



Greenlight New Day. New Way.

Dr. Sherrell Hobbs
Principal of Golightly Education Center




Meet DRP

Partner Highlight: Dr. Sherrell Hobbs

In each “Greenlight” issue, we profile a Detroit Renewable Power employee. This quarter, we’re recognizing a DRP friend and community partner, Dr. Sherrell Hobbs, principal of Golightly Education Center, a Detroit public school. DRP partners with Golightly to provide fun, hands-on, science-based curriculum and other support to fifth- and sixth-grade students.

By the passion and warmth in her voice, one knows Sherrell Hobbs is speaking from her heart when she says, “Each day is rewarding and fulfilling.” Dr. Hobbs begins each day by visiting classrooms and making contact with students and teachers. She initiates a call-and-response chant with students in which she reminds them that they are the best, she loves them, and that’s the truth.

“It’s important for everyone at the school to be successful,” says Dr. Hobbs. “I try to create an environment that’s positive and supportive.” Dr. Hobbs transitioned into education several

years ago, leaving a successful career as a marketing director. “I no longer wanted to influence consumers to purchase products—that’s great, and it was very profitable for me as a business owner. But I wanted to transform lives through the educational process, and the best way to do that was to become an educator.”

Dr. Hobbs has been intricately involved in DRP’s “Education to Life” science program, currently in its second year, since day one, offering feedback and counsel on how to best shape the program to meet students’ and teachers’ needs. (Read more about the program on page 2.) “It’s a delight for the children to receive an outstanding science-enhanced program, especially as urban children,” Dr. Hobbs says.

She notes the value of corporate and community partnerships for local schools, and stresses the importance of volunteers sharing their professional talents and skills to help develop Detroit’s young people. “People can give money to you, but they do what they do just to get good

press. That’s not so with DRP. I believe they’re here for the long haul, and you can’t put a price tag on that. They provide knowledge, support. We say, ‘Can we do this?’ and they say, ‘Yes, you can.’”

Though she’s from California originally, Dr. Hobbs has made her home in the Detroit area for 45 years, and has spent the past four at Golightly. Her optimism for her students’ futures seems applicable to the community as a whole. She shared the story of a student who recently transferred to Golightly. Despite troubles and challenges in his past, Dr. Hobbs told him, “I’m not concerned about where you’ve been; I’m concerned about where you’re going.” •

Inside this Issue

Meet DRP.....	p. 1	
A Note from John O’Sullivan.....	p. 2	
Community Connections.....	p. 2	
FAQ.....	p. 3	
Energy from Waste.....	p. 3	
High Points.....	p. 4	

Terms Defined Highlighted in this issue of “Greenlight”:

Ancillary adjective. — Providing necessary support to the primary activities or operation of an organization, institution, industry, or system.

Decomposition noun. — The state or process of rotting; decay.

Pharmaceuticals noun. — Compounds manufactured for use as medicinal drugs.



A Note from John O'Sullivan



Welcome back to "Greenlight," Detroit Renewable Power's (DRP) newsletter dialogue with our employees, business partners, and citizens and neighbors in Detroit.

As we approach the end of our third year of ownership and operation of Detroit Renewable Power, our employees are proud of our accomplishments and challenged to make greater progress in the years ahead.

Improving operations across our network of renewable energy facilities (including Detroit Renewable Power, Detroit Thermal, and Hamtramck Energy Services) and investing

more than \$60 million since 2010 has generated much more than clean energy; it's created well-paying jobs, enhanced environmental protection, and supported the growth of local businesses. In a resurging Detroit, DRP and its affiliates are steadily adding value to this city's vital public works infrastructure.

But it's not enough to be Detroit's largest recycling operation and a major force for greenhouse gas reduction. We also have to do a better job in managing the costs, impacts, and nuisances inherent in municipal solid waste operations. So we're working with the city to help optimize collection and disposal inefficiencies. And we're steadily exploring and testing technologies and practices to reduce fugitive odors from our facility; read more about this initiative on page 3.

Finally, in an exciting environmental partnership, we're well underway on a project to supply GM's Detroit-Hamtramck assembly plant with renewable steam energy to support production of the Chevy Volt (see page 3 for more info). The values of innovation and collaboration that made Detroit a great city are back at work.

Detroit Renewable Power wishes our neighbors, business partners, and associates a safe and happy holiday season. •

Best Regards,

John O'Sullivan
President, Detroit Renewable Power



Community Connections

Golightly Students Learn about Composting

This season, Golightly students will be implementing composting at their school. Students will collect the pails of expired fruits and vegetables from their cafeteria and transfer them to an outdoor compost bin. Students will manage the process by turning the compost and taking its temperature as part of their learning around **decomposition** and diverting waste from the landfill. The finished product (compost) will be used in the school's new garden beds for growing vegetables, to be maintained and monitored by the students.

This initiative within the Education to Life curriculum is not only teaching these students new life skills, but it is also improving the operations of the Golightly campus.

Students also took a recent field trip to Tollgate Farm in Novi with DRP employees Alison Morgan and Alan Greenberg. Tollgate is a working farm focusing on education and operated by Michigan State University's Cooperative Extension Service. At the farm, students got a firsthand look at animals and learned about gardening and agriculture. They even had the opportunity to milk the goats! In addition, students were taught vermicomposting, that is, composting with worms. The vermicomposting bins also use expired fruits and vegetables and these bins are kept indoors.

