

NYSERDA 

NYSERDA Mission:

Use innovation and technology to solve some of New York's most difficult energy and environmental problems in ways that improve the State's economy

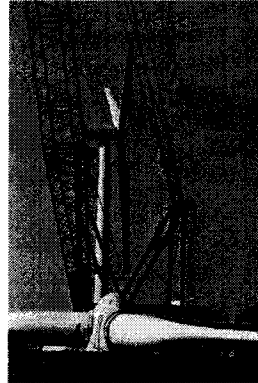
Major Program Areas

- Energy Efficiency Services
- Residential Energy Affordability
- Research and Development
- Economic Development
- Energy Analysis
- West Valley Management

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SBC Program Benefits Since 1998

- \$680M in funds committed
- Portfolio of +35 programs
- 980 Gwh in annual savings
- 840 Mw peak demand savings
- Reduction CO₂ = 160,000 cars
- 4,500 jobs created/sustained





NYSERDA's GNYHA projects

Albert Einstein College of Medicine	Margaret Tietz Center	Saint Vincent's Hospital
Benedictine Hospital	Mercy Hospital	St. Agnes Hospital
Bronx Lebanon Hospital Center	Metropolitan Jewish Nursing Home	St. Anthonys Hospital
Cabrini Medical Center	Montefiore Medical Center	St. John's Riverside Hospital
Calvary Hospital	Morningside Nursing Home	St. Joseph's Hospital
Columbia Presbyterian Medical Center	Mount Sinai Medical Center	Staten Island University Hospital
Fernclyff Nursing Home	Mount Vernon Hospital	The New York Foundling Hospital
Hospital for Special Surgery	New York Presbyterian Hospital	The Silvercrest Center for Nursing
Isabella Geriatric Center	North General Hospital	United Memorial Medical Center
Jamaica Medical Center	NYU Downtown Hospital	Vassar Brothers Hospital
Jewish Home and Hospital, The	NYU Hospital Center	Victory Memorial Hospital
Kaleida Health	Rivington House Health Care	Weinberg Campus
Kingsbrook Jewish Medical Center	Roosevelt Hospital	Westchester-Ellenville Hospital, Inc.
Long Island Jewish Medical Center	Saint Francis Hospital	Wykoff Heights Medical Center

- GNYHA incentives total over \$9 million



Technical Assistance Programs

- Energy Feasibility studies
- Energy Operations Management studies
- Rate Analysis assistance and help evaluating the potential for savings associated with Aggregation.


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Tech. Assist. Program Summary

- **FlexTech** - Customized, detailed studies where the Engineers are under Contract with NYSERDA; 50:50 cost share; more NYSERDA involvement.
- **Technical Assistance** - Customized, detailed studies where the Engineers are under Contract with the Customer; 50:50 cost share; less NYSERDA involvement, more Customer responsibility.


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New Construction Program

Incentives:

Technical Assistance

- NYSERDA pays first \$5,000 – then 50:50 cost share.

Capital Incentives

- Up to \$250,000 per project
- Up to an additional \$150,000 for Geothermal Heat Pumps projects
- Other additional incentives also available

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Energy \$martsm Loan Fund

- Interest rate reduction up to 4.0% off bank's rate.
- Loan Term up to 10 years.
- Maximum Loan Limit for Commercial/Industrial customers is \$1,000,000 plus up to another \$500,000 for Green Building measures.
- Pre-qualified, renewables, and custom measures.
- Over 90 participating lenders across the State.

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Commercial / Industrial Performance Program

- Does not have to be performance contract, can be design build.
- Incentive Rates:
 - 6 cents per kWh saved for lighting
 - 10 cents per kWh for VSDs, motors
 - 20 cents per kWh Cooling
- Caps: 30% of project cost, \$500,000 per customer
- Current offer in: PON 855: Dec. 2004, \$6 mill remain

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Helen Hayes Hospital

- 2 Projects
 - Chiller replacement
 - Lighting, motor and cooling upgrades
- Annual kWh savings
 - 364,700
 - 2,799,840
- NYSERDA Incentive
 - \$143,504
 - \$492,468



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Phelps Memorial Hospital

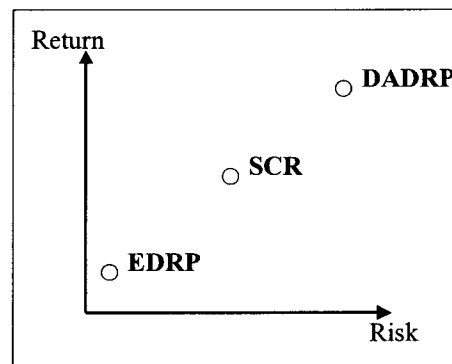
- Sleepy Hollow, NY
- 3 sites
- Lighting, cooling and motor upgrades
- 1,896,310 kWh/yr savings
- Annual cost savings \$267,666
- Total project cost \$1,460,527
- NYSERDA incentive \$480,422



