The project will increase product and service backlog for FuelCell Energy by approximately $125 million, including $56 million for product backlog and $69 million for service backlog.

Multi-MW fuel cell parks solve power generation challenges for utilities, as the combination of dramatically lower pollutants, modest land-use needs, and quiet operation facilitates siting in urban locations. Fuel cell parks offer advantages for utilities and communities, including high efficiency, scalability, distributed generation, reliability, and baseload power around the clock.

Project owner Dominion Bridgeport Fuel Cell LLC will oversee the development, construction, and operation of the facility. Other project partners include Ormat Technologies, which is supplying the proprietary organic Rankine cycle equipment, the Ormat® Energy Converter, which converts heat into electricity. The electrical inverters for the fuel cell power plants will come from Rockwell Automation.

The world's largest fuel cell park, a 58.8 MW installation in Korea, will utilise fuel cell power plants sold by POSCO Energy and based on designs and components from FuelCell Energy [*FCB*, October 2012, p1].

FuelCell Energy, Danbury, Connecticut, USA.
Tel: +1 203 825 6000, www.fuelcellenergy.com

Dominion: www.dom.com

Connecticut Light & Power: www.cl-p.com

Clean Energy Finance and Investment Authority: www.ctcleanenergy.com

United Illuminating Company: www.uinet.com

Ormat Technologies: www.ormat.com

Rockwell Automation: www.rockwellautomation.com

Apple doubles fuel cell capacity at NC data centre with Bloom

Apple plans to double the size of the solid oxide fuel cell installation at its new data centre in Maiden, North Carolina, taking it to a total of 10 MW installed capacity when completed. The facility will again use Bloom Energy Servers, running on filtered landfill gas ('directed biogas'), which is considered a renewable energy resource under North Carolina's green energy regulations.

The first phase of Apple's fuel cell powered data center project in Maiden began testing last October, following the order announcement last spring [*FCB*, May 2012, p11]. When it is complete the Apple facility will again be the largest data centre fuel cell installation in the US – a title it quickly lost to eBay when the online auction giant announced its own plans for 6 MW of Bloom Energy Servers for its newly expanded data centre in Utah [*FCB*, July 2012, p5].

Apple filed the expansion plans for its data centre with the North Carolina Utilities Commission in November, to increase the size of its fuel cell farm from 4.8 MW to 10 MW. Any excess energy generated by the fuel cells and the 250 acre (101 ha) solar farm on the site will be sold to utility Duke Energy. According to the filing, Apple anticipates that the expanded fuel cell facility will be online by the end of January.

California-based Bloom Energy is building up an impressive array of high-profile customers for its SOFC technology, based on its 100 and 200 kW Energy Server products. Last autumn telecoms giant AT&T announced plans to install an additional 9.6 MW of Bloom Energy power plants at sites in California and Connecticut, making it Bloom Energy's largest non-utility customer, with 17.1 MW total installed capacity [*FCB*, November 2012, p6]. Bloom also has units in service with major companies such as Life Technologies Corporation [*FCB*, August 2012, p6] as well as organisations such as the University of California at Santa Barbara [*FCB*, October 2012, p6].

But Bloom Energy doesn't have the data centre market to itself – Microsoft recently announced that its Data Plant research project in Cheyenne, Wyoming will be powered by a fuel cell supplied by Connecticut-based FuelCell Energy [*FCB*, December 2012, p5]. The molten carbonate power plant will utilise renewable biogas methane generated by a wastewater treatment facility.

Bloom Energy Corporation, Sunnyvale, California, USA.
Tel: +1 408 543 1500, www.bloomenergy.com

PORTABLE & MICRO

SFC's EFOY Pro fuel cell generator powers eagle watch unit

EFOY Pro fuel cell generators from German-based SFC Energy have enabled the undisturbed video observation of a pair of white-tailed eagles over their recent breeding season in northern Scotland.

The direct methanol fuel cell unit – installed by SFC's system integration partner and

IN BRIEF

ITM selects McPhy hydrogen storage tech

French-based McPhy Energy (www.mcphy.com) has delivered a solid-state hydrogen storage tank to ITM Power in the UK. The hydrogen tank is based on McPhy's magnesium hydride technology, and can store up to 4 kg of hydrogen. It can store hydrogen when it is produced, and then release it very easily on demand [*see page 6*].

'McPhy is the first-mover in providing commercial metal hydride storage units at the 4 kg scale that are plug-and-play,' says Dr Graham Cooley, CEO of ITM Power (www.itm-power.com), a leading developer of hydrogen production systems using electrolysis, whose membrane technology can also be used in fuel cells [*see page 11*].

sunfire and staxera complete merger

In Germany, sunfire GmbH (www.sunfire.de) has completed its merger with solid oxide fuel cell stack developer staxera GmbH, finalising the acquisition which took place in spring 2011 [*FCB*, June 2011, p10]. The new company will operate as sunfire GmbH, and continue to be headquartered in Dresden.

The merger enables new shareholders Bilfinger Venture Capital GmbH and KfW banking group to come on board, while Carl Berninghausen and Christian von Olshausen will continue as CEO and CTO, respectively. The staxera brand will still be used as a product name for SOFC applications; sunfire is also developing an electrolysis-based process to generate synthetic renewable fuels from CO_2 and water.

enymotion files for bankruptcy

Last summer German-based enymotion GmbH (www.enymotion.com) presented its LPG-powered fuel cell system for the camping sector at the Caravan Salon in Düsseldorf. But just before Christmas the company filed an application for insolvency proceedings. According to an *HZwei* report, this came after investor Zukunftsfonds Heilbronn decided it was no longer willing to support the company after repeated shifts of the launch date for its enyware L200 unit, which features a high-temperature PEM fuel cell with a fuel processor.

Plug Power cuts jobs to boost efficiency

In upstate New York, Plug Power has released 22 full-time employees as part of a restructuring plan intended to save the company as much as $4 million in annual operating expenses, according to a filing with the US Securities and Exchange Commission. The job cuts should minimise the impact on manufacturing operations. Plug Power runs on 'lean' manufacturing principles, according to a *TimesUnion.com* report, and uses part-time workers for manufacturing and assembly to give it more flexibility week-to-week [*see the feature on Plug Power in FCB, December 2011*].