓ Installed capacity: 0.7 GW (currently > 1 GW)
- ✓ Production volume: 1.7 TWh



Heat

- ✓ Number of heat consumers: 800 thousand
- ✓ Installed capacity: 2.2 GWt



Conventional manufacturing

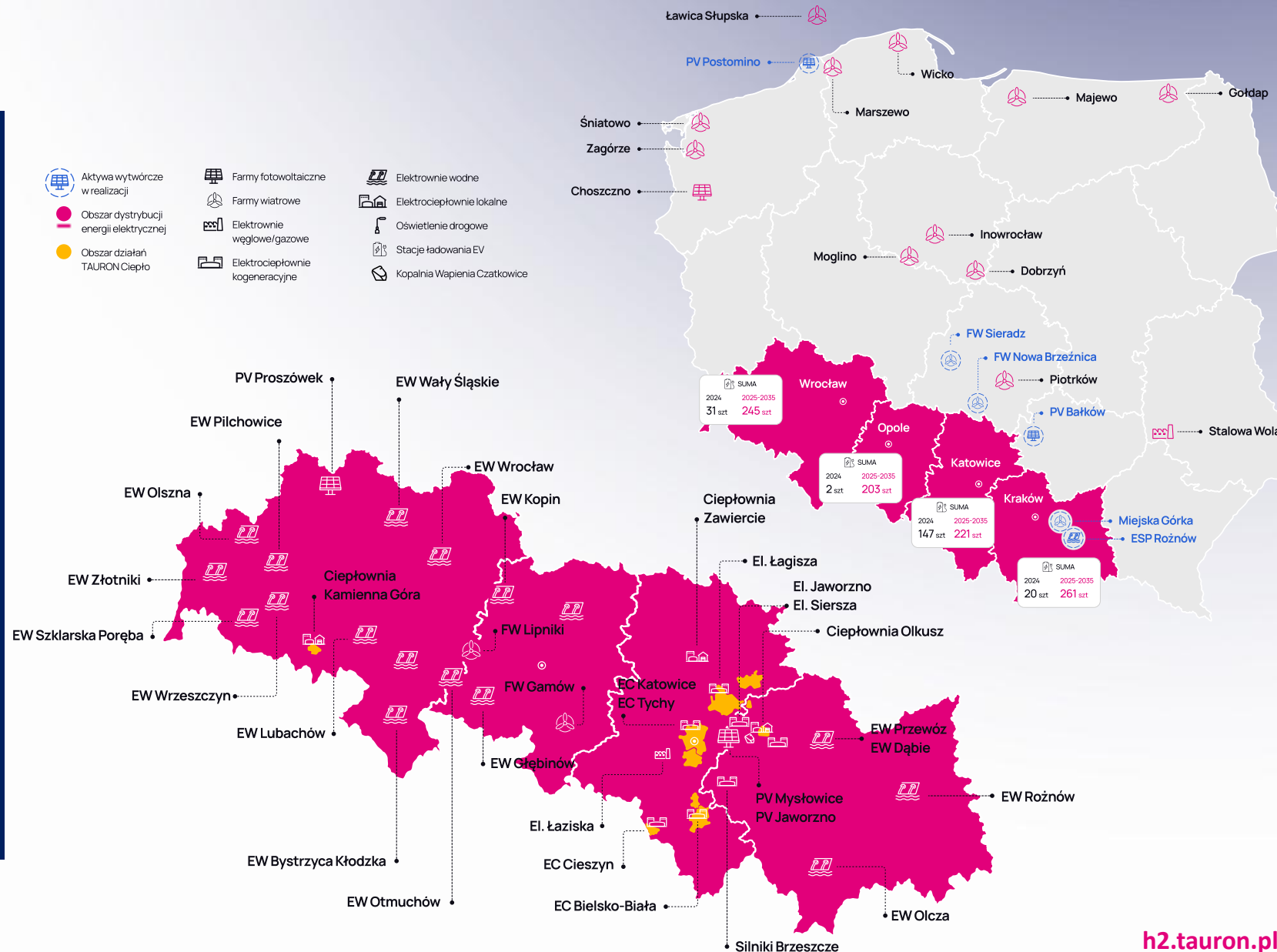
- ✓ Installed capacity: 4.4 GW_e
- ✓ Power Generation: 11 TWh



Employees

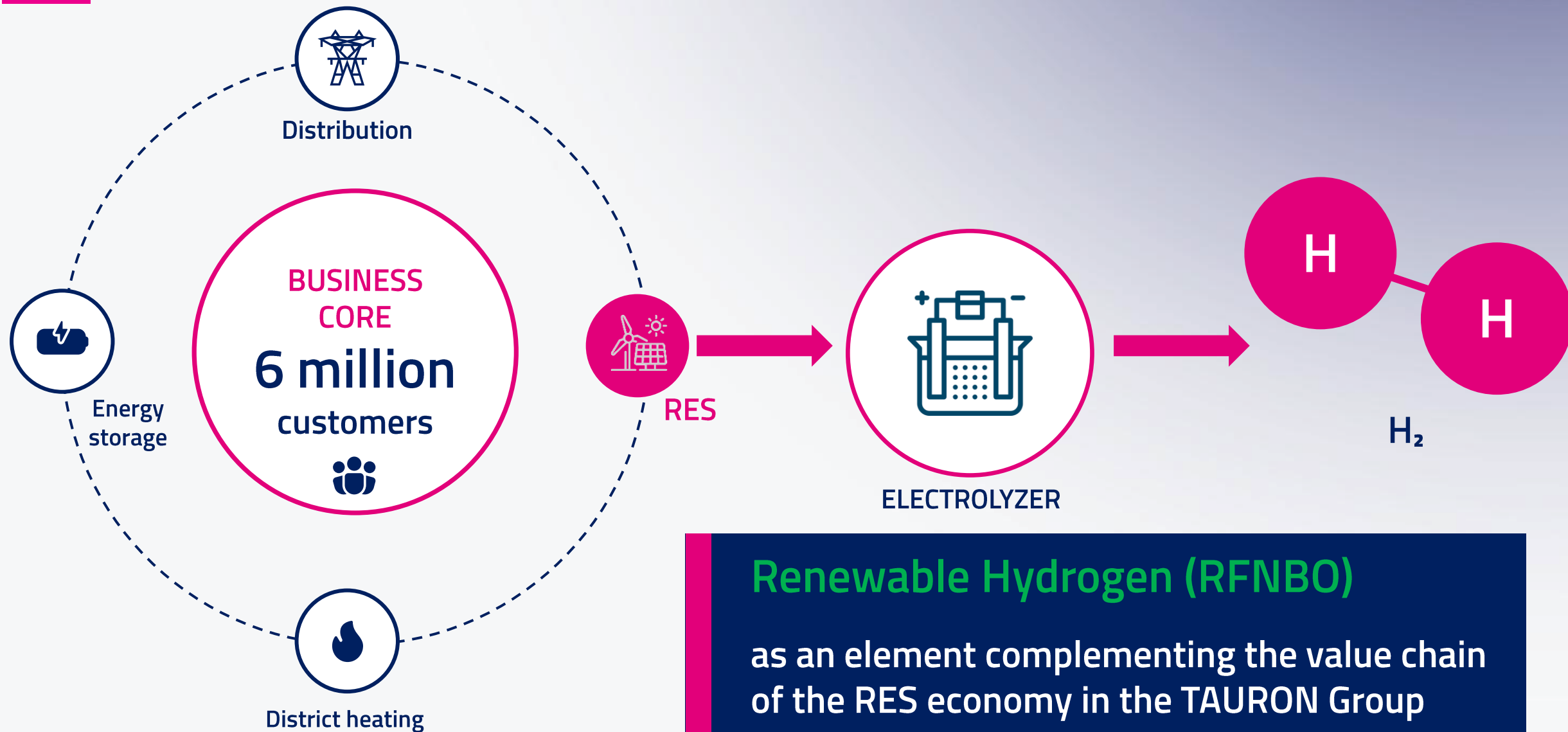
- ✓ Number of employees: 19 thousand
- ✓ 26% women, 74% men

Based on data for 2023



TAURON AND HYDROGEN?

