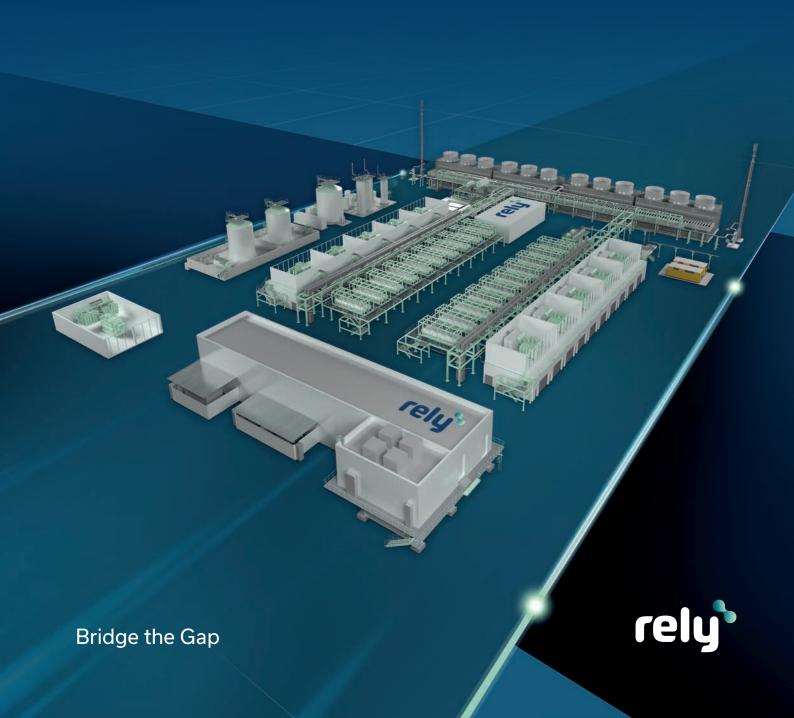
# Clear100+

Green Hydrogen Configurable Productized Plant

Reach your destination



# A unique combination

Green hydrogen players' current challenge is clear: Lowering the molecule price to enable the sector's competitiveness.

To meet this challenge, Technip Energies and John Cockerill, hydrogen market-leading EPC and OEM companies, joined forces in November 2023 to create Rely, a unique provider of integrated and competitive green hydrogen and Power-to-X solutions.

This complementary combination of know-how and experience is truly innovative. It enables completely integrated solutions that accelerate and scale up the industrialization of green hydrogen and Power-to-X production, accelerating our customers' journey toward carbon neutrality.

Rely is a global, asset-light, market-making company with a dedicated partnership approach and a firm commitment to ESG principles, ready to scale-up green hydrogen and Power-to-X production.





# **End-to-end offering**

Rely is the only company providing the comprehensive service demanded by producers of green hydrogen and its derivatives.

We cover every link in a green hydrogen project's value chain, from feasibility studies to providing technologies (including the alkaline electrolyzer technology developed by John Cockerill), setting up partnerships, project execution and development, and maintenance services.

In an industry working towards structuring technological maturity, we offer turnkey, comprehensively packaged solutions and fully integrated products.

# Two-pronged approach

Each green hydrogen projects being specific, we offer to our client either a Project approach or a Product approach according to their production needs.

# **Product development**

Rely capabilities to develop standardized plants offer many advantages: it allows for an impressive long-term reduction in price-per-molecule. It considerably reduces the time to market. It minimizes risks at all steps of the delivery and execution of the plant. It allows for an optimal technical integration and ensures for a minimum footprint.

Besides all these standardization advantages, Rely capacity to adjust its products to the reality of each customer offers the flexibility needed to suit all specific situations.

# Project execution with technology integration

When a situation or an expectation is so specific, Rely is here to offer tailormade project execution, integrating technologies towards a specific purpose, leveraging on the 65 years' experience and expertise of Technip Energies.

### **Operations and Maintenance**

From the essentials to the transfer of operations, Rely aims to cover the full range of O&M services in line with his Long Term Service Approach. Supported by a strong digital architecture, dedicated experts and global footprint, Rely will secure customer's expectation with all level of maintenance services, Operations and Asset monitoring, Spare parts management, adapted training, specific advisory up to a 24/7 customer portal to provide emergency support and remote assistance.

Being the single point of contact for the client, Rely offers an integrated solution, from design to operations and maintenance of the stack and overall plant with guaranteed performance.

