City of Palm Springs and Veolia Water North America Partnership for Wastewater Services

Excellence in Public-Private Partnership Awards

VEOLIA Water

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PROJECT OVERVIEW

Looking to save money, the city of Palm Springs entered into a public-private partnership with Veolia Water in 1999 for the operations and management of its wastewater operations. The system includes an 11 million gallon per day wastewater treatment facility, more than 225 miles of collection system lines and five lift stations. Additionally, the company oversees the distribution of Class A biosolids that are produced at the plant as well as the delivery of effluent that is reclaimed by another agency for irrigation.

The plan worked. Palm Springs saves $1 million a year on wastewater operations costs thanks to a partnership with Veolia Water.

Veolia Water's ability to leverage its national buying power and its affiliation with key industry contacts generates significant cost efficiencies. Savings are also realized though an aggressive maintenance program that has resulted in more efficiency at the plant. These savings allowed the city to reduce its sewer connection fees by 40 percent—reducing the cost to connect a single-family home from approximately $4,000 to $2,500.

Palm Springs' wastewater facility is set in an arid location with energy and water conservation fully in mind.

Additionally, Veolia Water is assisting the city in the development of an industrial pretreatment ordinance and program, studying water reuse options and modeling groundwater to determine the impact of the nitrates of groundwater quality. Veolia Water has also made numerous improvements to the facilities including a SCADA system, safety guarding of equipment and safety signage. A $2.8 million capital improvement program completed in spring 2002 included the replacement of the barscreen and grit classifier and three primary clarifier chains, flights and drives, installation of covers on the primary clarifiers, installation of a new secondary effluent recirculation line and a new belt filter press.

One of the key aspects of this partnership that make it stand above others of its kind is the partnership's approach to conserving energy. With Veolia Water's help, operating expenses at the plant have remained stable even during California's energy crisis, when the price of electricity and gas increased by 70 percent and 50 percent. Faced with these rising power costs and the environmental impact of the diesel-fueled generators used to power the plant, Veolia Water went searching for solutions. Working with City staff, Veolia Water obtained "twin" microturbine electrical generators at no cost to the City from the South Coast Air Quality Management District (SCAQMD). These natural gas-powered turbines reduce the annual electric bill by $80,000—a 40 percent reduction. The move also reduced the amount of PM-10 (fine particles, invisible to the naked eye that are the main cause of air pollution in the area) produced by the diesel generators by 95 percent. Veolia Water paid for their installation and shares the electrical cost savings with the City to recoup its investment.

JUDGING CRITERIA HIGHLIGHTS

Innovation/Creativity of Approach

The most innovative aspect of the partnership between Veolia Water and Palm Springs is the approach to energy conservation. In the wake of the worst energy crisis in California history, the 2004 Energy Action Plan issued by the California Public Utility Commission (CPUC) calls for

greater use of cogeneration solutions. Distributed energy technologies address the challenge of satisfying electrical demand for critical loads by providing flexibility in situating new generating technologies where they do not require additional high-voltage transmission lines. Although the South Coast Air Quality Management District was touting microtubine technology for its clean air benefits, Veolia Water immediately recognized the benefits of energy cost savings. In addition, Veolia Water identified the upgrade potential of the microturbines to tap into the vast, renewable and essentially free fuel source of the methane gas produced as a natural byproduct of wastewater treatment. Veolia Water's "twin" microturbines were operational well before the CPUC issued its Energy Action Plan.

Improved Delivery of Services

To improve the overall quality of wastewater services, Veolia Water assists the city in the development of an industrial pretreatment ordinance and program, studying water reuse options and modeling groundwater to determine the impact of the nitrates of groundwater quality. Additionally, the company has made numerous improvements to the facilities including a SCADA system, safety guarding of equipment and safety signage. A $2.8 million capital improvement program completed in spring 2002 significantly reduced wastewater odors. These improvements included the replacement of the barscreen and grit classifier and three primary clarifier chains, flights and drives, installation of covers on the primary clarifiers, installation of a new secondary effluent recirculation line and a new belt filter press.

Of note, too, is the high-quality of the microturbines that were used for energy efficiency at the facility. These microturbines burn clean fuel compared to the diesel generators they replace. The microturbines are highly efficient, reliable, clean combustion generators with very low NOx emissions that, unlike diesel generators, can operate around the clock without restrictions. And, unlike combined cycle gas turbines, these power systems use no water.

Cost Savings/Impact on City Economy

Palm Springs has saved millions of dollars because of the public-private partnership. Yearly, the city saves $1 million a year on wastewater operations costs thanks to the company's ability to leverage its national buying power and inject its years of operations experience into the facility operations. These savings allowed the city to reduce its sewer connection fees by 40 percent—reducing the cost to connect a single-family home from approximately $4,000 to $2,500. Additionally, the microturbines have saved $45,000 in energy costs so far. And, after Veolia Water recoups its investment in the co-generation system, it will share future energy cost savings with the City of Palm Springs.

Public-Private Partnership Benefits

At the dedication ceremony of the microturbines in January of this year, Palm Springs Mayor Ron Oden said "the public-private partnership between Veolia Water and the city is a model for other such partnerships." He reiterated why this makes such a good partnership—the savings, the application of private-sector expertise and technology for the betterment of the municipally-run system and a team approach to solving problems.

Additionally, Veolia Water has taken an active community role, contributing over $100,000 to support events ranging from the Palm Springs High School graduation night to Memorial Day and Veteran's day events.