



Press release

Uppsala 2024-01-25

## **Metacon has entered into an exclusive license agreement with PERIC giving Metacon rights to build a "Gigafactory" for the manufacture of own electrolysis systems**

**Metacon AB (publ) has, through its wholly owned subsidiary Metacon Technology AB (Metacon Warrant AB, name change ongoing), entered into an OEM license and manufacturing agreement with PERIC Hydrogen Technologies Co., Ltd. It is the first time in PERIC's over 60-year long history that a similar agreement is made. The agreement gives Metacon an exclusive right for a large number of countries in Europe to manufacture complete Hydrogen Generation Systems (HGS) based on PERIC's world-leading technology for pressurized alkaline electrolysis modules (stacks). Metacon is now investigating the conditions and financing possibilities for building a factory in Sweden or in another country within the EU. Under the right conditions, this could be the first factory of its kind in Sweden and within a few years one of the largest in Europe. Metacon is initially planning for a production volume of up to 0.5 GW per year, which corresponds to 50 - 100 complete electrolysis plants based on 5 and 10 MW electrolysis modules, respectively. In the next step, it is planned to be able to scale up to a capacity of 1 GW per year and more. Metacon will evaluate different forms of financing for the new factory including national and EU support programs.**

The agreement provides a unique opportunity for Metacon to manufacture, quality assure and sell its own electrolysis plants based on large, pressurized electrolysis modules, which is what is frequently in demand by the market, especially in the industrial sector. The ability to meet current and future market needs in Europe with local manufacturing as well as manufacturing under European standards and quality assurance is one of the driving factors behind the investment. PERIC belongs to a very small group of companies in the world that over many years have built up the technology and industrial capability to be able to deliver larger volumes of large electrolyser systems and electrolysis modules for the rapidly emerging needs for fossil-free green hydrogen. PERIC's 5 MW electrolysis module has more than 10 years of operating data to rely on, which is one of the longest in the



world for this size and makes it perhaps the most proven large-scale pressurized electrolysis module available.

PERIC has also launched a 10 MW electrolysis module, which is the largest in the world today. This is a significant competitive advantage, especially to customers with very large production needs, such as in the markets for fossil-free steel, green fertilizers, green ammonia and electro fuels, as large economies of scale can be achieved. For example, this means that a 500 MW electrolysis plant can be built with 50 10 MW electrolysis modules instead of 100 5 MW modules. The importance of reducing the complexity of the plant becomes evident when you consider that a 5 MW electrolysis module weighs just over 50 tons and a 10 MW module just over 70 tons. The electrolysis modules are also uniquely designed to work together with irregular electricity production from renewable energy sources such as wind and solar power.

Through the agreement, Metacon will be able to build its own electrolysis plants under its own name and brand, initially with certain components from PERIC, including the electrolysis modules (stacks), which in a complete electrolysis plant are supplemented with Metacon's own produced or purchased components. Metacon will carry out the adaptations necessary to meet all European requirements and manufacturing standards and ensure that large parts of the electrolysis plants can be built with local components, maximizing sustainability and providing a stronger offering to the European market. The collaboration with PERIC and the ability to purchase core components from PERIC gives Metacon the conditions to quickly get started with manufacturing with, in this context, limited initial investments.

This agreement, which has been negotiated between the parties over a longer time period, gives Metacon similar rights for the European market that are currently being discussed with PERIC during the MoU announced on November 23 regarding an OEM license to PERIC for the manufacture and sale of Metacon's reformer-based hydrogen generators (HHG system) for the Chinese market. Together, these agreements will create the conditions for a strong and long-term cooperation and incentives for both companies to market and sell each other's products in their respective home markets.

The agreement complements Metacon's strategy, which aims to create a unique and world-leading technology portfolio of own products for all significant ways to produce fossil-free "green" hydrogen, including reforming, where we already own and develop other



products for the production of the same green hydrogen independent of the electricity grid. Given the global context and importance that electrolysis has for large-scale industrial projects, the European market thus gains access to another local manufacturer and supplier of electrolyser plants and will position Metacon next to large and well-known European companies in the industry.

The market for electrolyser plants is expected to grow dramatically in the next few years and, according to the International Energy Agency (IEA), in order to achieve the greenhouse gas emission targets under the Net Zero Scenario, 2021–2030, the annual production of electrolyser plants in the world must increase from today's approximately 11 GW to 184 GW for the year 2030. According to the IEA, today's manufacturing capacity of about 4 GW per year in Europe is expected to increase to about 25 GW per year by 2030, which based on the EU countries' national hydrogen plans of an estimated need of 40 GW, is estimated to be far below the need for electrolyser plants. The Swedish investments in green steel, green fertilizers and electro fuels alone have a planned capacity requirement that amounts to a large proportion of the world's current total production capacity. As this supply-demand gap continues to grow rapidly and is expected to do so in the long term, the need for electrolyser plants will be far greater than the total manufacturing capacity.

