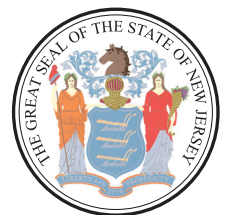


# New Jersey's Clean Energy Program™

2007 Annual Report



New Jersey Board of Public Utilities  
Office of Clean Energy



# President's Letter

New Jersey's Clean Energy Program experienced a year of growth and change in 2007. Through the leadership of Governor Jon S. Corzine and the tireless efforts of the Board of Public Utilities Commissioners and staff and our partners, the Clean Energy Program gave New Jersey's residents, business owners, and local government officials the necessary tools to reduce overall energy use and increase the use of clean, renewable sources of energy.

In 2007, over \$141 million was spent directly on incentives paid to customers or on measures installed in customers' homes. We saved New Jersey ratepayers 224,288 megawatt hours (MWh) and created 526,484 MWh of renewable energy, which saved \$75,696,768 and avoided 424,528 tons of CO<sub>2</sub> emissions.

For me, the highlight of 2007 was the solar market transition. After an extensive 2-year public stakeholder process and the incredible work of our staff, my fellow Commissioners and I voted to transition New Jersey's growing solar market from a rebate model to a fiscally responsible market-based approach to solar financing that strives to achieve solar RPS at the lowest annual cost to ratepayer. New Jersey is the first state to adopt such a program, and we are confident that this plan will ensure that competition prevails, that solar is fostered, and that New Jersey continues its leadership role as the best solar program in the country.

I am so proud of the many successes of New Jersey's Clean Energy Program, and I look forward to 2008, where I know we will meet our challenges head on and continue to keep New Jersey on track as having one of the most successful clean energy programs in the nation. On behalf of all of the BPU Commissioners, I thank all New Jerseyans who have invested in clean, renewable energy through this Program. Together, we will change New Jersey's energy future.



Jeanne M. Fox  
President  
New Jersey Board of Public Utilities

#### Board of Public Utilities Commissioners

Jeanne M. Fox – President  
Frederick F. Butler – Commissioner  
Joseph L. Fiordaliso – Commissioner  
Nicholas Asselta – Commissioner  
Elizabeth Randall – Commissioner

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# Overview of New Jersey's Clean Energy Program™



Join the thousands of New Jersey homeowners, businesses, and municipalities that have taken advantage of the numerous programs, services, and incentives offered by New Jersey's Clean Energy Program™. These programs provide opportunities for you to save energy, money, and help protect our climate and shoreline. You'll also be contributing toward New Jersey's goals of *20% by 2020*—reducing greenhouse gases; reducing energy use, and increasing use of renewable energy by 20%.

Find out more at [NJCleanEnergy.com](http://NJCleanEnergy.com) or call 1-866-NJSMART.

## Residential Energy Efficiency & Assistance Programs

### Home Performance with ENERGY STAR®

Contractors certified by the Building Performance Institute work with homeowners to identify sources of wasted energy and help make money-saving improvements.

### New Jersey ENERGY STAR Homes

New Jersey ENERGY STAR Homes are built to be at least 15% more energy efficient than standard homes. New Jersey ENERGY STAR Homes cost less to operate and lessen the impact of power generation on the environment.

### New Jersey for ENERGY STAR

Offers incentives and public education about home energy efficiency and appliance and lighting offers through major retailers.

### New Jersey Comfort Partners

Installation of energy saving measures at no cost to customers to increase energy efficiency and improve energy affordability for income-eligible households.

### Home Energy Analysis

A free, online energy audit to help residential customers understand their home energy use and take steps to save energy and save money. The analysis is linked to incentives and ENERGY STAR rebates.

### COOLAdvantage and WARMAdvantage Programs

Provide rebates and promote the use of energy-efficient heating and cooling equipment in homes.

## Renewable Energy Programs

### Renewable Energy Certificate (REC) Program

Invest in Renewable Energy. Individuals and businesses can buy and sell New Jersey Renewable Energy Certificates (RECs), effectively financing and investing in clean, renewable energy systems. To find out more about the program and to find REC brokers, aggregators, and other market participants, visit [www.NJCleanEnergy.com](http://www.NJCleanEnergy.com).

### CleanPower Choice Program<sup>SM</sup>

A voluntary program that gives retail electricity customers the option to sign up for clean power directly through their local electric utility.

### Customer On-Site Renewable Energy (CORE) Rebate Program

Financial incentives to reduce the up-front installation costs for solar, small wind, and sustainable biomass systems.

### SREC-Only Pilot Program

Designed to enable New Jersey customer-generators to participate in the SREC market without participating in the CORE program.

## Commercial & Industrial Clean Energy Programs

### New Jersey SmartStart Buildings® Program

Provides technical assistance and incentives for new and retrofit efficiency upgrades including high efficiency lighting, heating, and cooling equipment for schools, commercial buildings, industrial buildings and processes, and government.

### Combined Heat and Power (CHP) Program

Offers incentives to purchase and install various types of CHP units to qualifying customers.

## Other Programs

### Education and Outreach Grants

Grants available to New Jersey nonprofit organizations to conduct outreach and promote clean energy.

### Local Government Energy Audit

The New Jersey Board of Public Utilities has authorized an incentive program to subsidize the cost to municipalities or other governmental agencies of having energy audits of their facilities performed.



Brought to you by the  
New Jersey Board of Public Utilities

# General Overview

New Jersey's Clean Energy Program, administered through the Office of Clean Energy, is a signature initiative of the New Jersey Board of Public Utilities (NJBP), which provides education, information, and financial incentives for renewable energy systems and energy efficiency measures. The statewide program targets approximately \$180 million each year toward technologies that save electricity and natural gas and increase the amount of electricity generated from clean, renewable resources and distributed forms of generation.

New Jersey's Clean Energy Program promotes increased energy efficiency and the use of clean, renewable sources of energy including solar, wind, geothermal, and sustainable biomass. The result for New Jersey is a stronger economy, less pollution, lower costs, and reduced demand for electricity. New Jersey's Clean Energy Program offers financial incentives, programs, and services for residential, commercial, and municipal customers.

New Jersey has instituted a number of successful initiatives that help to reduce the State's peak demand, conserve finite resources, and transform the marketplace for the next generation of electricity supply technologies. Incentives are available to offset the initial cost of energy efficient and renewable energy technologies for all ratepayers in New Jersey. Programs are comprehensive and complementary and focus on providing technical and financial assistance to homeowners, businesses, schools, and government organizations. The programs are also designed to offer full project development assistance from information on best practices to rebate payments and financing tools.

Notably, in 2007, the Clean Energy Program began to transform the solar industry in New Jersey. New Jersey's Renewable Energy Portfolio Standards (RPS) require that a certain percentage of all electricity sold in New Jersey be from a renewable resource. The percentage that must be from a renewable resource increases significantly from 4.6% in 2007 to 20% by 2020. Given these numbers, it is clear New Jersey cannot simply provide rebates or grants to construct this capacity. Therefore, for the past 2 years, the BPU has been pursuing a more cost-effective option by converting the renewable energy rebate/grant program to a market-based financing program.

In December 2007, the BPU issued an Order that represented the first step in this transition to a more market-based approach. Specifically, the BPU's Order adopted an 8-year schedule of Solar Alternative Compliance Payments (SACP) intended to facilitate an alternative financing approach that would replace rebates. The BPU is also exploring the need for other methods of securitizing Solar Renewable Energy Certificate (SREC) payments that will stimulate a long-term market for SRECs.

In 2007, the program provided \$141 million in financial incentives to residential customers, businesses, schools, and municipalities that installed energy efficient and renewable energy technologies, including solar photovoltaic systems. The result for New Jersey is a stronger economy, energy savings, and climate benefits.

# General Overview

## A Stronger Economy

When New Jersey's businesses and residential customers save money on their electric and natural gas bills, the entire State benefits. Residential customers have more dollars to spend while business customers enjoy lower operating expenses, improved profitability, and gain a competitive edge. In addition, dollars spent on energy efficiency decrease the number of dollars flowing out-of-state, since New Jersey has no local sources of fossil fuels. Since purchasing from local energy resources has an economic multiplier effect that strengthens New Jersey's overall economy, New Jersey's Clean Energy Program relies heavily on local businesses to deliver energy efficiency and renewable energy to customers. By creating a market for clean energy in New Jersey, new jobs are created within the state to support clean energy implementation, services, and planning.