RES VALUE CHAIN IN TAURON GROUP



Renewable Hydrogen (RFNBO)

as an element complementing the value chain of the RES economy in the TAURON Group



TAURON GROUP'S STRATEGY UNTIL 2035

HYDROGEN CLOSES THE RES VALUE CHAIN

SCALE OF THE SYSTEM IN 2035

4,7

GW RES

+

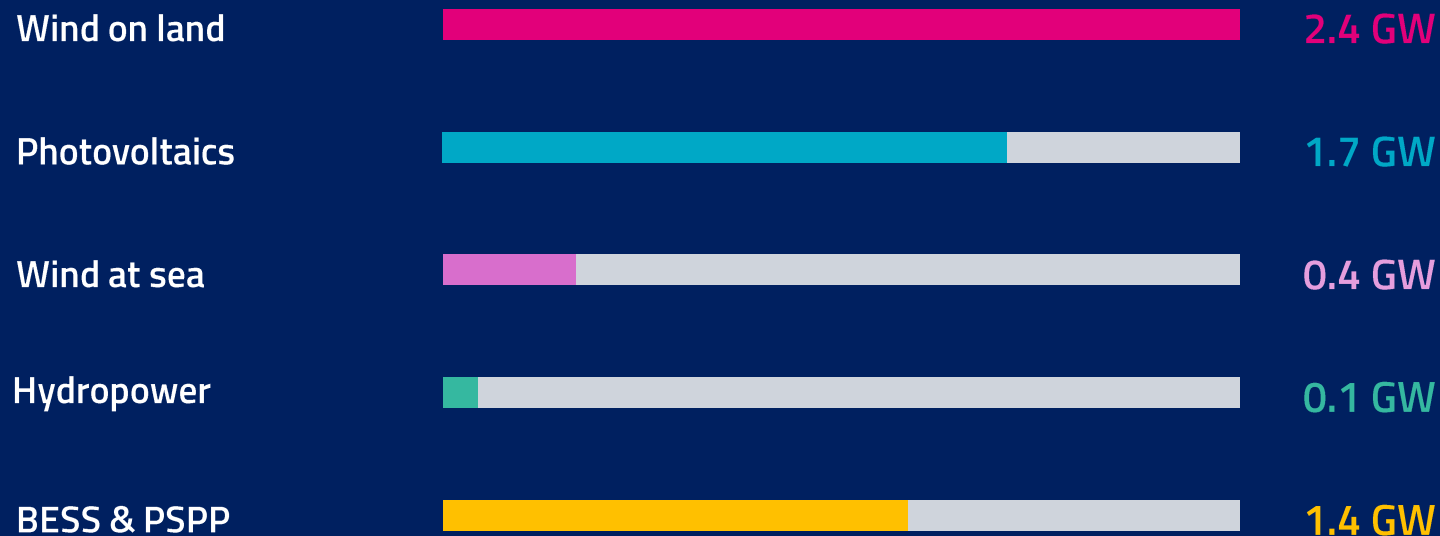
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GW BESS and PSPP

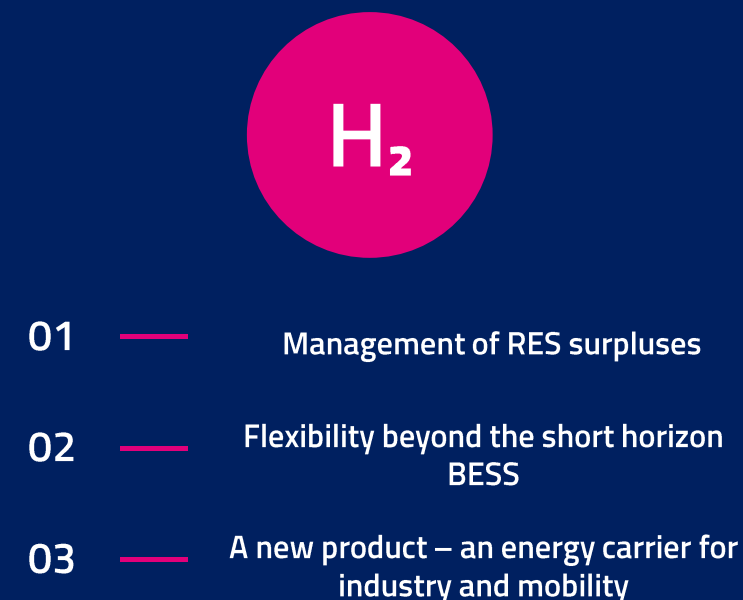
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GW

POWER BY TECHNOLOGY



RENEWABLE HYDROGEN

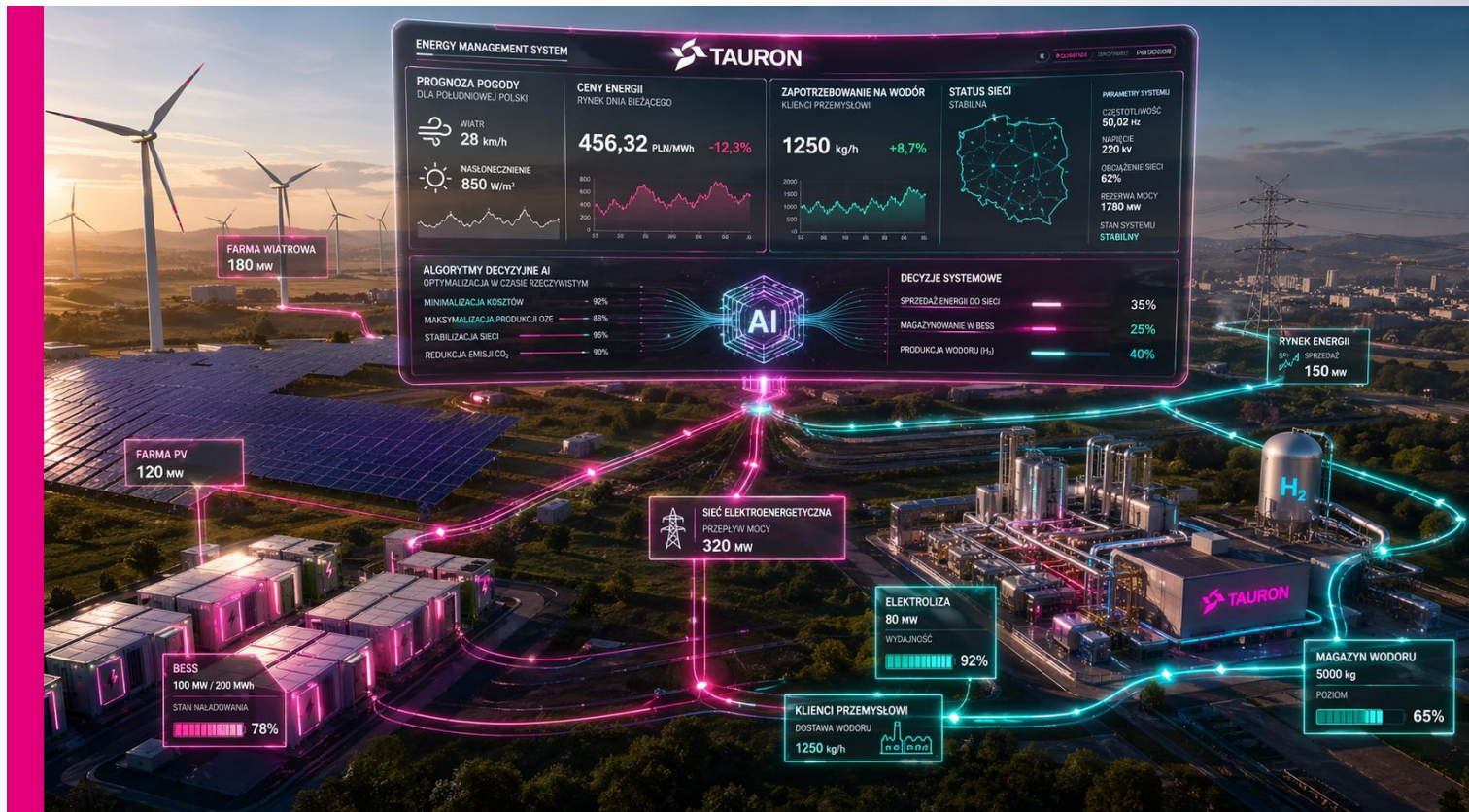


The growth of RES creates a need for flexibility - storage facilities balance the system in the short term, and hydrogen expands the possibilities of using green energy.



