



2007 New Jersey Clean Energy Leader

Middlesex County Showroom of Environmental Technology

Clean Energy Municipality

PROJECT INFORMATION

Organization

- Middlesex County

Location

- New Brunswick, NJ

Project Name

- Middlesex County Showroom of Environmental Technology

Project Contact

- H. James Polos, Freeholder

Project Cost

- \$372,000 for Solar PV System

Technologies

- 25 kW Solar PV System
- 12 Toyota Prius Sedans
- 23 Ford Ranger Escapes

NJCEP Incentive/Rebate

- Solar Project Grant - \$115,000
- Bio-diesel Rebate Grant - \$1,575/4,500 gal. of diesel
- Hybrid Rebate Grant - \$4,000 rebate per vehicle

PROJECT SAVINGS

Annual Energy Benefits

- Solar PV System provides 45% of the electrical needs
- Reduced need for petroleum diesel

Annual Emissions Reduction

- Average of 4 tons of greenhouse gases per vehicle

Project information, savings, and environmental benefits were provided by the project manager.



“We created MCSET to help municipalities navigate the regulations and grant processes in pursuing energy efficiency and ‘green’ technologies.”

H. James Polos
Freeholder
Middlesex County



Background

In 2004, Middlesex County adopted its Clean Air Initiative, which included a policy requiring that a minimum of 10 percent of all future County vehicle purchases be powered by alternative fuels and/or hybrid technology. With bio-diesel and hybrid rebates from New Jersey's Clean Energy Program, Middlesex County was able to expand its fleet to include 35 hybrid vehicles, the largest hybrid fleet in the state. Also, with a \$115,000 grant from the NJCEP, Middlesex installed a 25 kilowatt solar project at its Cooperative Extension Building in North Brunswick.

Longtime supporters of sustainability practices – which also include a Curbside Recycling Program, Open Space Program, and LED traffic lights – Middlesex County officials wanted to increase environmentally friendly efforts at the local level.

Challenge

Many local government and school officials in the County were interested in implementing clean energy and sustainability initiatives. However, navigating the regulations and grant processes, and learning about the technology options available, became too large a burden for the local entities. Middlesex County Showroom of Environmental Technology (MCSET) was established as a partnership between Middlesex County, the New Jersey Board of Public Utilities, and the New Jersey Department of Environmental Protection to promote clean air and water initiatives in County municipalities through the use of alternative fuels, energy efficiency, and clean, renewable technologies.

Solution

MCSET assists municipalities, schools, and private sector entities in identifying and implementing “green” technologies.



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The 25 kW solar PV system generates 45 percent of the Cooperative Extension Building's electricity needs.

Working with the NJBPU and NJDEP, MCSET helps with coordination/problem solving, financing, co-op purchasing, technical assistance/education, and grant assistance. The County Freeholders approved a \$50,000 grant program to encourage sustainability at the municipal level. Of that amount, \$25,000 is going toward rebates for the purchase of alternative fuel vehicles, and the other half is for assistance in green building construction.

Municipalities are eligible to receive \$500 per alternative fuel/hybrid vehicle, with a limit of two vehicles per municipality. With this assistance in place, five communities, so far, have purchased hybrid vehicles (10) and one community purchased a Tandem dump truck, which is fueled with bio-diesel from the County's supply.

In May 2007, MCSET staged a forum on green technology and sustainability. Over 200 local officials attended various workshops on clean, renewable energy technologies and initiatives. Following the forum, many towns are now considering how to incorporate environmentally sustainable construction into their future projects.

Benefits

Middlesex County has shown a leadership role in its formation of MCSET and its outreach and educational forums to get local municipalities to hop on the "green" train. For its efforts, it was awarded the 2007 New Jersey Clean Energy Municipality Award. Along with the Clean Energy Leadership Award, Middlesex County was also recognized by the New Jersey Department of Environmental Protection as the first county in the state to make a commitment to creating an environmentally sustainable county.

According to the National Biodiesel Board, smog-forming exhaust emissions run 50 percent lower with bio-diesel vehicles. Also, carbon monoxide emissions are 50 percent lower, and particulate matter emissions are 30 percent lower with a bio-diesel vehicle. The County's fleet includes 12 Toyota Prius Sedans and 23 Ford Escape Hybrids. These each carry an EPA Air Pollution Score of 9.5, compared to the regular Ford Escape's EPA Air Pollution Score of only 2. And the solar PV system installed at the Cooperative Extension Building is supplying 45 percent of the building's electricity needs. These are just a few of the ways that show Clean Energy is Good for New Jersey.

Media Contact

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To learn more about New Jersey's Clean Energy Program, and to find out why **clean energy is smart business**, go to NJCleanEnergy.com.