## Energy Savings

New Jersey's Clean Energy Program – through its Customer On-Site Renewable Energy (CORE) Program, New Jersey for ENERGY STAR, and other programs – offers direct incentives to customers to help offset the cost of purchasing high efficiency or renewable energy equipment. These customers then benefit further by reducing their energy usage and costs. Ratepayers who do not directly participate in the programs still share in the benefits through lower overall energy costs, climate change solutions, and public health improvements. Electricity prices in New Jersey, as in other places, historically tend to spike during times of peak demand. Overall, 2007 initiatives reduced peak electric demand by over 87 MW. Natural gas initiatives focused on reducing usage during times of peak gas demand, which tend to be during cold-weather months.

## Climate Benefits

By both reducing energy use and promoting renewable sources of energy generation, New Jersey's Clean Energy Program reduces the need to generate electricity and burn natural gas, in turn eliminating pollution that would have resulted from added electric generation or natural gas usage. The benefits of these initiatives continue for the life of the measures installed, which average about 15 years. Thus, New Jersey's Clean Energy Program benefits the State's residents and businesses through substantial environmental and public health improvements, plus lower energy bills and a stronger economy. The total reductions in carbon dioxide emissions resulting from New Jersey's Clean Energy Program in 2007 are equivalent to taking over 70,000 cars off the road for an entire year. These emission reductions, equivalent to 424,528 metric tons of CO<sub>2</sub> annually, will reduce our State's contribution to greenhouse gases, smog, and acid rain and help protect New Jersey's shoreline and highlands.

# Program Governance – New Jersey Board of Public Utilities

The New Jersey Board of Public Utilities (BPU) is the regulatory authority for New Jersey's Clean Energy Program with a statutory mandate to ensure safe, adequate, and proper utility services at reasonable rates for customers in New Jersey. Accordingly, the BPU sets policies and goals for the Office of Clean Energy and New Jersey's Clean Energy Program. In addition, the BPU regulates critical services such as natural gas, electricity, water, and telecommunications and cable television.

The BPU addresses issues of consumer protection, energy policy, restructuring of energy and telecommunications services, and the structuring of utility rates to encourage energy conservation and competitive pricing in the industry. The Board of Public Utilities also has responsibility for monitoring utility service quality and responding to consumer complaints.

In late 2007, the New Jersey legislature approved a bill, signed into law by Governor Corzine in January 2008, commonly referred to as the Regional Greenhouse Gas Initiative (RGGI). This legislation requires the development of a carbon trading program and states that energy efficiency and renewable energy must be essential elements of the State's energy future and that greater reliance on energy efficiency and renewable energy will provide significant benefits to the citizens of New Jersey. The Board of Public Utilities and the Department of Environmental Protection are currently developing the regulations necessary to implement the requirements of the legislation.

In 2006, the State commenced the development of its latest Energy Master Plan. The Governor's Office, the Board of Public Utilities, and the Departments of Environmental Protection (DEP) and Transportation along with several other state departments/agencies, together with stakeholders, developed strategies for meeting the State's energy needs through the year 2020. The electric and heating portion of the Energy Master Plan was released in draft form in April 2008. A separate report being prepared by the DEP (as this Annual Report was being written) addresses how New Jersey will achieve its mandatory greenhouse gas reduction goals included in the RGGI legislation as well as renewable energy and energy efficiency goals relating to transportation. Final consideration of the draft Energy Master Plan is expected in the fall of 2008.

# Program Funding

New Jersey's Clean Energy Program (NJCEP) was created as required by the Electric Discount and Energy Competition Act with the objective of transforming the energy marketplace in New Jersey in support of energy efficiency and renewable energy technologies. The BPU administers New Jersey's Clean Energy Program and oversees the regulatory process governing the Program.

The program is funded through the Societal Benefits Charge (SBC) included in the rates of natural gas and electric customers. The funds are collected by the utilities and, after netting their program expenses, sent to the New Jersey Clean Energy Trust Fund held by the New Jersey Department of the Treasury.



# Program Management

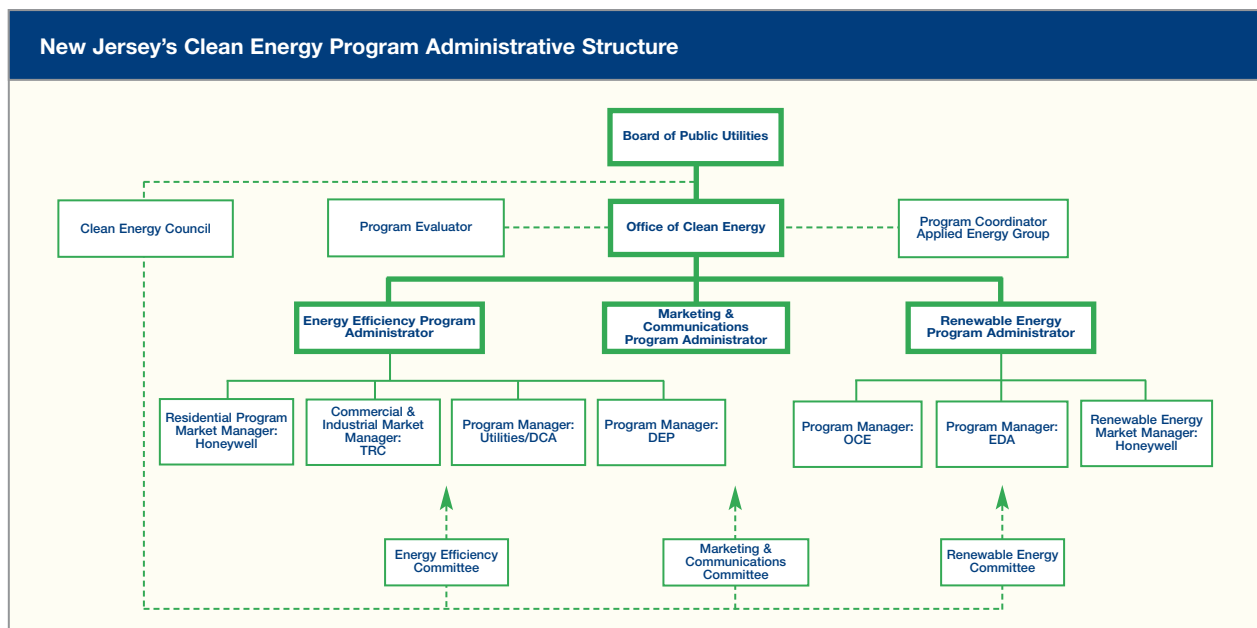
In 2004, the BPU announced its intention to transition the management of the programs in the NJCEP from the utilities and the Office of Clean Energy to third-party contractors, or Market Managers, who will deliver the programs. The BPU also announced its intention to hire a Program Coordinator to assist with the administration of the programs.

In October 2006, Honeywell International Inc. was engaged by the BPU as the Residential Energy Efficiency and Renewable Energy Market Manager, and TRC Energy Services was engaged as the Commercial and Industrial Energy Efficiency Market Manager. The transition of the programs from the utilities and the Office of Clean Energy to Honeywell and TRC was completed in April 2007. In July 2007, the BPU engaged Applied Energy Group as the Program Coordinator.

# Stakeholder Participation

In 2003, the BPU established a Clean Energy Council (CEC) initially comprised of a cross section of government and industry representatives, energy experts, public interest groups, and academics to engage stakeholders in New Jersey's Clean Energy Program's development and to provide input and advice to the BPU on its administration. The Council provides input to the BPU regarding the design, budgets, objectives, goals, administration, and evaluation of New Jersey's Clean Energy Program. The BPU recently opened the Clean Energy Council to any member of the public that desires to provide input on related issues and operates meetings as open public meetings.

The Council is organized into three committees; Renewable Energy, Energy Efficiency, and Marketing and Communications, that meet regularly and are open to all interested parties.



# Overall Program Objectives and Progress to Date

New Jersey's Clean Energy Program has established a set of objectives and measures to track progress in reducing energy use and increasing the use of renewable energy in New Jersey. The following overall objectives were established in consultation with the Clean Energy Council, further refined by BPU staff, and adopted by the BPU as part of the BPU's 2005-2008 and Beyond Strategic Plan:

**Objective 1:** By December 31, 2008, six and a half percent of the electricity used by New Jersey residents and businesses will be provided by Class I and/or Class II renewable energy resources, of which a minimum of four percent will be from Class I renewable energy resources including 120,000 MWh (90 MW) from solar.

