



Quarterly Report

(January – March 2004)



Programs Implemented

LIPA's Clean Energy Initiative currently consists of eight (8) programs as well as a number of research, development and demonstration (RD&D) projects. Efficient motors and efficient unitary HVAC programs have been placed under the umbrella of the more comprehensive Commercial Construction Program. The current Clean Energy Initiative consists of the following:

Residential

Lighting & Appliances

Cool Homes

Residential Energy Affordability

Solar Pioneer

New York ENERGY STAR Labeled Homes

Non-Residential

Commercial Construction

Multi-Sector

Customer-Driven Efficiency

Information/Education

First Quarter Highlights

Lighting & Appliances

LIPA's "Residential Lighting & Appliances Program" proudly sponsors ENERGY STAR® - the name that means energy efficiency. LIPA encourages customers to buy appliances and lighting products that have earned the ENERGY STAR®-label. This voluntary labeling program is sponsored by the U.S. Environmental Protection Agency (EPA) and the U.S. Department of Energy (DOE). LIPA's program is designed to build continued customer awareness and market demand for ENERGY STAR® lighting and appliances that help lower monthly utility bills, reduce air pollution and offer better performance than less efficient products. ENERGY STAR retail partners help promote the program by labeling qualified products in their stores, displaying point-of-purchase materials and brochures, offering promotions on ENERGY STAR products, and advertising in flyers and newspaper supplements.

When purchasing ENERGY STAR® products, be assured that the Environmental Protection Agency (EPA) and Department of Energy (DOE) have given their stamp of approval for products that meet stringent energy efficiency standards while saving you money, energy and helping to protect the environment. Through LIPA's Clean Energy Initiative efforts, 100% of Long Island appliance retail stores now carry refrigerators, dishwashers and clothes washers that bear the ENERGY STAR® label.

- In the lighting rebate category, fixture and torchiere rebates for 2004 are \$15 respectively and Compact Fluorescent Lightbulb (CFL) rebates are \$2.
- The clothes washer mail-in rebate program is \$50 for 2004.

ENERGIZED TRAINING - LIPA hosted an Energized Sales Training session for its Energy Star appliance retail partners. The session demonstrated selling strategies for various customer types and was customized to include Energy Star and energy efficiency information while utilizing and referencing available LIPA point of purchase materials.

Partners were also updated on changes made to the Department of Energy Standards in Energy Star refrigeration and clothes washers. LIPA also took this opportunity to review current point of purchase materials, discuss new ideas for changes to that material in future, re-emphasize the use of newly revised retailer manuals and the hand out appliance saving calculators for sales staff to use with their customers.



Attendees included sales people and managers from Sears, Lowes, Home Depot, Best Buy, Gold Coast & Appliances, P.C. Richard & Son, Appliance World, BGS and Intercounty Stores.

EnergyWise On-Line Catalog - LIPA's EnergyWise catalog has been updated to reflect a wider variety of energy efficient lighting products. To promote the changes, the catalog advertised a special on CFL 3-pak through a "banner" on LIPA's e-NEWS home page. LIPA's e-NEWS was mailed out to over 68,000 customers resulting in increased awareness and traffic to the catalog site.

STAY COOL! - LIPA and NYSERDA will work together again in 2004 to promote the successful Keep Cool campaign with a number of notable changes. This year's promotion will not feature a turn in rebate but instead educate customers through a marketing campaign that will offer tips on saving energy through the purchase, maintenance, and proper use of Energy Star units. The "STAY COOL!" promotion will be promoted through point of purchase materials in retail partner stores, an On-Line campaign on LIPA and NYSERDA's Web sites, press releases and press events.



Energy Star Fixture Show Room Pilot Program - The launch of the Energy Star Fixture Show Room Pilot program in 2003 proved to be successful by achieving increased inventory levels of ENERGY STAR qualified fixtures as well as establishing designated ENERGY STAR fixture displays within the enrolled showrooms.

