

## SECTION 2.5

# **PRESERVING ENERGY-RELATED PUBLIC BENEFITS PROGRAMS**

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## **INTRODUCTION**

New York is continuing to support open and competitive energy markets while providing the opportunity for smaller energy customers to benefit from competition. New York's public-benefits program: (1) provide energy efficiency and related services to smaller customers and low-income households; (2) support development of markets for energy-efficient product manufacturing, stocking and sales; and, (3) support research and development (R&D) activities in renewable energy development, new product development and applications, and environmental protection. This Issue Report discusses the role of government in the developing competitive energy market, identifies and reviews the State's public benefits programs, assesses their effectiveness in meeting public policy goals, and reports on additional efforts that might be required to maintain necessary consumer-safeguards and provide benefits to smaller customers during the transition to competitive energy markets.

## **THE ROLE OF GOVERNMENT**

The responsibility for preserving public benefits for residential, low-income, small business, municipal, institutional, and educational energy customers during the transition to a competitive energy market lies with many energy industry participants, including government. Government must continue to ensure that energy markets are operating efficiently and that each energy user has access to available energy options. Government has been regarded by energy customers and energy industry participants as having a leadership role in facilitating market development, coordinating program design and delivery, and providing public benefits to low-income and other energy customers. In December 2000, the Center for Research and Public Policy (CRPP) issued a final report<sup>1</sup> to the New York State Energy Research and Development Authority (NYSERDA) that presented results of a *New York State Energy Competition Study*. The findings of this report provided input on New York's competitive energy markets, including the roles and need for continuing public benefits programs. As part of the study's focus, energy customers were provided with a definition of public benefits programs and then asked to

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<sup>1</sup> The Center for Research and Public Policy. *New York State Energy Competition Study*; prepared for the New York State Energy Research and Development Authority. December 2000.

rate the importance of each program. Over 90% of energy customers<sup>2</sup> surveyed rated programs to help low-income residents afford energy and programs for other energy customers such as elderly, blind, and disabled, as very important or somewhat important. When asked who should pay for such programs, energy customers identified: (1) government, (2) local utilities, and (3) competitive energy suppliers. Government was selected by a majority (over 50%) of energy customers, as the most appropriate to pay for both of these program types.

Another recent study, conducted by the American Council for an Energy-Efficient Economy (ACEEE), examined the role of private market actors (*e.g.*, Energy Service Companies - ESCOs, electricity commodity providers, and distribution utilities) in providing energy efficiency services.<sup>3</sup> In a study of nine key states,<sup>4</sup> ACEEE found that:

(1) There are major gaps in the market segments served by private market actors. In particular, they generally have demonstrated little interest in serving the residential and small commercial customer markets.

(2) The ESCO industry is intricately involved with, and supported by, existing government and regulatory policies and funding programs. Such programs have been a substantial influence on the creation of the ESCO industry and continue to play a major role in sustaining ESCO projects today. The ACEEE study focused on whether or not private market actors and forces could be relied on independently to achieve energy efficiency in the competitive energy market. Findings of the study suggest that government and regulatory policies and programs are necessary to provide energy efficiency, and would support, complement, and possibly enhance private market forces' ability to provide such services. As such, government-assisted programs maximize private sector efforts while ensuring certain public benefits are provided.

The CRPP study found that consumers rate government as the most appropriate provider of energy efficiency public benefits, especially to residential customers. The

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<sup>2</sup> Energy customers targeted through the survey included: general customers; African Americans; Hispanics; Switchers (customers who have switched energy suppliers); and Business.

<sup>3</sup> Kushler, Martin. Ph.D., and Patti Witte M.A. September 2001. *Can We Just "Rely on the Market" To Provide Energy Efficiency? An Examination of the Role of Private Market Actors in an Era of Electric Utility Restructuring*. American Council for an Energy Efficient Economy.

<sup>4</sup> These states are: Arizona, California, Connecticut, Illinois, Massachusetts, Michigan, New York, Pennsylvania, and Rhode Island. These states were selected by ACEEE for the study because they were early implementors of electric restructuring. These states were also selected by ACEEE because they provide geographic diversity and a wide range of restructuring policies in terms of "public benefit" funding for energy efficiency.

ACEEE study affirms private market actors' recognition that the role of government as the vehicle for delivering energy efficiency programs, especially to residential and small commercial customers, is beneficial to their sustained business practices.

### New York State Role

New York State government plays an objective and active role in administering public benefits programs. The State studies the patterns, trends, and behaviors of energy customers lacking market influence, such as low-income households, looking for cost-effective opportunities to better serve their needs. The common goals that the State uses as guidelines to build its network of public benefits programs is presented in Table 1.

To address their energy needs, it is necessary to understand how these customers are currently being served by public benefits programs. The State coordinates public benefits efforts by balancing and aligning the interests, needs, and goals of residents and businesses. Aligning goals requires the State to support: (1) technology development and transfer; (2) information and education; (3) policy development and analysis; (4) market support, including infrastructure development; and (5) collaboration through the formation of strategic public and private alliances while facilitating stakeholder interests. Figure 1 summarizes this interaction.

