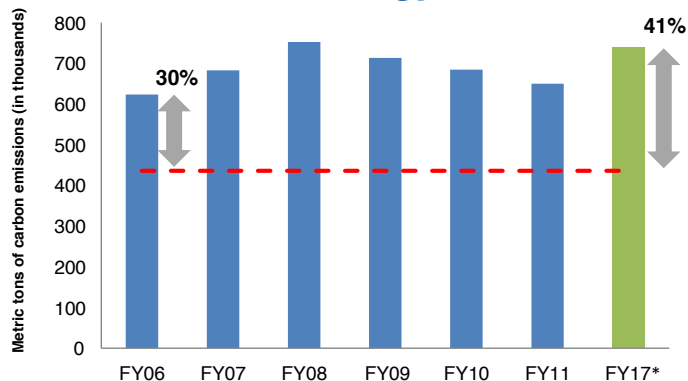


## DEP Goes on an Energy Diet



All City agencies have committed to reduce their carbon emissions by 30 percent, from a 2006 baseline, by 2017. If DEP were to proceed along a business-as-usual path, which includes new facilities becoming operational, our carbon emissions in 2017 are projected to increase to over 738,000 metric tons and our 30% reduction target will effectively be a 41% reduction from our baseline.

New York City is fortunate to have a drinking water and sewer system that was designed more than 100 years ago to take advantage of gravity wherever possible. Even so, providing safe drinking water and reliable wastewater services to more than 9 million people is energy intensive.

DEP spends approximately \$100 million every year on 8 trillion British Thermal Units of energy (including electricity, natural gas, steam, and

all fuel oil)—the equivalent of powering 91,000 households (more than double the number of households in Albany). Most of our energy use is from electricity consumption, which is expected to grow by 44% from 2012 to 2017 for many reasons, including:

- new federal drinking water standards that require ever more energy intensive treatment, such as ultraviolet disinfection;

(Continued on reverse side)

## Spotlight on Safety

### Green jobs equal safe jobs, right?

Green jobs are defined broadly as those that help to improve the environment, but this does not necessarily mean that they are safe jobs. Workers in green industries may still face routine hazards that commonly exist in traditional workplaces such as, lock out/tag out, falls, and confined spaces. These hazards may be new to many workers who are moving into this rapidly developing industry sector and there are likely new hazards which have not yet been identified.

Prevention through Design (PTD) will help to eliminate potential hazards and, as in traditional industries, each task within green jobs must be assessed for worker exposure. As DEP embraces the incorporation of green jobs, EHS standards and regulations will also be implemented to strengthen worker safety.

If you want to learn more about hazards inherent in green jobs follow this link [link](#).

At DEP, everyone is responsible for safety. If you or anyone on your team is concerned about your working conditions, it's okay to ask your supervisor or your bureau's EHS liaison how they can help. If you've still got questions, you can call the EHS Employee Concerns Hotline. It's DEP's responsibility to acknowledge and fix unsafe situations, procedures, and practices. With your help, we'll not only get the job done, we'll make it safer for ourselves, our coworkers, our families, and our city.

CALL (800) 897-9677 OR SEND A MESSAGE THROUGH PIPELINE. HELP IS ON THE WAY. [link](#)

## Commissioner's Corner: Energy Edition

Welcome to the inaugural *DEP Weekly Pipeline: Energy Edition* that we will begin publishing on a quarterly basis. In order to achieve our mission to protect public health and the environment by supplying clean drinking water, collecting and treating wastewater, and reducing air, noise, and hazardous materials pollution, we use an extraordinary amount of energy. In fact, DEP is the second largest municipal consumer of electricity in New York City, behind only the Department of Education, and energy use makes up approximately 10% of our expense budget and accounts for 53% of our agency's total greenhouse gas emissions. To address the growing impact of climate change **Mayor Bloomberg** released *PlaNYC*, the City's comprehensive sustainability plan, in 2007 and committed all municipal operations to reduce their greenhouse gas emissions by 30% by 2017 from a 2006 baseline. We are doing our part to achieve this target by reducing our energy use and greenhouse gas emissions, using our energy more efficiently,

and using cleaner sources of energy where practical, as outlined in DEP's *Strategy 2011-2014*. In 2011, DEP created the Office of Energy and I recently assigned **Anthony Fiore** as the office's new Director. Every day the Office of Energy is responsible for setting the strategic energy goals for the agency, developing metrics and quality assurance programs for tracking consumption and energy costs, and initiating and managing new and ongoing energy projects. The Office of Energy provides critical guidance for the long-term viability of the agency, but the best managers of DEP's energy are the highly skilled men and women working across our operations. In order to highlight the various ways DEP employees interact with energy, there will be a new feature in every *DEP Pipeline: Energy Edition*, titled "Why Energy Matters to..." with profiles of key personnel throughout the agency. For our first segment I've asked Anthony Fiore to discuss why energy matters to him as the Director of DEP's Office of Energy.