**Description:** The Renewable Portfolio Standards (RPS) ensure investment in renewable energy technologies located in the PJM power pool and that a minimum percentage of Class I renewable energy resources is included in the electricity supply that serves New Jersey residents and businesses. Class I resources include electric energy produced from solar technologies, photovoltaic technologies, wind energy, fuel cells with renewable fuels, geothermal technologies, wave or tidal action, and methane gas from landfills or a biomass facility, provided that the biomass is cultivated and harvested in a sustainable manner.

**Results:** The RPS rules established an Energy Year compliance period which begins on June 1 and ends May 31 of the following year. The 2007 Energy Year required that 4.5763% of a supplier's electricity be generated from renewable resources including 2.037% Class I and 0.0393% solar. The Class II and Solar RPS requirements were met either by Renewable Energy Certificates (RECs), Alternative Compliance Payments (ACPs), or Solar RECs or Solar Alternative Compliance Payments (SACPs), respectively, by the September 1, 2007 deadline. Due to a reported shortage of Class I RECs, the BPU extended the deadline by which Class I RECs were to be submitted or ACPs provided to February 29, 2008. The extension of the deadline provided enough Class I RECs to meet the RPS requirements.

**Objective 2:** By December 31, 2008, install 300 MW of Class I renewable electric generation capacity in New Jersey, of which a minimum of 90 MW will be derived from photovoltaics.

**Description:** This goal ensures the development and use of clean, renewable energy resources and generation capacity within the State and requires a minimum of 90 MW of solar photovoltaics. New Jersey is one of the first states to adopt a minimum requirement for solar electricity, which has made it one of the fastest growing solar markets in the nation.

**Results:** Through the end of 2007, with an existing capacity of 107 MW of Class I renewables, 141 MW of Class I renewable energy have been installed including 47 MW of photovoltaics. Therefore, an additional 69 MW of Class I renewables and 43 MW of photovoltaics must be delivered by the end of 2008. Given the high level of activity in the renewable energy programs and the number of committed projects, particularly in the Customer On-Site Renewable Energy (CORE) Program, the Program appears to be on track to meet the renewable energy goals, although doing so will continue to be a challenge.

# Overall Program Objectives and Progress to Date

**Objective 3:** By December 31, 2012, 785,000 megawatt hours per year and 0.6 billion cubic feet of gas per year of energy savings will be derived from energy efficiency measures.

**Description:** The energy savings goal is designed to meet all future demand for energy beyond 2012 levels through increased energy efficiency. This goal will help ensure that all future growth in electric and natural gas usage in the State is met through energy efficiency measures such that overall energy usage remains at 2012 levels. This will ensure greater efficiency in the use of existing resources and reduce or eliminate the need to site new generation facilities.

**Results:** Progress in meeting energy savings goals is measured relative to the levels of funding for energy efficiency programs. For every percentage increase in funding compared to 2003 funding levels, the goal is to increase energy savings over 2003 levels by the percentage increase in funding plus 10%. The funding level for energy efficiency in 2003 was \$93 million and increased to \$123 million in 2007. This is a 32% increase so the goal is to increase savings by 42%.

Savings for electric efficiency measures decreased from 285,576 MWh in 2003 to 224,288 MWh in 2007, falling significantly below the goal. Of note is that while the new funding has increased 32% since 2003, and hence the goal was to increase savings by 42%, the 2007 expenditures for energy efficiency were approximately equal to the 2003 expenditures.

As noted in previous annual reports, program participation and resultant energy savings declined during the transition of the management of the programs from the utilities to the Market Managers. Upon completion of the transition in 2007, this trend was reversed with energy savings almost doubling from 128,252 MWh in 2006 to 224,288 MWh in 2007. The BPU is confident this trend will continue as the Market Managers complete their first full year of program management in 2008 and the BPU expects energy savings to increase again over 2007 levels.

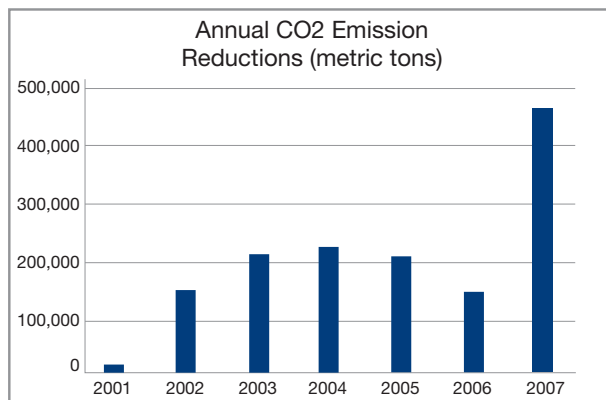
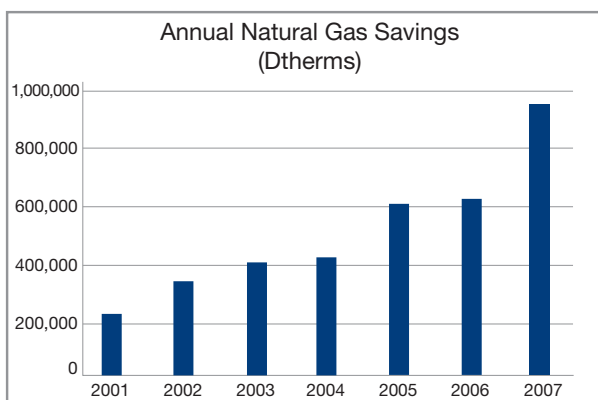
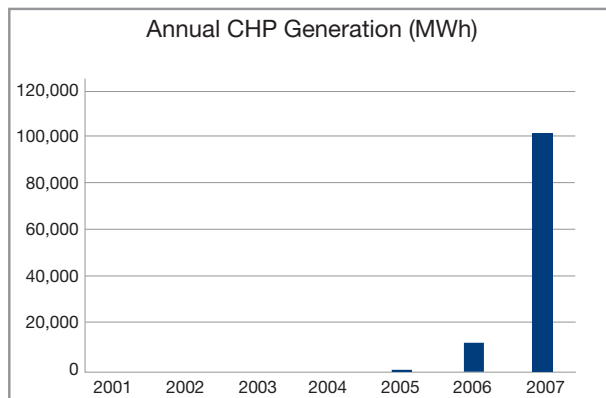
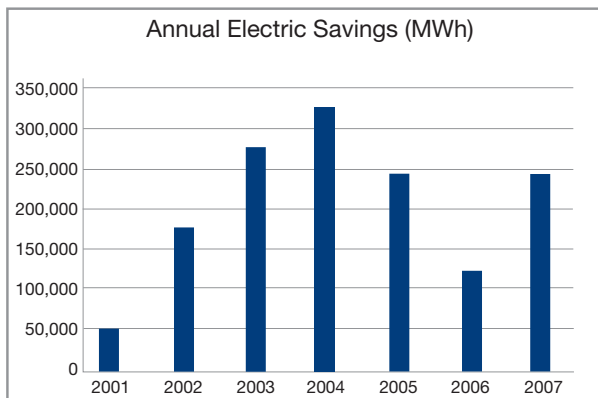
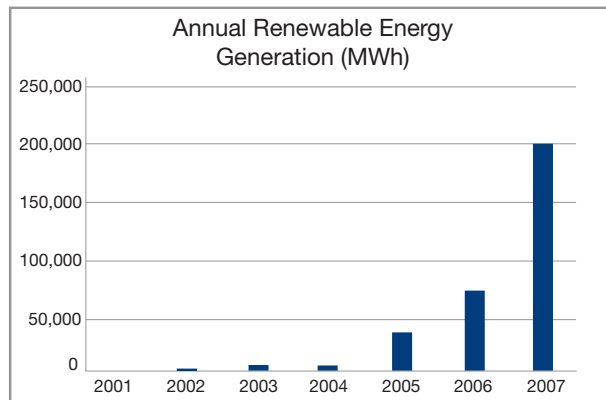
Natural gas savings increased from 410,517 Dekatherms (Dtherms) in 2003 to 962,976 Dtherms in 2007 or by 135%, significantly exceeding the goal of 42%.