# Early phases

- Pre-feasibility
- Feasibility
- Pre-FEED
- Permitting
- Financing/offtaking

# OEM

- Engineering
- Supply

# **Project execution**

- FEED
- EPC
- Commissioning

# Operations & maintenance

- Asset management production optimization & balancing
- Production management
- Maintenance

# Clear100<sup>+</sup> the best plant to reduce LCOH

Productized yet configurable, Clear100+ is the Green Hydrogen Plant you need to drive down the LCOH. Standardized to reduce CAPEX, embarking containerization and skidding approach, integrated into our clients' own facility, meeting all HSE standards, Clear100+ accelerates the lead time by 12 months and offers secured performance guarantees, notably 96% of plant availability.

# **PERFORMANT**

- Robust, performance-guaranteed product
- Plant efficiency: 51.7 kWh/kg\*
- Flexibility: suited to multiple industries, applications, and environments with standard operating range from 15% to 100%

### **AFFORDABLE**

- Standardized approach reduces CAPEX intensity
- Fully-automatized plant requiring low manpower
- Continuously evolves to drive down LCOH
- Accelerated lead time for fastest time to GH<sub>2</sub>.

### SAFF

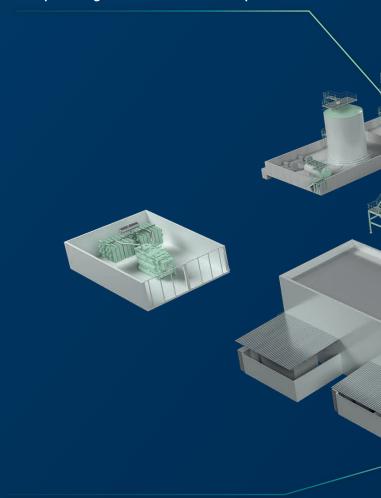
- Developed under Safety by Design principles
- Pre-engineered to meet all HSE standards
- Fully automated to eliminate the risk of harm
- Ready for certifications

### **CERTAIN**

- Integrates John Cockerill Hydrogen's proven electrolyzer technology with Technip Energies' large-scale EPC expertise
- End-to-end support and guidance with a plant designed for 25 years
- · Easily integrated into your decarbonized chain
- Easy operation and maintenance
- Single point of contact for full accountability

Mutualized electrolyte circulation

Multiple configurations of mutualized separators



Unique centralized control system for low manning operations

# Clear100+ in numbers

H<sub>2</sub> production: 1,800 kg/hr

**35% less equipment** thanks to unmatched integration approach

Pre-FID lead time: Within 5 months

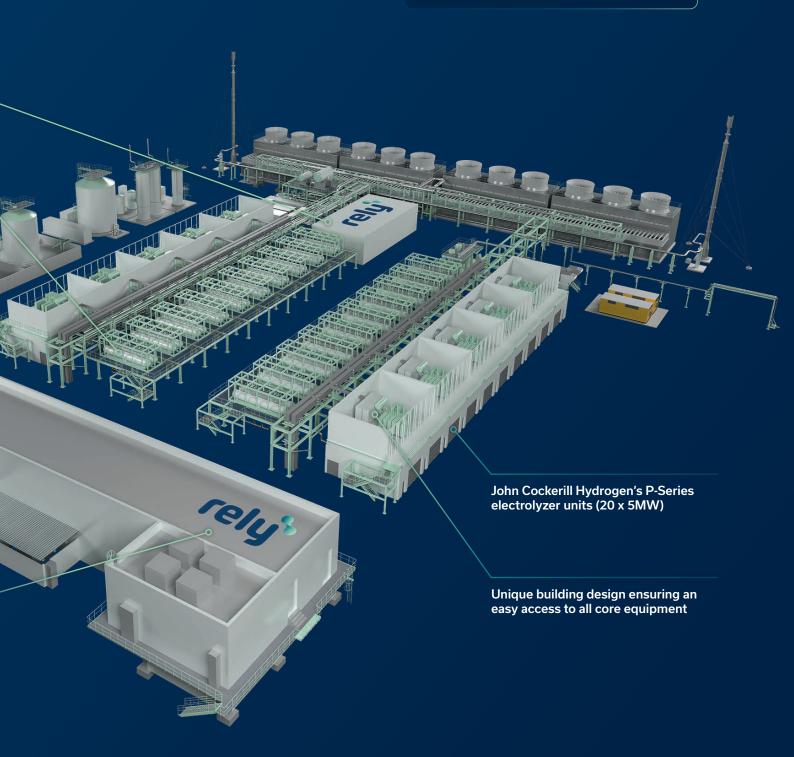
**Plant availability:** 96%

(including planned maintenance)

**EPC lead time:** 29 to 31 months

Footprint: 22,000 m<sup>2</sup> (incl. core product of 1 ha)

Wide temperature range: -20°C to +40°C



# The best of both worlds

Clear100+ combines best-in-class hydrogen electrolyzer technology with world-leading hydrogen EPC experience.

