



MONTGOMERY COUNTY DSWS RECEIVES 2015 SWANA GOLD EXCELLENCE AWARD

Community Outreach Program was Key

Montgomery County's Department of Solid Waste Services in the Department of Environmental Protection was presented the **Gold Excellence Award** in the "Integrated Solid Waste Management Systems" category from the Solid Waste Association of North America (SWANA) in the awards ceremony at its annual WASTECON conference on August 25, 2015 in Orlando, FL. SWANA's website notes that its Excellence Awards Program recognizes "outstanding solid waste programs and facilities with environmentally and economically sound solid waste management practices. Winners demonstrate effective technologies and processes in system design and operations, worker and community health and safety, and successful public education and outreach programs."

The County is noted for its comprehensive solid waste management system that incorporates robust education and recycling components with a material recycling facility, transfer station, household hazardous waste center, yard

trim composting facility and a resource recovery facility. All of this is funded through self-sustaining System Benefits Charges and tipping fees at the Transfer Station.

Consistent and ongoing community outreach, and comprehensive education initiatives for waste reduction, reuse, recycling, composting and buying recycled products are cornerstones of the County's solid waste management system. This results in knowledgeable residents and a well-informed workforce, who together have helped the County to reduce waste and recycle 60% of its waste with a goal of reducing waste and recycling 70% by 2020.

Awards were given out to 31 programs in 12 different categories in various facets of waste management at the ceremony. Silver and Bronze winners in the ISWMS category

were the Lancaster County Solid Waste Management Authority in Pennsylvania and Metro Vancouver in British Columbia.



Dan Locke and William Davidson from Montgomery County accept the Gold Excellence Award

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MONTGOMERY COUNTY LFGE – ENTERING 6TH YEAR OF OPERATIONS WITH A NEW OPERATOR

In 2009, the Montgomery County DEP teamed with the Authority to develop two landfill gas-to-energy (LFGE) projects in

Montgomery County, Maryland. The beneficial use projects are located on the sites of the now closed Oaks and Gude Landfills. They are rated at a combined 3.2 Megawatts (MW) and have been operational since July of 2009. SCS Engineers was awarded the original work to design, build and operate the two LFGE projects through June 2015.

During the first six years of operations, the Oaks LFGE project generated renewable electricity equivalent to removing more than 115,000 cars from the road or planting more than 125,000 acres of forest.

The Gude LFGE project has generated

enough green energy in the past six years to remove approximately 35,000 cars from the road or plant 45,000 acres of forest.

In July of this year, CB&I Environmental & Infrastructure, Inc. took over operations under a new operation and maintenance agreement. This agreement ensures the projects will continue converting landfill gas to renewable electricity and diverting power generation from coal-burning power plants for the next five to ten years.

While increasing operating costs and lower electricity market rates have made these projects less cost-effective than initially hoped, they still accomplish the fundamental landfill post-closure responsibility of managing the landfill gas with added environmental benefits relative to just flaring the gas.



These two facilities have generated enough green energy in the past six years to remove approximately 150,000 cars from the road or plant 170,000 acres of forest.



MDRECYCLES WEBSITE GETS MAJOR UPDATE



Be sure to visit the newly updated MDrecycles.org, now easily accessible on your smartphone or tablet as well as on your computer!

MDrecycles.org connects both residents and businesses to a wide range of recycling and reuse options throughout the State of Maryland. Please see the expanded recycling and donation directories as well

as the newly added residential resource page. The website indicates which materials are recyclable, identifies outlets available for recycling and offers guidelines for implementing waste reduction and recycling in the office.

Many thanks to Baltimore County Bureau of Solid Waste interns, Meghan Schatz and Gina Bonomo, for their significant contributions in updating both the content and design of the website.