**Table 1. New York State's Public Benefits Program Goals**

<ol style="list-style-type: none"><li>1. Improve access to energy efficiency initiatives.</li><li>2. Improve energy customer access to energy options (e.g., renewable resources, "green" power).</li><li>3. Reduce the environmental impacts of energy production and use via energy efficiency and R&amp;D initiatives.</li><li>4. Facilitate competition for energy efficiency and energy options to benefit a larger number and variety of end-users.</li><li>5. Improve system-wide electricity reliability, energy efficiency, and environmental benefits through end-user actions.</li><li>6. Facilitate the provision of affordable energy, including affordable rates and other payment</li></ol>
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Energy customers in New York with less market influence require government assistance largely because competitive market forces have not yet fully addressed their energy needs. Their energy needs include: access to safe, reliable, and affordable energy options; energy commodity price protection; assistance with energy information and education; and enhanced public health and safety protections. Numerous market barriers exist, and must be addressed and overcome for these customers to have greater market representation. Market barriers that are faced by these energy customers, and that provide the justification for government assistance, include:

Lack of market influence;

Insufficient market and technology information available to energy customers;

Lack of awareness of energy service options, available technology choices, and energy savings potential and opportunities;

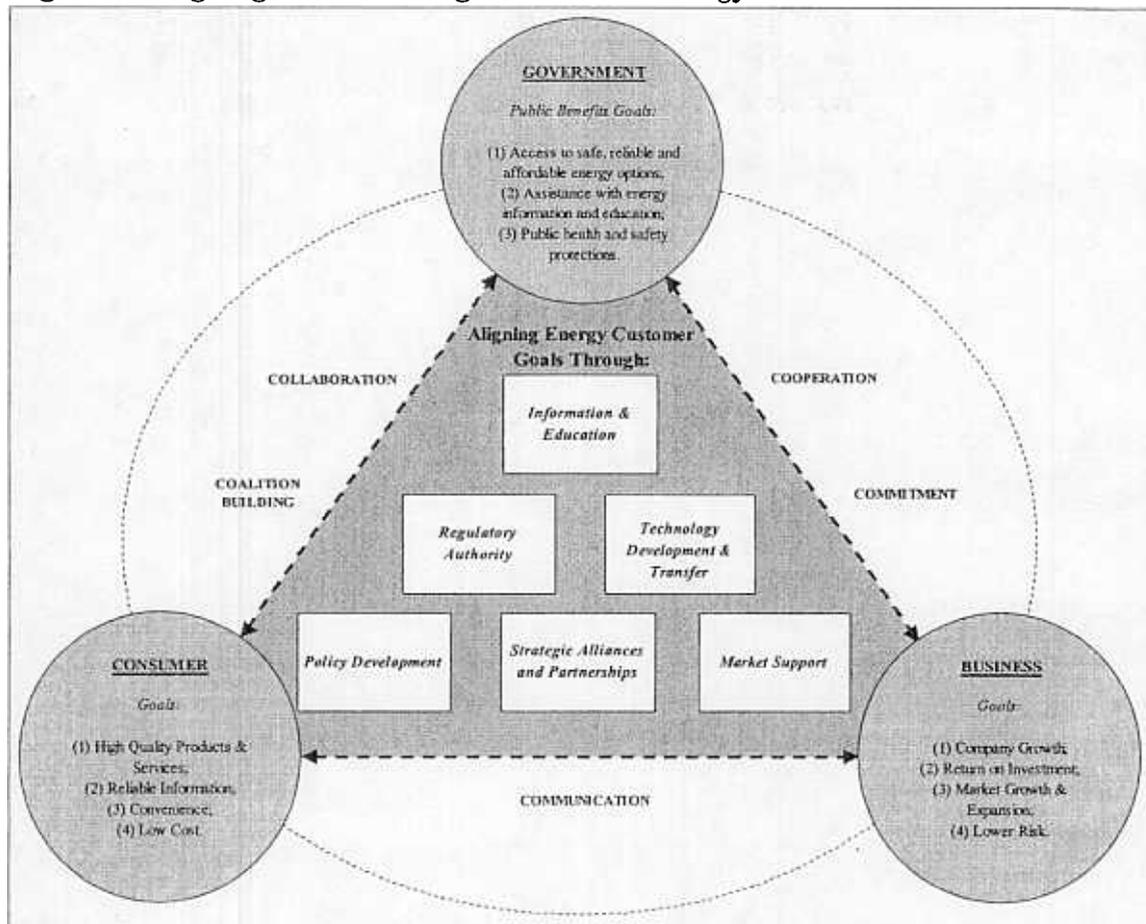
A high energy burden (the proportion of income devoted to energy costs);

An underdeveloped residential and small business energy efficiency services infrastructure;

Lack of interest on the part of energy efficiency services providers; and,

Energy-efficient products in retail stores are in short supply or are not promoted.

**Figure 1. Aligning and Balancing the Goals of Energy Customers**



## **NEW YORK'S PUBLIC BENEFITS PROGRAMS**

### **The Evolution of Public Benefits in New York**

Prior to electric utility restructuring in New York, public benefits programs were provided by utilities, local, State and Federal governments, and not-for-profit and community-based organizations (CBOs). The earliest investor-owned utility program for low-income customers in the State was approved by the Public Service Commission (PSC) in 1988. The program, a pilot project entitled the Power Partnership Pilot, was administered by the Niagara Mohawk Power Corporation. The design of this program, which tested the utility company's ability to provide comprehensive energy efficiency services to low-income customers, influenced the design of future programs. Prior to 1988, low-income programs in New York were funded by the Federal government including the Low-Income Home Energy Assistance Program (LIHEAP) and the Weatherization Assistance Program (WAP). Both programs were administered by the New York State Department of State. The first statewide comprehensive program targeting low-income customers, referred to as the Utility Low-Income Energy Efficiency Program (ULIEEP), was implemented shortly after the Niagara Mohawk pilot.<sup>5</sup> This program was established in June 1991, and gas and electric utilities in New York provided energy efficiency services, including weatherization, to low-income customers for three years. As the State initiated electric industry restructuring, and as competitive market forces began to emerge, the government's role in providing services to low-income and other energy customers lacking market influence, was revisited. Mindful that a competitive energy market might reduce services to these customers, the System Benefits Charge (SBC) public benefits program was created.