Building on the successes of the pilot program, Phase II has been designed to stimulate higher sales and gain even more consumer recognition of ENERGY STAR qualified fixtures. The program will continue to offer retailer display incentives while featuring a Sales Person Incentive to sales associates for the sale of ENERGY STAR qualified fixtures. Retailer training and point of purchase materials will continue to be maintained throughout Phase II of the program. As the foundation of the Lighting Showroom program has been set, and ENERGY STAR qualified fixtures are now a stylish and energy efficient product option available for homeowners, the next steps will facilitate an increase in consumer utilization and recognition of ENERGY STAR lighting fixtures in Long Island.

LIPA's Residential HVAC (Heating, Ventilation and Air Conditioning) Efficiency Program is comprised of: Central Air Conditioning (CAC) and Residential Geothermal Heat Pumps. The program encourages customers to purchase and install energy-efficient CACs and geothermal heat pumps by providing financial incentives to offset a portion of the equipment's higher initial cost. The program's long-range goal is to encourage contractors/distributors to use energy efficiency as a marketing tool, thereby stocking and selling more efficient units and moving the entire CAC and heat pump market toward greater energy efficiency.

First Quarter Highlights 2004

LIPA continues to offer training in Manual J calculations and System Charging and Airflow classes for HVAC contractors have been scheduled for the spring.

- Manual J is the industry standard residential load calculation method. The training offers step-by-step examples of properly sizing equipment and also addresses principles of heat transfer. The training teaches HVAC contractors to accurately perform and document cooling load calculations in accordance with LIPA program requirements and reduces oversizing.
- The System Charging and Airflow course addresses airflow and charging procedures and standards and includes hands-on training in the use of testing equipment.

The Building Operators Certification (BOC) Course was initiated and will be completed by November. The BOC series of classes is offered in conjunction with the Northeast Energy Efficiency Partnerships, Inc. The BOC is a series of eight classes offered to facility operations and maintenance personnel. The training includes instruction in electrical systems, energy conservation, HVAC, indoor air quality, codes, lighting, preventative maintenance, HVAC troubleshooting and HVAC controls and optimization. Students completing the BOC series are eligible to apply for 5.6 Continuing Education Credits.

Updates to the Cool Homes Customer Brochure are completed. The brochure is very useful for contractors selling energy efficient HVAC systems. The brochure explains not only the importance of selecting qualified energy efficient equipment but also tips on selecting a contractor and rebate qualifications. Countertop displays for walk-in customers at area distributors continue to be stocked on a regular basis. The 2004 brochure has been updated to include changes in rebate amounts as well as a new SEER 15 tier level. The brochure along with a welcome letter was sent to the HVAC contractor community to inform them of the 2004 program changes.

Promoted Cool Homes at numerous shows and events including the Spring Home Remodeling & Improvement Show, Spring Home & Garden Show and the 2004 Carrier Event. In addition to shows and events, Cool Homes is also promoted through LIPA's Trade Ally newsletter.



LIPA's Residential Energy Affordability Partnership (REAP)

Customers with lower incomes can get help managing their energy use and bills through LIPA's Residential Energy Affordability Partnership (REAP) program. The program is designed to improve energy affordability for LIPA's lower income households two ways: by installing cost-effective energy efficiency measures, and through extensive in-home energy education and counseling. Modeled after current initiatives on Long Island and successful programs in other parts of the country, REAP works directly with weatherization providers, offering qualifying customers free installation of cost-effective air sealing, insulation, refrigerators, central air conditioning, filter replacement, lighting and other energy-saving measures. Through its coordinated approach, the program seeks to make energy bills more affordable for participating households.

The REAP Program was highlighted on News 12 on January 8th. The segments featured weatherization recommendations for LIPA customers and also highlighted the REAP program services. The News 12 segment generated a number of leads for the program.

REAP's Senior Program Coordinator and Quality Control Supervisor initiated a series of work safety training programs for field technicians. REAP's Marketing Coordinator and Community Outreach Administrator also participated.

In the first quarter of 2004 REAP replaced 215 inefficient refrigerators with energy-efficient models. Energy saving measures were installed in 897 customer sites.