# Overall Program Objectives and Progress to Date

## Energy Savings

The tables below show the annual electric and natural gas energy savings, renewable, and CHP electric generation, and the resultant emission savings since the inception of New Jersey's Clean Energy Program in 2001. The tables demonstrate the significant gains the NJCEP has achieved in influencing businesses and homeowners throughout the State to invest in energy efficiency and renewable energy.

Efficient equipment and practices put into effect in 2007 will continue to save energy for an average of 15 years. This year's results add to the energy savings achieved from 2001 to 2006. Combined, the 7-year NJCEP activities resulted in lifetime energy savings of over 19.3 million MWh of electricity, 61 million Dtherms of natural gas, 3.9 million MWh of renewable generation and 1.3 million MWh of distributed generation from combined heat and power systems. The programs have also reduced electric demand by 640 MW, eliminating the need to site, construct, and operate several small to mid-sized power plants. The annual bill reductions to New Jersey energy customers totaled \$63,178,080 for 2007.



# 2007 Clean Energy Program Highlights

In 2004, the BPU approved a funding level of \$745 million for the years 2005 through 2008 for the energy efficiency and renewable energy programs. This represents an increase of over \$250 million above the funding levels approved for the first 4 years of the Program. This increase will allow a substantial enhancement in the level of benefits delivered by the programs including lowering the energy costs for the State's residents and businesses, improving the economy, and providing cleaner air.

In 2007, \$205 million in new funding was available for the programs delivered to residential, commercial, and renewable energy customers, resulting in the following achievements.

## 2007 NJCEP Program Participation Highlights:

- 25,740 residential customers received rebates for the purchase of **high efficiency heating and cooling equipment** which will reduce their energy usage and costs
- 6,180 new homes were built and certified to **New Jersey ENERGY STAR® Home** standards representing over 26 percent of all new homes built in New Jersey
- 8,484 **low-income homes received energy efficiency improvements** at no cost to the customer thus ensuring continued savings and greater affordability
- Rebates were paid for 1,297 **commercial energy efficiency projects** helping businesses reduce their energy costs while improving profitability
- 838 schools, businesses, and residents **installed renewable energy systems** that will generate clean, emission-free electricity and reduce energy costs for years to come
- 1,978 trees were planted through the **Cool Cities program** managed by the NJ Department of Environmental Protection. Shading from these trees will reduce cooling loads in cities by reducing the "heat island" effect
- 13,473 customers participated in the **CleanPower Choice Program<sup>SM</sup>** contributing a few dollars per month to the purchase of clean, renewable sources of electricity
- Over 3 million **compact fluorescent bulbs** and 37,000 **high efficiency lighting fixtures** were sold to New Jersey consumers at discounted costs through the ENERGY STAR Products Program
- **Rebates** were paid to 13,602 customers that purchased ENERGY STAR window air conditioners and 1,833 customers that purchased ENERGY STAR clothes washers
- **Renewable Energy Business Venture Assistance Program**, formerly known as the Renewable Energy Economic Development Program (REED), provides funding for renewable energy businesses in New Jersey. Two projects recommended by the Technical Review Committee for recoverable grant funding were sent to the NJEDA for a business and financial project review and recommendation. The Office of Clean Energy expects to make final award recommendations to the BPU for these projects in the first quarter of 2008.

***Overall, the energy savings plus the electricity generated from renewable energy and distributed generation systems installed in 2007 will save 526,484 MWh of electricity and 962,976 Dtherms of natural gas per year, which is enough to meet the electric needs of over 72,000 average homes and the natural gas needs of over 9,600 average gas-heated homes, saving a total of \$75,696,768 annually.***

# Program Implementation Reports

The following section summarizes and reports on the 2007 implementation of the Renewable Energy (RE) Programs, Residential Energy Efficiency (EE) Programs, and Commercial and Industrial (C&I) EE Programs. In 2007, management of the majority of the EE programs was transitioned from the State's 7 natural gas and electric utilities to the Market Managers, Honeywell and TRC, and management of many of the RE programs was transitioned from the BPU's Office of Clean Energy to Honeywell.

## Renewable Energy

### Renewable Energy Program Summary

New Jersey's Clean Energy Program, recognized as one of the best renewable energy programs in the nation, continued to take great strides in 2007.

Across the Garden State, 838 renewable energy systems were installed in 2007 which have or will receive rebates totaling over \$78 million. These systems have a total generating capacity of over 33 megawatts of renewable energy and will avoid the generation of 200,071 MWh of traditional sources of electricity. They will also help protect New Jersey's environment by avoiding more than 304 million pounds of carbon dioxide emissions each year, which is the equivalent of removing 22,000 cars from the road or planting 32,000 acres of trees.

While the Board of Public Utilities is instituting various programs to involve businesses, communities, residents, and municipalities in implementing clean, renewable sources of energy, like solar, wind, small hydro, and landfill gas, Governor Corzine took up the renewable energy initiative from a legislative standpoint. On July 6, 2007, he signed the Global Warming Response Act, which calls for a 20 percent reduction in greenhouse gas emissions below 1990 levels by 2020 and an 80 percent reduction below current levels by 2050. As noted previously, Governor Corzine also signed the RGGI legislation in early 2008.

### Customer On-Site Renewable Energy (CORE) Rebate Program

This program provides rebates for the installation of renewable energy systems that serve customer loads. In 2007, 832 customers installed renewable energy systems with a capacity of over 20 megawatts. These systems will generate clean, emission-free electricity and reduce energy costs for years to come. Customers have or will receive rebates in excess of \$73 million that will reduce the capital costs of these systems. Since it launched in 2001, the CORE program has provided rebates to 2,727 customers that have installed a total of 52 MW of solar electric, wind, and biomass systems.

# Program Implementation Reports

## **SREC-Only Pilot Program**

On April 3, 2007, New Jersey's Clean Energy Program opened registration for the new Solar Renewable Energy Credit (SREC)-Only Pilot Program. The SREC-Only Pilot Program is designed to enable New Jersey customer-generators to participate in the SREC market without participating in the CORE program. New customers and customers already in the CORE program queue are eligible to participate in the SREC-Only Pilot Program, but CORE Program customers must forgo their CORE Program rebate to do so. The SREC-Only Pilot Program is intended to provide customers and project developers with more flexibility to choose to accelerate project development, provided they are comfortable with their project financials without the benefit of a rebate. As noted above, in December 2007, the BPU adopted an 8-year SACP schedule intended to enable project financing for large systems without rebates.

## **CleanPower Choice Program<sup>SM</sup>**

The BPU launched a new program in 2005 aimed at increasing consumer participation in the renewable energy market through a voluntary retail program known as the New Jersey **CleanPower Choice Program**. This program provides electric utility customers the option of selecting clean, renewable sources of energy through a sign-up option on their electric utility bills. The New Jersey **CleanPower Choice Program** is the first statewide program of its kind where multiple utilities and clean power marketers participate in a joint effort with the State to give consumers access to the regional market for renewable energy.

In 2007, there were 13,473 customers enrolled in the program. Each household that participates in the program can avoid up to 10,000 lbs. of CO<sub>2</sub> emissions per year, which is equivalent to planting 1.35 acres of trees.

## **Renewable Energy Project Grants and Financing Program**

This program (formerly called Renewable Energy Advanced Power (REAP) Program and the Grid Supply Program), provides grants and financing to encourage the development of New Jersey-based, large-scale renewable energy facilities greater than 1 MW. The solicitation is designed to provide seed grants and access to capital in order to make renewable-powered electricity cost competitive with conventional power plants. There were 5 active projects under construction or operating in 2007.



# Program Implementation Reports

## Residential Energy Efficiency

### Residential Program Summary

New Jersey's Clean Energy Program has been nationally recognized for the development of innovative energy efficiency initiatives. For the fourth consecutive year, the ENERGY STAR Products Program received an ENERGY STAR Partner of the Year award from the U.S. Environmental Protection Agency and U.S. Department of Energy. New Jersey's Clean Energy Program was recognized for promoting energy-efficient products that help homeowners adopt smart energy practices, reduce energy use, and save money.

New Jersey was also ranked among the top 10 states by the American Council for an Energy-Efficient Economy (ACEEE), which issued its State Energy Efficiency Scorecard for 2006, a ranking of state-level energy efficiency policies. Past versions of the ACEEE Scorecard have ranked states on utility-sector energy efficiency spending. However, this report is a new and expanded effort to rank states on a broad array of policy initiatives, including appliance and equipment standards, building energy codes, transportation and land use policies, and other policy innovations that are increasing U.S. energy security while sustaining economic prosperity and protecting the environment.

