



MCSET

Middlesex County Showroom of Environmental Technology

Freeholder H. James Polos

MCSET Chairman



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Committee Members

Middlesex County Showroom of Environmental Technology (MCSET)

H. James Polos
Middlesex County Freeholder
MCSET Chairman

Athena Sarafides
N.J.D.E.P.
Middlesex County Coordinator

Anne Marie McShea
N.J.B.P.U.
Middlesex County Coordinator

Mayor Peter Cantu
Plainsboro

Mayor Daniel J. Reiman
Carteret

Mayor Francis "Mac" Womack
North Brunswick

David R. Campion
Director
Department of Public Works

Mark Finkelstein
Middlesex Regional Educational
Service Commission



www.mcset.com

**The Middlesex County
Board of Chosen
Freeholders**

In Partnership With:

**The New Jersey Board of
Public Utilities**

~

**The New Jersey
Department of
Environmental Protection**

Richard Fitamant
Middlesex County Utilities Authority

Steven R. Fittante
Director, Middlesex County
Department of Transportation

John Henry
NJ Green Building Council

Richard J. Hills
Solid Waste Management Director

William T. Hlubik
MC Cooperative Extension

Jane Leal
Middlesex County Improvement
Authority

Patrick Piegari
Middlesex County
Superintendent of Schools

John Reiser, Jr.
County Engineer

Jeffrey Mayerowitz
MCSET Program Coordinator



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The Clean Air Initiative

- In 2004, the Clean Air Initiative was created as part of the Common Cents Program. The county made a commitment to integrate alternative fueled vehicles into the county motor fleet and to educate municipal governments on “green” technologies. In addition, a policy was established which required a minimum of 10% of all future vehicle purchases to be alternative fueled. Out of this initiative came the Middlesex County Showroom of Environmental Technology (MCSET) Program.



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What is MCSET?

- The MCSET Program is a unique partnership between Middlesex County, the NJ Board of Public Utilities, and the NJ Department of Environmental Protection that promotes clean air and water initiatives through the use of alternative fuels, energy efficiency, and “green” technologies. MCSET will assist municipalities, schools, and the private sector to identify and implement “green” technologies by coordinating state grants, technical assistance, and county resources.