INTELLIGENT MANAGEMENT SYSTEM RES + BESS + H₂

EMS DIRECTS ENERGY TO WHERE IT CREATES THE MOST VALUE AT THE MOMENT



INPUT

- 1 Weather and forecast of RES production
- 2 Energy prices on the market
- 3 Demand for hydrogen
- 4 PPA with customers, market volumes
- 5 Data on the redispatch of RES

ONE INTEGRATED SYSTEM
RES + BESS + H₂

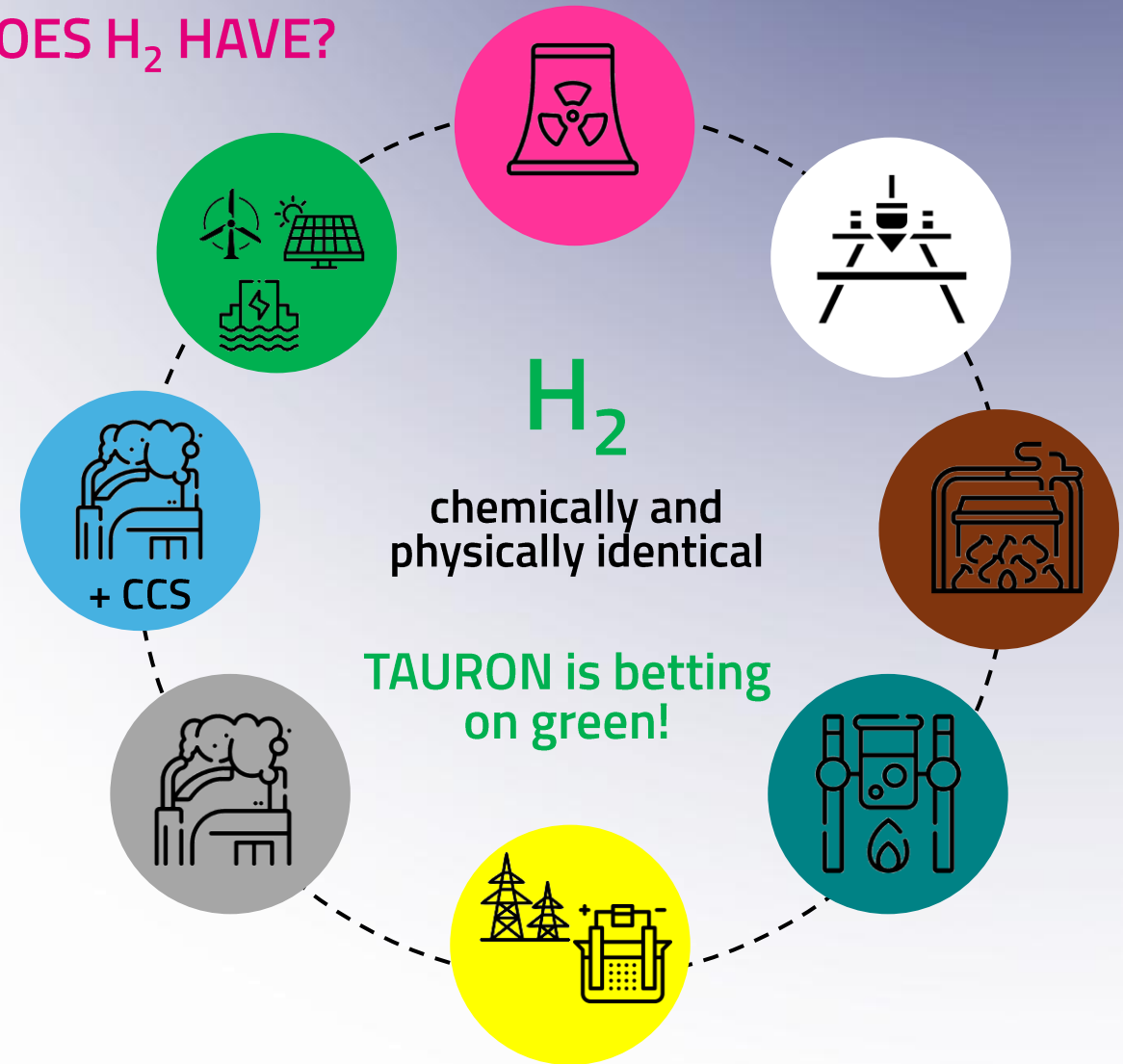
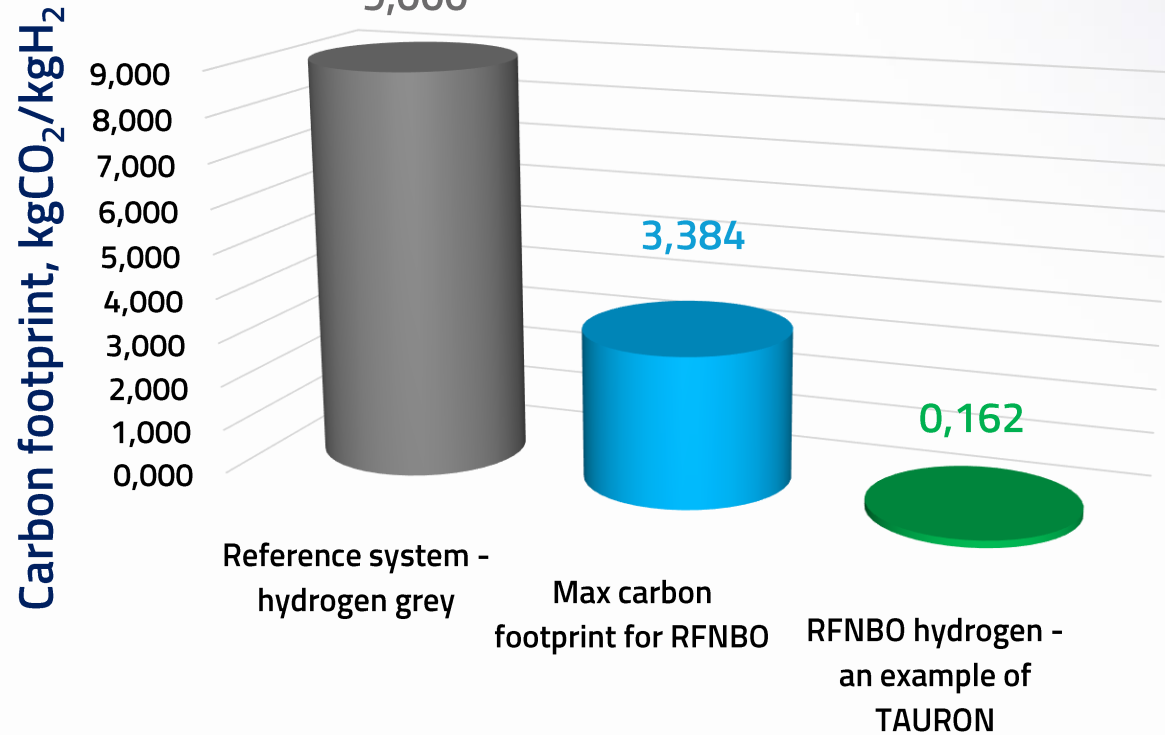
Use of energy from RES where it is most needed at a given second.



WHAT COLORS AND CARBON FOOTPRINT DOES H₂ HAVE?

TAURON'S STRATEGY IS RES -> GREEN HYDROGEN

Comparison of the carbon footprint of RFNBO vs grey hydrogen

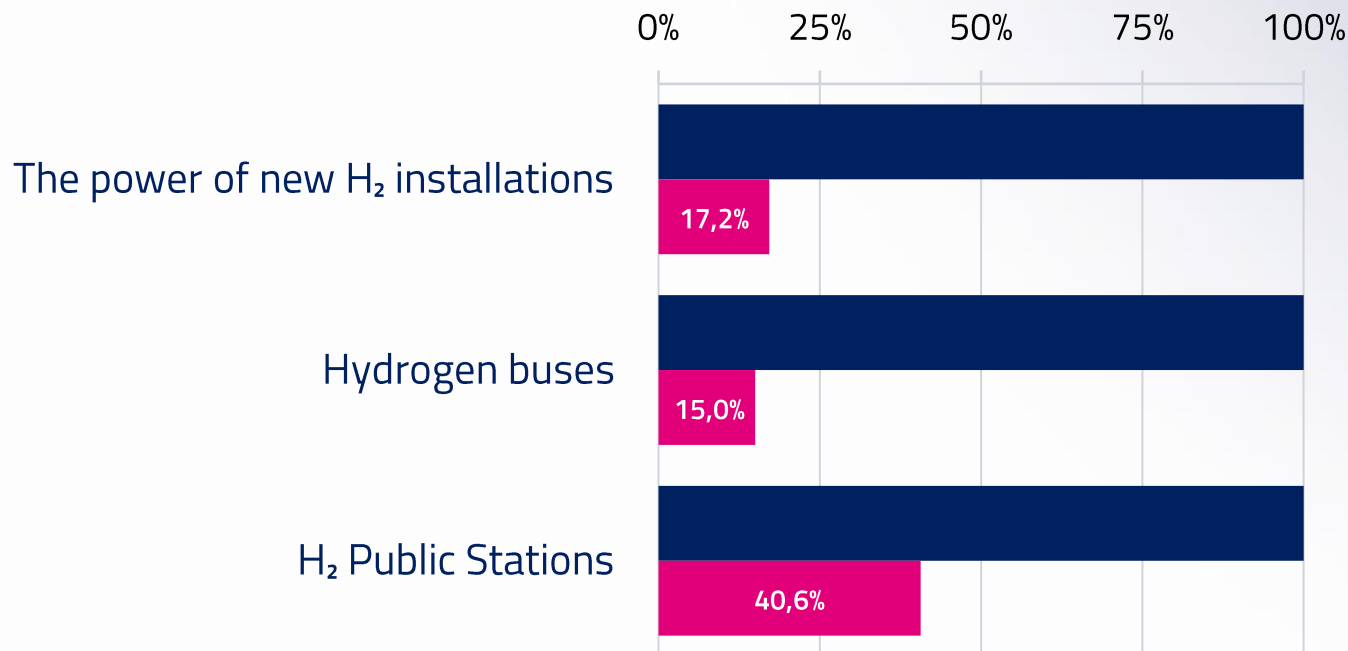


There are many colors of hydrogen – each has a different carbon footprint. The method of hydrogen production affects its emissivity, and the emissivity affects decarbonization goals.



