

Solar plant domes spring up in Fukushima's shadow

12:58 11 March 2013 by [Rob Gilhooly](#), Minamisoma, Fukushima, Japan
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Video: [The new solar-agri installation near Fukushima \(in Japanese\)](#)

From a distance they look like two giant blancmanges or Jell-Os quivering in the biting midwinter wind. On closer inspection they are in fact white nylon domes, erected alongside thousands of photovoltaic panels on the very fields in [Fukushima that were ravaged](#) by tsunami waves and nuclear fallout in 2011.

The domes and panels are part of a self-sustaining solar-powered agriculture project that opened today just 25 km from the Fukushima No.1 nuclear power plant, which went [into meltdown](#) following the biggest quake and tsunami in Japan's recorded history exactly two years ago.

What's more, at the helm of the Fukushima Recovery Solar-Agri Park in Minamisoma City is a former executive of the stricken nuclear plant's operator, the Tokyo Electric Power Company (Tepco).

"I can't help feeling a responsibility for the nuclear disaster," said Eiju Hangai, 59, who quit Tepco just months before the disasters and who hails from Minamisoma. "It destroyed entire communities. After the disasters I vowed to find a way to help a recovery process that could take 20 or 30 years."

More than 2000 solar panels installed by Hangai's newly established company will supply energy to the two "vegetable factory" domes, inside which farmers affected by the disasters will be able to grow produce. Around 64 tons of its lettuce will be bought in bulk by a major supermarket chain.

Wheels with pockets

The air-inflated greenhouse domes have a unique layout like a wheel, with rotating "pockets" that accommodate the crops radiating out of the centre at regular intervals. This means that farmers do not have to traipse up and down to sow and harvest, but can work from the centre of each wheel instead. The set-up doubles the capacity and efficiency of conventional greenhouses, Hangai said.

The produce is grown hydroponically – without soil – making temperature regulation important. Accurate temperature and moisture regulation is



The site produces food and power (Image: [Rob Gilhooly](#))

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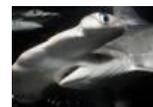


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achieved via a computer system. The optimal conditions mean produce can be grown considerably faster than usual.

Surplus energy, enough to power 170 households, says Hangai, will be sold as feed-in tariff to the Tohoku Electric Power Company, a major utility in the region. It wants to build a new nuclear power plant in Minamisoma despite objections by the city.

"This means both components of the project are economically viable," said Hangai, who also secured government and corporate sponsorship to start the project. "It can serve as a model for industrial recovery in the disaster-stricken area."

The 2.4-hectare site will also house an education facility to raise awareness of new energies among schoolchildren, according to Hangai. In his Tepco days, he created the J-Village sports complex that was later used as quarters for workers charged with bringing the crippled nuclear power facility under control.

The solar-agri park will join the ranks of other local projects such as the world's largest off-shore wind farm and Japan's biggest solar park that will facilitate Fukushima's plan to be completely self-sufficient in renewable energy by 2040.

Hangai believes the future of nuclear in Japan must be decided by the public. "Before it was professionals who told the public what was the best energy mix for them. The professionals caused an accident. Next it's the turn of the public to decide and for the professionals to respond to their wishes."


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