

NORTHWEST PASSAGES

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Northwest couple installs city's largest solar system

By **KARA BRANDEISKY**
Current Correspondent

Last Friday, the Cohen-Gala family in Northwest installed the largest residential solar panel system in the District — an 11.96-kilowatt system that produces 13,754 kilowatt hours per year, equivalent to the environmental benefits of planting 250 trees a year or recycling 100 tons of waste over a span of 30 years.

With the help of a federal tax credit, a District grant, and the value of solar energy credits, homeowners in the District can install a similar system for a fraction of the original price, according to Astrum Solar, the company that installed Shelley Cohen and Mike Gala's panels.

"Of all of our states that we're in ... our D.C. customers have some of the fastest returns," said Michelle Waldgeir, vice president of marketing for Astrum. The company specializes in residential systems and expects to install 500 solar panel systems this year.

Waldgeir said the price range is "pretty big depending on what options [customers] select," and she urged interested homeowners to explore the possibilities on Astrum's online solar calculator, at astrumsolar.com. The calculator takes into account location, size, amount of shade, average monthly



electric bill and more. Customers can expect to get about 1 kilowatt of energy per 100 square feet of their house.

Cohen and Gala's system was initially priced at about \$65,000, which included a discount. They expect the panels to cut their electric energy costs by 75 percent to 85 percent.

A District grant is covering about 35 percent of their cost. Additionally, utility companies are required to produce or buy a certain amount of solar renewable energy credits per year, and Astrum works as an aggrega-



tor, buying credits from homeowners either upfront or yearly, and selling them to utility companies. Cohen and Gala chose the upfront option, covering about 25 percent of their price. Finally, a tax credit

half to three years. The federal portion of the credits is higher than in the past, because last year lawmakers eliminated a \$2,000 cap on each installation. Because of that change and

Bill Petros/The Current
Astrum Solar, the company that installed solar panels for Mike Gala and Shelley Cohen, top left, says the technology will hold up for decades.

from the federal government pays for 30 percent of the cost.

With incentives, the couple will probably pay about 10 percent of the system's original quote, and they hope to break even in about two-and-a-

other recent incentives, Astrum Solar and its competitors have seen a "big growth spurt" in the past 18 months, said Waldgeir. Now, for many of Astrum's customers, environmental considerations come after financial considerations, she said.

"They're motivated because it just makes financial sense," she said.

But for the Cohen-Gala family, environmental sustainability isn't just a consideration; it's "a way of

See **Solar**/Page 30

SOLAR

From Page 15

life," said Cohen.

She has worked in the environmental field for 16 years, now as a senior project developer of renewable energy and energy efficiency for Ameresco Inc. Gala is an architect for the Navy.

Their goal is to achieve a zero carbon footprint. When they moved into their Everett Street home in 2007, they immediately undertook renovations to make it more energy efficient. In 2009, they were featured on a show called "Renovation Nation" on the Planet Green Channel. The show tracked them as they installed recycled-concrete-and-windshield-glass countertops in their kitchen, a cork tile floor, and a patio of bricks made from recycled tires.

And although she was initially concerned about buying an older home that hadn't been updated in years, Cohen was excited about the south-facing roof, knowing she could finally install a renewable energy system. First, the 70-year-old slate roof had to be replaced, and smaller energy conservation efforts had to be completed. The homeowners invested in an Energy Star mechanical system and used icynene spray foam to seal the basement and attic.

For its part, Astrum first installed a metal seam roof. The workers then put clamps onto the seams to attach the solar panels. Each panel has its own microinverter, what Walgeir describes as

"the brains of the operation." The microinverters convert the direct current into alternating current that homes can use. If shade blocks one part of the roof for a portion of the day, only that panel is affected, rather than the entire system.

Walgeir said the panels will last decades, noting that workers sometimes stand on them during installation — and the panels hold the weight. She said the manufacturer's warranty for solar panels is 25 years, and panels that were installed when the technology came out in the 1950s still work.

Cohen said part of the inspiration to do "the right thing for the next generation" came from having children; the couple has a young daughter and a baby on the way.

"What's happening in the Gulf ... makes you realized how our dependence impacts nature and the ecosystems where we have to get these resources from," Cohen said.

Clearly others feel the same. Cohen said her neighbors in the community just off Connecticut Avenue have been "extremely supportive" of their project. She said about 75 to 90 people attended a ribbon-cutting ceremony Friday, including Ward 3 Council member Mary Cheh and D.C. Department of the Environment director Christophe Tulou. The mayor's office also sent a proclamation.

The family considers the solar panels "phase three" of their environmentally friendly home improvement projects, but their desire to go eco-friendly is a "never-ending pursuit," Cohen said.

BIKER

From Page 15

document.

The abrupt news stopped Hamlin in his tracks.

"I hit a wall," he said. "You're not sure what this is or where it will take you."

The disorder has no treatment, and for the first time, Hamlin was forced to search inwardly to determine how he could continue living his life.

"This might be life-shortening, and you're not going to get better," he said. "You just have to pull yourself up."

The long, winding road

While looking for a way to get back on the road after a three-year forced hiatus, Hamlin discovered Mt. Airy Bicycles in Maryland.

"We do a lot with special needs," said store owner Larry Black, who has been working to get people like Hamlin back on cycles since the 1970s.

Black helped Hamlin pick out a recumbent tricycle, which Hamlin named "Nitro." Attached to the streamlined frame are two articulated front wheels on either side of a seat into which the cyclist leans back, pushing pedals directly in front.

With some modifications to the trike to provide more control over the brakes, and a lot of practice on flat surfaces, Hamlin was able to get back on the road slowly.

