

# 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](http://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.



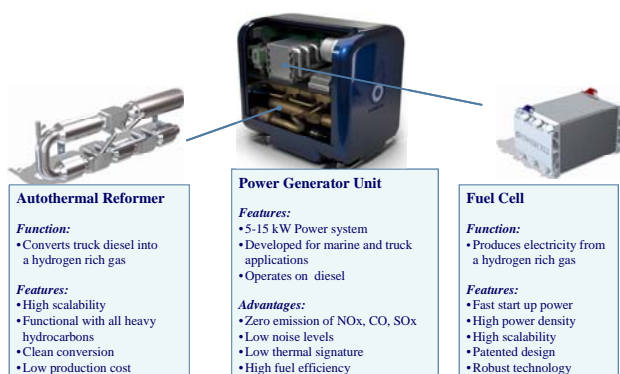
### Fuel Cell stack – produces electrical power

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 H<sub>2</sub>.

### 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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