

Invitation to subscribe for shares in METACON AB (publ)



Executive Summary July 2018



Briefly about Metacon AB (publ)

Metacon AB was registered in 2007 and was established in Karlskoga 2011. The company is registered as a public company since the beginning of 2013. The shares are registered with Euroclear from start, and the company now has approximately 300 shareholders and 97 million shares.

Metacon is a complete energy technology group, with subsidiaries and networks for global commercialization of technologies and products for the fossil-free and exhaust-free society. The core business is based on unique, patented technologies and processes for local hydrogen production through reforming of biogas and other hydrocarbons. The Group can now supply complete hydrogen refueling stations, hydrogen generators and fuel cell based energy systems.

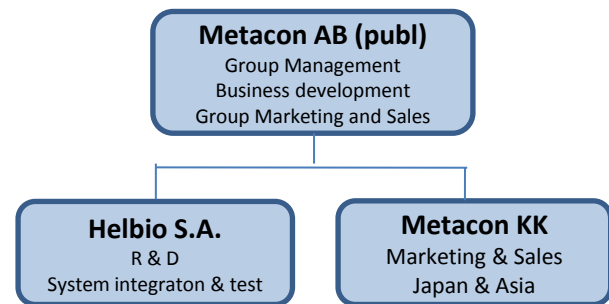
Business model and product strategy

Metacon has a unique position by owning a technology that enables local, efficient and small-scale conversion of hydrocarbons into hydrogen through so-called catalytic steam reforming. The ability to integrate the in-house developed reformer with fuel cells and other system components enables Metacon to offer turn-key plants and products.

Metacon's business model and product strategy is to offer market energy systems and products within the following five product areas:

1. Hydrogen refueling stations with reformers. Capacity from 100 kg hydrogen per day up to 2000 kg per day
2. Hydrogen generators for industrial applications
3. Combined Heat and Power (CHP) systems 50 - 300 kW
4. Combined Heat and Power (CHP) systems 1 - 5 kW
5. Small power units that can replace portable power generators

Marketing and sales of products and systems within all five product areas are ongoing through the company's subsidiaries in Japan (Metacon KK) and Greece (Helbio S.A.), as well as from the parent company through networks, partners and agents in Sweden and other countries.



The market for Metacon

Hydrogen as energy carrier and fuel in the march towards the fossil and emission-free society is now gaining increasing attention. During the World Economic Forum in Davos in 2017, the "The Hydrogen Council" was formed with participants from many of the world's largest players in the hydrogen field. In November 2017, the Council published the Roadmap "Hydrogen Scaling Up", which points to ways to reduce CO2 emissions through the introduction of hydrogen.

Metacon's product strategy and structuring largely follows the division of the future market by the Council. In Sweden there are several industries that are active in technology areas that can contribute to the hydrogen community's realization, such as pre-coated sheet metal for fuel cell flow plates, production of flow plates and fuel cells. Metacon is at the top of this value chain and uses fuel cells in several of the company's end products. The electrification of different types of vehicles has begun and the market is offered two solutions, either with batteries or with hydrogen as an energy source. A recent innovation that can give a big impact on the operation of heavy vehicles is the development of hydrogen fuelled internal combustion engines.

Around the world, the expansion of hydrogen refueling stations has accelerated with Japan, South Korea, Germany and California at the forefront, but also countries such as Denmark and Norway have decided to build an infrastructure for hydrogen refueling. In order to cover the Swedish market, Metacon believes that approximately 400 hydrogen refueling stations will be needed for national coverage. The market for CHP systems for installation in buildings, ranging from villas up to apartment building, commercial buildings and industries, is a segment that has a great potential in countries with expanded natural gas infrastructure.

Following the establishment of Metacon's subsidiary Metacon KK in Japan in 2014, a number of orders have been received, both for smaller energy systems and power units and for reformers for hydrogen refueling stations. The Japanese Government's plans include 720 hydrogen refueling stations to be in use before 2030 (currently 80), and that over 5,000,000 small fuel cell systems for households will be in use before 2040. In Sweden, Metacon's market primarily consists of hydrogen processors and complete hydrogen refueling stations in different sizes. Biogas is an advantageous raw material for hydrogen production in Sweden. The Group is now ready for commercialization of the products and expansion on the global market. The main products, ready for immediate commercialization, are shown in the pictures below. Prototypes and smaller numbers have already been sold in several countries.

Technologies, energy systems and networks

Metacon's subsidiary Helbio in Patra, Greece, has developed technology, catalysts and processes for the fuel conversion systems, such as reformers, which make up the heart of most of Metacon's energy systems and products.

The technology has been tested and verified in more than 25 delivered systems, in different sizes and for various applications, for more than 15 years.

Catalysts, processes and structures are patent-protected, and several patent applications are being processed. The computer-controlled, complex processes also include large amounts of know-how and experiences that can not be easily copied by so called "Reverse engineering".

Metacon's strength is that the reformers developed are constructed according to two different principles. One of the principles of design allows Metacon to supply the small, compact energy system, 1-5 kW, suitable for household energy supply, caravans, and portable power generators. The second design principle is used for medium and large hydrogen generators and energy systems, 10-1000 kW, where hydrogen is generated under higher pressure and then purified to 99.999% for use in industry, hydrogen refueling stations or for long-life fuel cells for stationary energy applications.