### **The Current State of Public Benefits in New York**

Nationally, public benefit funding for energy efficiency programs is underway in over two dozen states. The purpose of these programs is to ease the transition to full electric retail competition by continuing to support energy efficiency, environmental protection, renewable resource development, and public benefit R&D. In New York, public benefits programs are provided by public and private entities including: investor-owned utilities, not-for-profit organizations, public benefits corporations, and corporate instrumentalities of the State. Funding for public benefits programs comes from federal, State, and private sources. In New York, these programs are working to support the development of the market for energy-efficient goods and services and are supporting

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<sup>5</sup> New York State Public Service Commission. April 3, 2001. Case 00-M-0504. Concepts, Issues, and Views of the Future: Report of the Parties' Collaborative Efforts.

R&D activities directed toward renewable energy development, new product development and applications, and environmental protection.

Since the release of the 1998 State Energy Plan<sup>6</sup>, public benefits programs have made great strides in achieving their purpose. A sample of the accomplishments achieved include:

The State has successfully created a SBC program to fund energy efficiency, energy research and development, environmental protection, and low-income programs during its transition to competition.

The New York Power Authority (NYPA) and Long Island Power Authority (LIPA), are supplying low-cost electricity to government, industrial and commercial customers, municipal and rural electric corporations, and investor-owned utilities. NYPA has been a major contributor to creating and retaining jobs in the State, while LIPA has provided comprehensive energy efficiency services on Long-Island.

The WAP continues to be an important component to the State's strategy to improve the energy affordability of low-income energy customers, and has provided significant energy savings to its customers.

The State continues to monitor, track, and respond to energy customer needs and works to ensure that they have necessary and appropriate consumer protections. For example, the PSC requires that ESCO's offer reasonable consumer protections.<sup>7</sup> The PSC has many proceedings underway that deal with consumer protections and safeguards, and how energy customers may be best served by the developing competitive energy market.

The State has initiated environmental disclosure labeling<sup>8</sup> on electric utility bills. Such disclosure, required to appear at least twice annually, is instrumental in allowing consumers to make informed choices about their energy sources.

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<sup>6</sup> New York State Energy Plan and Final Environmental Impact Statement. November 1998.

<sup>7</sup> Reasonable consumer protections identified by the PSC includes: a statement disclosing the ESCO's complaint resolution process; a 15 day notice before discontinuing service; choice of service from another ESCO or the utility when an ESCO discontinues service; clear procedures for switching suppliers; and convenient complaint handling.

<sup>8</sup> The NYS PSC approved an environmental disclosure program for State consumers in 1998. Environmental disclosure labeling allows consumers to see the percentage of their electricity that comes from biomass, coal, natural gas, oil, hydro-electric, nuclear, solar, solid waste, and wind. The label is required to be provided twice during every twelve-month period, and provides information on nitrogen oxide, sulfur dioxide, and carbon dioxide emissions to consumers, comparing these emissions to a statewide average.

The remainder of this Section will discuss these and additional public benefits program accomplishments in greater depth.

**Public and Private Utility-Sponsored Programs**

Low-income public benefits programs in New York are provided by public authorities, utilities, and State agencies. Some of New York’s utilities continue to offer arrearage reduction programs to low-income customers while also contributing to the State SBC program. Table 2 displays the utility-sponsored public benefits programs in New York targeted to low-income customers.

<b>Table 2. Public and Private Utility Sponsored Public Benefits Programs in NYS</b>	
<b>Utility-Run Low-Income Program</b>	<b>Targeted Customers/ Typical Services Provided</b>
<p><b>Consolidated Edison Company of New York, Inc.</b></p> <p><u>Total funding:</u> <i>\$6.4 million annually</i></p>	<p><u>Consolidated Edison Company of N.Y., Inc. Low-Income Plan.</u> Targets electric customers. The program objective is to reduce energy bills and promote energy efficiency for low-income customers.</p> <p><u>RESULTS.</u> The Low-Income Plan program has saved an estimated \$1.8 million on electric bills for Direct Vendor customers since program inception in April 1996. As of May 31, 2000:</p> <ul style="list-style-type: none"> <li>• 21,473 Direct Vendor customers were participating;</li> <li>• 1,521 refrigerators have been replaced for SSI or HEAP customers; and,</li> </ul>
<p><b>Keyspan Energy</b></p> <p><u>Total funding:</u> <i>\$2 million annually</i></p>	<p><u>Residential Reduced Rate (RRR).</u> Program targets natural gas customers. The objective is to increase the affordability of natural gas customers. In addition, the program provides a benefit to all ratepayers by reducing the uncollectible balances and associated costs.</p> <p><u>RESULTS.</u> There are 20,000 active participants in the RRR program.</p>
<p><b>National Fuel Gas (NFG)</b></p> <p><u>Total funding:</u> <i>\$2 million annually</i></p>	<p><u>Low Income Residential Assistance (LIRA).</u> Targets natural gas customers. The program objective is to change the payment behavior of participants and to provide benefits to all ratepayers by reducing the uncollectible balances and associated costs.</p> <p><u>RESULTS.</u> The LIRA program has 1,874 active participants of which 69% are currently paying their bills on time. Debt forgiveness for the program has exceeded \$2 million and conservation credits exceed \$80,000.</p>

