



NEWS RELEASE

Solar Frontier Tests Solar Greenhouse on Fukushima Farmland

Exploring potential to optimize existing greenhouse value with solar powered electricity

Tokyo, November 20, 2013 —Solar Frontier has begun cooperating with the Fukushima government in Minamisoma, Fukushima, to demonstrate the potential of partially outfitting existing greenhouses with solar panels. The "Greenhouse PV Demonstration Project" has been adopted by the Ministry of Economy, Trade and Industry as part of the ongoing support for Fukushima's recovery after the Great East Japan Earthquake, under "Projects Promoting Residential Solar and Economic Recovery 2012 (Fukushima Jissho Model)."

The demonstration will model agricultural output of a selected greenhouse and revenue from the sale of electricity from its solar panels into the grid. A total of 324 panels with 50kW total rated capacity will cover about 1,300 square meters of space on the greenhouse while it continues to produce high value tomatoes and strawberries. The results of the project are due to be reported in January, 2014, to determine impacts of shadows from solar panels on high value greenhouse products.

The project has been engineered and constructed in cooperation with BELECTRIC¹, a global leader in the development and construction of utility-scale photovoltaic systems. Other partners in the project are international greenhouse expert and manufacturer, Les Industries Harnois², and power inverter supplier, SMA³.

Solar Frontier's support for the recovery efforts in Fukushima also includes donations of solar power systems to elementary and junior high schools in the area. This opportunity to help drive forward enhancements to agricultural value shows Solar Frontier's commitment to helping realize a more sustainable energy future for Japan.

¹ BELECTRIC is one of the world's largest PV engineering, procurement and construction (EPC) companies. It is headquartered in Germany.

² Les Industries Harnois is a manufacturer of steel structures. It is headquartered in Canada.

³ SMA is the world's largest supplier of PV inverters. It is headquartered in Germany.

Image of Solar Greenhouse



About Solar Frontier

Solar Frontier K.K., a 100% subsidiary of Showa Shell Sekiyu K.K. (TYO:5002) ("Solar Frontier"), has a mission to create the most economical, ecological solar energy solutions on Earth. Building on a legacy of work in solar energy since the 1970s, Solar Frontier today develops and manufactures CIS (denoting copper, indium, selenium) thin-film solar modules for customers in all sectors around the world. Solar Frontier's gigawatt-scale production facilities in Miyazaki, Japan, integrate compelling economical and ecological advantages into every module: from lower energy requirements in manufacturing to the higher overall output (kWh) of CIS in real operating conditions. Solar Frontier is headquartered in Tokyo, with offices in Europe, the U.S.A., and the Middle East. Visit www.solar-frontier.com for more information.

Showa Shell Sekiyu K.K.

Showa Shell Sekiyu K.K. is listed on the Tokyo Stock Exchange and has roots dating back more than 100 years in the downstream energy business.

ABOUT BELECTRIC®

BELECTRIC is one of the most successful international enterprises in the development and construction of ground-mounted solar power plants and roof-mounted photovoltaic systems. As an international company, BELECTRIC is represented in over 20 countries. Its position as a technology leader is a result of the high degree of vertical integration in the development and manufacturing processes and in the spirit of innovation with over 100 active patents.

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