The Assisted Home Performance Pilot Program is being offered to customers through a unique partnership between the New York State Energy Research & Development Authority (NYSERDA), LIPA and Community Development Corporation (CDC) of Long Island. Through the Assisted Home Performance Program, a Building Performance Institute (BPI) certified contractor evaluates a customer's home for energy efficiency opportunities. Customers who are eligible to participate in the program will be eligible to receive a home improvement grant for 50% of the project up to \$5,000. The additional 50% can be financed through a low interest loan (3%) through CDC. Eligible customers must be homeowners and meet the 60% area medium income criteria. Program-to-date (since October 2003) 34 audits have been completed, two customer projects have been completed and 30 customers are in the process of qualifying for loans and getting measures installed.

REAP disseminated information through workshops, presentations, and one-on-one meetings with representatives of human service agencies throughout LIPA territory, including:

- Catholic Charities
- Dept of Human Services, NYC
- Long Beach Adult Learning Center
- Nassau County Office for Senior Citizen Affairs
- Nassau County WIC (Women Infants Children)
- New York State Office of Mental Health
- Suffolk County Dept of Social Services - Commissioner's Office
- Suffolk County Dept of Social Services - Riverhead Center
- Suffolk County Office for the Aging
- Suffolk County Senior Umbrella Network
- Town of Hempstead Helpline

Through the REAP Program, numerous customers were referred to community service organizations, including:

- Catholic Charities Parish Outreach
- CDC –(WAP and Assisted Home Performance)
- Expanded In-Home Services for the Elderly
- HEAP
- Health & Welfare Council
- Hospice Care Network
- Long Island Center for Independent Living
- Nassau & Suffolk Dept. of Senior Affairs
- Rebuilding Together Long Island
- St. Vincent de Paul Financial Mgmt. Services

Reap Lower Electric Costs with REAP!

Having trouble managing your electric bills?
Do your bills seem higher than they should be?
Would you like some help?



LIPA's Solar Pioneer Program

LIPA's successful Solar Pioneer Program continues to provide home and business owners with the opportunity to supplement their energy needs with clean, renewable solar power. Also known as photovoltaics or PV, this environmentally friendly source of electricity is available through LIPA's rebate program, which has dramatically lowered customer costs towards PV system installations.

In addition, the New York State Solar Tax Credit provides a 25% tax credit for homeowners towards PV equipment and installation. Homeowners can also receive a 15-year real property tax exemption on installed PV systems, which is based upon eligibility criteria within their municipality.

For commercial PV applications, in addition to LIPA's rebate, there is a five-year depreciation schedule for solar energy property, as well as a 10% investment tax credit, also known as the business energy tax credit.

The current rebate offered is \$4.50/watt and will continue to be offered until a block of 1000kw is accounted for. During the first quarter, the program has provided rebates for 56 participants, for a total amount of \$1,723,714 rebated to customers, equating to 349 kW (DC). Additionally, applications pre-approved by LIPA and pending customer installation equate to 30 applications amounting to 199 kW (DC) towards a total rebate amount of \$881,000.

LIPA PV Lottery - During this quarter, LIPA completed the installation of two remaining 660 watt PV systems. LIPA has installed a total of forty 660 watt PV systems through LIPA's 2002 PV Lottery. Thirty of the systems were installed on the homes of customers who entered LIPA's PV lottery from a list of over 3500 entrants. The additional 10 PV systems were installed on the homes of low income homeowners through the partnership efforts of LIPA and the Community Development Corporation (CDC)

LIPA's quarterly Solar Contractor meeting was conducted on January 7, 2004 various industry topics were discussed. During this quarter, two solar contractors submitted a response to LIPA's Solar Contractor Ally Request for Qualifications. There are now 19 LIPA Solar Contractor Allies listed with LIPA who are marketing and installing PV systems within LIPA's service territory.

As part of LIPA's effort to support the industry, LIPA provided sponsorship to LIPA Solar Contractor Allies that recently took the North American Board of Certified Energy Practitioners (NABCEP) refresher course. The total cost of the refresher course per participant was \$300 and LIPA provided sponsorship in the amount of \$100 towards each for three LIPA Solar Contractor Allies that recently took the NABCEP refresher course.