**Table 2. Public and Private Utility Sponsored Public Benefits Programs in NYS**

Utility-Run Low-Income Program	Targeted Customers/ Typical Services Provided
National Fuel Gas (NFG) <i>Cont.</i>	<p><u>Public Assistance Cooperative for Energy (PACE)</u>. Targets natural gas customers. The objective of the program is to provide the benefits of competition to low-income, payment-troubled customers by offering the opportunity to reduce energy costs.</p> <p><u>RESULTS</u>. Program has saved Erie, Chautauqua, and Niagara counties in excess of \$1.4 million.</p>
National Fuel Gas (NFG) <i>Cont.</i>	<p><u>Elderly, Blind or Disabled Payment Troubled Residential Assistance (EBDPTRA)</u>. Program targets natural gas customers. The objective of the program is to change the payment behavior of participants and to ensure the health and safety of “under-served” customers. In addition, the program provides benefits to all ratepayers by reducing the uncollectible balances and associated costs.</p> <p><u>RESULTS</u>. The EBDPTRA program has:</p> <ul style="list-style-type: none"> <li>• 265 active participants of which 91% are paying on time;</li> <li>• Spent over \$84,000 on energy audits, large dial thermostats, heating repair/replacement, and insulation of participant residences.</li> </ul>
<p><b>New York State Electric and Gas Corp. (NYSEG)</b>  <u>Total funding:</u>  <i>\$6.25 million annually (\$1.25 million capped for the Gas Affordable Energy Program)</i></p>	<p><u>Power Partner Program</u>. NYSEG offers its ‘Power Partner’ program to low-income and elderly energy customers throughout their service territory who want to reduce their energy bills, thereby becoming more financially self-reliant.</p> <p><u>RESULTS</u>. NYSEG anticipates serving 22,500 customers through its Power Partner program. As of May 31, 2000:</p> <ul style="list-style-type: none"> <li>• 16,067 customers enrolled in Power Partner;</li> <li>• 1,817 received new refrigerators;</li> <li>• 596 had their water heater replaced or converted;</li> <li>• 668 received energy audits; and,</li> <li>• 1,019 had their heating systems upgraded.</li> </ul>
New York State Electric and Gas Co. <i>Cont.</i>	<p><u>NYSEG Gas Affordable Energy Program</u>. The program objective is to make natural gas more affordable for customers. Offers a reduced service charge to all participants. Participants pay a \$6.40 per month service charge whereas sales service non-participants will have minimum charges of \$10.00 or \$14.00 per month, and aggregation non-participants will have a minimum charge of \$13.00 per month.</p> <p><u>RESULTS</u>. Program is fully subscribed, and is anticipated to serve 13,500 customers.</p>

**Table 2. Public and Private Utility Sponsored Public Benefits Programs in NYS**

Utility-Run Low-Income Program	Targeted Customers/ Typical Services Provided
<p><b>Niagara Mohawk Power Corp. (NMPC)</b></p> <p><u>Total funding:</u> \$5 million annually</p>	<p><u>The Affordability Program.</u> Targets electric and gas customers who are not on temporary assistance who have a documented “inability to pay” for their full energy costs. The program provides participants with a negotiated maximum monthly partial payment, energy use management education, and arrears forgiveness (50% up to a maximum of \$250 annually). Energy efficiency services may also be provided, depending upon customer need. Services include: weatherization services, refrigerator replacement,</p>
<p>Niagara Mohawk Power Corporation, <i>Cont.</i></p>	<p><u>Onondaga County DSS Gas Aggregation Project.</u> Targets natural gas customers. The project seeks to make energy more affordable for participants by obtaining supply at lower cost and by packaging energy efficiency services to lower overall customer use</p>
<p>Niagara Mohawk Power Corporation, <i>Cont.</i></p>	<p><u>County Gas Aggregation Grant Program.</u> Targeted to natural gas customers. The objective of the program is to encourage the aggregation of low-income consumers within NMPC service territory by providing funding to counties for consultant services and other assistance to develop gas aggregation initiatives that target low-income customers.</p> <p><u>RESULTS.</u> Not Available.</p>
<p><b>Orange and Rockland Utilities, Inc.</b></p> <p><u>Total funding:</u> \$0.4 million annually</p>	<p><u>Orange and Rockland Utilities, Inc. Energy Saving Partners.</u> Targets gas and electric customers in the 12771 zip code. The program objective is to reduce energy bills and promote energy efficiency for low-income customers. The program achieves this through its refrigerator replacement and arrears forgiveness efforts.</p> <p><u>RESULTS.</u> The ORU Energy Saving Partners program has:</p> <ul style="list-style-type: none"> <li>• Installed 51 refrigerators; and</li> <li>• Provided arrears forgiveness and/or weatherization for 40 customers.</li> </ul> <p>ORU also operates an aggregation program.</p>
<p><b>Rochester Gas and Electric Corp.</b></p> <p><u>Total funding:</u> \$0.5 million annually</p>	<p><u>Low-Income Assistance Partnership Program.</u> Provides customers assistance (lowered monthly payments, arrears forgiveness, and budget and energy efficiency counseling). Also provides a weatherization grant program.</p>
<p><b>TOTAL \$23.1 million annually</b></p>	<p><b>Estimated Annual Expenditure From Utility-Run Low-Income Program in New York State.</b></p>

