

Request for Proposals

For

**An Evaluation of Long Island Power
Authority's Clean Energy Initiative programs
and future Energy Efficiency Programs**

April 13, 2009

Revised April 15, 2009

Prepared by

Long Island Power Authority



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**Request for Proposal for
An Evaluation of LIPA's Clean Energy Programs and
Future Energy Efficiency Programs
April 13, 2009**

RFP Highlights

- ❖ The Long Island Lighting Company d/b/a LIPA (referred to hereafter as the "Authority" or "LIPA"), is soliciting firms for bona fide proposals, through this Request for Proposals ("RFP") to provide the requested services to the Authority and its wholly owned subsidiary, LIPA: A Comprehensive Review of LIPA's Clean Energy Initiative (CEI) Programs for the last ten (10) years and An Evaluation of LIPA's Efficiency Long Island (ELI) Initiative that has commenced on January 1st 2009.
- ❖ LIPA intends to select an Evaluation Service Provider ("ESP") for a contract term of three (3) years with a LIPA option to extend the term for an additional period of up to two (2) years.
- ❖ The ESP will provide the requested services considering the following two objectives:
 - Provide a comprehensive review of the Authority's CEI program evaluation studies (impact evaluation, process evaluation, market research, etc.) performed for the period of 1999 through the end of 2008.
 - Provide evaluation services for the Authority's ELI programs, for as long as five (5) years (2009 to 2014), by developing and implementing an overall evaluation plan to be used as an ongoing reporting tool for LIPA; and a detailed evaluation implementation plan for each of LIPA's ELI programs, based on the best current evaluation practices.
- ❖ The ESP will be paid for its services on a time-and-expense basis at rates set forth in its proposal.
- ❖ Proposals shall include the Respondent's signed statement that all proposed prices, terms, and conditions are firm through January 1, 2010.
- ❖ No proposal submittal fee is required for this RFP and LIPA will not assume any proposal preparation costs.
- ❖ Information concerning this RFP may be found at LIPA's website at <http://www.lipower.org>.

All questions regarding this RFP must be submitted as set forth herein. LIPA will post questions and responses on the LIPA website. Mr. William Funk, Contract Specialist, will serve as LIPA's main point of contact for communications with potential Respondents. Any contact, beyond that allowed in this RFP, with the Authority Board members, staff or Consultants regarding this RFP may be grounds for disqualification from the RFP process.

❖ Target Schedule:

<u>Event</u>	<u>Target Date</u>
RFP Issuance	April 13, 2009
Respondents' Conference	April 23, 2009
Deadline for Questions	April 30, 2009
Notice of Intent to Bid or Decline	April 30, 2009
RFP Responses Due	May 7, 2009
Proposal Selection	June BOT Meeting
Commence Evaluation	Later date of Comptroller Approval, estimated or September 30, 2009

Proposals received after the proposal due date and proposals lacking the appropriate information will not be considered, nor will faxed or e-mailed proposals be considered, whenever received. Any changes made to this RFP will be posted on LIPA's website at www.lipower.org

The Authority will not reimburse Respondents for any expenses incurred in connection with developing and/or submitting a proposal in response to this RFP, including the costs of preparing the response and/or providing any additional information and travel expenses relating to an interview. All material that is submitted in response to this RFP will become the sole property of the Authority. The Authority expressly reserves the right to utilize any and all ideas submitted in the proposals received unless covered by legal patent or proprietary rights which must be clearly noted in the proposal submitted in response to the RFP.

Please be advised that the selected Respondent(s) may be requested to provide an on-site presentation (interview) with regard to their qualifications and provide further information regarding previous projects to assist the Authority in the proposal evaluation process. The Authority may also require site visits to any or all facilities that the Respondent operates and/or would utilize for any Authority project to satisfy the requirements of this RFP.

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**Request for Proposal for
An Evaluation of LIPA's Clean Energy Programs and
Future Energy Efficiency Programs
April 13, 2009**

1.0 INTRODUCTION AND BACKGROUND

The Authority was created by state legislation enacted in 1986. The Authority is not obligated to comply with the New York Public Service Commission's ("PSC" or "Commission") Orders or mandates with respect to energy efficiency programs, nor their evaluation. Nevertheless, the Authority will be voluntarily implementing policies and procedures that are generally designed to satisfy or exceed the same or similar standards as those which are applied to Investor-owned utilities under the Commission's jurisdiction. The Authority's service territory covers greater than 1,230 square miles on Long Island in the state of New York, and includes the counties of Nassau and Suffolk, and a portion of Queens County known as the Rockaways. The Authority provides electric service to approximately 1 million customers, including more than 992,000 residential customers and approximately 108,000 commercial and industrial customers.

National Grid has historically supported LIPA's energy efficiency programs, including the Clean Energy Initiative ("CEI"), by providing day-to-day management of LIPA's vendors. Going forward, National Grid will be acting as LIPA's agent in the day-to-day management of the implementation of LIPA's latest Energy Efficiency program.

The CEI was originally approved by The Authority's Board of Trustees on May 3, 1999 for five (5) years and renewed for an additional five (5) years, starting in 2004. In evaluating options for meeting the demands of current and future energy markets, the Long Island Power Authority has designed a new set of energy efficiency programs, under the Energy Long Island ("ELI") Initiative, to provide significantly increased energy and demand savings.

The ELI Initiative has the objective of providing 519 MW of summer peak demand reduction and 1,688 GWh of energy savings in 2018 through a combination of programs in the residential, commercial, and industrial sectors. To achieve this level of demand and energy savings, LIPA plans to proceed more aggressively in the markets that provide services and products that affect the demand for electrical energy.