LIPA also provided sponsorship to nine electricians who took the Residential PV System Installation and Maintenance Workshop conducted January 12-15, 2004 at Farmingdale State University

LIPA continues to promote the Solar Pioneer Program through the LIPA bill message and the posting of monthly LIPA sponsored seminars through the LIPA Clean Energy Newsday advertisement. LIPA's Solar Pioneer Web site has also generated leads about the program and solar seminars.

To increase the geographical locations of LIPA sponsored seminars, Nassau Community College and the Ammerman and Eastern Suffolk County Community College campuses have agreed to be host sites for LIPA sponsored seminars. LIPA sponsored seminars host sites also include

C.W. Post, NYIT, Brentwood Suffolk County Community College Campus, Farmingdale University and Southamton LIU. LIPA sponsored nine separate solar seminars this quarter, exposing 90 homeowners to LIPA's Solar Pioneer Program and energy conservation

LIPA attended the Northeast Sustainable Energy Association (NESEA) conference in Boston on March 11 and 12, 2004. The conference provided opportunity to network with module and inverter manufacturers and attend sessions specific to new inverter technologies; maximizing the value of PV while minimizing the cost; architectural and PV design; and visual aspects of wind energy.



LIPA continues Industry and Local Outreach Efforts. LIPA conducted a meeting on February 4, 2004 with Suffolk County Consumer Affairs (SCCA) representatives to discuss SCCA licensing requirements for the installation of PV systems. SCCA required that PV systems must be installed and wired by a licensed Master Electrician. In compliance with SCCA, LIPA is requesting a temporary or copy of an Electrical Inspector Certificate from LIPA residential and commercial customers who install a PV system through LIPA's Solar Pioneer Program prior to LIPA conducting a functional test of the customer's inverter to ensure compliance with the NY Standard Interconnection Requirements; setting the appropriate meter, or issuing a LIPA rebate.



LIPA's Residential Information & Education Program provides valuable energy-saving information to customers through printed materials, advertising and marketing, a student education component (In Concert With the Environment (ICWE)), an *EnergyWise* Infoline (1-800-692-2626), the LIPA Web site (www.lipower.org) self-directed energy audit services, and LIPA shows and events.

The Clean Energy Initiative (CEI) portion of LIPA's Web site was released in November of 2003. Overall, during the first quarter of 2004, LIPA's Web site had more than 720,000 hits. The CEI section alone had approximately 51,000 hits, during this same time period. More specifically, during January, February and March 2004 the CEI section had approximately 17,000, 14,900, and 19,100 hits respectively.

First Quarter Highlights

Trade Shows and Clean Energy Initiative (CEI) events – LIPA participated in several shows and events during the first quarter, where LIPA distributed Clean Energy Initiative information. The list of events includes the Spring Home & Garden Show, the Spring Home Improvement & Remodeling Expo, the Annual Carrier Event and several presentations on energy conservation. LIPA distributed over 2,800 EnergySmart CDs at these events. All events were successful and well attended.

In Concert With the Environment Program – As of March 2004, there were more than 2,800 students who participated in the “In Concert with the Environment” program since January. McDonald's continues to provide sponsorship for the program and LIPA's residential Lighting & Appliance Program continues to distribute a free compact fluorescent bulb to each student that completes the ICWE survey.



Residential New Construction Program LIPA joined forces with the New York State Energy Research and Development Authority (NYSERDA) to bring the New York ENERGY STAR® Labeled Homes program to Long Island in the first quarter of 2004. This program seeks to improve the energy efficiency measures incorporated into the residential new construction market. LIPA began to set the stage for adding this program to its Clean Energy Initiative by continuing the procurement process of the contractors needed to perform the implementation work on Long Island.

First Quarter Highlights

LIPA received Office of the State Comptroller (OSC) approval on a co-funding agreement between LIPA and NYSERDA, which provides for a statewide marketing effort for the program

Conservation Services Group (CSG) has been contracted to perform both implementation and marketing services on Long Island, LIPA is anticipating OSC approval for this contract in the very near future.

A builder orientation meeting was coordinated through the Long Island Builders Institute (LIBI) to introduce the program.



A toll free hotline, 1-877-NYSMART, was established to answer early inquiries by Long Island builders and consumers and to disseminate program literature/information.