## **Local, State, and Federal Public Benefits Programs in New York**

**New York State System Benefits Charge.**<sup>9</sup> The SBC program in New York was established in 1996 by the PSC.<sup>10</sup> In January 1998, NYSERDA was designated as the program administrator. NYSERDA has designed, developed, and implemented a broad portfolio of programs, collectively named the **New York Energy Smart<sup>SM</sup>** Program, to administer public benefits including energy efficiency, low-income services, R&D, and environmental protection during the State's transition to electric retail competition.<sup>11</sup> In February 2001, the PSC affirmed the continuation of the SBC program, with additional provisions, for a period of five years. Funding was set at approximately \$150 million per year. Of this annual budget, approximately 14.1% will be allocated to low-income customers, 8.7% to residential customers, 3.6% to municipal and institutional customers, and 3.0% to small business customers. In addition to these programs, 2.9% was allocated to energy efficiency and strategic research and development (R&D) initiatives, 1.9% was allocated to environmental monitoring and analysis efforts, 9.1% was allocated to renewable energy technologies, and 9.1% was allocated to distributed generation and combined heat and power energy applications. The SBC program was continued, in part, because it was recognized that market inefficiencies, including the inequitable distribution of electricity and load constraints, require government assistance in the form of public benefits initiatives. The success of the SBC program in New York helped to confirm that public benefits programs can be implemented in a cost-effective manner. Results indicate that the SBC program is meeting needs and delivering benefits that would otherwise not be available to energy customers in New York that have less market influence and unique energy needs.<sup>12</sup>

The **New York Energy Smart<sup>SM</sup>** Program benefits all energy customers, but especially those who have less market influence or who have more specialized energy

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<sup>9</sup> For a full description of New York Energy Smart<sup>SM</sup> Program initiatives funded through the SBC Program, refer to, New York State Energy Research and Development Authority. March 15, 2002. System Benefits Charge: Revised Operating Plan for New York Energy Smart<sup>SM</sup> Programs (2001-2006); pursuant to PSC Order Issued and Effective July 3, 2001.

<sup>10</sup> New York State Public Service Commission. Cases 94-E-0952 *et al.* In the Matter of Competitive Opportunities Regarding Electric Service, Opinion No. 96-12, *Opinion and Order Regarding Competitive Opportunities for Electric Service*. Issued and effective May 20, 1996.

<sup>11</sup> New York State Public Service Commission. Cases 94-E-0952 *et al.* In the Matter of Competitive Opportunities Regarding Electric Service, Opinion No. 98-3. *Opinion and Order Concerning System Benefits Charge Issues*. Issued and effective January 30, 1998.

<sup>12</sup> New York State Energy Research and Development Authority. *New York Energy Smart<sup>SM</sup> Program Evaluation and Status Report: Report to the System Benefits Charge Advisory Group*. September 2000.

needs. As shown in Table 3, the **New York Energy Smart<sup>SM</sup>** Program, through its portfolio of Energy Efficiency, Low-Income, and Research and Development programs, has achieved about 1,000 GWh in annual electricity savings. These energy savings translate into emissions reductions of 1,111 tons of NO<sub>x</sub>, 1,827 tons of SO<sub>2</sub>, and 829,559 tons of CO<sub>2</sub>. Collectively, the annual CO<sub>2</sub> reduction is equivalent to removing approximately 165,000 automobiles from New York's roadways.

<b>Table 3: Summary of New York Energy Smart<sup>SM</sup> Program Results</b>		
<b>Outcomes</b>		<b>Anticipated from Program Funds Committed as of 12/31/01</b>
Annual Electricity Savings*		1,004.9 GWh
Summer Peak Demand Reduction Potential (MW)**		561.9 MW
Energy Generation from Renewable Energy		105.1 million kWh
Oil and Gas Savings (tBtu)		5.3 tBtu
Annual Energy Bill Reductions - all fuels***		\$152.2 million
Environmental Benefits (emission reductions)	NO <sub>x</sub> (tons per year)	1,111
	SO <sub>2</sub> (tons per year)	1,827
	CO <sub>2</sub> (tons per year)	829,559
Economic Benefits	Jobs Created (jobs created or retained in New York per year)	2,900

\* Based on an eight-year program budget of \$915.6 million.

\*\* Including energy efficiency measures, curtailable load, and clean generation from wind and PV

\*\*\* Includes bill savings from electricity, oil, and natural gas.

The cost savings from reduced energy use (from electricity, oil, and natural gas bills) is expected to be approximately \$152 million per year, leading to the creation or retention of about 2,900 jobs in New York's services and retail trade industries.<sup>13</sup> Additionally, 562 MW of summer peak demand reduction has been achieved by the Program.<sup>14</sup>

<sup>13</sup> These jobs will be supported annually for as long as the implemented energy efficiency measures remain in effect.

<sup>14</sup> New York State Energy Research and Development Authority. *New York Energy Smart<sup>SM</sup> Program Evaluation and Status Report: Quarterly Report to the New York State Department of Public Service; For the Quarter Ending December 31, 2001*. Results are based on New York Energy Smart<sup>SM</sup> funds awarded through December 31, 2001. Energy savings include clean generation from wind and PV generation sources.

**New York Power Authority.** Created in 1931, NYPA serves New York as a non-profit, public benefit energy corporation. It provides low-cost electricity to government agencies, municipally-owned electric systems and rural electric cooperatives, job-producing companies and non-profit institutions, private utilities for resale without profit to their customers, and neighboring states under federal requirements. In 2000, NYPA supplied 22% of New York's electricity. NYPA does not use tax revenues or State credits. It finances its projects through bond sales to private investors.