POLISH HYDROGEN STRATEGY BETWEEN EXPECTATIONS AND REALISM

INDICATOR EXECUTION | TARGET = 100% ■ MAGENTA = Q3 2026



AMBITION HAS OUTPACED THE PACE OF IMPLEMENTATION

The goals were directionally accurate, but overestimated in terms of economics, infrastructure and maturity of the projects.

PHS TARGET → STATUS Q3 2026

POWER OF NEW H₂ INSTALLATIONS

2 GW → 343 MW (planned)

17% of the target; portfolio of 5 KPO projects

HYDROGEN BUSES

800 - 1000 → approx. 150 pcs.

15-19% of the target

H₂ PUBLIC STATIONS

32 → approx. 13 (+25 planned by 2030)

approx. 41% of the target

HYDROGEN VALLEYS

≥5 → approx. 16 initiatives

quantitative target exceeded; low maturity

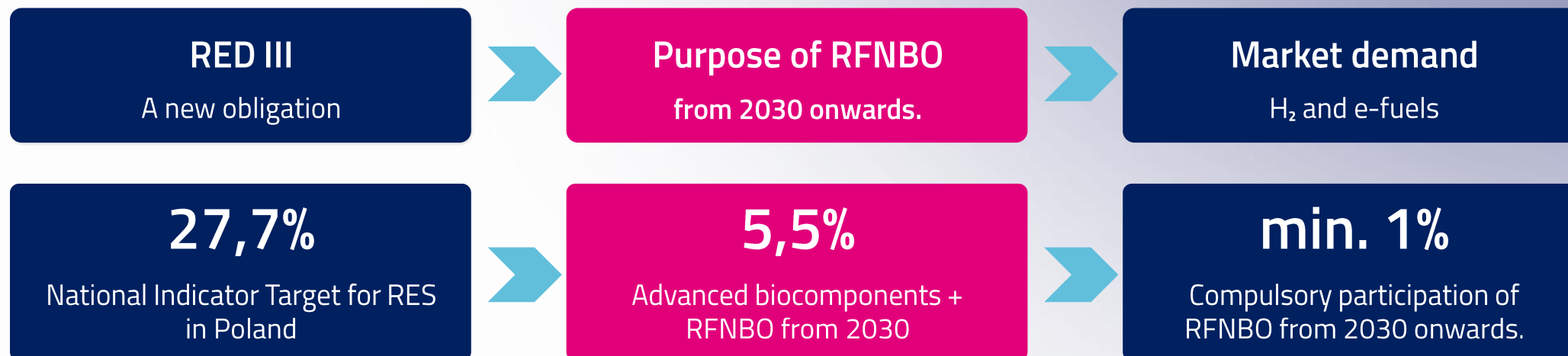


The PHS is being updated. TAURON H₂ actively participates in the work of the Ministry of Climate and Environment in order to make the assumptions more realistic and indicate the potential for market development.



RED III CREATES MANDATORY DEMAND FOR RFNBO

RFNBO AS NEW REGULATORY PRODUCTS IN THE EUROPEAN MARKET



IMPLEMENTATION COVERS THE ENTIRE TRANSPORT CHAIN



ROAD TRANSPORT



RAIL



AVIATION



SHIPPING



PRODUCTION OF
E-FUELS



RFNBO's certified fuel is becoming a necessary resource to meet a regulatory obligation, and not just an element of an ESG strategy.



THE NEW OBLIGATION CREATES NEW GROUPS OF RECIPIENTS

ENTITIES THAT PURSUE THE OBJECTIVES OF REDIII - DEMAND FOR THE ENTIRE RFNBO VALUE CHAIN



Fuel suppliers

Fuel marketers, importers and self-consumption operators.

Need: RFNBO qualified volumes



Refineries and fuel producers

RFNBO hydrogen as an intermediate product and raw material for the production of road and synthetic fuels.

Need: H₂ RFNBO + Regulatory Attribute

H₂ RFNBO AS A REGULATORY PRODUCT | NEW RED III MARKET



H₂ stations and fleets

The sale of hydrogen to buses, trucks, and other vehicles creates a billable volume of RFNBOs.

Need: Stable supply of certified H₂



Aviation & Maritime

Demand for hydrogen and RFNBO derivatives: e-methanol, e-ammonia, e-SAF and other synthetic fuels.

Need: raw material or finished e-fuel



Different recipients can meet the purpose of REDIII in different ways – hence different supply models and different regulatory products should be analyzed.



THE REGULATORY VALUE OF RFNBO DEPENDS ON THE SECTOR

MULTIPLIERS INCREASE THE ENERGY COUNTED TOWARDS THE RFNBO TARGET

SECTOR	SAMPLE PRODUCT	RFNBO MULTIPLIER	SETTLEMENT VALUE
Road transport	RFNBO hydrogen at station H ₂	x2	1 GJ physical = 2 GJ to target
Rail transport	RFNBO hydrogen at station H ₂	x2	1 GJ physical = 2 GJ to target
Refinery/Road Fuels	RFNBO hydrogen as an intermediate product	x2	1 GJ physical = 2 GJ to target
Shipping	RFNBO: hydrogen, e-methanol, e-ammonia	x3	1 GJ physical = 3 GJ to target
Aviation	RFNBO: hydrogen, e-SAF	x3	1 GJ physical = 3 GJ to target



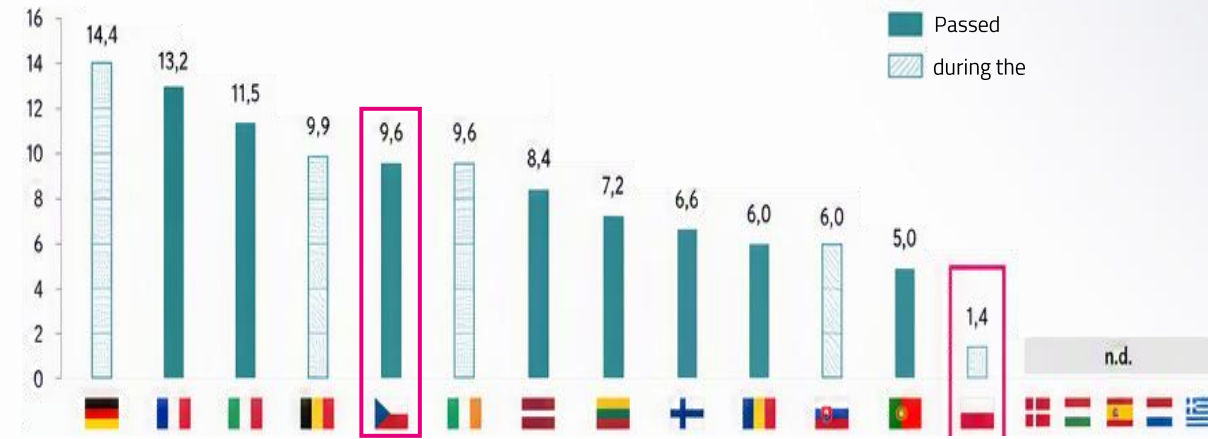
The multiplier increases the settlement value of the RFNBO, but not the physical amount of fuel or automatically the price of the product.



LOW LEVEL OF PENALTIES FOR NON-PERFORMANCE OF RFNBO DUTIES IN POLAND

NO DRIVER FOR THE DEVELOPMENT OF THE RFNBO MARKET

Penalties, EUR/kgH₂



Penalty - 1.4 EUR/kgH₂

- VS -

Estimated cost of RFNBO in Poland
10-12 EUR/kgH₂

The level of the proposed penalty in Poland is many times lower than the expected cost of RFNBO production.

It may be more profitable for obliged entities to incur a penalty than to purchase/own production of RFNBO hydrogen.

What will drive the hydrogen market?