A multi-million dollar advertising campaign, featuring television's renovation and design expert, Steve Thomas, has been initiated. A link between LIPA and NYSERDA's Web sites has been established to ensure consistency of program.

LIPA's Commercial Construction Program is the largest, most aggressive and most complex Clean Energy program. It promotes the application of a broad range of energy efficient electric technologies and design opportunities. It is comprised of three components: Prescriptive, Custom and Whole Building.

The *Prescriptive* component provides financial incentives to customers who purchase and install qualifying energy-efficient electric equipment from a list of technologies that exceed both current code requirements and standard practices in the marketplace.

The *Custom* component provides financial incentives to customers who install cost-effective, energy-efficient equipment or make design improvements that exceed those found in Prescriptive. Specifically, Custom targets customers installing equipment that falls between Prescriptive and Whole Building measures/projects.

The *Whole Building* component seeks to achieve the greatest degree of energy efficiency by encouraging building owners, developers and architects to design and construct the most energy efficient buildings from the onset of a construction project. Whole Building provides incentives for all commercial/industrial equipment replacement, new construction, major renovations and expansion projects in LIPA's service territory.

Program Modifications/Implementation - Developed a lead tracing system to track lead activity and provide the Commercial Construction team with the ability to manage all leads.

For the period ending 3/31/04, the Contractor Incentive Circuit Riders completed approximately 92 visits to lighting and HVAC distributors/contractors servicing the LIPA territory, investigated 121 customer leads, and gave 7 presentations.

At the end of the first quarter, 19 different contractors participated in the Contractor Incentive Program with a total of 26 paid Prescriptive projects, representing 1,024 mWh of energy savings. Five contractors submitted more than one application and received incentive checks that have totaled \$1,209.

LIPA's Commercial Construction program was presented to the Suffolk School Building Administrators Association, focusing on how the long-term energy savings associated with participation in LIPA's program benefits the district for generations to come. LIPA continues to provide outreach to school districts, with a direct mailing slated for 2004.

Suffolk County Electrical Contractor Association received a presentation that encompassed current program guidelines and products, as well as assistance with the application process. Significant interest and discussions by contractors was the success of the current 2004 contractor incentive.

The local chapter of the National Association of Power Plant Engineers was presented with LIPA's Commercial Construction program whereby recent successes were discussed in addition to motor rebates and associated mechanicals.

H2M, a large commercial engineering and architectural firm in Melville, was given a personal presentation on LIPA's Commercial Construction application process, including a thorough discussion of the Prescriptive, Custom, and Whole Building components.

Nassau Suffolk AIA members received a presentation in Hauppauge containing an overview for 2004's program. A question and answer period following the meeting identified several new construction projects for consideration.

The National Society of Professional Engineers received a Commercial Construction presentation that gave an overview of LIPA's program as well as how cost savings should be formulated into initial project preparations.

A presentation was given to Hampton Bays School District in conjunction with the Environmental Business Association. The purpose was to raise awareness of the benefits and resources available to assist in the district's constant pursuit of more environmentally friendly and energy efficient buildings and renovations.



Program Performance

The following chart shows the actual results (paid applications) for the Year to Date ending March 31, 2004:

| Category | Actual | Goal |
|-----------------|---------------|-------------|
| Participants | 59 | 174 |
| MWH | 2,014 | 1,124 |
| MW | 0.487 | .0529 |

Presently, there are more than 191 Prescriptive, Custom and Whole Building Design projects in various states of completion, representing an estimated 11,134 mWh in potential energy savings for 2004. Several additional, large energy saving projects that have not yet gone through the application process are also expected to be completed by the end of 2004.

Major Projects Completed:

Forest Labs completed a Prescriptive project consisting of HVAC, efficient motors, and variable speed drives at their facility in Commack. The annual energy savings is approximately 150,320 kWh.

The Home Depot completed a Prescriptive project consisting of High Bay – Low Bay energy efficient fluorescent lighting fixtures at their Valley Stream location. The annual energy savings is approximately 290,119 kWh.

The Bethpage Federal Credit Union in Bethpage completed two Custom projects consisting of an Energy Management System (EMS) and HVAC controls and variable speed drives (for HVAC system). The annual energy savings for each project is approximately 95,228 kWh and 103,650 kWh respectively.

