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**By Kari Schumaker**

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*Kari Schumaker writes regarding Orange County's current sustainability initiatives, including energy grants, solar power purchase agreements, their cogeneration facility, and the property assessed clean energy program currently being developed. Kari began working for Orange County Public Works as a watershed coordinator for the County's Integrated Regional Water Management (IRWM) Program, which is receiving grant funds from DWR for the IRWM work activities. Last year, she moved into the sustainability coordinator position to work on the County's evolving sustainability initiatives.*

### **Orange County Going Green**

Over the past several years, the County of Orange has increased its green and efficiency efforts, particularly where such measures have demonstrated cost savings. Several of the County's actions have focused specifically on energy and reducing the County's \$23 million in utility bills.

In 2009, the County began operating a 10.4 megawatt (MW) cogeneration plant that provides power to approximately 15 County facilities in the Santa Ana Civic Center campus. This cogeneration plant is expected to save the County about \$5 Million annually on electricity costs. In addition, the County recently completed construction of a second cogeneration facility at the John Wayne Airport. This cogeneration plant is expected to produce 95 percent of the energy for the airport.

Since the 1990s, the County has also been operating landfill gas to energy projects at County facilities. Currently, the aggregate size of these landfill gas to energy projects is 18 MW, however, that is expected to increase to 50.5 MW once construction is complete on a new 37.5 MW landfill gas to energy plant at the County's Olinda Alpha Landfill.

Another County venture in alternative energy was the installation of a small solar system at the Foothill Ranch Library in 2005. That array produces approximately 61 percent of that facility's energy. The County continues to explore the realm of solar energy and the Board of Supervisors approved a Solar Power Purchase Agreement (PPA) with PsomasFMG on October 5, 2010. Through the PPA, PsomasFMG will install, operate and maintain solar arrays at approximately six different County locations and the County in turn will purchase solar electricity from PsomasFMG for the next twenty years. The County's estimated cost savings over twenty years is \$5.38 million.

To help individual property owners invest in solar technologies, the County is currently in the process of developing a Property Assessed Clean Energy (PACE) Program called OC Sunergy. The OC Sunergy Program will enable property owners to install energy efficiency retrofits and renewable energy systems on their property with no upfront costs. The program will pay the contractors for approved upgrades and then the property owners will payoff the improvements through their property taxes.

In December 2009, the County was awarded a \$2.7 Million Energy Efficiency and Conservation Block Grant (EECBG) from the U.S. Department of Energy. With this funding, the County is completing lighting retrofits at approximately ten County facilities and has hired a consultant to write an Energy Master Plan to guide the County's efforts.

In addition to energy, the County has also made improvements to its vehicle fleet, purchasing practices, community outreach, and water resource protection. The County has added alternative fuel vehicles, constructed a Compressed Natural Gas (CNG) facility that is open to the public, and is currently researching electric vehicle purchases. The Board of Supervisors approved an Environmentally Preferable Purchasing Policy in September 2008. The policy encourages the procurement of environmentally friendly products and services and factors life cycle cost into the evaluation of products. To raise public awareness of environmental concerns and to promote green business in Orange County, the County hosted its first Green Fair in 2010 and is scheduled to hold its second one on May 19, 2011.

Protecting its water resources is another way the County demonstrates its commitment to sustainability. The OC Watersheds Program was created in the spring of 2000 to provide a more cohesive focus on protecting and improving water resources throughout Orange County. OC Watersheds is responsible for managing water quality compliance programs, conducting monitoring of the local waterways and providing public education and outreach related to stormwater. As new energy and sustainability strategies appear, the County will continue to evaluate and pursue those that will provide the greatest cost savings and benefit to the citizens of Orange County as a whole.