Decarbonization Industry and Transport



- ✓ refineries and the fuel sector – increasing demand for hydrogen and e-fuels (SAF, e-methanol, e-ammonia)
- ✓ Fertilizer and chemical industry – pressure to reduce the carbon footprint of products and maintain competitiveness
- ✓ metallurgy and energy-intensive industries – hydrogen as one of the key technologies for deep decarbonization
- ✓ heavy logistics and specialist transport – HDV, garbage trucks, public transport

Regulations



- ✓ REDIII – a requirement of 42% RFNBO in industry and 1% in transport by 2030
- ✓ AFIR – development of hydrogen refuelling infrastructure
- ✓ ETS – EUA price increase will drive decarbonisation projects where hydrogen can play a key role
- ✓ ReFuelEU Aviation, FuelEU Maritime – decarbonisation of aviation and shipping fuels
- ✓ CBAM – Obligation to account for emissions embedded in imported products – more advantageous products with a low carbon footprint

EU financial support mechanisms



- ✓ European Hydrogen Bank – differential mechanism between the seller and buyer of RFNBO hydrogen
- ✓ Innovation Fund – CAPEX support for innovative hydrogen and e-fuels projects
- ✓ CEF Energy – CAPEX support for RES projects of high importance (PCI, PMI)
- ✓ CEF Transport – support for alternative fuels infrastructure

The current level of RFNBO penalties in Poland does not reflect the cost of the transformation. Without additional economic incentives, the pace of development of the RFNBO market in Poland may be significantly lower than the RED III assumptions.



USE OF HYDROGEN IN PRACTICE – THE REFINERIES

LARGEST RFNBO PROJECTS ON THE EUROPEAN MARKET

Transport target by 2030

1% RFNBO

	COMPANY / PROJECT	SCALE	STATUS AND APPLICATION
01	SHELL Holland Hydrogen 1 Rotterdam, The Netherlands	200 MW 2027	Commissioning; end of 2026; increase in production in 2027. RFNBO hydrogen will replace part of the H ₂ fossil fuel at the Shell Pernis refinery.
02	SHELL REFHYNE I/II Wesseling, Germany	10 + 100 MW I: Works ■ II: 2027	REFHYNE I has been in operation since 2021; REFHYNE II is under construction (up to 44 tH ₂ /d). Application: Rheinland refinery and chemical park.
03	ORLEN Hydrogen Eagle / Green H2 Poland: Włocławek, Jedlicze, Gdańsk	≈210 MW 2030+	Implementation 2030+. RFNBO's hubs are to power the decarbonization of refineries and transport. Płock includes a separate low-emission module (hydrogen from RDF gasification).
04	BP + IBERDROLA Castellón Green Hydrogen Castellón, Spain	25 - 200 MW 2026 ➡ 20??	FID adopted; commissioning plan: second half of 2026 The project is to replace part of the grey hydrogen consumed in the bp Castellón refinery. Planned expansion to 200 MW.



REDIII and RFNBO's targets drive the development of RFNBO's hydrogen projects at refineries.



HYDROGEN APPLICATION IN PRACTICE – INDUSTRY

THE LARGEST RFNBO PROJECTS ON THE EUROPEAN MARKET

Industrial target by 2030

42% RFNBO



reduction of CO₂ emissions in high-temperature processes (steel, cement)



Sweden - HYBRIT

- ✓ replacement of coke in the process of iron ore reduction with hydrogen
- ✓ 500 MW electrolyser
- ✓ 1.2 million green steel per year
- ✓ reduction of CO₂ emissions – 90% (<0.05 tCO₂/t)



replacing natural gas in the production of ammonia and chemicals



YARA – HEGRA project

- ✓ replacing grey hydrogen with green hydrogen for ammonia and fertiliser production
- ✓ Ultimately, up to 400 thousand tons of green ammonia for the production of green fertilizers
- ✓ reduction of CO₂ emissions – 800,000 tCO₂/year



REDIII and RFNBO's goals drive the development of RFNBO's hydrogen projects in industry.



RFNBO hydrogen as a New Energy for Electromobility



over 150 hydrogen buses on Polish roads today, new orders, potential for 800-1,000 by 2030 according to PHS



FCEV passenger cars – zero-emission driving without compromise, comfort, range, ecology

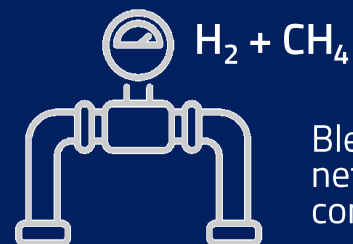


Hydrogen trucks – zero-emission mobility for long-distance and international transport
example: Switzerland – 50 pcs.

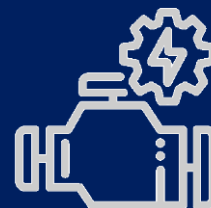


Polish hydrogen locomotive PESA – a zero-emission future of Polish railways

Energy storage, system stabilization, zero-emission heat sources



Blending natural gas with hydrogen in gas networks and use in gas turbines / combined-cycle power systems



hydrogen/ammonia cogeneration as a source of clean electricity and heat (gas turbines/cogeneration engines)



micro CHP / house powered by hydrogen and PV – independence from external conditions, off-grid installations, microgrids, vehicle to grid installations

LOCAL PRODUCTION OF GREEN HYDROGEN → THREE DIRECTIONS OF LOCAL DEMAND

GREEN INDUSTRY



- ✓ decarbonization of production processes
- ✓ Lower carbon footprint of products
- ✓ Competitive advantage and innovative brand
- ✓ ESG compliance

GREEN TRANSPORT



LOCAL HRS

refuelling and distribution of hydrogen for fleets, logistics and public transport



HYDROGEN HUB IN SEZ

ENERGY AND HEAT



Local cogeneration / heat source

stabilization of the local energy system and use of green H₂

BENEFITS FOR ZONES

01 — LOCATION ADVANTAGE

access to H₂ reduces logistics costs and increases security of supply

02 — INDUSTRIES OF THE FUTURE

e-fuels, green ammonia and hydrogen technologies

03 — SCALE EFFECT

Concentration of customers reduces production and distribution costs

04 — PREMIUM GREEN ZONE

Increased competitiveness in Europe and attractiveness for investors



LOCAL PRODUCTION, MANY APPLICATIONS: hydrogen produced in the zone secures industry, transport, energy and heat - building a common market for a wider range of recipients.



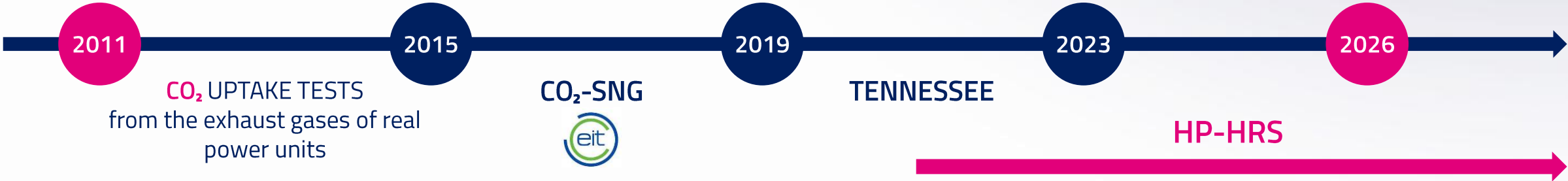
BACKGROUND R&D PROJECTS BASED ON HYDROGEN AND E-FUELS