NYPA's public benefits programs include energy services that assist consumers to enhance their energy efficiency. NYPA's Energy Services Programs (ESP) began a decade ago. By 2001 NYPA had completed more than 1,000 energy efficiency projects in public schools, colleges and universities, and governmental facilities across the State. These projects produce annual energy bill savings of more than \$70 million. They reduce electricity consumption by nearly 720,000 MWh each year and lower peak load demand by 166 MW. NYPA's energy services projects reduce greenhouse gas emissions by nearly 500,000 tons annually. Among NYPA's energy efficiency projects is its Refrigerator Replacement Initiative partnership with the New York City Housing Authority (NYCHA), cofunded by NYSERDA, U.S. Department of Energy (DOE), and the Consortium for Energy Efficiency (CEE). The program has annually replaced 25,000 refrigerators with models that use one-third the electricity. NYPA estimates that by 2003, the program will replace 181,000 old refrigerators with new energy-efficient models. NYPA also administered the Clean Air for Schools Program, funded with \$125 million from the Clean Water/Clean Air Bond Act of 1996 and \$12.5 million in NYPA funds. The program replaced coal-burning furnaces in New York City public schools with cleaner natural gas and oil-fueled boilers, resulting in the elimination of over 911,200 pounds of emissions annually.<sup>15</sup>

**Long Island Power Authority.** LIPA was created in 1986 as a corporate municipal instrumentality of the State. It was established to provide lower utility rates on Long Island and to assume decommissioning responsibility for the Shoreham Nuclear Power Plant. LIPA provides a portfolio of energy efficiency programs to electricity customers on Long Island through its Clean Energy Initiative (CEI).<sup>16</sup> The CEI began in 1999 and is a five-year, \$170

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<sup>15</sup> The 911,200 pounds of air emission reductions constitute: 576,000 pounds of SO<sub>2</sub>; 106,400 pounds of NO<sub>x</sub>; 225,800 pounds of particulate matter (PM) and 3,000 pounds of volatile organic compound (VOC).

<sup>16</sup> Long Island Power Authority. *Clean Energy Initiative: As Approved by the LIPA Board of Trustees.* May 3, 1999.

million effort targeted at achieving energy and capacity savings for LIPA, delivering electric bill savings to customers, and providing environmental benefits to society. The CEI program funds residential and non-residential programs geared toward addressing energy efficiency, peak load reduction, clean distributed generation, and renewable energy technologies. In 2000, the CEI program achieved: 51,781 MWh in total energy savings, a 70 MW reduction in peak energy needs; \$5.5 million in energy bill savings for 145,000 program participants; and, emission reductions of 184.7 tons of NO<sub>x</sub>, 46.5 tons of SO<sub>2</sub>, and 54,179.8 tons of CO<sub>2</sub>.<sup>17</sup> LIPA administers a Residential Energy Affordability Partnership (REAP) program through the CEI program. LIPA's REAP program is dedicated to improving energy affordability for low-income households through the direct installation of a comprehensive set of cost-effective energy efficiency measures, extensive energy education and counseling, and an energy bill arrearage reduction plan. LIPA's REAP program funding averages \$2.25 million annually.<sup>18</sup> In 2000 the REAP program achieved 0.2 MW of peak demand reduction and achieved 2.4 GWh in annual energy savings.<sup>19</sup> Refer to Section 3.2, Energy Efficiency Assessment, for further detail on LIPA's CEI program.

**Weatherization Assistance Program.** The WAP is federally-authorized and funded through the U.S. DOE. Funding is used to assist low-income persons, particularly the elderly, handicapped, and families with young children, and to reduce energy consumption, while minimizing the impact of higher fuel cost on low-income families. In New York, the Office of Temporary and Disability Assistance (OTDA) receives an allocation from the U.S. Department of Health and Human Services to fund the WAP statewide. The WAP is administered by the New York State Department of Housing and Community Renewal (DHCR). Weatherization services provided through the WAP program are identified by on-site energy audits that includes a life-saving health and safety test, and an analysis of fuel consumption and lifestyle. Since its inception in 1977, the WAP has weatherized more than 400,000 dwellings or 26.7% of the estimated eligible units. It has been estimated that 1.5 million dwelling units are eligible for the WAP. Servicing these could result in vast energy savings and environmental benefits, plus more affordable energy to those who occupy the dwellings. Between 1990-2000, the WAP allocated over \$429 million to sub-grantees of the

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<sup>17</sup> These results are based upon an Clean Energy Initiative program expenditure of \$29.8 million through December 2000

<sup>18</sup> The \$2.25 million average annual budget for LIPA is based upon an average for their 1999 and 2000 annual budgets. In 1999 LIPA afforded \$1.37 million to its REAP program, and in 2000 \$3.12 million was allocated.

<sup>19</sup> Long Island Power Authority. *Clean Energy Initiative, Draft Biennial Report*. June 2001

program. Over this time period, the WAP achieved 40 TBtu of cumulative annual energy savings in one-to-four family and multi-family dwellings. For the 2001 program year, an estimated \$45.4 million<sup>20</sup> will be available for the New York WAP. Estimated energy savings for the 2001 WAP year have been estimated to be 29.4 MMBtu (average annual energy savings per unit in multi-family buildings). One-to-four family buildings have been projected to achieve an average annual energy savings of 45.5 MMBtu per unit. Table 4 presents an estimated savings summary for WAP housing in NYS for the 2001 program year.

### **State Regulation and Consumer Protections**

New York's residential and low-income customers are protected from monopolistic and anti-competitive market behavior through regulatory protections. As energy competition in the State advances, and as the State furthers deregulation activities, ongoing preservation and evaluation of existing consumer protection laws and regulations is required. The Home Energy Fair Practices Act is one example of how consumers may continue to be protected.