Prior to commercialization, Metacon's Karlskoga production network has now been activated, initially for the larger systems. In this network of specialist companies there is also production technology for the future mass production of the smaller energy systems with fuel cells.

Invitation to subscribe for shares

Background

In order to utilize the developed business opportunities identified by Metacon and to rapidly begin commercialization of both small and medium-sized energy systems, Metacon has decided on a rights issue. New share holders will be allotted shares in proportion to unused rights. The purpose is also to strengthen Metacon's finances in general prior to listing on NGM Nordic MTF.

Capital increase and dilution effects

At full subscription, the company's share capital increases by SEK 484,865 through a new issue of no more than 48 486 53 shares. As a result of the issue, the company will receive SEK 16,9 million in cash at full subscription. Total number of shares before the new issue is 96 973 079. At full subscription, the offer corresponds to 33 % of the share of capital and votes.

Offer

The offer to subscribe for shares at a price of SEK 0.35 per share is valid in accordance with the subscription form.

Listing approval

On July 3, Metacon received approval for admission to be traded on NGM Nordic MTF. Planned first date of trading is September 20, 2018.

Registration and subscription

Investment memorandum and subscription forms are available at www.metacon.se or at the issuing agent Eminova Fondkommission AB, www.eminova.se

Contact and other information

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General factors that benefit Metacon

The United Nations Paris agreement on CO₂ reduction requires transition to fossil-free energy and zero emissions in the transport sector.

The EU has issued a directive on the development of alternative fuels infrastructure.

The EU supports R & D and expansion of hydrogen refueling stations through its framework programs.

Sweden's new climate law, which entered into force 1:st of January 2018, states that CO₂ emissions in the transport sector shall decrease by 70% by 2030.

Upcoming prohibition of vehicles with CO₂ and NO_x emissions in city centers and, for example, ports.

Techniques for the storage, distribution and use of hydrogen as vehicle fuel and energy carriers are standardized and approved. The rapid technological development in the automotive area means that today, a normal-sized hydrogen fueled vehicle (FCEV) consumes less than 1 kg of hydrogen per 100 km and a hydrogen-powered city bus under 10 kg of hydrogen per 100 km, with only water vapor as emission.

Stationary energy systems with reformers and fuel cells will eventually replace fossil fuelled powered generators sets.

Leading vehicle manufacturers are now developing hydrogen-powered passenger cars, distribution vans, buses, trucks and fork lifts, and even ships and trains, for the following reasons:

- Zero emissions and high energy efficiency are a necessity.
- Hydrogen can be produced locally, at low cost, and make transport operators and countries less dependent on imports of fossil fuels.

Metacon's compact systems for hydrogen production from biogas has a clear opportunity to play a significant role in building the hydrogen infrastructure that is now being planned. The biogas era in Sweden may be short, as the conventional combustion engines do not meet the future requirements for zero emission and economy. This means that many of the existing biogas plants can become available as raw materials for profitable hydrogen production. In addition to biogas from traditional biogas plants, Metacon's technology can be adapted to use low methane landfill gas. Even smaller farms and other small sources of organic waste will be important opportunities for energy supply for local hydrogen stations.



Toyota's new fuel cell bus "SORA", meaning Sky, Ocean, River and Air. It will start selling in Europe in 2018.

Photo: Toyota

Important events, board and group management

Milestones during the company's development

- Metacon AB was established with headquarters and head office in Karlskoga 2011
- The company became public in 2013
- Acquisition of majority stake in Helbio Holdings S.A., Greece, 2013
- Establishment of subsidiary Metacon KK with offices in Yokohama, Japan 2015
- New Board and preparation for listing 2017
- Metacon AB (publ) now has about 300 shareholders and the shares are registered with Euroclear

Metacon's Board of Directors



Ingemar Andersson
Chairman



Lennart Larsson
Member



Christer Nygren
Member



Mats W. Lundberg
Member

Latest events in the Group's business development

Important orders, projects and events related to small energy systems :

- 5 kW fuel cell/reformer for LPG delivered to India, licensing agreement under negotiation
- 2 pcs 1 kW fuel cell/reformer for ethanol delivered to Brazil, orders for additional systems are expected.
- Order on a 5 kW CHP system Prometheus 5 and signing of a distribution agreement for South Korea.
- EU project for commercialization of 5 kW fuel cell with multi-fuel reforms, granted in June 2016. The project provides SEK 12 million in contributions to Helbio for two years, for series construction and production of field test pilot series. Pilot series is under construction, and the units will be placed with partners for evaluation in 2018.
- A Letter of Intent has been signed with a German company for the sales of 5 kW CHP on the German market.

Important orders, projects and events related to medium-sized systems:

- EU project for the production of 50 kW combined heat and power (CHP) systems with natural gas reformer granted to Helbio, Daimler and Alstom (GE). Mercedes is responsible for fuel cells. The project generates approximately 8 MSEK in contributions to Helbio for three years. The reformer has recently been accepted by GE and will now be shipped to Rugby, England for integration of the fuel cell and verification of the complete system.
- Mobile hydrogen station and hydrogen supply delivered for refueling fuel cell cars in Arjeplog Jan-March 2018.
- A Memorandum of Understanding has been signed with the German company Keyou GmbH regarding coordination of marketing and business development for hydrogen supply and hydrogen powered vehicles.

Group Management Team



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