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Solar Brings Baths to Chinese Countryside China is building solar bathhouses in rural areas, saying infrequent bathing is leading to disease.

By Jennifer Kho

China is using solar power to bring "the joys of a hot bath" to its rural population, according to Xinhua, the country's official news agency.

Some 200 million out of China's 800 million rural residents bathe only once a month, and "tens of millions" of Chinese villagers bathe only once a quarter or every six months, according to the Xinhua story, which blamed bad hygiene for the spread of disease.

So the country is setting up solar-heated bathhouses in its countryside. So far, more than 100 such bathhouses have been set up in Dezhou, China, where villagers can pay between 1 and 1.50 yuan (between \$0.13 and \$0.19) for a bath, according to the Xinhua story.

The solar bathhouse program is part of a public fund for solar-energy development that is managed by the Huangming Solar Energy Group and the Yijianeng Solar Energy Company.

The solar companies invested 8 million yuan (about \$1 million) of the public fund to build solar bathhouses in China's rural areas.

While the investment itself isn't huge, industry watchers said it is a sign of a potentially large opportunity.

"In China, it doesn't take a big percentage of the population to do something to amount to a huge amount of widgets," said Robert Wilder, CEO of WilderShares, which manages clean energy indices.

So just because there aren't as many bathhouses as individual homes, that doesn't mean it's a market to sniff at. "If I were a Chinese planner, I would see this as one of the first no-brainer steps," he said.

Solar water heaters are not popular in the United States, but more than 150 million people are already using the heaters in China, according to Xinhua. Why could solar water-heating technology catch on in China first?

A number of industry watchers pointed to the example of phones.

Like the idea of "leapfrogging" over landlines and going straight to cell phones, China and other developing countries have the chance to skip the costly building out of things like gas pipelines, instead using the money for solar and other renewable energy.

Because the infrastructure isn't already in place, that cost gets entered into the equation, potentially making solar heating more competitive than it is in countries where the heating infrastructure is already built. The same is true of solar electricity in some areas, where it is less costly to install solar than to build transmission lines to the grid.

"There is obviously a transformative potential for solar in developing countries that may not have an existing grid, or that have a poor existing grid," said Ethan Zindler, U.S. editor for New Energy Finance. "At this point, solar is still pretty expensive on a per-kilowatt basis. But if it's a remote area where getting any kind of grid out there is a difficult thing, that's a great potential for solar. It's not cheap to build a grid."

So, ironically, it's the places with less money that could end up being the biggest markets for clean technology, said Sean Brownlee, a partner with 3i.

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Without gas pipes, many villagers currently use gas stoves for heat, according to Xinhua.

Gas stoves are probably cheaper than solar water heaters, but the fuel is expensive because it must be trucked in, Mr. Wilder said. With solar, owners pay zero cost for the fuel (i.e. sunlight).

Of course, upfront cost is a big issue in selling to developing countries. Even if it's cheaper overall, often the population in developing countries can't afford to pay upfront costs without the help of government funding, such as with this solar bathing project.

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