15 YEARS OF COMPETENCY DEVELOPMENT | FROM R&D PILOT TO COMMERCIALIZATION



CO₂ CAPTURE
↓
CO₂-SNG
↓
E-FUELS



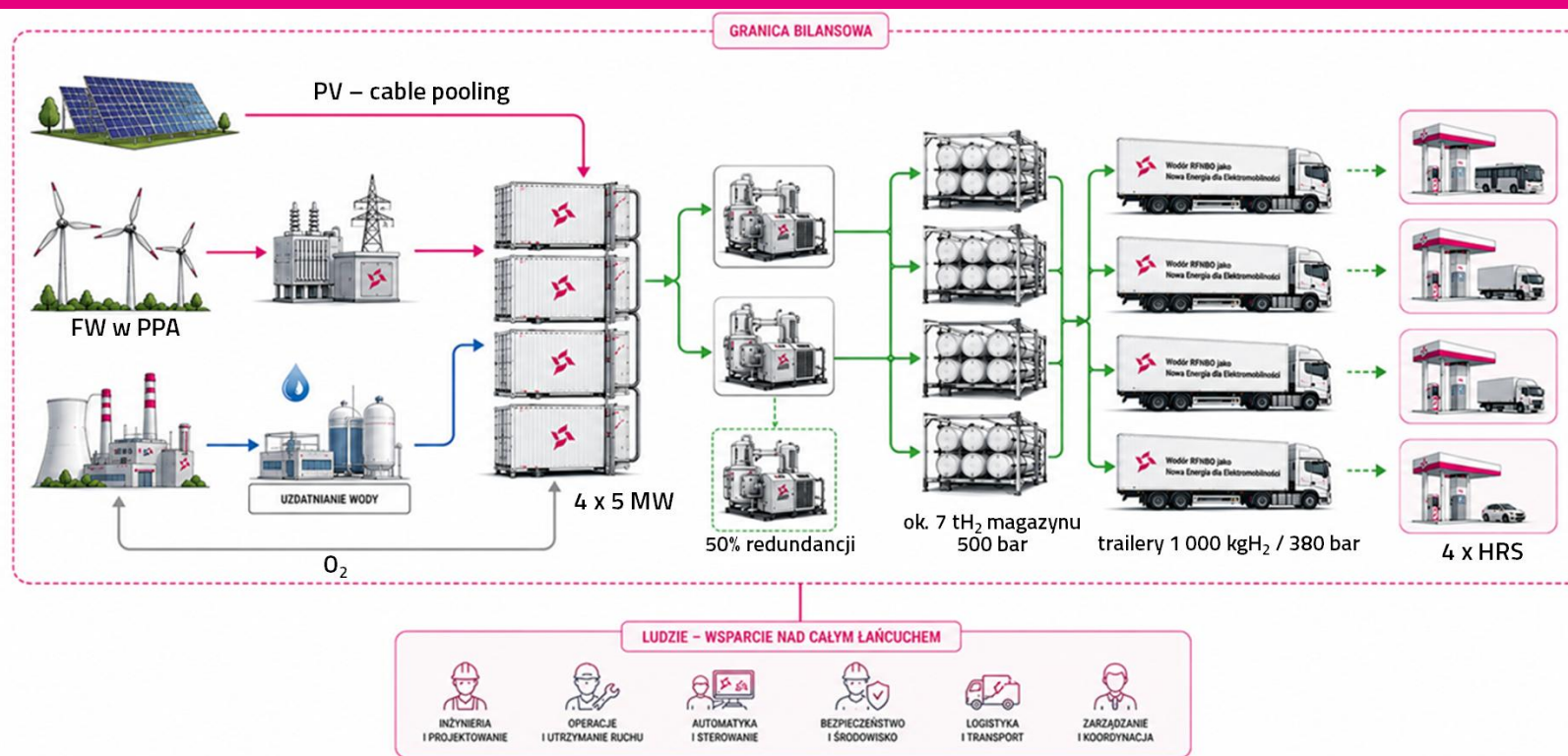
CONSISTENT BACKGROUND R&D: from CO₂ capture and CO₂-SNG synthesis, through the TENNESSEE project, to commercial hydrogen and e-fuel solutions.



INVESTMENT PROGRAM LAUNCHED

SILESIA VALLEY OF GREEN FUELS

RFNBO HYDROGEN FULL VALUE CHAIN



RES | ELECTROLYSIS | COMPRESSION AND STORAGE | TRANSPORT

SCALE OF THE PROGRAM

1,800 - 2,200
MgH₂ / year

200-250 buses/trucks

20 MW_e
electrolyser power

4 H₂ stations

The aim of the Silesian Valley of Green Fuels Programme is to build a full chain of the RFNBO hydrogen economy in the TAURON Group in the transport segment – from production using RES, through distribution, to sale at publicly available hydrogen refuelling stations.





Possibility of refueling
380 bar trailers

min. 3 filling points

- ✓ RFNBO Certification
- ✓ Hydrogen quality studies
- ✓ Possibility to provide your own transport

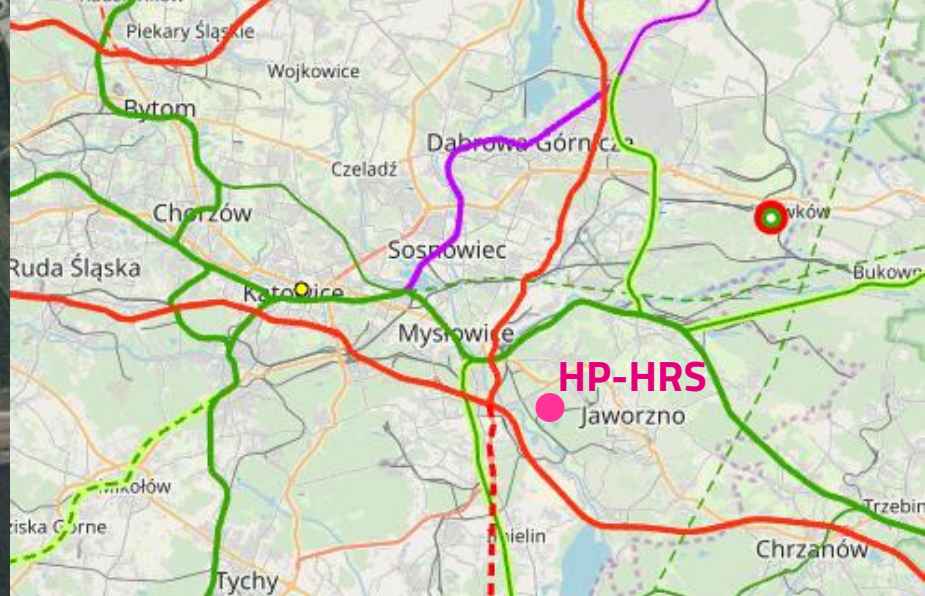


RFNBO-certified hydrogen, proven quality and 380 bar infrastructure with three filling points - ready to handle large volumes flexibly.



Location

- ✓ The area of the Jaworzno III Power Plant in Jaworzno, at Promienna Street
- ✓ The installation is planned on the plots (279/42, 279/44, 279/45, 279/46) marked on the map below in green with a yellow border
- ✓ Proximity to the main transport corridors (road, rail) of the TEN-T and the GZM urban node



Construction project in 4 locations in the Silesian Voivodeship of publicly accessible green fuel refuelling hubs

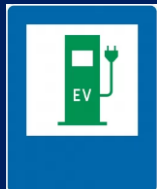
- ✓ Hydrogen refuelling stations
- ✓ Electric vehicle charging stations

as required by AFIR.

TH2



TNT



Silesian VALley of green FUEls



HP-HRS – CO-FINANCING AND PROJECT INDICATORS

SUPPORT FROM THE KPO IN THE AMOUNT OF PLN 30 MILLION EUR

CO-FINANCING AGREEMENT ▪ 03.09.2025

EUR 30 million

non-refundable subsidy, which constitutes more than 43% of eligible costs



KRAJOWY
PLAN
ODBUDOWY



Rzeczpospolita
Polska

Sfinansowane przez
Unię Europejską
NextGenerationEU



Investment B2.1.1. Investments in H₂ technologies, production, storage and transport of H₂

Scope: Construction of installations for the production of RFNBO H₂ or low-emission H₂ (including electrolyzers and accompanying infrastructure) with a total capacity of at least 315 MW

KEY PROJECT INDICATORS



PRODUCTION

min. 1 800 Mg H₂/year

RFNBO's strategic volume to support the implementation of new regulatory obligations by the fuel and transport sectors.



RENEWABLE
ENERGY

140 - 150 GWh/year

RFNBO hydrogen is becoming a renewable energy storage for sectors that are difficult to electrify.



TRANSFORMATION

new jobs

The project supports the economic transformation of Silesia through the development of new competences and jobs in the hydrogen economy.