"I'm fortunate," he said. "I still have decent strength in my legs."

Hamlin had discovered a new outlet for his passion, but his life continued to be challenging.

"If I can button my own shirt, or open a jar of peanut butter ... , those are small wins for me," he

said.

He recounted one ride in Rock Creek Parkway, when wet leaves on a slight incline leading up to a tunnel caused his trike to slip backwards, almost launching him into oncoming cars.

But he was undeterred.

"I never walk a bike up a hill," he said, and he wasn't about to start then. Hamlin dismounted, walked up the slope, cleared the leaves away and finished his ride.

Miles for Muscles

With a desire to compete again, Hamlin set his sights on this year's Seagull Century, hoping to pair the event with combating myotonic muscular dystrophy.

Last year, Hamlin had discovered the Stone Circle of Friends, a nonprofit founded in a Richmond suburb by Todd and Edibell Stone in 2007, when their two sons, Nicholas, 13, and Elliot, 10, were both diagnosed with the disease.

The organization, which has raised almost \$400,000 in the last two years, has been working closely with Dr. Mani Mahadevan, one of the world's pre-eminent researchers of the causes of and potential treatments for myotonic muscular dystrophy. Mahadevan is also a professor in the Department of Pathology at the University of Virginia — which, coincidentally, is close to the Stones' residence in Glen Allen, Va.

Through her own research, Edibell Stone learned that scientists are close to finding therapeutic treatment. "I asked, 'How can I help?' and the answer was, 'Funding,'" she said.

Mahadevan has been researching the disease since 1992. He and his team discovered in 2006 that unlike most genetic diseases, which are caused by irregularities in

DNA, this condition is caused by toxic RNA — what Mahadevan describes as "photocopies" of DNA that create proteins, which make up most parts of cells.

The professor and his team have introduced the disease into laboratory mice, and they have been able to successfully remove all the toxic RNA, leaving the test subjects perfectly healthy.

"This showed, for the first time, that this disease might be treatable," he said.

The next step is to develop clinical trials, which, depending partially on funding, would take five to 15 years to complete, Mahadevan said.

To help out this program, Hamlin and the Stone Circle of Friends organized Miles for Muscles, a campaign to raise funds for myotonic muscular dystrophy research by sponsoring participants in the Seagull Century.

Fourteen riders, including Hamlin's husband, whom he cites as his biggest motivator, have signed up. Hamlin hopes each will raise \$650, and he aims to recruit at least 10 to 15 more participants.


"He's absolutely inspirational," said Mahadevan.

"There are so many fears in reaching out to friends, so many challenges in putting himself out there," said Stone. "It takes a great deal of courage."

"We're raising money to support [Mahadevan], but the biggest thing is to educate, enable and empower," said Hamlin. "Whoever you are, it's important to know you can have a dream, and make a difference."

For more on Miles for Muscles and the Stone Circle of Friends, visit stonecircleoffriends.com. For more on Mt. Airy Bikes, visit bike123.com.

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ZOO

From Page 15

together and getting their input into what we could do to highlight other areas of the Zoo," Pierron said.

On Saturday, that effort translated into white tents lining Olmsted Walk, the main road meandering through the Zoo's grounds. Each housed a different Zoo department or a local horticultural group or business, and all were tied together by the Zoo-gardening theme.

At one tent, clippings of plants from around the Zoo were on display, including joe-pye weed, a native woody species that attracts butterflies, and a spiky plant called osmanthus, which Zoo gardeners grow to discourage visitors from walking in certain areas, said Scott Boyd of the horticulture department.

Inside the animals' enclosures, gardeners "try to bring in something that's similar to the animal's habitat ... as much as we can," Boyd said. Many of the animals have been bred in captivity, "so they don't necessarily know what is toxic to them," he added.

One of the most popular tents highlighted Zoo nutrition. Bins held brightly colored fruits as well as leafy green vegetables like broccoli and kale, and small protein bars made of alfalfa meal and soybeans, demonstrating the daily diet of the Zoo's gorillas.

"It's restaurant-grade produce ... and lots of fiber," said Mike Maslanka, the zoo's head nutritionist. Much of the produce is organic and grown at a local cooperative farm, he said.

Other tents featured interactive activities, including a ladybug release overseen by Joe Curley, a Smithsonian horticulturist. Visitors could reach into bags of live ladybugs — about 4,500 per bag, shipped live from California, Curley said — and release them into the foliage lining Olmsted Walk.

The ladybugs eat aphids, enemies to cultivated gardens. They like moist foliage for their habitat, and are best released in the morning or early evening, Curley said.

A gardening journal-making workshop took place in another tent, under the direction of Barbara Faust, a gardener for the

Smithsonian Institution.

And in the "Build a Habitat" activity tent, children were invited to use plant and animal figurines to design models of habitats in three different ecosystems: jungle, desert and watery estuary. Tiny panda figurines populated the jungle ecosystem; otters, the estuary.

Children were encouraged to consider what animals and plants inhabit each ecosystem, what the animals use for shelter, and how animals get water and food in their environments, said the Zoo's Susan Sewell, who directed the activity. And Brian McLaren, a Zoo exhibit designer who recently designed new dens for the wolves out of large, insulated storm-drain pipes, was on hand to answer questions about habitat design.

Weaving through the crowd was the tall Green Man, a walking, talking tree on stilts. He spoke on behalf of the Zoo's greenery: "It's a fine day," he said. "The sun has gone away and is not beating down on us."

The Zoo hopes to hold the free Garden Day event annually, though planning has not yet begun for 2011.