### Residential Energy Efficiency Program Implementation

In 2007, the energy efficiency programs offered to residential customers included the Residential New Construction Program (NJ ENERGY STAR Homes), the Residential Electric and Gas HVAC Programs (COOLAdvantage and WARMAdvantage), the ENERGY STAR Products Program (NJ for ENERGY STAR), the Residential Low-Income Program (Comfort Partners), and New Jersey Home Performance with ENERGY STAR Program.

# Program Implementation Reports

## **New Jersey ENERGY STAR Homes Program**

This program is designed to increase the efficiency of residential new construction, with the long-term goal of transforming the market to one in which all new homes are built to the national ENERGY STAR Homes standard. To be eligible, a home must meet a performance standard of 15% less energy consumption than if it had been built to the national model energy code (IECC), and the home must be located in an area designated for growth based on the State Development and Redevelopment Plan.

Since the New Jersey ENERGY STAR Homes Program was launched in 2001, it has been coupled with an extensive outreach effort that has resulted in participation by many of New Jersey's largest builders that have committed to building all of their homes in New Jersey to the program's standards. Despite the slowdown in the real estate market, of the 23,140 total homes built in New Jersey in 2007, 6,180 new homes were built and certified to New Jersey ENERGY STAR Home standards, representing 26.71% of all new homes built in the state. An additional 7,137 homes enrolled in the program in 2007 to be built to the New Jersey ENERGY STAR Home standard by 2009.

The New Jersey ENERGY STAR Homes built or enrolled in 2007 will result in 14,082 MWh and 312,293 Dtherms of annual energy savings, which, when combined with the savings to be realized from those homes entered into the program in previous years, will grow to significant savings over the expected lifetime of the homes being constructed.

## **WARMAdvantage and COOLAdvantage Programs**

These programs promote the installation and use of residential energy efficient heating, ventilating, and cooling (HVAC) equipment and are designed to transform the market to one in which quality installations of high efficiency equipment are commonplace. Rebates are available to promote the installation of qualified high efficiency HVAC equipment, including ENERGY STAR qualified central air conditioning and heating systems, and water heaters. In 2007, 25,740 residential customers received rebates for the purchase of high efficiency heating and cooling equipment which will reduce their energy use and costs.

The U.S. Department of Energy issued new minimum energy efficiency standards for residential air conditioners and heat pumps that became effective in January 2006. The new standards increased the minimum Seasonal Energy Efficiency Ratio (SEER) for this equipment from 10 to 13. The COOLAdvantage Program was modified to reflect this change by eliminating rebates for equipment that is now required by the new standard and providing rebates only for equipment with a SEER of 14 or greater.

Gains in efficiency also result from the promotion of proper sizing and installation practices through contractor training sessions. During 2007, 124 HVAC technicians received sales and technical training, and 66 technicians passed the test and were added to the North American Technician Excellence (NATE) certification list. Since 2007, the program has trained over 5,100 technicians.

# Program Implementation Reports

## New Jersey for ENERGY STAR

This program promotes the sale and purchase of ENERGY STAR qualifying windows, lighting products, and appliances. It employs several key strategies, including:

- Educating consumers on their energy usage and the role energy-efficient choices can play
- Marketing and training support for retailers selling ENERGY STAR qualified products
- Leveraging national programs and advertising
- Using targeted rebates or other incentives to reduce cost barriers to purchasing ENERGY STAR qualified products

**The ENERGY STAR Lighting Incentive Program** for 2007 coincided with the national Change A Light, Change The World campaign sponsored by the U.S. Environmental Protection Agency and the Department of Energy. The program partnered with lighting manufacturers, distributors, and retailers to offer discounted bulbs and fixtures. Over 3 million compact fluorescent bulbs and 37,000 high efficiency lighting fixtures were sold in New Jersey stores in 2007.

**The ENERGY STAR Room Air Conditioner Rebate Program** provided a \$20 rebate to 13,602 residents that purchased an ENERGY STAR qualified room air conditioner.

**The ENERGY STAR Clothes Washer Rebate Program provided** rebates to 1,833 residents that purchased an ENERGY STAR qualified clothes washer. ENERGY STAR washers lower both energy and water use, which means less air pollution from power plants and less water going to waste.

## Home Energy Analysis

A free home energy audit tool, Home Energy Analysis is included as part of the Residential ENERGY STAR Products Program. Home energy audits were performed on the NJCEP website by 7,576 residents in 2007. The home energy audits provide customers with a do-it-yourself tool for estimating savings that can be achieved through the installation of various energy efficiency technologies and through the purchase of ENERGY STAR qualified products.

## Home Performance with ENERGY STAR Program

This program offers building contractors and homeowners of existing homes incentives to install building shell measures that reduce energy usage, such as insulation and ENERGY STAR windows and doors, and to install high efficiency appliances. In 2007, the program focused on recruiting, training, and certifying contractors across the State. Participation then resulted in the completion of 22 projects in 2007.

# Program Implementation Reports

## Comfort Partners Program

This program has improved energy affordability for New Jersey low-income households who, by definition, spend a high percentage of their income on energy. The Comfort Partners Program, delivered by the State's electric and natural gas utilities, provided energy savings measures which improved comfort, home safety, and health benefits for 7,706 New Jersey low-income households during 2007, ensuring continued savings and energy affordability. Energy savings were achieved through the installation of energy efficiency measures (including air sealing against drafts, insulation, and duct sealing), installation of high-performance products and appliances (such as compact fluorescent lighting and ENERGY STAR refrigerators), and performance of health and safety testing to detect, reduce, or prevent the existence of dangerous combustion by-products. The measures are installed at no cost to the customer.

The Comfort Partners Program is complemented by the Low-Income Weatherization Program of the NJ Department of Community Affairs (DCA), which delivers weatherization assistance services to low-income customers in the State. A partnership agreement between the BPU, the State's electric and natural gas utilities, and the DCA was reached in 2005 to better coordinate the weatherization efforts of the Comfort Partners Program and DCA's Weatherization Assistance Program. Both of these programs install measures such as insulation and high efficiency heating and cooling equipment, appliances, and lights in the homes of low-income customers at no cost to the customer. The Low-Income Weatherization Program completed 778 units in 2007.

Annual savings from the 8,484 customers served by the combined energy assistance programs for low-income customers totaled 6,181 MWh.

# Program Implementation Reports

## Commercial and Industrial Energy Efficiency

### Commercial Program Implementation

New Jersey's Clean Energy Program offers commercial, industrial, and municipal customers financial incentives, design support, and technical assistance to integrate energy efficient and renewable energy technologies into new construction, upgrades, and new cooling and heating equipment installations. These programs are designed to achieve market transformation by working with customers and the design community to specify energy efficiency measures as part of their normal building and retrofit practices.

### New Jersey SmartStart Buildings® Program

The Commercial and Industrial Construction Program was designed to address key market barriers to efficient construction on the part of developers, designers, engineers, and contractors in the commercial sector. It is available to schools, commercial, industrial, governmental, institutional, and agricultural customers. The program focuses on both new construction and retrofits of existing buildings.

The program offers a wide variety of incentives. Rebates for measures such as high efficiency lighting, heating and cooling equipment, and motors are offered to help offset the incremental cost of high efficiency equipment. Design incentives and support are available to cover a portion of the cost for additional energy efficiency design services, and technical support is provided to help customers evaluate energy efficiency options. In 2007, 1,129 retrofit projects and 113 new construction sites received rebates through the New Jersey SmartStart Buildings Program. Annual energy savings from these energy-efficiency projects equal 90,589 MWh and 40,813 Dtherms. These rebates helped businesses reduce their energy costs while improving profitability.

An important component of this program supports efficient design and construction in schools. The New Jersey SmartStart Buildings Program is working to ensure that schools take into consideration the life cycle costs of energy design and equipment purchase decisions, not just up-front costs. The goal is to have designers make decisions that produce the lowest total costs over the life of the schools, where the energy savings more than offset any incremental up-front costs. In 2007, 55 schools received rebates and an additional 96 schools committed to the program.