AUTHORITY CONTINUES TO PROVIDE ENERGY MANAGEMENT SERVICES TO MEMBER JURISDICTIONS

Energy management services provided by the Authority within the PJM markets include management, reporting, marketing, and settlement of energy, capacity and renewable energy credits. PJM is the regional transmission organization that coordinates the movement of wholesale electricity in Maryland and in all or parts of 12 surrounding states, including the District of Columbia. PJM, which originally stood for Pennsylvania, Jersey, Maryland, began in 1927 when three utilities, realizing the benefits and efficiencies possible by interconnecting to share their generating resources, formed the world's first continuing power pool.

Today PJM functions as air traffic controllers of the power grid, administering competitive markets for electricity and conducting long-range planning to ensure reliability of the grid.

Day-Ahead and Real-Time Markets

The Authority, as a PJM member, directly sells electricity generated from member facilities through the available PJM energy markets. We participate in the “day-ahead” energy market and the “real-time” energy market.

The day-ahead market is a forward market in which hourly market prices are calculated for each hour of the next operating day based on PJM members' scheduled generation offers and energy demand bids. The Authority schedules generation from its capacity resources on a daily basis. Prices for the real-time energy market are calculated every five minutes based on PJM system operations. Day-ahead and real-time market prices are settled separately and are each based on the marginal price of energy at the location where energy is delivered or received.

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New Reliability Pricing Model Product

A necessary component of the energy market is PJM's capacity market, referred to as the Reliability Pricing Model (RPM). The RPM provides economic incentives for PJM market participants to stimulate investment in existing generation and planned generation resources in order to secure the reliability of the grid. The Authority participates in the RPM on an annual basis on behalf of its members. PJM annually hosts RPM auctions for generators to offer future commitments of capacity. Generators receive a \$/MW-Day credit based on their capacity offers.

To improve resource performance during peak power system conditions, PJM recently added a new product to its capacity RPM structure called “Capacity Performance.” This product will provide stronger performance incentives to further improve the reliability of the grid. PJM states that the polar vortex in the winter of 2014 revealed that stronger incentives are needed to encourage investment for better generation performance. In addition, the shift from coal to natural gas-fired generation has driven electricity prices sharply lower and has inhibited needed investments in plant upgrades. Generation owners of capacity resources may receive higher capacity credits in return for improving performance during critical periods when PJM determines the applicable resources are needed to meet power system emergencies.

Generators that exceed performance commitments will receive funds collected from underperforming generators. The Capacity Performance Product is currently being transitioned under the current RPM auctions and is expected to be the only capacity product by 2020.

Renewable Energy Credits

Another marketable component of electricity that the Authority captures from its members' facilities is the renewable energy credit (REC).

A REC is a tradeable certificate of proof that one megawatt hour of electricity is generated by a renewable energy source or facility. There are two markets for RECs: a voluntary market driven by consumers who want to reduce their environmental footprint, and a compliance market driven by state regulations. Most of the RECs the Authority sells are to the compliance market. Approximately 23 states have renewable portfolio standards that require electricity suppliers to supply a certain percentage of their electricity from renewable sources. The Authority certifies and markets RECs generated from six landfill gas-to-energy facilities, two waste-to-energy facilities and a wastewater treatment plant.

The Authority has been providing these services for several years and has been proactive in seeking out additional market opportunities and/or savings for its member jurisdictions. Please call John F. Schott III at 410-333-2730 if you have questions regarding the energy management services provided to Authority jurisdictions.

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AUTHORITY AND CSX REACH RAIL SERVICE AGREEMENT FOR MONTGOMERY COUNTY

The Authority and CSX Transportation have reached an agreement for CSX to continue to carry waste by rail from the Shady Grove Transfer Station in Derwood, MD to the Montgomery County Resource Recovery Facility (RRF) in Dickerson, MD. The contract will have CSX deliver the waste by rail until April, 2026.

All waste delivered to the RRF is first compacted at the Transfer Station.

The compacted waste is packed in containers that are then placed on rail cars for transport to the RRF. Yard trim is also collected at the Transfer Station. It is placed in separate containers for transport to Dickerson and then delivered to the nearby Yard Trim Compost Facility. On average, approximately 12,000 tons of material are taken from Derwood to Dickerson every Monday through Saturday.