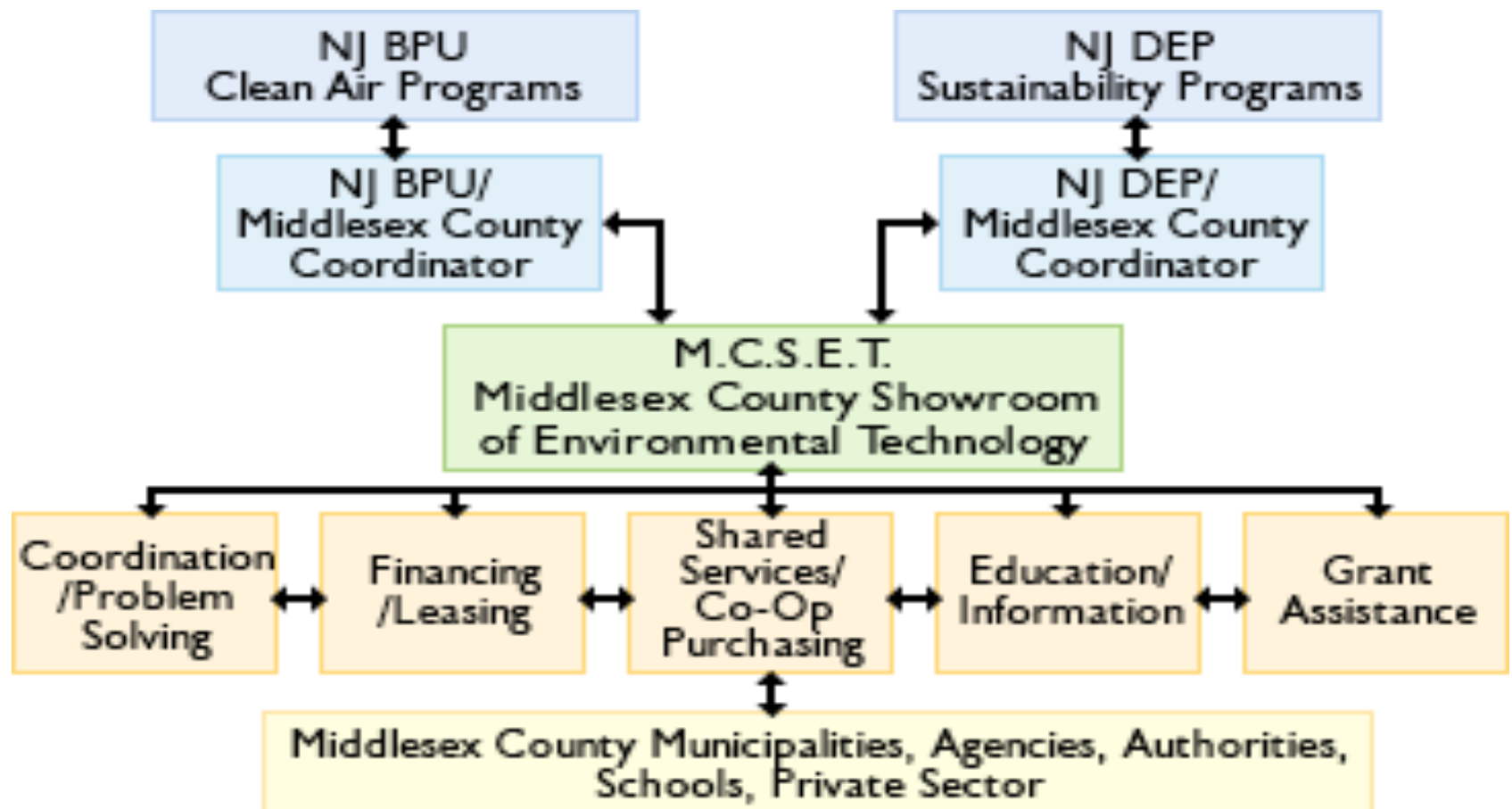




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MCSET Organizational Chart





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MCSET Grant Programs for Municipalities

In addition to assisting our communities with obtaining state and federal grants, the County also provides the following grants:

- Municipalities are eligible to receive \$500 per alternative fuel/hybrid vehicle with a limit of 2 vehicles per municipality.
- The Sustainability Economic Growth Improvement Fund program provides up to \$100,000 per community for sustainability and green initiatives.



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Transportation

Hybrid Fleet

- To date, the Middlesex County motor fleet consists of over 50 hybrid vehicles, the largest hybrid fleet in the state.



- In addition, the entire county Park Ranger fleet consists of hybrid vehicles.



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Transportation

Old Bridge Township receives 1st County Hybrid Incentive Grant





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Transportation

County Hybrid Incentive Grant

In addition to Old Bridge purchasing hybrid vehicles, more and more municipalities are purchasing hybrid vehicles for their municipal fleet. They include:

- Carteret
- North Brunswick
- Plainsboro
- Woodbridge
- Edison
- Highland Park



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Public Works

Bio-Diesel Fuel





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Transportation

Middlesex County Area Transit (MCAT) Shuttles



Developed 6 mass transit shuttles to integrate County, Public, and Municipal transportation at 250,000 passenger trips/year.



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Transportation

Traffic Lights

- Middlesex County has converted 95% of county traffic lights to LED. LEDs (light-emitting diodes) have greater energy efficiency, a lifetime lasting years rather than months, are cost-effective, and can be solar-powered.





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Sustainability

Sustainable Economic Growth Improvement Fund





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Sustainability

Sustainable Economic Growth Improvement Fund

- Monroe Township
 - New roof solar powered project at the new Monroe Fire District headquarters.
- Borough of Jamesburg
 - Street improvement program in downtown business district. The street improvement program will include street trees, green areas, and solar powered pedestrian crosswalks.
- Woodbridge Township
 - New solar powered trash compactors will be used in the Iselin part of Woodbridge Township.