# John Cockerill Hydrogen Electrolyzers

Clear100+ integrates John Cockerill Hydrogen Alkaline Pressurised Electrolyzers, notably their P-Series product line providing:

- High energy efficiency i.e. low electrical consumption
- High reactivity to load variations ideal for projects connected to renewable electricity
- Proven, reliable technology with a high return on experience
- Pressurised alkaline technology (15 barg) with a compact footprint
- Limited use of rare metals

John Cockerill Hydrogen' 5MW stacks have been commercially proven in over 30 countries, with more than 1,200 references across a range of industries including chemicals, glassmaking, steelmaking, and power plants.

# A global player with a unique multi-local presence

John Cockerill Hydrogen is in a unique position, being the only manufacturer of electrolyzers with a multi-local approach and production capabilities on 2 continents: China and Europe, where John Cockerill Hydrogen has gigafactories in operations. These will be gradually joined by new production sites in the United States of America, India, United Arab Emirates and Morocco.

# Technip Energies EPC expertise and global execution capabilities

Clear100+ benefits from T.EN's 65+ years of project delivery experience together with execution teams worldwide.

Technip Energies has an important background with numerous project references in the fields of hydrogen, ammonia, electrolysis, fuels and power plants with more than 30% of existing global hydrogen installed capacity.

Rely will leverage a talented global workforce across 34 countries.

# Cockerill Cockerill

# Together, we bridge the gap to decarbonization.

# Innovation to drive down LCOH

Innovation is key to improve technologies and to accelerate the time-to-market for large-scale production plants. That's why Rely decided to allocate dedicated resources to run two innovation programs in parallel: One focused on green hydrogen production, the other on all Power-to-X applications.

# **Green Hydrogen Production**

This innovation program is led hand in hand with John Cockerill Hydrogen teams, through a Joint Innovation Platform. Together, we develop technologies and enhancements that improve hydrogen generation across stacks, Balance of Plant, and Balance of Site.

# Power-to-X applications

This innovation program is exclusively led by Rely innovation teams, through the Rely Technology Center. They explore and develop Power-to-X application, specifically focusing on using green hydrogen as a feedstock in producing ammonia and e-fuels such as e-methanol, e-SAF, and e-methane. Additionally, they investigate the use of green hydrogen as a reducing agent.

# Partnerships to scale-up

We leverage the expert networks of our parent companies and develop collaborations with world-class suppliers to improve the performance, competitiveness, and availability of equipment and components.

Rely Procurement & Sourcing activities are based on the decades of global procurement expertise, know-how and network of our mother companies. They rely on two main axis – privileged partnerships with OEM's and Global Supply Chain Management – both driving us towards the extended enterprise concept, **through which each and every supplier becomes a key lever to end-customer satisfaction**.

# Privileged Partnerships with OEM's

The long-term partnerships are key to the performance and safety of Rely's products: They enable us to get the best out of the various components of our plants, and to guide the design of future generations of components to achieve an even higher level of integration.

# Global Supply Chain Management

Rely relies on a worldwide network of qualified suppliers. All are selected on the basis of compliance, quality, sustainability, safety, lead times, availability of parts, and of course price.

Rely's supply chain managers work with a dual approach: On the one hand, a risk-based approach, to anticipate any supply chain disruption, and on the other, an end-to-end procurement accountability approach, offering end customers all the guarantees they need to reassure them that contractual commitments will be respected.

By leveraging our mother companies' strengths in procurement and engineering, Rely provides its clients with unparalleled support throughout the entire project lifecycle.

# Bridge the Gap

Rely is a leading technology integrator and service provider that specializes in integrated, innovative, and competitive solutions for the production and use of green hydrogen and its derivatives.

Our solutions bridge the gap between green electrons and molecules and contribute to decarbonizing hard-to-abate industries, transportation, and off-takers.

We provide end-to-end services, from feasibility studies to project execution and operations, including innovative products and technologies.

Rely leverages more than 100 hydrogen specialists worldwide and a secured supply chain of electrolyzers.

Registered and headquartered in Brussels (Belgium) since November 2023, Rely is 60% owned by Technip Energies and 40% by John Cockerill.

# **Rely Headquarters**

Avenue du Boulevard 21, 1210 Brussels, Belgium

Find out more at **relysolutions.com** or follow us on LinkedIn

#BridgeTheGap

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