



**Press release**

*For immediate release*

## **Swedish fuel cell developer PowerCell unveils cleanest and most energy efficient fuel cell system yet to convert road diesel to electricity**

**[Gothenburg, Sweden, May 21, 2013.] Nordic fuel cell technology leader PowerCell today unveiled a functioning full-scale prototype of its PowerPac fuel cell system. PowerPac is the first functioning full-scale prototype fuel cell system in the world for production of electricity from road diesel in a clean, silent and cost efficient manner. It is aimed primarily at the transport and telecom markets.**

PowerCell, a Swedish energy technology company with roots in the Volvo Group, will now extensively test and demonstrate the PowerPac prototype to the global industry and media from the company's headquarters and research center in Gothenburg, Sweden.

The main target groups for PowerPac are: truck manufacturers, owners of trucks, mobile operators, owners of base stations and other telecom infrastructure and the military sector. Manufacturers and owners of recreational vehicles (motor homes) and marine leisure boats are also potential target groups. All are industries with a need to generate electricity in a cost efficient and logistically uncomplicated way, with silent operations and minimal or no emissions.

"After long and intensive research, we are pleased to now have the world's first functioning fuel cell system that can convert ordinary road diesel to electricity in a silent, clean and cost-efficient manner," said Magnus Henell, CEO, PowerCell. "We expect the interest from the transport, telecom and other sectors to be huge, given these industries' need to reduce operating expenses while at the same time find power solutions that are clean, sustainable and compliant with ever-stricter environmental legislation. PowerCell is now actively seeking partners in relevant areas in order for us to industrialize and commercialize the technology over the coming years."

PowerPac is a fuel cell system that converts road diesel to electricity with high efficiency. The system is based on proprietary and patented technology. The unit is much more efficient than a small ICE (internal combustion engine) generator in combination with an environmental friendly exhaust. The unit produces about 3kW of electric energy.

The PowerPac auxiliary power unit consists of three modules:

- The fuel reformer module (converts standard low sulphur diesel to a hydrogen rich gas)
- The fuel cell module (combines the hydrogen stream from the fuel reformer with air to produce power)
- The power electronics module to deliver power to the user

The heart of the PowerPac is the reformer, which converts road diesel into hydrogen rich gas with high efficiency through a controlled 100 per cent catalytic process. Since no combustion takes place there are no toxic emissions and the noise level is kept to a minimum.

Obvious benefits of the PowerPac for the transport sector would be the ability to produce electricity for climate control without running the engines when resting or loading/unloading. An increasing number of US cities are banning idling, and end customers start to demand green



and environmentally sustainable solutions from their suppliers and partners. The PowerPac system produces electricity with no emission of particles and with much less CO<sub>2</sub> exhausts. It is cheaper than running the engine, and is also silent (which would further improve driver environment).

Stationary applications such as telecom base stations are often powered off grid by diesel gensets, which is very expensive and environmentally harmful. Here the benefits would be both financial (reduced operating expenses by as much as 30 per cent) and environmental. The military and security sectors would benefit from much simplified logistics, lower power costs, and a much smaller exposure to hostile actions (the PowerPac's exhausts are close to ambient (prevailing, surrounding) conditions, and the unit is silent).

After testing the PowerPac demonstration units in various applications, full serial production will commence in 2015 for the first market. Future development could include a wider output range and different fuels (e.g. biodiesel, methanol, ethanol, DME and biogas).

#### **Press invitation**

The media is invited to a demonstration of PowerPac at PowerCell's research facilities in Gothenburg, western Sweden, preferably June 24-27.

Please contact: Jenny Widing by email [jenny@widingcommunications.se](mailto:jenny@widingcommunications.se) or phone + 46 709 85 30 20 for additional information and to arrange a meeting.

#### **For additional information please contact:**

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#### **About PowerCell**

PowerCell is a leading energy technology company with a unique and patented technology for generating electricity with fuel cells in an efficient and environmentally friendly way. PowerCell develops and distributes advanced fuel cell systems for the transport industry, the telecommunication industry and the military sector.

PowerCell's fuel cell system converts road diesel to electricity in an energy efficient and environmentally friendly manner, with minimal exhausts and silent operations. The electricity can be used for climate control in trucks and other heavy-duty vehicles and eliminate idling when resting and loading/unloading. PowerCell is a spinout from the Volvo Group with the objective to develop and produce environmentally friendly power systems based on a unique fuel cell and reformer technology that matches existing fuel infrastructures. PowerCell is based in Gothenburg and is owned by Volvo Group Venture Capital, Fouriertransform, Midroc New Technologies and OCAS Ventures. For further information, please visit: [www.powercell.se](http://www.powercell.se)