### Cool Cities Program

Managed by the NJ Department of Environmental Protection (DEP), this initiative is designed to reduce the urban heat island effect in specific neighborhoods through the planting of trees on city streets, thereby reducing cooling costs. DEP's Community Forestry Program's "Cool Cities Initiative" planted 1,978 trees in 2007 in various cities throughout the State. Besides improving the aesthetics of the urban neighborhoods, the annual energy savings from the trees planted in 2007 total 1,127 MWh.

# Program Implementation Reports

## **Combined Heat and Power (CHP) Program**

The Combined Heat and Power Program provides incentives for combined heat and power projects. CHP projects will reduce emissions, help businesses lower their energy costs, and improve electric reliability. In 2007, a total of over \$2.9 million in rebates was paid to 5 new CHP projects which will generate 102,125 MWh per year of clean, distributed electricity.

# Financial and Savings Data

## 2007 Program Expenditures

The total statewide budget for New Jersey's Clean Energy Program for 2007 was \$349.6 million. The budget allocated \$159.7 million to energy efficiency programs, \$175.5 million to renewable energy programs, and \$14.3 million for program administration including Office of Clean Energy administrative costs, evaluation and related research, and outreach and education.

Actual spending for all programs was \$176.8 million or 51% of the budget which includes \$90.1 million spent on energy efficiency, \$78.2 million on renewable energy programs, and \$8.5 million on administration including marketing and program evaluation. In addition, commitments were made to projects for incentives that will be paid when the projects are completed in the next year or two that totaled an additional \$36 million for energy efficiency projects and \$79 million for renewable energy projects. The table below provides a comparison of budgets to expenditures for each budget category:

<b>2007 Total Expenditures</b>				
	<b>Budget (\$000)</b>	<b>Actual (\$000)</b>	<b>Committed (\$000)</b>	<b>Total (\$000)</b>
<b>Energy Efficiency</b>	<b>\$159,705</b>	<b>\$90,078</b>	<b>\$35,894</b>	<b>\$125,972</b>
<b>Renewable Energy</b>	<b>\$175,495</b>	<b>\$78,210</b>	<b>\$79,454</b>	<b>\$157,664</b>
<b>OCE Oversight</b>	<b>\$14,355</b>	<b>\$8,523</b>	<b>\$0</b>	<b>\$8,523</b>
<b>TOTAL</b>	<b>\$349,555</b>	<b>\$176,811</b>	<b>\$115,348</b>	<b>\$292,159</b>

The tables that follow provide a comparison of the budgets to expenditures on a program-by-program basis:

# Financial and Savings Data

## Summary of 2007 Energy Efficiency Program Expenditures

Statewide Summary – Energy Efficiency			
Reporting Period: YTD – 4 <sup>th</sup> Quarter 2007			
(All Numbers = 000's)			
Program	NJBPU Approved Budget	Actual Expenditures	Committed Expenditures
<b>RESIDENTIAL PROGRAMS</b>			
Residential HVAC - Electric and Gas	\$17,759	\$11,853	
Residential New Construction	\$27,678	\$19,854	\$14,208
ENERGY STAR Products	\$11,083	\$4,654	
Home Performance with ENERGY STAR	\$7,368	\$3,441	
<i>Residential Low Income</i>	<i>\$27,408</i>	<i>\$26,170</i>	
Comfort Partners	\$20,175	\$21,096	
DCA Weatherization	\$6,933	\$5,074	
Weather Rehab & Asset Preservation (WRAP)	\$300	\$0	
DCA Green Homes	\$1,600	\$0	
Energy Conservation Kits	\$200	\$517	
Residential Market Manager Transition Costs	\$986	\$896	
<b>Sub-Total: Residential Programs</b>	<b>\$94,082</b>	<b>\$67,386</b>	<b>\$14,208</b>
<b>COMMERCIAL &amp; INDUSTRIAL PROGRAMS</b>			
<i>Commercial &amp; Industrial Construction</i>	<i>\$35,068</i>	<i>\$16,247</i>	<i>\$13,474</i>
C&I New Construction	\$4,000	\$2,358	\$1,921
C&I Retrofit	\$26,068	\$13,047	\$9,735
New School Construction & Retrofit	\$5,000	\$843	\$1,818
Combined Heat and Power	\$7,857	\$3,024	\$7,037
Municipal/Local Government Energy Audit	\$1,000	\$0	
Direct Install	\$4,000	\$0	
Pay for Performance	\$3,000	\$0	
C&I Market Manager Transition Costs	\$380	\$380	
<b>Sub-Total: C&amp;I Programs</b>	<b>\$51,305</b>	<b>\$19,652</b>	<b>\$20,511</b>
<b>OTHER PROGRAMS</b>			
Special Studies	\$2,000	\$0	
Cool Cities	\$6,736	\$2,786	\$1,175
Treasury HVAC	\$4,500	\$0	
Utility Program Transition Costs	\$1,082	\$254	
<b>Sub-Total: Other Programs</b>	<b>\$14,318</b>	<b>\$3,040</b>	<b>\$1,175</b>
<b>TOTAL: Energy Efficiency Programs</b>	<b>\$159,705</b>	<b>\$90,078</b>	<b>\$35,894</b>



# Financial and Savings Data

## Summary of 2007 Renewable Energy Program Expenditures

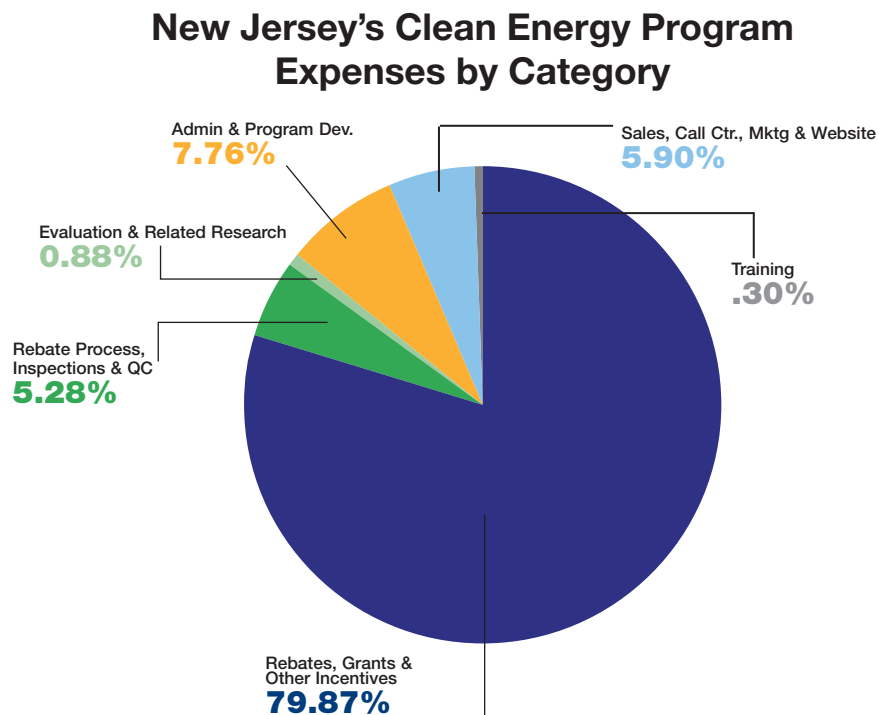
Statewide Summary – Renewable Energy Reporting Period: YTD – 4 <sup>th</sup> Quarter 2007 (All Numbers = 000's)			
Program	NJBPU Approved Budget	Actual Expenditures	Committed Expenditures
<b>RENEWABLE PROGRAMS</b>			
Customer On-Site Renewable Energy (CORE)	\$151,712	\$73,285	\$72,991
CleanPower Choice	\$935	\$740	\$0
RE Certificates/SREC Pilot	\$842	\$289	\$0
DEP Ecological Baseline Study	\$2,000	\$0	\$0
RE Market Manager Transition Costs	\$606	\$603	\$0
<b>Sub-Total: Renewable Programs</b>	<b>\$156,095</b>	<b>\$74,918</b>	<b>\$72,991</b>
<b>EDA PROGRAMS</b>			
Manufacturing Incentive	\$4,000	\$33	\$0
RE Project Grants & Financing (Incl. NJBPU Grid)	\$10,400	\$3,052	\$3,263
Renewable Energy Business Venture Financing/REED	\$5,000	\$207	\$3,200
<b>Sub-Total: EDA Programs</b>	<b>\$19,400</b>	<b>\$3,292</b>	<b>\$6,463</b>
<b>TOTAL: Renewable Energy Programs</b>	<b>\$175,495</b>	<b>\$78,210</b>	<b>\$79,454</b>

## Summary of 2007 Expenditures for Program Administrative Costs

Statewide Summary – OCE Program Oversight Reporting Period: YTD – 4 <sup>th</sup> Quarter 2007 (All Numbers = 000's)		
	NJBPU Approved Budget	Actual Expenditures
Administration and Overhead	\$5,090	\$2,115
Evaluation and Related Research	\$2,370	\$1,035
Marketing and Communications	\$6,895	\$5,373
<b>TOTAL: OCE Program Oversight Expenses</b>	<b>\$14,355</b>	<b>\$8,523</b>

# Financial and Savings Data

Approximately 80% of the funds expended were spent directly on incentives paid to customers or on measures installed in customers' homes. The following table shows expenditures broken out by each of the major cost categories.