Sears Roebuck and Company completed a Custom project at their Hicksville location consisting of an Energy Management System (EMS) and HVAC controls. The annual energy savings is approximately 165,409 kWh.

LIPA's Customer-Driven Efficiency Program provides assistance to both residential and commercial customers wishing to make energy efficiency improvements not covered in any of LIPA's other Clean Energy Initiative programs. The program also provides technical, on-site energy analysis and audits to help commercial/industrial customers evaluate potential energy-saving opportunities. LIPA provides financial incentives for those opportunities shown to be cost effective.

First Quarter Highlights

Energy Audits - The first quarter of 2004 saw the completion of over fifty energy studies. A number of these were of particular interest.

Patchogue Theatre for the Performing Arts - This Theater was in dire need of an upgrade to stage lighting. The theater was limited in the types of shows they could book for performances due to the outdated stage lighting. Certain traveling shows would simply decline booking. This was a loss of culture to the area as well as a loss of revenue for the theater and local businesses. Because of the important nature of the problem, the energy study included a specific emphasis on upgrading the stage lighting. The finished report provided by LIPA a state-of-the-art theater lighting system to attract high-quality professional performances. The replacement estimate for the lighting system is in the range of \$150,000. LIPA plans aggressive incentives to assist the theater in its endeavors.

Anorad - This industrial facility in Shirley was shown a number of significant measures that would save \$42,000 annually, with a \$26,000 LIPA incentive and a corresponding 4.3-year payback. Measures included: clean room fan timeclocks, sales tax exemption, battery charger timeclocks, new lighting, lighting controls, motor recommendations, and a new energy management system.

J. Loeffler American Legion Post 1006, Brentwood - This facility was helped with a new lighting design, new temperature controls, and a new cooling system specification that would yield a 22% savings and a 5.3 year payback after the application of LIPA rebates.

Eele Labs, Bohemia - Even a laboratory was shown a 13% savings, mostly through a new lighting design. After rebates, the payback is only 2.4 years.

I.J. White, Farmingdale - This industrial facility has a 40,000 square foot plant with 20-foot ceilings. They weren't using their ceiling fans, so the report quantified the savings they could realize if they used them. That simple recommendation, along with a lighting design, temperature controls, and a specification for new welding equipment, resulted in a 21% savings and a 3.2-year payback.

The Amerisc Corporation, Garden City - This facility wasn't aware of how much their personal computers were contributing to their bill, so they left them on during the off-hours. Simple "sleep mode" settings and a new lighting design identified a savings of 24% for this facility - with only a 1.2 year payback.

RESEARCH, DEVELOPMENT AND DEMONSTRATION (RD&D)

EXECUTIVE SUMMARY

LIPA strongly believes that technology is the key to exciting new innovations in the realm of clean energy. That's why substantial dollars and work hours have been committed to LIPA's Clean Energy Research, Development and Demonstration (RD&D) Program. This cutting-edge program – which explores everything from wind energy to fuel cells to electric vehicles – uses in-house expertise to conduct Clean Energy RD&D projects, as well as continuously review and analyze project results. The program also provides information and education encouraging the Long Island community to team with LIPA on Clean Energy RD&D projects.

WIND ENERGY

The wind is increasingly being recognized as a great potential source of clean, renewable energy. And Long Island, with its strong ocean winds, is a great candidate for testing state-of-the-art turbines that harness the powers of the wind to create a sustainable source of energy.

LIPA/Long Island Farm Bureau Wind Turbine Demonstration Project

LIPA has been working with the Long Island Farm Bureau in pioneering 50kW land-based wind turbine demonstrations on Long Island.

Governor Pataki formally dedicated LIPA's first land-based wind generator in August 2002. The 50 kW Atlantic Orient wind turbine located at the Zeh brothers' Windy Acres farm in Calverton was erected by LIPA, in cooperation with the Long Island Farm Bureau. From installation through the end of the first quarter 2004, the wind turbine generated and fed into the electric grid over 85,000 kilowatt hours (kWh) of electric energy. In March, a new set of blade tip brakes were installed by the manufacturer under negotiated warranty coverage. The new tip brake design is expected to improve output performance.

