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Harvesting energy

SOLAR

Believers see panels on every rooftop

BY JENNIFER SMITH

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By 2040, some experts predict, solar panels will be as common on Long Island as air conditioners and satellite dishes.

While a few large projects are on the horizon, the region's solar future is expected to happen largely building-by-building, as rooftop solar arrays pare utility bills for the homes and business below.

"Solar is make-it-where-you-need-it," said R. Sail Van Nostrand, owner of a Northport solar energy firm and chairman of the Long Island Solar Energy Industries Association. "Don't burden the power lines, put the generator right where the consumption is."

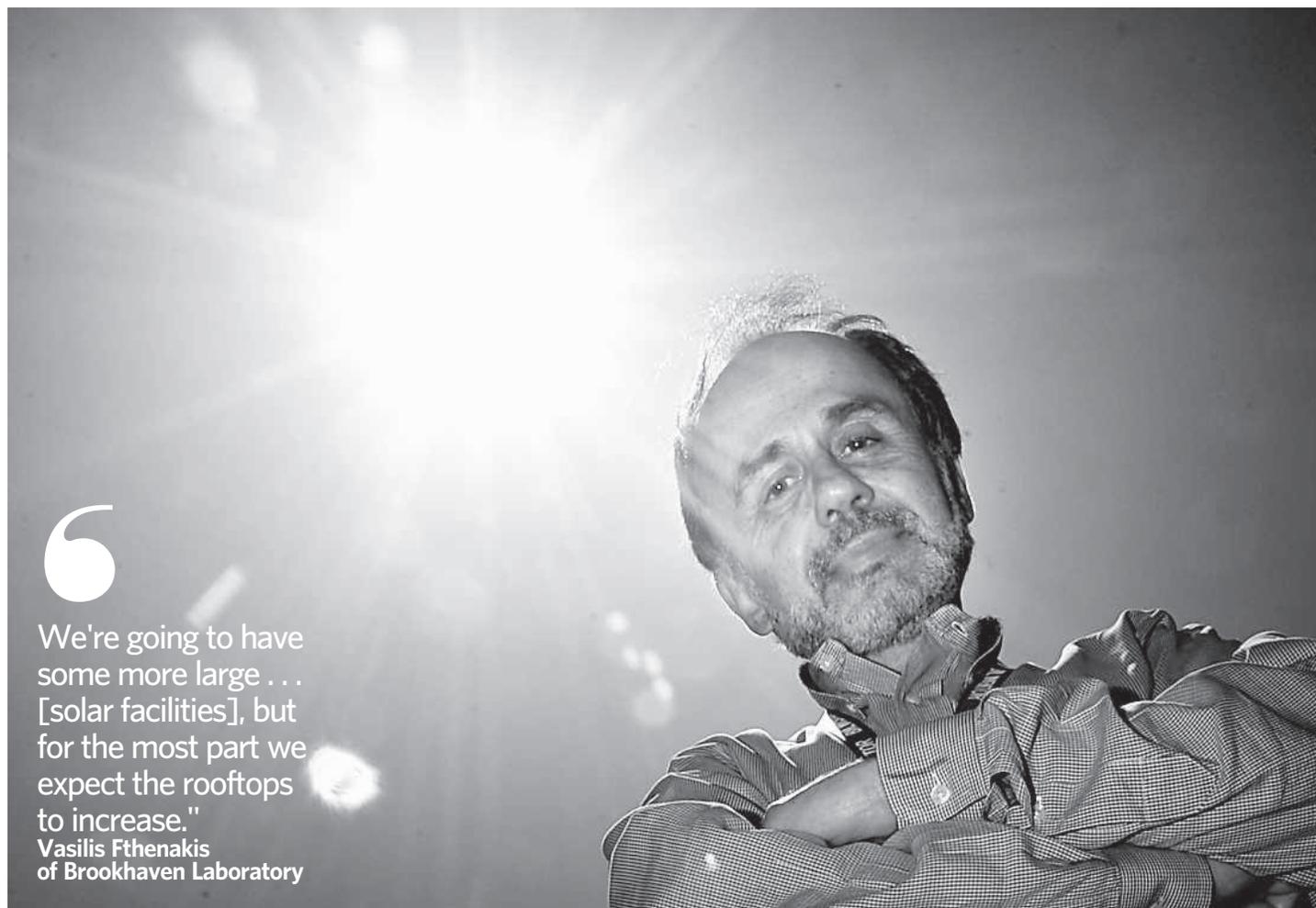
Anticipated gains in efficiency and affordability will drive the expansion, as will government subsidies that help defray installation costs, according to local energy executives, researchers and advocates.

The uptick will relieve pressure on the grid at peak demand times and help reduce dependency on fossil fuels. But even in 30 years, solar power will still probably make up a small fraction of the local energy supply.

Not many large ones

Sprawling utility-scale systems like the 200-acre solar farm planned at Brookhaven National Laboratory will likely remain the local exception. Low winter sunlight and the high cost of land make such projects less practical here than in the Southwestern United States, said Vasilis Fthenakis, head of the lab's National Photovoltaic Environmental Research Center.

"We're going to have some more large ones, but for the most part we expect the rooftops to increase," Fthenakis said.



“We're going to have some more large . . . [solar facilities], but for the most part we expect the rooftops to increase.”
Vasilis Fthenakis
of Brookhaven Laboratory

Less familiar solar technologies could gain a foothold in the coming decades. Rooftop solar thermal systems could heat water for homes and swimming pools. Solar films embedded in building materials used for facades and skylights could generate energy for commercial and public structures.

"I think solar energy will be an integral part of every building," said Gordian Raacke of the advocacy group Renewable Energy Long Island.

Until the cost of solar technology goes down, Raacke and others said growth will remain

dependent on subsidies that help people offset the high cost of buying and installing solar panels. A residential system can run as much as \$70,000; LIPA offers a rebate that now covers 25 percent to 30 percent of that cost.

"Our residential applications are going gangbusters," said Kevin Law, chief executive of the Long Island Power Authority, whose solar rebate program played a large part in creating the local market. Installations at businesses, schools, firehouses and hospitals are also on the rise, thanks in part to federal

stimulus funds.

While LIPA has increased its overall solar spending, Law said the agency is scaling back the rebate price per kilowatt to spread the money across more people and give more people access to the popular program.

Incentives questioned

Matthew Cordaro, a former utility executive and dean of the business school at Dowling College, questions the solar industry's reliance on such incentives. He said they are unfair to ratepayers and taxpayers who ultimately foot the bill for solar

setups, which he said remained costly and inefficient.

A number of experts said a pullout of government support could cause solar expansion to stall, as it did after the 1970s energy crisis.

"I'm hoping we learn from the past and keep the eye on the long-term goal: to get ourselves off foreign oil and make ourselves more sustainable," said Bruce Humenik, senior vice president of Applied Energy Group, an energy consulting firm in Hauppauge. "But I'm nervous. Our memories are short."