

July 2011

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Important Reminders

- This past weekend's heat wave is a reminder that we need to protect the grid by **reducing electricity load on peak demand days**. Please encourage your agency colleagues to take the simple but effective measures of shutting off lights and lowering shades to block direct sunlight. See the attached flyer for more summertime energy-saving tips.
- On a monthly basis, **look at EC3 reports to identify large increases in energy use**. Large increases could be due to utility billing errors, changes in facility use, or to problems that can be addressed to reduce energy use. Here's how:
 - *Quick visual review to compare year-over-year energy change for all facilities in your agency.* Under the Energy Reports section of the Navigation Bar, run "Energy Change Report: All Facilities." This report displays facility energy use in mmBTUs in descending order, so look first to the top of the list. Focus on those facilities with the largest increases in usage.
 - *Check the list of individual accounts that are 25% above prior year's usage.* Under the Current Reviews and Alerts section of the Navigation Bar, run the "Deviations Greater than 25%" report. Note whether the reading was estimated ("E") and compare the number of days in the billing period to prior year, to help assess the likely causes of the deviation.
 - *Look for more detail for the particular facilities with the largest increases.* Using the OEC ID # in both the Energy Change Report and the 25% Deviation Report, run the "Core Report for Selected Facilities" and the "Get Monthly Facility Data by Account" under the Energy Reports section of the Navigation Bar. These reports show monthly energy use for the facility for all applicable energy types (electric, gas, and steam). The Core Report is best for viewing and exporting to a PDF; the Facility Data Report is best for exporting to excel.

City adds 70 Electric Vehicles to fleet

On Tuesday July 12th, Mayor Bloomberg announced the addition of 70 new electric vehicles to the City's fleet, including 50 new "extended range" hybrid Chevrolet Volts, 10 fully electric Ford Transit Connect cargo vans, and 10 new fully electric Navi-star "E-star" utility trucks. The 70 new vehicles were purchased in part with grant funding from PlaNYC, the U.S. Department of Energy and the New York Power Authority. The City has the largest municipal electric vehicle fleet in the country, now totaling 430 electric vehicles. The new electric vehicles are expected to reduce greenhouse gas emissions by 75-100% compared to conventional vehicles and are an important component in reaching the City's 30x17 goal.



NYPD has 20 of the City's 50 new Chevy Volts (pictured above left), which are electric/gasoline series hybrid sedans that use pure electric power for the first 45 miles. Once the battery is drained, a backup gasoline engine engages to charge the battery, extending the car's range to 340 miles. These cars are expected to be driven an average of 35 miles/day and will be recharged overnight.

The Transit Connects (pictured above right) are cargo vans that can travel from 60 to 80 miles on a single charge, depending on the weight of the cargo. The Transit Connects will be used by the Departments of Correction, Transportation, Sanitation, Fire and Citywide Administrative Services.

Also on July 12th, the City and Nissan co-hosted a free screening of "Revenge of the Electric Car" and an electric vehicle showcase for the public in Central Park. To increase public awareness about electric vehicles, the City has developed a new website encouraging residents to [Drive Electric NYC](#). For the full press release, click [here](#).

Water Efficiency information from DEP

In addition to energy benchmarking for all City buildings over 10,000 square feet, [Local Law 84](#) (LL84) also requires **water benchmarking** of some buildings in coordination with the Department of Environmental Protection (DEP). Benchmarking of water use is required only if the building was equipped with automatic meter reading equipment by DEP for the entirety of the previous calendar year.

[Local Law 86](#) (LL86) of 2005, the New York City green building law, introduced certain **water efficiency requirements to capital projects** where construction is directly managed by city agencies or by non-city entities that receive a certain amount of city funding, such as cultural organizations, state agencies and private developers. These projects must achieve a minimum of 20- 30% potable water use reduction below the standards of the U.S. Environmental Protection Agency Energy Policy Act of 1992 (EPA Act 1992) as well as a minimum Silver rating under the US Green Building Council's Leadership in Energy and Environmental Design (LEED®) rating program. Office buildings can achieve the LEED Water Efficiency (WE) credit 3.1 for a 20% water reduction through the use of low flow plumbing fixtures, or the WE credit 3.2 for a 30% water reduction. For landscaping and irrigation, projects can earn a LEED WE Credit 1.1 by reducing potable water used for building irrigation by 50%, and the additional WE credit 1.2 by reducing potable water for irrigation by 100%.

Spotlight On: NYPD Ice Storage

DCAS Energy Management, in partnership with NYPD, has just completed the installation of an ice storage chiller plant at the NYPD Applicant Processing Division (APD) in the Sunset Park Courthouse in Brooklyn, a City landmark building. This cutting edge technology operates an ice making chiller at night, when electric demand and costs are low, and uses the ice to cool the building during the day. Ice storage helps to meet the PlaNYC goal of reducing the City's summer peak electrical demand. This \$1.9 million project will save \$50,000 annually in energy costs.

The NYPD Applicant Processing Division is the administrative center for hiring new police officers. Overnight ice production and storage reduces daytime electrical demand, and allows for the installation of a smaller 90 ton chiller. This chiller does not require 24-hour operation by a licensed operator, which results in significant personnel savings to NYPD. With ice storage, the chiller plant has an effective capacity of 140 tons.

Ice is stored in thousands of dimpled plastic balls immersed in a steel tank filled with a glycol solution. During the day, the super cold glycol solution is pumped to a chilled water heat exchanger. The chilled water is then distributed to air handlers in the building for space cooling. A number of commercial buildings in NYC use this technology, including the new Bank of America headquarters and the Hearst Building on 57th Street, both of which are LEED certified green buildings. The photos below depict the chilled water pumps (left) and the ice-making chiller (right).