Converted to a theoretical number of 5 MW of plants, approximately 8,000 electrolyser plants need to be manufactured per year to meet the 2030 targets in the European hydrogen strategies (approximately 40 GW per year). With a current price of approximately SEK 40 - 50 million per 5 MW production facility depending on configuration, the forecasted addressable market value amounts to around SEK 400 billion for 2030. If Metacon can achieve a production level of 1 GW in 4-5 years' time, it means that Metacon can build 100-200 electrolysis plants per year depending on size, which at that time should correspond to 1.5-3% of the addressable European market.

Exploratory talks have been made with major stakeholders who have been positive about buying Swedish or European made electrolyser plants. Metacon will evaluate the possibility of obtaining financing through national and EU support programs and will also evaluate additional forms of financing for the construction of the new manufacturing plant.

In addition to its own production, Metacon will continue to be a reseller of PERIC's own electrolysis systems on the European market, ensuring continued deliveries without interruption and flexibility towards customer preferences.



The work that is now being initiated involves investigating the conditions in detail and developing plans to be able to start production. This means, among other things, site selection and finding a suitable factory premises or land for establishment, access to labour and access to good communications, logistics and maritime transport, as well as the opportunity to expand.

*"With this, Metacon takes a very important step towards being able to achieve our vision of becoming one of the leading European companies in the hydrogen sector. With our own European production based on what is perhaps the world's most proven large-scale electrolysis technology from PERIC, we also complement our portfolio of other solutions in catalytic reforming, so that it comes together as completely unique. If these plans can be realized as planned, the company will also be able to move up to a different league in terms of size, financials and sales."* commented Christer Wikner, CEO & President, Metacon.

Mr. Yuguan Zhang, CEO, PERIC Hydrogen Technologies commented: *"I am pleased to announce that PERIC has now found a partner in Metacon that can establish European production based on PERIC's leading technology. PERIC is currently the market leader in the largest markets in Asia, such as China and India, and with this collaboration, it will be able to participate in the European market more quickly and with greater force in a way that is adapted to local requirements and expectations. We are very much looking forward to the continued collaboration with Metacon."*

For further information, please contact Christer Wikner, by phone 0707-647389 or e-mail [info@metacon.com](mailto:info@metacon.com)

*This information is information that Metacon AB (publ) is obliged to make public pursuant to the EU Market Abuse Regulation. The information was submitted for publication, through the agency of the contact person set out above, on 25 January 2024 at 10:45 CET.*

**About Metacon AB (publ)**

*Metacon AB (publ) develops and manufactures energy systems for the production of fossil-free 'green' hydrogen. The products in the Reforming business area are based, among other things, on a patented technology that generates hydrogen through so-called catalytic steam reforming of biogas or other hydrocarbons. The development of Metacon's reforming products is done within the wholly owned subsidiary Metacon S.A in Patras, Greece. The business is focused on catalytic process chemistry and advanced reformers for highly efficient hydrogen production.*



*Metacon also offers complete electrolysis plants and integrated hydrogen refueling stations, a large and globally growing area for small- and large-scale production of green hydrogen. Electrolysis is a process of driving a chemical reaction to split water by adding electricity. If the electricity used is non-fossil, the hydrogen will also be fossil-free and climate-neutral. Green hydrogen can be used in sectors such as transport, basic industry and the real estate sector, with a better environment and climate as a result.*

[www.metacon.com](http://www.metacon.com)

### **About PERIC Hydrogen Technologies**

*PERIC Hydrogen Technologies Co., Ltd. (PERIC) is a wholly owned subsidiary of the Purification Equipment Research Institute of CSSC. PERIC is headquartered in Handan City, Hebei Province. PERIC is mainly engaged in the research, design and manufacture of hydrogen generation systems, as well as the use and research and development of hydrogen as energy carrier. Currently, PERIC has 360 professional technicians, 6 commissioning and processing workshops, with a total construction area of 21,500 square meters. The annual production capacity is 350 sets of alkaline hydrogen generators, and 120 sets of PEM type hydrogen generators and significant production capacity scale-up projects are ongoing.*

*So far, PERIC has produced and sold more than 1000 electrolysis-based hydrogen generation systems and more than 400 sets of hydrogen purification systems, PSA Hydrogen Rich gas purification system and hydrogen generation system by methanol cracking, with a cumulative production value of more than 3 billion yuan. PERIC exported to more than 30 countries and regions such as Europe, North America, Middle East, East Asia, South Asia, Southeast Asia and Africa. After more than 60 years of sustained and stable development, a complete range of hydrogen equipment has been built up.*

**For further information, see:**

[www.metacon.com](http://www.metacon.com) | X: @Metaconab | LinkedIn: [www.linkedin.com/company/metaconab](http://www.linkedin.com/company/metaconab)