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Sustainability

Sustainable Economic Growth Improvement Fund

- Cranbury Township
 - Installation of energy efficient heaters and triple-pane windows at the fire department and municipal building.
- Plainsboro Township
 - New library will include energy efficient equipment and building appliances.
- North Brunswick Township
 - The Public Works garage in North Brunswick will be equipped with a solar powered water heating system.



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Sustainability

Middlesex County Sustainability Plan

- Middlesex County is the first County in New Jersey creating a County Sustainability Plan. This initiative is funded through a \$75,000 N.J. Smart Growth Grant. The plan will be developed in partnership with the N.J. Sustainable State Institute and will serve as a model for counties throughout New Jersey.
- The Sustainable Middlesex plan will set goals for the future, use indicators to track progress, and develop action plans that have roles for county departments, municipal governments, citizens, businesses, schools, and civic organizations.



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Sustainability

The Center of Lifelong Learning in Sayreville

- The Center of Lifelong Learning will demonstrate its commitment to energy self-sufficiency and environmental responsibility in a new 89,000 square foot School/Community Center.
- Located in Sayreville, the school is for autistic, severely multiply-disabled, and preschool disabled children from the ages of three to twenty-one years old.
- The Center is seeking the certification of LEED Platinum, which means that “green/eco-sensitive” building practices are being employed.
- This high performance/highly efficient, healthy building will be the first of its kind in the country.



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Sustainability

New Hospital in Old Bridge

- County approved construction of new hospital to be located in Old Bridge.
- The hospital will be engineered and built with the newest and most energy efficient methods to date.
- Once complete, the hospital should receive Silver LEED certification.



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Renewable Energy

Solar Project

- With a grant from the NJ-BPU, the county installed a 25 kilowatt solar electric system at the Middlesex County/Rutgers Cooperative Extension Services building.





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Renewable Energy

New Jersey Clean Power Choice Program



These New Jersey organizations and municipalities have joined the New Jersey CleanPower Community Partnership Campaign and are leading local efforts to register CleanPower customers. Join these leaders and commit to preserving our climate and shoreline. To sign up or find out more, visit www.NJCleanPower.com.

ACUA

Atlantic County Utilities Authority

Borough of **Belmar**

Maplewood

Environmental Advisory Committee

Middlesex County

Township of **Montclair**

Princeton

Environmental Commission

Rowan University

Summit

Environmental Commission

Clean energy. Now a simple choice for New Jersey.



The **CleanPower** Choice Program from the New Jersey Board of Public Utilities' Office of Clean Energy is a simple way for you to choose electricity generated from clean, renewable energy sources that benefit climate change. Like wind, solar, small hydro, and landfill gas power. **Clean power that's good for the environment and good for New Jersey.** You'll continue to receive only one bill from your current utility, so there's only one check to write. And the cost? About \$6 to \$9 extra a month for an average New Jersey home. Clean, simple, and easy. Sign up today and make the choice for a cleaner tomorrow.

**Call now or look for the insert
in your April electric bill
for details and how to sign up.**

**So many reasons. A new, clean,
and simple energy solution.**

NJCleanPower.com 1-800-515-5353





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Energy Efficiency

Energy Audit

- Middlesex County recently completed an energy audit as part of the Local Government Energy Audit Program offered by the NJ Clean Energy Program.
- The audit was performed on 11 buildings at the county North Brunswick complex which includes: Adult & Juvenile Corrections, Archives, Central Vehicle Maintenance, and the county Public Works department.
- The energy audit discovered energy conservation measures that could provide an annual savings of 1,060,730 kilowatt hours, 18,530 therms, and over \$170,000 per year.



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Energy Efficiency

Energy Audit

- These findings represent a decrease of 10.4 percent in electricity usage, 0.3 percent of gas usage and 9 percent on the county's utility bills.
- Additionally, Middlesex County can potentially reduce its annual CO2 emissions by 455 tons – once the recommended audit work is complete.
- Implementing the energy conservation measures outlined in the audit will cost \$769,220, with a simple payback of just 4.5 years, based on an annual savings of \$170,000/year.