>15 ktCO₂/year

potential for avoided emissions



800 000
planted trees



1,600 flights
Warsaw - NY



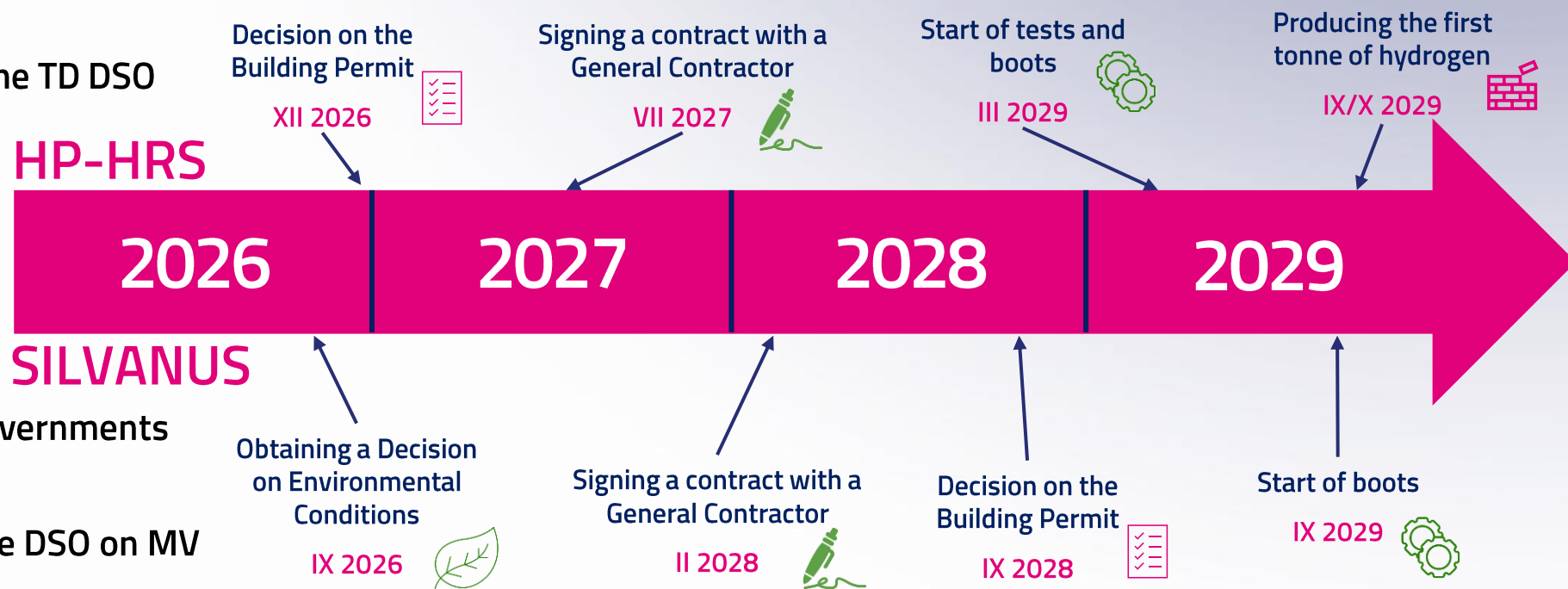
10,000 passenger cars

SILESIA VALLEY OF GREEN FUELS STATUS AND SCHEDULE

Obtaining an occupancy permit
for a 20 MW electrolyser
installation (HP-HRS) and 4
hydrogen refueling stations
(SILVANUS)

Q4 2029

- ✓ Feasibility Study
- ✓ Grant agreement (€30 million)
- ✓ Decision on Environmental Conditions
- ✓ Compliance with the MPZP
- ✓ Conditions for connection to the TD DSO



- ✓ Agreed locations with local governments
- ✓ Compliance with the MPZP
- ✓ Possibility of connecting to the DSO on MV

The HP-HRS project is practically RtB, administratively the only thing missing is the Building Permit. SILVANUS is in the planning stage.





TAURON H2 - YOUR RFNBO PARTNER FULL RFNBO VALUE CHAIN



COOPERATION TAILORED TO THE NEEDS OF THE RECIPIENT

01

RFNBO hydrogen supply

Sales for transport and industry: volume, quality, schedule and price indexation model.

02

H₂ stations with fuel supply guarantee

Development of refuelling station infrastructure combined with long-term security of H₂ supply.

03

Hydrogen trade and logistics

Sales, transport, storage and continuity of supply in an agreed model.

04

Development of the e-fuel market

Development of commercial applications of RFNBO hydrogen in aviation, shipping and industry.



RFNBO PRODUCTION FROM OWN RES



BUSINESS PARTNERSHIP



TRANSPORT AND E-FUELS



STRATEGIC MARKET DEVELOPMENT

TAURON H2 – Your Partner in RFNBO's Transformation.



WHAT DOES A GOOD HYDROGEN PROJECT NEED?

HOW TO BUILD AN RFNBO VALUE CHAIN?

TAURON H2 - PROJECT EXPERIENCE

TECHNOLOGY

- ✓ A location enabling a direct connection to renewable energy sources and power infrastructure, as well as the direct utilization of products (hydrogen, heat, oxygen) – off-takers.
- ✓ Flexible electrolyzer operating models designed to accommodate fluctuations in renewable energy generation, complemented by battery energy storage.

ENERGY

- ✓ Access to competitively priced renewable electricity through a direct line or long-term PPA, supported by sufficient grid connection capacity and predictable network charges.
- ✓ An energy management model combining RES forecasts, market prices, BESS and flexible electrolyzer operation to minimize RFNBO production costs.

REGULATION

- ✓ A stable and transparent RFNBO framework covering permitting, certification, additionality and temporal and geographical correlation rules.
- ✓ Investment and operating support that bridges the cost gap versus fossil hydrogen and makes long-term projects bankable.

DEMAND

- ✓ Anchor off-takers with predictable volumes and long-term contracts for hydrogen and, where possible, heat and oxygen.
- ✓ A diversified local ecosystem connecting production, storage and logistics, HRS and industrial or transport users, enabling phased scale-up.

FULL UTILIZATION OF ELECTROLYSIS PRODUCTS

HYDROGEN IS NOT THE ONLY VALUABLE PRODUCT OF THE PROCESS

OXYGEN



1 kgH₂ -> approx. 8 kgO₂

1 MW Electrolyzer:
approx. 18 kgH₂/h -> 144 kgO₂/h



Sewage treatment plants, waste incinerators



Medical & Technical Gases



Metallurgical and glass industry



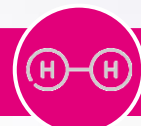
Aquaculture



+



HYDROGEN



HEAT



Potential for heat recovery:

- ✓ BoL – approx. 15-30% of the rated power of the electrolyser in the form of heat
- ✓ EoL – approx. 30-35% of the rated power of the electrolyser in the form of heat
- ✓ Water at a temperature of 40-60°C



Municipal heating network



Dryers (e.g. wood)



Industrial plants



Aquaculture



INVESTMENT RECOMMENDATION:

The development of RFNBO projects should take into account not only hydrogen production, but also, wherever possible, the use of oxygen and heat, which increases energy efficiency and improves investment economics and benefits the entire economy.



THE ROLE OF THE ELECTROLYSER AND COMPETITIVE ADVANTAGE

POLAND VS GERMANY

POLAND



Electrolysers in Poland are treated as final consumers of electricity and are currently charged with most of the standard network costs, which limits their role in stabilizing the system.



In the tax context – standard national rules.



Penalties pending for failure to meet RFNBO targets in accordance with REDIII – **1.4 EUR/kgH₂** – a penalty much lower than the cost of production – no driver for market development.

GERMANY



Germany treats electrolysers as part of the power system and supports their integration into the PPS by exempting part of the network charges, encouraging the provision of flexibility services.

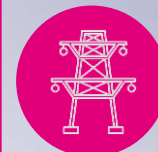


Tax exemptions available for H₂ electrolysers.



Penalties pending for failure to meet RFNBO targets in accordance with REDIII – **14.4 EUR/kgH₂** – penalty higher than the cost of production – market development driver.

CONCLUSION



Germany treats electrolysers as an element of the power system, Poland mainly as an energy consumer



The competitiveness of RFNBO projects is determined today by regulation, not technology



Capital will go where the electrolyser generates the highest value for the system



Electrolysers can become a tool for reducing the costs of the energy transition

It is not the technology that determines the location of hydrogen investments today, but the regulatory environment. Germany uses electrolysers to reduce the costs of the energy transition and attract capital. In order to effectively compete for RFNBO investments, Poland should provide electrolysers with comparable operating conditions.



REGULATORY RECOMMENDATION:

Capital for hydrogen projects will be invested where the cost of production of RFNBO is the lowest and most predictable. Without bringing regulatory conditions closer to the level of Germany, Poland risks losing investments, jobs and industrial competences. It is necessary to create a competitive cost environment for electrolysers so that the country becomes a place of implementation, and not just a recipient of hydrogen technologies.



MODELS OF HYDROGEN FINANCING IN HEAVY TRANSPORT: PRACTICAL EXAMPLES BASED ON SYSTEMS IN THE NETHERLANDS AND GERMANY



SWiM - The Netherlands

Subsidieerend Waterstof in Mobiliteit



PURPOSE

Development of the hydrogen market in heavy transport: support for hydrogen refuelling stations and vehicles.



CONSORTIUM

HRS operator + carriers/recipients (min. 4) + hydrogen supplier; joint project.



FINANCING HRS STATION

Up to 40% of eligible costs. Max. 3 million EUR/HRS 350 bar; 4 million EUR/station 350 + 700 bar.



FINANCING VEHICLES

Up to 60% of the cost difference compared to diesel. Max. EUR 6 million per beneficiary.



KEY REQUIREMENTS

Public substation; capacity min. 1,000 kg H₂/d; round-the-clock availability; AFIR and RFNBO compliant.

~€72 million
support

13 HRS
with a subsidy

~600
H₂ trucks



BMW 2026 - Germany

Support for HRS stations and hydrogen trucks



PURPOSE

AFIR-compliant HRS network for heavy transport: support for stations, vehicles and operations.



CONSORTIUM

HRS station operator + carrier; settlement related to the purchase and use of the fleet.



FINANCING HRS STATION

Up to 50% of eligible costs. Max. EUR 4 million per station.



FINANCING VEHICLES

Up to 80% of the cost difference compared to diesel. Qualified: FCEV and H₂ ICE (N2 and N3).



KEY REQUIREMENTS

Minimal use of stations by the fleet; fixed places of use; AFIR compliance.

