

Quadrogen Power Systems, Inc. and FuelCell Energy, Inc. celebrate the Quad-generation Ground-breaking Event at Village Farms International, Inc.

Vancouver, BC – April 2, 2014 – Quadrogen Power Systems, Inc. (“Quadrogen”) and FuelCell Energy, Inc. (“FCE”) today celebrated the ground-breaking event of its \$7.5 million quad-generation project at Village Farms International, Inc. (“Village Farms”) in Delta, British Columbia, Canada. This quad-generation project will demonstrate the co-production of renewable electricity, heat, hydrogen, and greenhouse quality carbon dioxide (CO₂) from the City of Vancouver’s landfill gas being supplied by Maxim Power Corporation. A key technology featured in the project is Quadrogen’s unique landfill gas cleaning process that enables the use of FCE’s Direct FuelCell® (DFC®) power plant to cleanly and efficiently generate the four value streams.

The ground-breaking event also marks the collaborative effort between FCE and Quadrogen as project partners to bring the first commercial demonstration of FCE’s DFC that will be fueled by landfill gas. Using Quadrogen’s Integrated Landfill Gas Clean-up System, challenging contaminants in landfill gases are removed before being utilized by the fuel cell power plant. This first-of-its-kind project will commercially demonstrate the quad-generation of four value streams using a DFC power plant. In combination with Quadrogen’s H₂ Booster technology, FCE will also supply its novel hydrogen separation equipment that cost effectively extracts pure hydrogen on demand to meet customer requirements.

Quad-generation from this project will provide substantial environmental benefits by renewably producing the following four value streams:

- Up to 250 kW of renewable electricity, delivered virtually pollutant-free – enough to power approximately 250 homes.
- Up to 12 GJ/day of heat – roughly equivalent to heating 50 homes.
- Up to 5 tonnes/day of ultra clean CO₂ for use in Village Farm’s greenhouse – which displaces fossil fuel consumption, equivalent to taking 350 cars off the road.
- Up to 125 kg/day of pure hydrogen – sufficient to refuel 6 fuel cell buses or 85 cars, or sold commercially for industrial applications.

This project has received funding from Sustainable Development Technology Canada, British Columbia’s Innovative Clean Energy Fund, the National Research Council Canada (NRC) Industrial Research Assistance Program, and a loan from BC Bioenergy Network. NRC also contributed techno-economic, system design and integration support to the project through its Bioenergy Systems for Viable Stationary Applications program. Agriculture and Agri-Food Canada also invested in this project through the Canadian Agricultural Adaptation Program, which was delivered in British Columbia by the Investment Agriculture Foundation of BC.

“This project uses many leading edge technologies to produce renewable energy and pollutant-free carbon dioxide which will be used in our greenhouse operations. We are excited to be part of this project to not only reduce our carbon footprint but also support our commitment to sustainable growing practices,” says Village Farms’ President & CEO Michael A. DeGiglio. “This project will set a new standard for greenhouse production agriculture and we are pleased this collaboration will keep us at the forefront of green technologies.”

“This project represents an important milestone for Quadrogen and we are thankful to all our project partners, funding sponsors and participants for their support,” said Alakh Prasad, President and CEO of Quadrogen. “We look forward to proving our technology’s performance and reliability with landfill gas. Once demonstrated, we believe our technology is well positioned as a game-changer by opening a large renewable landfill gas market for FCE and others.”

“A versatile aspect of our stationary fuel cell power plants is the ability to utilize a variety of fuels to efficiently and cleanly generate multiple value streams,” said Tony Leo, Vice President Applications Engineering and Advanced Technology Development, FCE (Nasdaq: FCEL). “Power is generated electrochemically rather than via combustion, almost completely avoiding the creation of pollutants that cause smog, acid rain and that can aggravate asthma.”

Quadrogen®

“Quadrogen’s technology is creative and efficient, a meaningful example of how Canadian cleantech fulfills its role in enabling major economic sectors create resource efficiencies by drawing on new sources of energy,” said Vicky Sharpe, President and CEO of SDTC. “We congratulate Quadrogen on this milestone and look forward to working with them further as their technology progresses to market.”

“This best in-class project will demonstrate biogas clean-up to levels never achieved before,” said Michael Weedon, Executive Director of the BC Bioenergy Network. “Quadrogen’s technology will prove to be an all-around winner, with the potential to enhance environmental benefits and generate significant revenue streams for municipalities, agriculture and the private sector.”

About Quadrogen Power Systems, Inc. – Quadrogen designs and builds reliable, cost effective clean-up systems for a wide variety of gaseous fuel applications. The clean-up technologies are modular and scalable to cost effectively purify landfill gas, digester gas, or syngas. The company is headquartered in Vancouver, Canada.

About FuelCell Energy, Inc. - Direct FuelCell® power plants are generating ultra-clean, efficient and reliable power at more than 50 locations worldwide. With more than 300 megawatts of power generation capacity installed or in backlog, FuelCell Energy is a global leader in providing ultra-clean baseload distributed generation to utilities, industrial operations, universities, municipal water treatment facilities, government installations and other customers around the world. The Company's power plants have generated more than two billion kilowatt hours of ultra-clean power using a variety of fuels including renewable biogas from wastewater treatment and food processing, as well as clean natural gas. For more information, please visit www.fuelcellenergy.com.

About Village Farms - Village Farms is one of the largest producers, marketers and distributors of premium-quality, greenhouse-grown tomatoes, bell peppers and cucumbers in North America. This premium product as well as premium product produced under exclusive arrangements with other greenhouse producers is grown in sophisticated, highly efficient and intensive agricultural greenhouse facilities located in British Columbia and Texas. Product is marketed and distributed under the Village Farms® brand primarily to retail grocers and dedicated fresh food distributors throughout the United States and Canada. Since its inception, Village Farms has been guided by friendly growing methods, growing produce vegetables 365 days a year from its facilities that are healthier for people and the plant. Village Farms is Good for the Earth®.

For more information and media resources, please contact:

Quadrogen Power Systems, Inc.
Darren Jang
Project Engineering Manager
604-221-7170
www.quadrogen.com

Quadrogen®

Project Sponsors, Partners, and Participants:



FuelCell Energy



SUSTAINABLE DEVELOPMENT
TECHNOLOGY CANADA™



BRITISH
COLUMBIA



Canada
CRC-CRC



Investment
Agriculture
Foundation
of British Columbia



Agriculture and
Agri-Food Canada

Agriculture et
Agroalimentaire Canada



BC Bioenergy
Network
PARTNERING FOR
A GREENER FUTURE



Village
farms®

Greenhouse Grown

Quadrogen®



MAXIM
Power Corp