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Clean Energy Leaders



2007
New Jersey
Clean Energy
Leader

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**NEW JERSEY BOARD OF PUBLIC UTILITIES
OFFICE OF CLEAN ENERGY**



MCSET – The 2007 New Jersey Clean Energy Municipality Award recipients.



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Change A Light Pledge

MCSET has joined the Energy Star Change a Light, Change the World Campaign. By taking the Energy Star Change A Light Pledge, you are committing yourself to being more energy-efficient. Changing just one light bulb, helps you save energy and helps improve the environment.



ENERGY STAR
CHANGE A LIGHT, CHANGE THE WORLD





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Go Green Save Green

The Go Green Save Green Challenge is a cooperative effort made up of PSE&G, Americana Hospitality Group, The Home News Tribune, and MCSET, that encourages individuals, groups, businesses, organizations, municipal and school entities within Middlesex County to go green and help reduce the damaging impact of global warming.



PSE&G

We Make Things Work For You

**HOME NEWS
TRIBUNE**

AMERICANA
HOSPITALITY GROUP





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Cooperative/Green Purchasing

Initiative under way to create a portal of communication between the County, Middlesex Regional Educational Services Commission, the Plainsboro Co-op, and Rutgers University, to purchase green products and supplies identified by Rutgers University through a cooperative purchasing program.

- To discuss future shared service partnerships and participation.
- To introduce a broader sense of shared services including green products and supplies.



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Green Economic Development Zone

GEDZ Program

- Middlesex County established a GEDZ Committee to study the economic and financial feasibility of establishing Green Economic Development Zones within the county.
- Committee consists of a team of local, county, and state officials and representatives from the corporate and academic sectors.
- Established subcommittees to study the following key areas:
 - Business and site identification.
 - Education and curriculum development.
 - Funding and financing — including government grants and incentives available to companies.



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Green Economic Development Zone

GEDZ Program

- There is approximately 27 million square feet of unused or vacant warehouse space within Middlesex County.
- The ability to develop that space in an environmentally friendly manner will have a positive effect on the economy of Middlesex County.
- Committee will look to develop programs that would match the existing warehouse space or “grey fields” with manufacturers and/or retailers of environmentally friendly products and services.



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Green Economic Development Zone

GEDZ Program

- GEDZ will focus on developing curriculum with Rutgers University, Middlesex County College, and Middlesex County Vocational & Technical schools to prepare the future workforce for these green job opportunities.
- GEDZ is a job creation initiative with its purpose of attracting green technology, manufacturing, and assembly jobs to Middlesex County.
- Legislation is in the Senate to establish Green Economic Development Zones, which would provide tax advantages and other incentives.



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Five Point Statewide Energy Reduction Plan

Point One:

- Eliminate the state required 5% down payment requirement for municipal and county solar, wind and geothermal projects. Cap purchases as a percentage of the total bond indebtedness of the entity.

Point Two:

- When a municipality or county completes an NJBPU funded Energy Audit allow the entity to fund the capital repairs specifically identified in the report through bonds without the 5% down payment requirement.



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Five Point Statewide Energy Reduction Plan

Point Three:

- Allow municipal or county governments to bundle solar power installation requests from residents and businesses into a municipal project funded as a capital project. The project would not require the 5% down payment so there is no impact on the local taxpayer, it would provide reduced costs for the participants through large buying power, and insure proper installation and inspection of work. The municipality or county would have a lien against the property for the individual system, receive SREC dollars directly toward project payoff and receive payment from the property owner as an added assessment payment.



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Five Point Statewide Energy Reduction Plan

Point Four:

- The state should develop a solar install standard or standards for municipal, school and county uses and create a state contract price for the installations. Accessing state contract pricing for standard solar installations will reduce costs, eliminate bid consulting, legal and advertising costs and simplify the process. This pricing should also be extended for residential and commercial applications to stimulate private investment and the vendors should be New Jersey based.

Point Five:

- A program must be developed to reduce energy costs and consumption for suburban and inner city age restricted communities where inefficient electric heating and air conditioning systems exist. Additional regulations and requirements must also be established for utility companies which do not generate electric and find conservation and reduction in energy consumption adverse to their business plan.



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Middlesex County Sustainable Initiatives...



a commitment to their future.