526
H₂ vehicles

€55 million
for vehicles

€220 million
budget

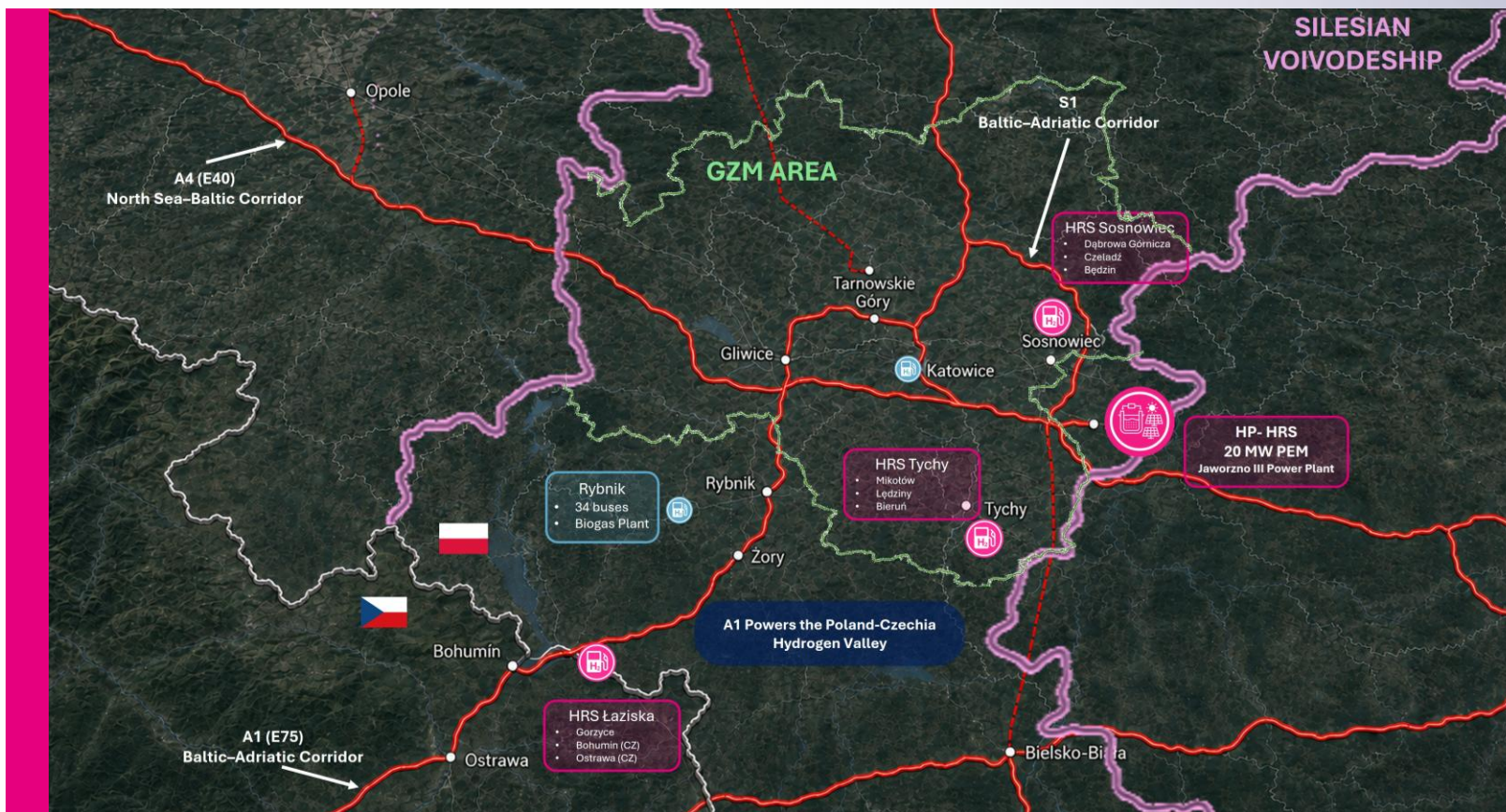


Both mechanisms show an effective model for building the hydrogen market – financing the ecosystem (H₂ producer – refuelling station – carrier) with a guarantee of demand from day one / AFIR compliance.



CROSS-BORDER HYDROGEN ECOSYSTEM

A1 POWERS THE POLAND-CZECH REPUBLIC HYDROGEN VALLEY



A1 MOTORWAY - THE BACKBONE OF THE POLAND-CZECH REPUBLIC H₂ VALLEY

CONNECTS SUPPLY WITH DEMAND

The A1 corridor links renewable hydrogen production in Poland with industrial and mobility demand in Czechia.

ENABLES EARLY-MARKET LOGISTICS

Road transport along A1 can move hydrogen between the two markets before cross-border pipeline infrastructure is available.

BUILDS CROSS-BORDER SCALE

One corridor aggregates demand and accelerates the valley's development.



The A1 corridor will drive the development of hydrogen demand and supply between Poland and the Czech Republic.





CROSS-BORDER HYDROGEN ECOSYSTEM

TAURON AND RYBNIK PROJECTS CAN ANCHOR THE SILESIA–MORAVIAN-SILESIA HYDROGEN VALLEY

COMPLEMENTARY PROJECT STRENGTHS

TAURON H₂

20 MW

SUPPLY-SIDE ANCHOR
full RFNBO value chain

- **Prepared at scale**
1,800–2,200 t H₂/year and four refuelling stations.
- **Integrated delivery scope**
Renewables, electrolysis, logistics and hydrogen sales.
- **Execution capability**
Energy assets, project governance and partner coordination.

CITY OF RYBNIK

HYDROGEN MOBILITY

DEMAND-SIDE ANCHOR
municipal deployment

- **Defined local demand**
Hydrogen-bus fleet creates an actionable public-transport use case.
- **Deployment experience**
Preparation of zero-emission mobility and supporting infrastructure.
- **Public-sector coordination**
A platform for operators, city services and regional partners.

POLAND | SILESIA



CZECH REPUBLIC
| MORAVIAN-SILESIA REGION



A credible starting point for an internationally coordinated hydrogen valley.
Production ■ mobility ■ infrastructure ■ off-take



CROSS-BORDER HYDROGEN ECOSYSTEM

Silesia (PL) and Moravian-Silesia (CZ) bring complementary strengths to one regional value chain

POLAND | SILESIA VOIVODESHIP

RES + BESS management



TAURON: >1 GW RES and integrated RES + BESS + H₂ energy management.

RFNBO production



20 MW HP-HRS anchor project and potential border-area projects.

Hydrogen mobility



Rybnik bus fleet and potential growth in municipal applications.

Bus manufacturing



Solaris and NESO provide domestic hydrogen-bus capabilities.

R&D background



ROW 2.0 and cooperation with Silesian University of Technology support demonstration and scale-up.

Post-industrial land



Brownfield sites enable new H₂ projects with grid access and industrial infrastructure.



ONE REGIONAL VALUE CHAIN

CZECH REPUBLIC | MORAVIAN-SILESIA REGION

Vehicles and heavy trucks



Hyundai manufacturing base; TATRA hydrogen-truck development.

Chemical offtake



BorsodChem MCHZ and DEZA represent potential hydrogen demand.

Steel offtake



Třinecké železářny offers a hard-to-abate industrial use case.

Cylinders and trailers



VÍTKOVICE CYLINDERS: storage vessels and trailer value-chain potential.

R&D and low-carbon H₂



VSB-TUO / CEET hydrogen R&D; nuclear power creates a Czech low-carbon production pathway.

RFNBO penalty signal



€9.6/kgH₂ penalty for target shortfalls is a strong driver of RFNBO demand.



Let's build a common hydrogen market based on our greatest strengths.
Renewables in Poland are more efficient = cheaper RFNBO hydrogen.





POLAND SUPPLIES. CZECHIA CREATES DEMAND.

A1 CONNECTS ONE CROSS-BORDER HYDROGEN MARKET

COMPLEMENTARY MARKET → DEMAND PULL → SUPPLY EDGE → SCALABLE VALLEY



POLAND | SUPPLY ADVANTAGE

>1 GW RES AND TAURON

Stronger RES development conditions make Polish renewable electricity the natural base for competitive RFNBO production.

TAURON + RYBNIK

anchor production, mobility and local demand.

A1 | H₂ MARKET CONNECTOR

POLISH SUPPLY → CZECH DEMAND

H₂ VALLEY

TAURON + RYBNIK ANCHORS

START SMALL OR SCALE LARGE

Shared needs and complementary goals make both models viable.



CZECH REPUBLIC | DEMAND ADVANTAGE

€9.6/kgH₂

The penalty signal for RFNBO target shortfalls can accelerate demand and push the Czech market to catch up quickly.

OFF-TAKE + VALUE CHAIN

industry, logistics, storage and H₂ technologies.

EU FUNDING POTENTIAL | A TRANSITION REGION CAN MOBILISE SIGNIFICANT SUPPORT FOR PRODUCTION, INFRASTRUCTURE, MOBILITY AND OFF-TAKE



THE BUSINESS CASE IS COMPLEMENTARITY: Polish RFNBO supply, Czech demand pressure, A1 logistics and EU funding can create a bankable cross-border H₂ valley.





Thank you for your attention!



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