This demonstration project has made significant strides in meeting LIPA's goals of obtaining community awareness and acceptance of wind energy by showing compatibility with existing land usage.



SOLAR / PHOTOVOLTAICS

If Long Island has plenty of wind, it has at least as much sunshine – making it an ideal location to explore solar energy. Like the wind power alternatives LIPA is investigating, solar systems harness the power of totally natural, renewable (it will never run out!) source to provide Long Island with clean, reliable energy.

Citibank/Long Island Ducks Stadium Photovoltaic Installation



During the first quarter of 2004, Suffolk County and LIPA entered into an agreement to install a 5kW photovoltaic unit on the roof of the County's Citibank Park, home of the Long Island Ducks baseball team. By the end of the quarter, plans were made for completing the installation prior to the Ducks' home opener game in May. This demonstration

installation will test and monitor the system that will power the executive office area as well as some rented suites.



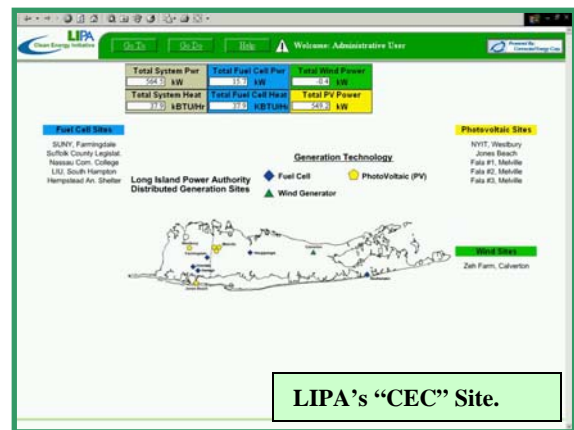
Hoisting a PV array onto the roof of Citibank Park, home of the L.I. Ducks.

AND SO MUCH MORE ...

Distributed Generation Monitoring

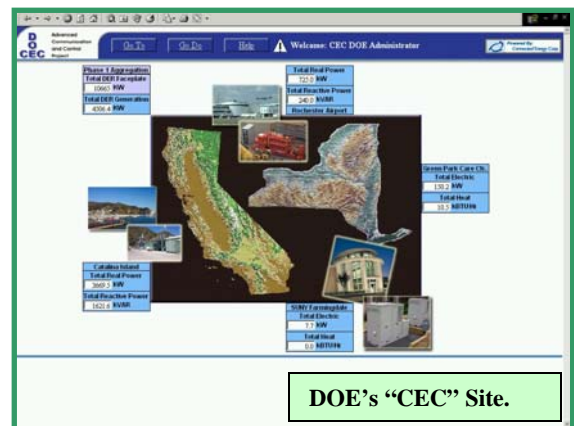
Working with Connected Energy Corporation (CEC), a monitoring system was built in 2003 which encompasses five fuel cell sites, five solar sites and one wind site:

- *Farmingdale University (Fuel Cells)*
- *Suffolk County Legislative Building, Hauppauge (Fuel Cells)*
- *Nassau Community College (Fuel Cells)*
- *Long Island University-Southampton College (Fuel Cells)*
- *Hempstead Animal Shelter (Fuel Cells)*
- *Fala Direct Marketing-3 sites (Solar Photovoltaics)*
- *New York Institute of Technology, Westbury (Solar Photovoltaics)*
- *Jones Beach Nature Center (Solar Photovoltaics)*
- *Zeh Farm, Calverton (Wind Turbine)*



LIPA's "CEC" Site.

This project was partially funded by the U.S. Department of Energy (DOE), and one of LIPA's sites was the first to appear on the DOE Web site demonstrating monitoring and control of Distributed Generation (DG) technologies nationwide. Additional sites that will support the fuel cell deployment are being developed in 2004, and DOE funding for this effort has been secured. Through this system, the real time production of each of these devices can be monitored, tracked and trended to facilitate reporting and trouble shooting. Long term benefits of this system would be to provide LIPA with command and control dispatch of DG.



DOE's "CEC" Site.