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Onsite power for water purveyors is a matter of cooperation

By Paul Hull

More and more water districts, communities and private companies are undertaking to use renewable power (so far, it's been mostly solar or wind) for some, or all, of their operations. Renewable power on-site and under local control brings with it an independence that some communities thought they would never see again.

One of the leading solar power companies, **Solar Power Partners**, has more than 40 successful systems in operation already. They were financed by solar Power Purchase Agreements. Those are the practical means by which even your community or utility can stop shrugging shoulders and advance with others.

“One should always check the availability of local subsidies,” observes Kevin Ross, Senior Project Development Manager at SunPower Corporation, a company that has led the progress in renewable energy programs for some years.

“There are different financial structures for water utilities,” adds Ross, with Power Purchase Agreements perhaps the most popular today. “A developer such as SunPower, with financial strength and design-build capability, can work out a development plan that brings no capital cost to the user.

So there's a BIG water purveyor already leading the way to the use of renewable energy. Is there anybody who helps solve the *smaller* water distribution problems around the world?

WorldWater & Solar Technologies, Inc. has been solving problems related to renewable energy and drinking water worldwide.

Under the terms of the solar PPA, the Redwood Valley Water District buys power at a set rate and future critical upgrades to the system are not incurred by the Water District. Advance Power Inc. was the installation partner for SPP on this project, which is fixed ground mount style and produces an annual estimated 143,372 kWh.

The Valley Center Municipal Water District has a 1.1 MW solar power system, also developed in partnership with SPP through a solar Power Purchase Agreement. Says Gary Arant, General Manager for the Valley Center Water District. “**SPP** did a great job helping us oversee the

quality during construction and now monitoring the system for optimal performance. We had no up-front costs and a portion of our energy costs are stabilized for years. This is a win-win for SPP, our District, and our ratepayers.” SPP partnered with WorldWater and Solar Technologies, Corp. to install the ground-mounted single axis tracking system. That style allows automated panel tilting to harvest the most sun.

Understanding from its vast experience in the water industry that the financing of solutions such as onsite power is often the greatest stumbling block for a community, Black & Veatch has introduced a series of free industry forums to serve water utilities and the water financing community.

“Today’s water utilities face unprecedented circumstances and ever-changing capital markets,” advises Michael Vann, who is on the advisory board for Black & Veatch’s Enterprise Management Solutions (EMS) division.

“By harnessing energy produced on site and utilizing it as a renewable energy source, the facility will remain an environmentally sound and socially responsible one with more flexibility and efficiency, and less dependence on oil and other non-renewable energy resources,” observes Dan McCarthy, President and CEO of Black & Veatch’s global water business. That company is designing and overseeing construction of this large energy recovery project at the Hartford, Connecticut, Water Pollution Control Facility.

Back to the sun, to finish. “About half of all water used in this country is used to produce energy,” advises Tom Rooney, CEO of SPG Solar, one of the largest photovoltaic solar companies in North America. SPG Solar has proved its point in an impressive customer base of schools, churches, movie theaters, office buildings, wineries, and ponds. Those are not huge, multi-million dollar projects and they all help to conserve and distribute our precious water.