## Why Energy Matters to...



**Anthony Fiore**  
Director, Office of Energy

The effects of climate change and climate change regulations will have significant impacts on energy requirements and costs. Rather than see this as a challenge I see it as an opportunity to help direct changes that will be better for our health, our environment, and our system. This is an exciting time for our industry as water and wastewater utilities are moving towards recovering resources inherent in water supply and wastewater treatment, such as potential hydropower, renewable biogas, and biosolids for beneficial use. DEP will continue to stay at the forefront of testing new techniques to conserve energy while treating wastewater. As we look towards implementing appropriate new techniques and

technologies, we will also keep in mind that our assets have long life expectancies. So when we decide what investments to make, we must not only consider today's environment, but what conditions will look like 20 and 50 years from now. We must make smart investments with energy as a key component.

We can put in the most sophisticated technology and the highest efficiency motors, but none of it is effective without you – to monitor equipment, maintain pumps and motors, and engineer and manage projects. It is your ideas, technical expertise, and operational insights that initiate energy saving ideas, ensure that they are designed and constructed properly, and that the savings continue to accrue once implemented. Keep your ideas coming—please send recommendations on how and where energy saving opportunities exist to: [NYCEnergy@dep.nyc.gov](mailto:NYCEnergy@dep.nyc.gov).



- more stringent effluent requirements, including enhanced removal of nitrogen; and
- a requirement to reduce the number and volume of combined sewer overflows.

DEP's current and expected increase in energy use affect our operations and our carbon footprint. In 2011, DEP was responsible for greenhouse gas (GHG) emissions totaling 650,000 metric tons of carbon dioxide—or the equivalent of emissions from more than 135,000 vehicles. These GHG emissions contribute to climate change, which has environmental, human health, and economic impacts, such as more frequent and severe weather events, which can damage infrastructure.

Energy use and GHG emissions reduction will be achieved through supply and demand side initiatives. Supply side initiatives focus on energy generation and the fuels we use for power and heat at our facilities, while demand side initiatives focus on reducing our existing energy use and minimizing energy losses. With DEP's large asset base, experience in long-term planning, and technical expertise in infrastructure systems, we are uniquely equipped to harness our water and wastewater assets for clean energy production. Opportunities range from leveraging the water supply to produce hydroelectric power; capturing the geothermal potential in the water and wastewater system for heating and cooling purposes; using biogas, produced from anaerobic digestion, as fuel for power, heat, and transportation applications; installing solar and wind technologies on DEP managed lands and facilities; and cultivating renewable fuel feedstocks. With the need to end the "business as usual" trajectory of energy consumption, the department has the opportunity now to reinvigorate its long-standing mission of environmental stewardship by developing and putting into action its ideas for energy neutrality and resource recovery.



## In Memoriam



Yesterday, former DEP Commissioner **Joel Miele** passed away. Miele was appointed Commissioner in 1996 by **Mayor Rudolph Giuliani** and served until April of 2002. There will be viewings this week on Wednesday and Thursday from 2:00–5:00 p.m. and 7:00–9:00 p.m. There will also be a service at 8:00 p.m. on Thursday.

Quinn Fogarty Funeral Home  
162-14 Sanford Avenue  
Flushing, NY 11358

## Project Spotlight

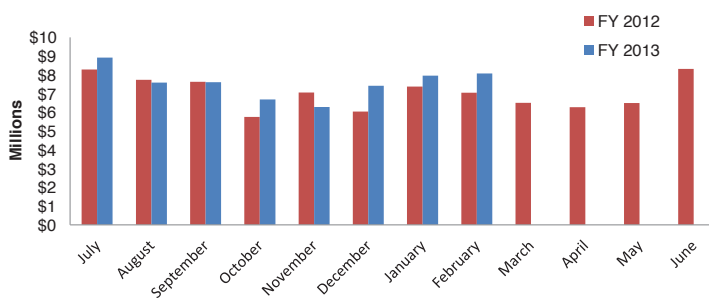
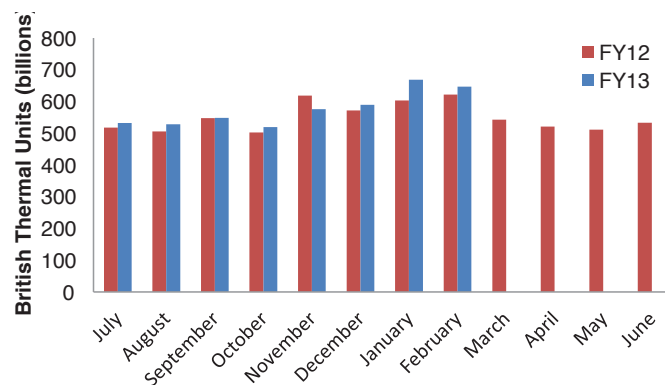


### Catskill/Delaware Ultraviolet (UV) Light Disinfection Facility

The new Catskill/Delaware UV Facility is expected to use 23.3 million kWh of electricity every year, which is equivalent to powering 2,459 homes. The UV Facility will provide an additional measure of protection against certain waterborne pathogens, most notably chlorine resistant cryptosporidium. DEP performed extensive research

including pilot studies and full scale validation to ensure that UV technology could be adapted to serve a consumer population of 9 million people. With a design flow greater than 2 billion gallons per day, it is the world's largest facility of its kind and will nearly double the annual electricity use for the Bureau of Water Supply.

## DEP Utility Energy Use and Costs



**We welcome your feedback! To submit an announcement or suggestion, please email us at: [newsletter@dep.nyc.gov](mailto:newsletter@dep.nyc.gov)**