Wayne State Class Visits DRP

Dr. Lawrence Lemke is an associate professor in the Department of Geology at Wayne State University. For the second consecutive year, Professor Lemke and 24 students from his Geology and Environmental Science class went on a tour of DRP. They learned about the environmental management issues and the conversion of solid waste into renewable energy in the form of steam and electricity. Afterward, they met with DRP staff and discussed their visit and their aspirations for their future careers as scientists. •

Golightly students with DRP's Alison Morgan on their field trip to Tollgate Farm





FAQ The Tip Floor.

Addressing the issues that matter most to our community is a priority at DRP and we strive to provide in-depth, well-educated responses to the inquiries we receive. In this section, we highlight some of the most frequently asked questions posted to our website. To submit a question to Detroit Renewable Power, please visit our website at www.detroitrenewablepower.com.

Q How is Detroit Renewable Energy connected to General Motors?

A DRE and GM recently announced a renewable energy project to turn solid municipal waste from Metro Detroit into process steam that will be used to heat and cool portions of GM's Detroit-Hamtramck assembly plant.

When the project is operational, 58 percent of the plant's energy needs will come from renewable energy, making Detroit-Hamtramck the top GM facility in the world by percentage of renewable energy used.

The project will provide 15.8 megawatts of renewable energy to the plant, a significant

contribution toward GM's overall goal of putting 125 megawatts of renewable energy into its energy portfolio by 2020.

Look for more information on this partnership in the Quarter 1, 2014 issue of "Greenlight"!



Energy from Waste

In-Depth

Applying New Technologies for Cleaner, Better Operations

DRP continuously improves its operations by applying new technologies and procedures. This year, we approach the end of a two-year-long program to improve boiler and ancillary equipment efficiency, combining major investments in capital equipment, adoption of new technologies, modifications to daily schedules and practices, and continuous operator training.

In short, the more efficiently we operate our combustion process, the better. There are fewer air emissions. More renewable energy is safely produced. There is a greater reduction of greenhouse gases. And there will be fewer nuisance impacts, such as odors.

Odor is a challenge we are hard at work to address. We've improved maintenance and repair of our waste processing equipment, accelerating the rate we receive, process into fuel, and combust waste, making it less available to generate odors. A regularly cleaned tipping floor, reduced excess water, and impregnated carbon in the building ventilators have all helped us further reduce odor levels.



Managing odor is at the top of our to-do list every day. DRP will continue its efforts to manage this issue.

Up-Close

Municipal waste odor control has challenged scientists and industry for centuries. According to Professor Thomas H. Morton from the University of California at Riverside¹, humans detect odor through both chemethesis, or pungency, and olfaction, a sensation in the brain. He also states that our sensitivity to odors has a remarkably large range and is even "suggestible"—often depending on emotional state. •

¹Thomas H. Morton, Ph.D., Professor of Chemistry, U.C., Riverside
"Chemical & Psychological Dimensions of the Sense of Smell."

Did you know?

Increasing concentrations of pharmaceuticals are found in the waters of the Great Lakes because landfills and wastewater treatment plants are not designed to properly dispose of old and expired medicines. The best disposal method is combustion in highly efficient waste-to-energy plants. Last year, DRP disposed of more than 47,000 pounds of unused, unwanted, and expired household pharmaceuticals. Furthermore, DRP has in several instances over the last 18 months provided the assured destruction of confiscated narcotics for the Detroit Police Department. Read more on page 4. •



Your latest issue of **Greenlight.**

New Day. New Way.

 Printed on post consumer recycled paper.



High Points

DRP Aids in Detroit Police Department's Narcotics Burns

In Detroit, DRP is helping to safely dispose of confiscated narcotics and prevent them from getting back on the street. We've partnered with the Detroit Police Department to safely destroy confiscated narcotics free of charge. Our 24/7 operating availability enables the department to clear out its evidence storage and safely destroy illegal narcotics as often as needed in an environmentally effective manner.

"DRP's assistance in disposing of these narcotics is invaluable," says Sergeant David Dehem, City of Detroit, Property Control. "This program ensures the safe and total destruction of dangerous substances that are harmful to the local community and the environment."

Waste introduced into DRP's furnaces is thoroughly mixed and combusted at a temperature of at least 1,800 degrees Fahrenheit. Organic material at this temperature is thoroughly destroyed after two seconds. The narcotics are held in the DRP furnaces for approximately 20 minutes.

The process was recently featured in a news story on WDIV, which can be viewed here: www.clickondetroit.com/news/Top-secret-drug-operation-revealed/-/1719418/23002374/-/wb6fn7/-/index.html.

This combination of mixing, high temperature combustion, and time in the furnace has been thoroughly proven to ensure the complete combustion and the total destruction of organic matter. •



DRP employees unload confiscated narcotics for safe and proper disposal.

Safety Spotlight

Remember, it's vital to keep Christmas trees moist and well watered!

1. Select a fresh tree with needles that are green and hard to pull back. The trunk should be sticky to the touch.
2. Do not place your tree close to a heat source. Keep the tree stand filled with water at all times.
3. Dispose of dry trees via a recycling center or pick-up service—NOT in a fireplace.

For more details, visit: http://www.usfa.fema.gov/citizens/home_fire_prev/holiday-seasonal/holiday.shtm