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NYISO's Demand Response Programs

- EDRP
 - Low Risk
 - Low/Moderate Return
- ICAP/SCR
 - Moderate Risk
 - Moderate/High Return
- DADRP
 - Moderate/High Risk
 - Moderate/High Return



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NYISO's EDRP

- Voluntary
- Energy payment of \$500/MWh
- No capacity payment
- Historical calls of 20-25 hours per year
- 2 hour notice

NYISO's ICAP/SCR Program

- Mandatory
- Capacity payments based on auction
 - Currently ~\$11/(kW mo)
- Capacity payment made independent of calls
- Energy payments of \$500/MWh
- Historical calls of 20-25 hours per year
- Day ahead notice of potential events

NYSERDA/NYISO Relationship

- NYISO administers three demand response programs that pay for demand reductions
- NYSERDA supports these programs by reimbursing costs associated with technologies that enable demand response
- NYSERDA also funds efficiency and load reduction projects unrelated to the NYISO

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NYSERDA's Peak Load Reduction Program

PDRE		LC/S		DEGI	IM	
Con Edison Service Territory	Non-Con Edison Service Territory	Con Edison Service Territory	Non-Con Edison Service Territory	Con Edison Service Territory only	Statewide PSC Approved	Statewide NYISO Compliant
\$475/kW	\$225/kW	\$175/kW	\$45/kW	\$125/kW	\$2,500 per meter	\$1,200 per meter

NOTE: Contractors will be reimbursed the lesser of 70% of the Eligible Project Costs or the incentive caps set forth in Table 1. The Facility owner/operator must contribute no less than 30% of Eligible Project Costs.

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Permanent Demand Reductions

- Quickly implemented projects that result in long term demand reduction
- 20 kW minimum demand reduction (can be aggregated)
- Common measures include lighting, motors, cooling system upgrades, etc
- 70% of eligible costs up to \$475/kW by 3/31/05

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Permanent Demand Reduction

- 41 story commercial property in Manhattan
- 28-tank ice storage system
- Ice Slurry is created at night, and circulated through cooling coils during daytime
- Shifted 4,000 ton-hours of cooling off-peak
- \$300,000 in incentives

The Durst Organization



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Load Curtailment/Shifting

- Identify and control discretionary loads
- Supports Utility/NYISO Demand Response Programs
- Direct load control encouraged (100% reimbursement)
- Common measures include duty cycling, process shifting, lighting reductions, etc
- 100 kW minimum (may be aggregated)
- 70% of eligible costs up to \$175/kW by 3/31/05

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Dispatchable Emergency Generator Initiatives

- Energy & environmental controls & enhancements to improve operations and reliability
- Supports NYISO EDRP & SCR, or TO DRP
- Eligibility limited to facilities in Con-Edison service territory and machines with NOx emissions less than 35 lbs/MWh (18 lbs/MWh for new installations)
- Common measures include switchgear, controls, test & tunes, dual fuel conversions, etc
- 70% of eligible costs up to \$125/kW by 3/31/05

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NYU Medical Center



- Replace old generators with 2 new Caterpillar diesel fired prime rated engine generators
- Total demand reduction of 910kW
- NYSERDA incentive of \$125,000



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- AT&T could not run generators due to high emissions (opacity of 80%)
- It was determined that the fuel injectors were faulty, allowing unburned fuel in the exhaust
- New fuel injectors and turbo chargers were installed, allowing 7 MW of generation to run significantly cleaner (less than 20% opacity)
- NYSERDA provided over \$400,000

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Environmental Permitting in NYC

- Categories determined by total NOx output at the facility (all sources)
- <12.5 tons – Registration
- 12.5-25 tons – State Facility Permit
- >25 tons – Title V permit
- Call Environmental Facilities Corp (EFC) for assistance **(1-800-780-7227)**
Steve Mohr

Interval Meters

- Interval metering intended for primary electric service
- Intended to support NYISO & Utility Demand Response Programs
- \$2,500 for “socket meters”, or \$1,200 for “shadow meters”
- 70% of eligible costs up to \$2,500 or \$1,200 by 3/31/05

Program Funding/Timeframe

- \$10.5 million available
- Applications accepted through November 1, 2004, or until funds committed
- Applications accepted on a first come, first serve basis
- Projects must be completed and field verified by March 31, 2005

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Questions?

- NYSERDA 1-866-NYSERDA (697-3732)
 - Chris Smith ext 3360
 - Pete Savio ext 3334
 - Lee Smith ext 3313
- NYSERDA - NYC Office (212) 971-5342
 - Elizabeth Perry ext 3017

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