**Home Energy Fair Practices Act (HEFPA).** The HEFPA provisions of the New York State Public Service Law are designed to provide protections to energy customers in their relationships with utilities, which until recently were the sole providers of electricity and gas services. The Act "...establishes as State policy that the continued provision of gas, electric and steam service to residential customers without unreasonable qualifications or lengthy delays is necessary for the preservation of the health and general welfare and is in the public interest."<sup>21</sup> The Act was signed into law in 1981 and was permanently approved by the PSC in 1982. The HEFPA affords consumer protections through its provisions regarding termination and restoration of utility service, as well as on payment agreements between an energy customer and utility. The Act specifies the circumstances in which protections shall be provided by utilities to energy customers.

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<sup>20</sup> These 2000 and 2001 WAP Program figures include carry-over funds from prior years.

<sup>21</sup> Home Energy Fair Practices Act, Rules. Part 11. Public Service Law, art. 2 §§§§4(1), 30-51, 66, 80(1)).

**Table 4. WAP Savings Summary, 2001 Program Year**

Savings Summary	Housing Type		Total
	Multi (>4 Units)	1-4 Units	
average savings / unit heating	29.4 MMBtu	45.5 MMBtu	
average savings / unit electric	615 kWh	1230 kWh	
units to be weatherized in 2001 program year	2,718	3,323	6,041
average savings / unit <sup>a</sup> heating and electric	\$1.14 million	\$2.29 million	\$3.43 million
savings <sup>b</sup> after 15 years heating and electric	\$17.1 million	\$34.35 million	\$51.45 million
average WAP cost per unit	\$2,000	\$2,250	\$2,125
savings per unit of life of installed measures <sup>c</sup>	\$6,300	\$10,320	
benefit/cost savings to investment ratio	3.15	4.59	
<sup>a</sup> Based on an estimate of \$11.50/MMBtu average for the fuel mix in NYS; and \$0.134/kWh average electric rate. <sup>b</sup> In 2000 dollars.			

Source: NYS Division of Housing and Community Renewal, Energy Services Bureau. *Weatherization Assistance Program; State Plan: 2001 Program Year, April 1, 2001 - March 31, 2002.*

The emergence of a competitive energy market, including the entrance and influence of new market participants such as ESCOs, may warrant a review of the language and provisions of HEFPA. As energy service providers, ESCOs operate under the rules of a competitive energy market and can replace the traditional roles of incumbent utilities, but the utilities are providers of last resort (POLR) under the rules and regulations of HEFPA.

**Public Benefits Programs and Partnerships**

New York is working to overcome barriers associated with the transition to more competitive energy markets and the existing limitations of these markets, so that energy customer needs might be effectively served. The State leverages its efforts with community-action groups, businesses, and other stakeholders through the use of strategic partnerships. Partnerships provide additional resources and a longer-term

commitment toward reducing or overcoming market barriers. In 1997 New York began a statewide dialogue on low-income energy affordability issues. The Low-Income Forum on Energy (LIFE) serves as a medium for exchanging information on best practices in program delivery and identifying problems and solutions, to providing services to the low-income sector. The LIFE forum has attracted energy market participants that have an interest in serving low-income customers and in solving the problems associated with doing so. Representatives from New York State agencies, utility companies, energy service companies, not-for-profit and consumer advocacy groups, independent living centers, energy cooperatives, credit unions, State Assembly and Senate representatives, and community action agencies, among many others, have participated in LIFE conferences and dialogue. All of these organizations have designed their programs to produce benefits to low-income residents; however, the lack of a concerted program design and evaluation effort inhibits the realization of these benefits and actually furthers the energy burden of lower-income residents. This situation has been recognized by low-income service advocates and leaders in New York and in other States wanting to better serve low-income energy customers.<sup>22</sup> The following lessons and recommendations resulted from the November 2000 LIFE Conference in Albany, New York:<sup>23</sup>

Existing agency relations and activities should be coordinated and centralized.

There should be a centralized database of information on low-income programs and services in the State that can be accessed by workers to more effectively refer low-income customers to them.

Consistent information regarding customer protection issues, reliability issues, and energy bill arrearages, is needed from regulators, agency networks, and utilities that delivers an accurate message to customers.

To promote aggregation, additional outreach is essential to inform municipalities, not-for-profits, and county governments.

Involvement by community-based organizations is necessary for programs to succeed.

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<sup>22</sup> Colton, Roger D., Fisher, Sheehan & Colton; Public Finance and Economics. September 2000. "Outreach Strategies for Iowa's LIHEAP Program: Innovation in Improved Targeting". Prepared for: Iowa Department of Human Rights, Des Moines, Iowa.

<sup>23</sup> Low-Income Forum on Energy (LIFE) 2000 Fall Conference. November 16 and 17, 2000. Albany, New York. *LIFE Work Groups Summary of Recommendations*.

In addition to the LIFE process, the State has taken steps necessary to ensure that public benefits programs are better coordinated. Most recently, a catalog of publicly-available energy assistance programs used in the rehabilitation or new construction of public housing has been created, and is used by public housing officials, managers, and technical assistance providers in identifying and accessing such programs and their incentives.<sup>24</sup>

## **CONTINUING ENERGY-RELATED PUBLIC BENEFITS PROGRAMS**

Providing public benefits programs in the future will require that customer needs are continuously identified and evaluated. In addition, strategic R&D and renewable technologies that have potential to serve public needs and provide benefits to ratepayers, should continue to be evaluated and promoted. Administrators of public benefits programs including LIPA, NYPA, NYSERDA, and the State and Federal government have put programs in place to continue to provide public benefits through the transition to competition and beyond.

