Compiled by Elizabeth Lisican

Dylan Dupre

bright future

Solar power gains ground in wastewater treatment

Thanks to proven reliability and the decreasing costs of solar panels, solar energy is proving a viable ticket to energy efficiency at wastewater treatment plants (WWTPs). *WWD* Managing Editor Elizabeth Lisican recently spoke with SPG Solar Director of Project Development Dylan Dupre about solar's increasing influence.

Lisican: Municipalities across the country often are faced with this pressing question for their wastewater treatment facilities: What kind of alternative energy strategies not only will save a significant amount of money, but also have minimal environmental impact?

Dupre: With electricity costs as the largest portion of the annual operating budget for water and wastewater treatment facilities, solutions to control and lower costs while creating clean energy are key.

Solar energy taps into the largest resource available—the sun. In fact, every hour, the sun radiates more energy onto the earth than the entire human population uses in one whole year. Solar makes sense for wastewater treatment plants. A compelling feature of solar is that it can help manage peak electricity demand. Solar power systems generate the most electricity midday. This coincides with when utility rates are most expensive, so solar provides a mechanism for peak saving and immediate savings.

Lisican: What are some of the biggest trends you are seeing right now in terms of energy savings at WWTPs?

Dupre: Wastewater treatment plants are looking at demand-response to shift operating and pumping hours to off-peak hours. Also, wastewater treatment plants nationwide are realizing the business case for solar. A key vehicle for adoption has been the Power Purchase Agreement, which allows townships to access tax credits through private investors. There is no need for a capital outlay and the risk around the installation and maintenance is removed from the wastewater treatment plants. The outcome of a solar installation is a hedge against rising utility rates and long-term predictability.

Lisican: How can solar energy be harnessed to solve WWTPs' energy efficiency issues?

Dupre: Solar is a longer-term energy solution for wastewater treatment plants and makes sense. With the costs of solar panels coming down 44% in 2011 and an operating life of 20 to 35 years, solar power is reliable. Additionally, solar has a great application value, providing flexibility. You can install it on a rooftop, carport, the ground or even on water.

Lisican: What future developments do you foresee regarding solar energy's role in wastewater treatment?

Dupre: We see a hybrid solution available for wastewater treatment plants. In addition to solar on land, solar can also float on water. This provides a solution if land is too costly, since floating solar converts an available holding pond into a renewable energy production platform. SPG Solar installed the first commercial floating solar power system in 2007. It not only produces clean electricity, but it also helps reduce water evaporation by up to 70% and improves water quality by reducing algae growth. Additionally, the solar panels not only cool the water, but the panels work more efficiently since they, too, are cooled.

Lisican: Please discuss a few examples of projects in which solar has been implemented at a WWTP.

Dupre: SPG Solar designed and installed an innovative 2.3-MW DC system at the Neely Waste Water and Reclamation Facility in Gilbert, Ariz. [Because] space was limited, we engineered one of the first ground-mounted tracking systems built directly in five operating recharge basins. With no upfront capital costs to the municipality, since SPG Solar provided a Power Purchase Agreement, the system will provide a savings of up to $2 million over the next 20 years and provide the equivalent of approximately 40% of the electricity used at the reclamation facility. WWD

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For more information, write in 1115 on this issue's reader service form on page 54.

News Briefs compiled by *WWD* Associate Editor Nicole Bowling

EPA Provides Funding for Small Systems

The U.S. Environmental Protection Agency (EPA) announced it will provide up to $15 million in funding for training and technical assistance to small drinking and wastewater systems, defined as systems that serve fewer than 10,000 people, and private well owners. The funding will help provide water system staff with training and tools to enhance system operations and management practices and will support EPA's efforts to protect public health, restore watersheds and promote sustainability in small communities.

American Water Receives WateReuse Grant

American Water Works received a grant from the WateReuse Research Foundation to conduct a joint research project with Drexel University to measure and reduce biological fouling on membrane filters in desalination applications. The desalination industry will benefit from improved membrane operations by monitoring and controlling biodegradable matter in the pretreatment process.

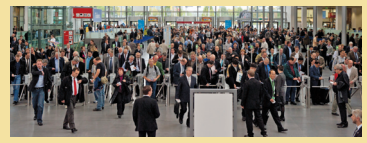
Drexel University's Dr. Charles Haas will be the project's principal investigator and American Water's Dr. Mark LeChevallier will be the co-principal investigator. Lauren Weinrich will serve as project manager.

California Infrastructure Earns Mediocre Rating

California's infrastructure investment has not kept up with the state's growing population demands and is continuing to delay much-needed renewal and maintenance, according to the California Infrastructure Report Card 2012, issued by Region 9 of the American Society of Civil Engineers. Released in March in Sacramento, the report card reveals that California's infrastructure earned an overall grade of "C" and needs an additional annual investment of $65 billion.

IFAT Entsorga Set for May 7 to 11 in Munich

From May 7 to 11, 2012, IFAT Entsorga will take over the New Munich Trade Fair Centre in Munich. Arguably the world's premier event for water, sewage, waste and raw materials management, the show comes around every two years and hosts



exhibitors from all over the world who come to present their latest products and services.

IFAT Entsorga 2012 was fully booked in February and wait lists have started in almost every product category. With increased international presence, this year's show is expected to be the biggest in its history.

Ben Grumbles Testifies on Financing Infrastructure

Clean Water America Alliance President Ben Grumbles testified before the U.S. House of Representatives Transportation and Infrastructure Committee on how to better enable local communities to finance wastewater and drinking water facilities. He said this can be achieved by valuing water to support people and systems, patnering between public and private, greening infrastructure and recovering resources, and connecting infrastructure and sustainability through a "one water" management philosophy.

Urban Waters Federal Partnership Launches Ambassadors Program

The Urban Waters Federal Partnership announced a program in seven cities that will accelerate and coordinate on-the-ground projects that are critical to improving water quality and public health, restoring forest resources and fostering community stewardship in urban watersheds.

The first Urban Waters Ambassador has been selected for the Los Angeles River watershed pilot project. Each of the pilot locations was selected due to the strong local and community leadership spearheading restoration efforts underway. Lessons learned from these pilot locations will benefit communities across the country.

Networking News

RWL Water Group acquired Eurotec WTT.

ES Consultants joined SCS Engineers. The company now operates under its new name, SCS ES Consultants.

Dewberry named Michael R. Pelletier an associate in its Boston office. WWD

For daily news updates visit www.wwdmag.com