# Program Savings and Benefits

In 2007, New Jersey's Clean Energy Program expended \$176.8 million to provide New Jersey homes and businesses with incentives to install energy efficient and renewable energy technologies that generated:

- 224,288 MWh of annual electricity savings
- 962,976 Dtherms of natural gas savings
- 200,071 MWh of electricity generated from clean, renewable sources of energy
- 102,125 MWh of distributed generation from combined heat and power systems

The amount of electricity saved is enough to provide the annual energy requirements of approximately 72,000 homes in New Jersey. The programs also reduced demand on the electric system by 87 MW. Further, in 2007, \$115 million in commitments were made for projects to be completed over the next 2 years that will produce additional annual savings of 179,838 MWh, 817,199 Dtherms, 80,469 MWh of renewable generation, and 105,252 MWh of distributed generation.

The table below shows the average cost of savings for New Jersey's Clean Energy Program. Gas energy efficiency savings are converted to a kWh equivalent value in the table below. The cost of energy saved is significantly below the cost that would have been incurred to generate or purchase an equivalent amount of electricity or natural gas:

<b>Program Cost per kWh Saved in 2007</b>			
<b>Program Costs</b>	<b>Lifetime MWh Savings/ Generation from Measures Installed in 2007</b>	<b>Average Cost of Savings per kWh</b>	<b>Average Retail Price per kWh</b>
<b>\$176,811,000</b>	<b>6,025,584</b>	<b>\$0.029</b>	<b>\$0.120</b>

In addition to purchasing energy savings at a lower cost than to purchase an equivalent supply of electricity or natural gas, these programs produce clear environmental and public health benefits through reduced emissions for electricity that did not need to be generated and natural gas that was not burned. Customers that install energy efficiency or renewable energy measures benefit even more by lowering their annual energy costs.

The following table documents that New Jersey's Clean Energy Program produces significant energy bill reductions for the State's consumers. Over the years, New Jersey's Clean Energy Program – from the energy conservation programs in the mid-'80s to the mandatory Demand-Side Management programs through the Standard Offer programs – have saved New Jersey residents and businesses over 43,500,000 MWh in avoided electricity use and over \$2.4 billion in avoided energy costs. Growth in savings from natural gas energy efficiency programs has also been substantial.

# Program Savings and Benefits

The savings identified in the chart below includes New Jersey residences and businesses that installed energy efficiency or renewable energy measures in 2007. The energy savings produced by these measures also produce savings on infrastructure costs, reduce congestion on transmission and distribution lines, and increase reliability. The customer bill reductions do not include the avoided environmental costs of the reductions in air emissions, wastewater discharges, and waste generated.

<b>The Overall Customer Bill Reductions Resulting from the New Jersey Clean Energy Program</b>			
	<b>Annual Energy Savings for 2007 Measures</b>	<b>Lifetime Energy Savings for 2007 Measures</b>	<b>Cumulative Lifetime Energy Savings for 2001 through 2007</b>
Electricity (kWh)	526,484,000	6,025,584,000	24,563,291,000
Natural Gas (Therms)	9,629,760	133,987,640	614,798,090
	<b>Annual Bill Reductions to NJ Energy Customers</b>	<b>Lifetime Bill Reductions to NJ Energy Customers</b>	<b>Cumulative Bill Reductions to NJ Energy Customers</b>
Electricity (kWh) @ \$0.12/kWh	\$63,178,080	\$723,070,080	\$2,947,594,920
Natural Gas (Therms) @ \$1.30/Therm	\$12,518,688	\$174,183,932	\$799,237,517
<b>TOTAL Customer Bill Reductions</b>	<b>\$75,696,768</b>	<b>\$897,254,012</b>	<b>\$3,746,832,437</b>

Summary of energy savings that resulted from the energy efficiency programs implemented in 2007:

<b>Savings from 2007 Energy Efficiency Programs</b>			
	<b>Actual</b>	<b>Committed</b>	<b>Total</b>
<b>Annual Savings from Measures Installed or Committed to in 2007</b>			
kWh	224,288,000	179,838,000	404,126,000
kW	48,144	43,042	91,156
Therms	9,629,760	8,171,980	17,801,740
<b>Lifetime Savings from Measures Installed or Committed to in 2007</b>			
kWh	2,481,240,000	2,728,607,000	5,209,848,000
Therms	133,987,640	112,366,270	246,353,920
<b>Cumulative Lifetime Savings from Measures Installed or Committed to (2001-2007)</b>			
kWh	19,293,741,000	NA	19,293,741,000
Therms	613,633,060	NA	613,633,060

# Program Savings and Benefits

Summary of renewable energy generation that resulted from the renewable energy programs implemented in 2007:

<b>Electric Generation from 2007 Renewable Energy Programs</b>			
	<b>Actual</b>	<b>Committed</b>	<b>Total</b>
<b>Annual Renewable Electric Generation from Measures Installed or Committed to in 2007</b>			
kWh	200,071,000	80,469,000	280,539,000
kW	33,720	35,580	69,300
<b>Lifetime Renewable Electric Generation from Measures Installed or Committed to in 2007</b>			
kWh	2,318,838,000	1,379,370,000	3,698,208,000
<b>Cumulative Lifetime Renewable Electric Generation from Measures Installed or Committed to (2001-2007)</b>			
kWh	3,919,787,000	NA	3,919,787,000

Summary of generation that resulted from Combined Heat and Power systems installed or committed to in 2007:

<b>Electric Generation from 2007 Combined Heat and Power (CHP) Program</b>			
	<b>Actual</b>	<b>Committed</b>	<b>Total</b>
<b>Annual Electric Generation from systems Installed or Committed to in 2007</b>			
kWh	102,125,000	105,252,000	207,377,000
kW	4,925	13,685	18,610
<b>Lifetime Electric Generation from systems Installed or Committed to in 2007</b>			
kWh	1,225,505,000	1,263,019,000	2,488,524,000
<b>Cumulative Lifetime Electric Generation from systems Installed or Committed to (2001-2007)</b>			
kWh	1,349,762,000	NA	1,349,762,000

# Environmental Benefits

## New Jersey's Clean Energy Program is Reducing Pollution

By reducing energy use or promoting renewable sources of energy generation, New Jersey's Clean Energy Program reduces the need to generate electricity and burn natural gas and eliminates the pollution that would have been caused by such electric generation or natural gas usage. The benefits of these programs continue for the life of the measures installed, which, on average, is about 15 years. Thus, the public receives substantial environmental and public health benefits from programs that also lower energy bills and benefit the economy. The total reductions in carbon dioxide emissions resulting from New Jersey's Clean Energy Program in 2007 are equivalent to taking over 70,000 cars off the road for an entire year. These emission reductions will reduce our State's contribution to greenhouse gases, smog, and acid rain.

The following table summarizes the annual and lifetime emission reductions that result from the installation of energy efficiency and renewable energy measures installed in 2007:

<b>Emission Reductions</b>				
	<b>CO<sub>2</sub></b>	<b>NO<sub>x</sub></b>	<b>SO<sub>2</sub></b>	<b>HG (lbs)</b>
<b>Annual Emission Reductions (Metric Tons) from Measures Installed in 2007</b>	424,528	726	1,589	19
<b>Lifetime Emission Reductions (Metric Tons) from Measures Installed in 2007</b>	4,499,426	7,685	16,481	198
<b>Cumulative Lifetime Emission Reductions (Metric Tons) 2001-2007</b>	19,917,576	32,438	67,951	819

# Program Evaluation

The 2 primary purposes for conducting evaluation and research regarding energy efficiency and renewable energy programs are:

1. Reliably document program effects, and
2. Improve program designs and operations to be more cost effective at obtaining energy savings and/or renewable energy generation.