**Governor's Executive Order 111.** The energy needs and requirements of municipal and institutional energy customers can be met through market-based and government-sponsored programs. In June 2001, Governor Pataki issued Executive Order 111 requiring that all State agencies, departments, and authorities seek a 35% reduction in energy use by 2010, relative to their energy use in 1990. In addition, each agency, department, and authority is directed to purchase 10% of its energy from renewable energy sources by 2005, increasing to 20% by 2010. Compliance with the Order by local governments and school districts is being actively encouraged. By seeking to reduce its own energy use, improve its energy efficiency, and improve its environment, New York is striving to eliminate barriers to energy efficiency and become a national leader in energy efficiency and environmental policy. The State will provide technical support and assistance to meet these goals.

**System Benefits Charge Program.** The PSC approved NYSERDA's Proposed Operating Plan for New York Energy Smart<sup>SM</sup> Programs (2001-2006).<sup>25</sup> This five-year operating plan outlines the various energy efficiency, low-income, and research and development initiatives that would be publicly funded and administered with the

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<sup>24</sup> Hamilton, Rabinovitz & Alshuler. 2001. Resources for Energy Efficiency Rehabilitation of Multi-Family Publicly Assisted Housing: A Catalog of Programs.

<sup>25</sup> New York State Energy Research and Development Authority. February 15, 2001. Systems Benefits Charge. Proposed Operating Plan for New York Energy Smart<sup>SM</sup> Programs (2001-2006).

intention to: (1) improve system-wide reliability through end-user efficiency actions; (2) reduce environmental impacts of energy production and use; (3) facilitate competition to benefit end-users; and (4) improve energy efficiency and access to energy options for under-served customers. Through the 2006 period the **New York Energy Smart<sup>SM</sup>** Program anticipates achieving 3,500 GWh in electricity savings and more than 1,000 MW in peak demand savings.

**Clean Energy Initiative.** In May 1999, the LIPA's Board of Trustees approved a five-year \$170 million Clean Energy Initiative. Described earlier in this Issue Report, and provided in greater detail in the Energy Efficiency Assessment, Section 3.2, the Clean Energy Initiative provides energy efficiency programs and research and development efforts for customers on Long Island. The CEI Program concludes in 2004. During its five-year operational period, the Program anticipates achieving over 300 GWh in electricity savings and more than 170 MW in peak demand reduction.

**Energy Services Program.** NYPA's Energy Services Program will continue to provide energy efficiency services into the future. The ESP Program provides financing, technical services, and direct installation of energy-efficient electric technologies. The ESP Program targets residential, commercial, industrial, and municipal and institutional energy customers. Between 2002 and 2004 the ESP Program anticipates on spending \$300 million on efficiency and demand programs achieving approximately 120 GWh in electricity savings and 26 MW in peak electric demand savings.

**Low-Income Home Energy Assistance Program.** The LIHEAP program is a federally-funded energy assistance program. In New York, this program is funded through a federal grant, allocated to OTDA. New York's LIHEAP program is administered through DHCR for weatherization services and the State Office for the Aging for outreach and referral services. In 2002, over \$212 million was allocated for the LIHEAP program in New York.<sup>26</sup>

There are, in addition to the programs listed above, financing, tax incentive, and legislative mandated programs that were initiated in the past, and are still available to assist the State in providing energy-related public benefits. These include the Clean Water/Clean Air Bond Act, the Alternative Fuel Vehicle Tax Incentive, the Green

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<sup>26</sup> U.S. Department of Health and Human Services. Low-Income Home Energy Assistance Program (LIHEAP) - FY 2002 State Net Allotments.

Building Tax Credit, and Energy Efficiency Standards for State Purchasing.<sup>27</sup> Each of these are described in greater detail in the Energy Efficiency Assessment, Section 3.2 of this State Energy Plan.

### **Coordination of Public Benefits Programs**

While many low-income public benefits programs across the State are interrelated, opportunities remain to coordinate and comprehensively deliver public benefits to energy customers through greater cooperation among public benefits providers. The benefits of low-income programs, for example, could be maximized if the services of several programs were coordinated and a common strategy was established. Many programs are trying to achieve similar goals, but rigid program designs, lack of coordination, different eligibility criteria, and jurisdictional conflicts among programs inhibits the ability to achieve desired results. These structural inadequacies can, over time, create inefficiencies in program delivery, unnecessary overlap of services, and confusion on the part of customers (*e.g.*, mixed messages, overload of inconsistent information, inability to choose between program offerings).

## **FINDINGS AND CONCLUSIONS**

The issues and public benefits programs addressed by this report lead to the following findings and conclusions:

Government interventions to assist in energy market development are necessary to align public and private interests, particularly in situations where markets are not allocating resources efficiently or fairly.

Energy customer protections must be continued with the same vigor as they have been afforded in the past. This becomes increasingly important as energy markets become more competitive and customer choice in service providers increases.

Public benefits programs have contributed to energy and cost savings for residential, low-income, small business, and municipal and institutional customers. These programs also provide environmental benefits including cleaner air and water, for all of New York's energy customers.

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<sup>27</sup> New York State Energy Law Article 5, Section 5-108-a.

Opportunities to further coordination among State agencies that have roles in sponsoring and providing low-income energy assistance and other public benefits programs are beneficial to program participants, and should be fostered.

Public benefits programs directed toward research and development have significantly contributed to developing, demonstrating, and providing strategic energy technologies, including the advancement of renewable energy technologies, while encouraging and promoting environmental safeguards and protection.