

Powercell - An environmental friendly power generator for the future

Company intentions

Fuel cell products have an enormous potential to be a main source of electrical power, replacing several existing technologies. Powercell's mission is to provide the market with environmentally friendly fuel cell based systems that provide electrical power (www.powercell.se).

System offering

The core behind Powercell's product is the system solution around an exclusively patented fuel cell technology and fuel reforming technology,

An environmental friendly power generator

In order to resolve the issue of hydrogen accessibility, the electrical power generator from Powercell **operates on commercial fuels** and is based on two main sub-systems; the Fuel Processor and the Fuel Cell stack..

Fuel Processor – the hydrogen generator

Powercell has developed a **Fuel Processor, protected by patents, which converts, ethanol, biogas, DME, methanol, propane standard grade diesel or gasoline into hydrogen** used to fuel the fuel cell system.



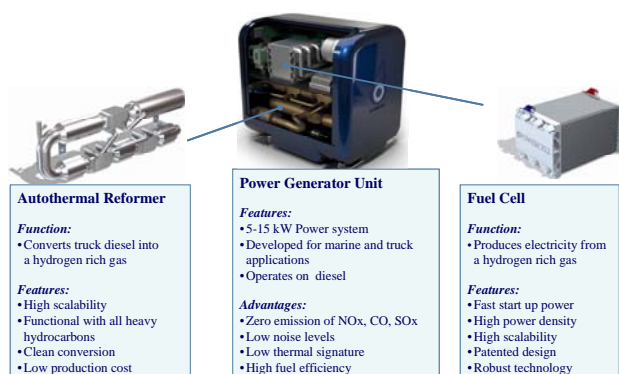
Fuel Cell stack – produces electrical power

The patented Fuel Cell stack from Powercell is a **PEM - based fuel cell– which is today the most common technology used in automotive applications**. The core of our technology is the unique cell design which allows for the production of highly robust fuel cell's. The cell can work on reformat as well as clean H₂.

System – The power generator

The generator from Powercell is superior to existing automotive and marine APU based generators with respect to emission, noise, cycle efficiency, size and weight. Main characteristics are:

- Emission levels - generates electricity with zero emissions of CO, NOx and particulates.
- High fuel efficiency and reliability, with a lighter and smaller system.
- Fuel flexibility - diesel, ethanol, biogas, DME, methanol, propane, gasoline and others
- Increased customer comfort level - reduced noise, smell and emission levels



Target markets

Target market segments are identified to best utilize the product and there Powercell's strength and core competence creates a significant competitive advantage. **Stationary fuel cells for housing, telecom stations, range extenders for electrical cars, power for transport refrigeration, and military applications** are examples of segments with a huge potential for Powercell.



For the APU two main market segments in the transport industry are focused, the Marine leisure segment and the Truck market.

For the Marine leisure market segment

the customer need electrical power and the existing solution, diesel engine based generators, has a lot of negative characteristics as un-healthy emissions, high sound levels, vibrations and smells. Features of a fuel cell generator handles and effecting the perception of all the negative aspects of the existing product.



The Truck APU market segment



is driven by the need of environmental friendly power generators (APUs), mainly by anti-idling legislation in North America. All sleeper cab trucks need power during rest for comfort loads as air condition, TV and to the kitchen.

Product Development and Sales

Initially *sales of separate fuel cell packages to other applications* will take place. Substantial contracts for such applications are under negotiations.

Powercell is now focusing to meet the following main milestones;

- Separate sales of fuel cell will start 2010.
- First complete APU product to market in 2012.

Company Information

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