Evaluation and research activities are intended to provide continuous feedback to policymakers, program administrators, and program managers regarding the operations of the programs. The ultimate goal of evaluation and research activities is to improve the programs. Reports on program evaluation and other information are available on the NJCEP website, [www.NJCleanEnergy.com](http://www.NJCleanEnergy.com).

Research was performed in 2007 targeting business customers and trade allies. Market Strategies International, Inc. conducted a telephone survey of 177 New Jersey business customers and conducted 4 focus groups with business customers and trade allies (both participants and non-participants). This research demonstrated that in the past 2 years, New Jersey businesses have become more convinced that energy efficiency is an important business priority. In fact, 65% of respondents say that limiting or reducing energy usage in their business is “very important,” compared to 48% in a similar survey conducted in 2005. But business interest in energy efficiency is bottom line-driven: 82% cite motivations that are economic or strategic, rather than environmental or social. Talking with business people about programs’ economic benefits in terms of payback period rather than return on investment appears to be more intuitive and impactful.

Business leaders’ familiarity with renewable energy/clean power has increased, but the percentage who say that using renewable energy is important has not significantly changed. Familiarity with renewable energy/clean power has increased markedly since 2005. Today, 71% say they are familiar with these concepts, while only 56% did 2 years ago. However, in contrast to energy efficiency, the perceived importance of using renewable energy in the business has increased only slightly. This discrepancy appears to result from the fact that clean power lacks the immediate bottom line benefit that business people associate with energy efficiency. Many see saving money through energy efficiency as a fundamental business priority; using renewable energy is viewed as a good thing to do, but much less critical from a business perspective. Unless incentives or cost reductions assure that clean power has a meaningful bottom line payoff, it may be difficult to persuade businesses that clean power is as important as efficiency.

State of New Jersey activities in support of energy efficiency and clean power enjoy widespread awareness and support among business people. A key positive finding is that awareness of existing programs to help New Jersey businesses with energy efficiency and clean power has more than doubled since 2005.

# Looking Forward to 2008

New Jersey's Clean Energy Program is looking forward to another exciting year in 2008. A number of new projects and programs are being implemented to achieve the Clean Energy Program's goals:

- **Whole House and Whole Building Approach to Energy Savings.** New Jersey's Clean Energy Program encourages homeowners and businesses to take a whole building approach to energy savings by looking at the building's total energy performance and then combining energy efficient and renewable energy measures to maximize savings. Residents can take advantage of a new program called **Home Performance with ENERGY STAR** which provides an energy assessment and recommends energy efficiency improvements that can save up to 30% in energy usage. Businesses will soon be able to take advantage of new **Direct Install** and **Pay for Performance** programs that offset the up-front costs to make them more energy smart.
- **The Local Government Energy Audit will help our local communities maximize their energy savings.** Improving energy efficiency and conservation are essential to achieving environmental sustainability. They are the simplest ways to reduce greenhouse gas emissions and other forms of air pollution, such as acid rain and smog. Good energy management starts with an energy audit. The new program will offer qualifying municipalities and other government agencies incentives to subsidize the cost of performing an energy audit of their facilities. Participants will be able to request proposals from a list of approved contractors operating on a fixed-fee basis. The program will reimburse 75 percent of the cost of the audit and provide full reimbursement upon installation of all recommended upgrades.
- **New Solar Financing Programs** available through your local utility. On July 30, 2008, the BPU approved measures to enable your local electric utility company to offer residents and businesses solar financing on small and medium sized solar installations up to 500 kW. Under the new program, the local electric utility will offer financing to their customers based on the value of the solar renewable energy certificates, or solar credits, that are generated by new solar projects. This will make solar all the more accessible for residents, businesses, and community organizations that want to realize the benefits of solar but may not have the up-front capital to make the initial investment.
- **The CleanPower Community Partners** program offers communities a forum to participate in statewide clean energy campaigns to educate and help enroll residents, businesses, and municipalities in New Jersey's Clean Energy Programs and take advantage of valuable technical assistance and financial incentives. Community Partners receive support in their efforts to set clean energy goals, develop outreach plans, and educate residents about the economic and environmental benefits of clean energy and simple climate change solutions. The program will be expanding to provide more education and technical support in understanding the incentives that are available and increasing the number of **CleanPower** Community Partners across the state.

Stay tuned to see where New Jersey's Clean Energy Program is headed next year!



# Program Alliances

The success of New Jersey's Clean Energy Program is due in part to the many organizations, institutions, and alliances we work in partnership with to advance our clean energy initiatives. In addition to the organizations and institutions represented in the Clean Energy Council and Committees, New Jersey's Clean Energy Program works in partnership with a wide variety of state, regional, and national organizations that provide valuable input on clean energy standards, best practices, policies, and opportunities for collaboration and outreach to key constituencies.

- American Council for an Energy-Efficient Economy (ACEEE)
- Appliance Standards Awareness Project (ASAP)
- Business Council for Sustainable Energy
- Clean Energy States Alliance (CESA)
- Consortium for Energy Efficiency (CEE)
- Eastern Heating & Cooling Council (EHCC)
- Global Learning Inc.
- GreenFaith
- Mid-Atlantic Distributed Resources Initiative (MADRI)
- National Association of Regulatory Utility Commissions (NARUC) Energy and Environmental Resource Committee
- National Association of State Energy Officials (NASEO)
- National Conference of State Legislatures (NCSL) Renewable Energy Project
- National Council on Electric Policy (NCEP) Distributive Energy Resources
- New Jersey Citizen Action
- New Jersey Higher Education Partnership for Sustainability (NJHEPS)
- New Jersey Institute of Technology (NJIT) – High Performance Building Design
- Northeast Energy Efficiency Partnership (NEEP)
- Regional Greenhouse Gas Initiative (RGGI)
- The Rutgers' Hydrogen Learning Center
- US Department of Energy (USDOE), Clean Energy/Air Quality Integration Pilot
- US Department of Energy's Million Solar Roofs (MSR) Initiative
- US Environmental Protection Agency (USEPA) ENERGY STAR Program
- US Green Building Council – New Jersey Chapter (USGBC-NJ)
- USEPA Clean Energy – Environment State Partnership

# Contacts

## For more information about New Jersey's Clean Energy Program, visit:

[www.NJCleanEnergy.com](http://www.NJCleanEnergy.com) or [www.nj.gov/bpu](http://www.nj.gov/bpu)

### For additional information, please contact:

BOARD OF PUBLIC UTILITIES NEWARK OFFICE

Two Gateway Center (8th Floor)

Newark, NJ 07102

1-800-624-0241

OFFICE OF CLEAN ENERGY

P.O. Box 350

44 South Clinton Avenue

Trenton, NJ 08625

1-866-NJSMART

PROGRAM COORDINATOR

c/o Applied Energy Group

317 George Street, Suite 400

New Brunswick, NJ 08901

1-866-NJSMART

### You may also write to the individual Market Managers:

RESIDENTIAL MARKET MANAGER

c/o Honeywell

145 Route 46 West

Wayne, NJ 07470

1-866-NJSMART

COMMERCIAL & INDUSTRIAL MARKET MANAGER

c/o TRC Energy Services

900 Route 9 North, Suite 104

Woodbridge, NJ 07095

1-866-NJSMART

RENEWABLE ENERGY MARKET MANAGER

Honeywell, c/o Conservation Services Group

75 Lincoln Highway, Suite 100

Iselin, NJ 08830

1-866-NJSMART



New Jersey Board of Public Utilities, Office of Clean Energy





New Jersey's  
**Clean Energy**  
PROGRAM™

Your Power to Save

***njcleanenergy.com***

***New Jersey Board of Public Utilities***

New Jersey's Clean Energy Program is a statewide Program administered by the New Jersey Board of Public Utilities that promotes energy efficiency and renewable energy for all New Jersey ratepayers, including residences, businesses, schools, and municipalities.

For more information on incentives for clean energy technologies for your home or business, please visit: **[www.NJCleanEnergy.com](http://www.NJCleanEnergy.com)**

**1-866-NJSMART**