To that end, the Authority is soliciting proposals for the purpose of acquiring the services of a consultant or a team of consultants.

The Authority is requesting that ESP submit proposals meeting the following two objectives:

- Provide a comprehensive review of the Authority's CEI program evaluation studies (impact evaluation, process evaluation, market research, etc.) performed for the period of 1999 through the end of 2008.
- Provide evaluation services for the Authority's ELI programs, for as long as the next five (5) years (2009 to 2014), by developing and implementing an overall evaluation plan to be used as an ongoing reporting tool for the LIPA; and a detailed evaluation implementation plan for each of LIPA's ELI programs, based on the best current evaluation practices.

The ESP can provide these Services directly (by conducting studies itself) or, with LIPA approval and, if required, the approval of the Office of the New York State Comptroller, by procuring the Services from third parties and managing and reporting on their implementation.

The term of the ESP contract is for an initial three (3) year period, with a LIPA option to extend the term for an additional two (2) years.

Because the ELI Initiative is still being finalized, the final budgets are not available. However, preliminary budgets for 2009 total \$39.3 Million, consisting of \$17.9 Million for the residential sector and \$21.4 Million for the Commercial & Industrial sector programs. The preliminary goals for 2009 are 144,652 Mwh of energy savings and 24.37 MW of demand savings.

For informational purposes and as a point of reference for future requirements, the following table is provided, including the 2008 program budget numbers and the respective program goals (i.e., MW and MWh) for each of the CEI programs. For further details regarding The Authority's CEI Programs and the ELI Initiative, please refer to Attachments H and I of this RFP.

2008 Program Budget for Residential and Commercial CEI Programs

Program	Measure	MW	MWh	Budget
<i>Residential</i>				
Efficient Products (Formally Lighting & Appliance)	Units	3.33	43,000	\$4,600,000
Cool Homes	Units	3.80	1,950	\$3,500,000
Residential Energy Affordability Partnership (REAP)	Customers	0.68	6,000	\$4,225,000
Home Performance with ENERGY STAR®	Jobs	0.34	650	\$3,500,000
Solar Pioneer	Units	1.09	2,527	\$7,306,000
Information/Education	Customers	0.36	1,000	\$500,000
ENERGY STAR® Labeled Homes	Certifications	0.26	530	\$2,700,000
Total Residential		9.86	55,657	\$26,331,000
Program	Measure	MW	MWh	Budget
<i>Commercial</i>				
Commercial Construction	Units	8.660	33,130	9,900,000
Retrofit Energy & Capacity Program (RECAP)	Units	3.22	7,000	\$4,500,000
Customer Driven Efficiency	Units	1.33	3,630	\$1,500,000
LIPAEdge		1.78	N/A	\$1,500,000
Total Commercial		13.66	40,130	\$15,900,000
Total Portfolio		23.52	95,787	\$42,231,000

Evaluation Planning and Process

The ESP will be responsible for all impact evaluations, process evaluations and market assessment activities for all ELI programs. These three elements constitute a streamlined approach and are the essential building blocks of LIPA's program evaluation effort. Together, they will provide the measures of efficiency and effectiveness of program administration and implementation, progress in transforming markets toward greater energy efficiency, economic impacts, and progress towards meeting the goals of LIPA's ELI Initiative. Key goals of the evaluation and market assessment effort also include identifying specific market segments or niches that offer special opportunities for program implementation, and providing recommendations for possible program improvements.

Evaluation planning will proceed over time and follow a process, beginning with the development of an overall strategic plan covering all activities for the entire contract period; continuing with the development of detailed evaluation implementation plans covering individual programs and markets; and featuring an annual process in which evaluation activities for the forthcoming year are refined and finalized.

The ESP will work as a team member with several other consulting firms that will be contracted by the Authority to provide program-related services. These other firms include:

- ***Solution Provider (SP)*** – will be responsible for providing sales and outreach services to customers primarily in the commercial and industrial new construction and existing facility markets.

Specific responsibilities include:

- Promoting energy and demand-savings designs;
- Equipment purchases and installations;
- Becoming an active partner in influencing design decisions by architects, engineers, design build firms and their customer;
- Becoming an active partner in energy efficiency project decision making by LIPA's customers;
- Providing technical assistance on projects to identify opportunities and evaluate costs, savings, and cost-effectiveness of each opportunity; and
- Packaging the range of energy efficiency services to maximize energy and demand savings at Customer locations and in Customer projects within LIPA's ELI Initiative Budget.

The SP will deliver these services while playing a critical cross-functional role within LIPA's existing Energy Efficiency programs.

- ***Market Channel Coordinator (MCC)*** – will be responsible for managing, supervising and implementing services within several market channels currently being addressed by LIPA's ELI Initiative;

In general, the MCC's role will be to work with key decision makers within the Market Channels to facilitate the integrated delivery of energy efficiency services to customers while achieving energy savings and demand-reduction goals.

Market Channels are identified as:

- Builders and general contractors;
- Architects, engineers, and design-build firms;
- Retailers, from national chains to local hardware or grocery stores;
- Contractors, including electrical, mechanical, insulation, and others;
- Equipment distributors and wholesalers;
- Equipment manufacturers and their vendors or representatives; and
- Regulatory agencies (e.g., towns, county government, state, federal government).

Facilitation will include outreach, recruitment, enrollment and support of market channel participants, support of market channels in the stocking, distribution, sales and installation of high efficiency equipment, identification and negotiation of

market channel upstream incentive approaches. The MCC will deliver these services while playing a critical cross-functional role within LIPA's existing ELI Initiative. While the Authority is stressing a team approach, the Market Channel Coordinator is going to be focused predominantly on residential and small commercial customers.

- ***Energy Efficiency Consultant (EEC)*** – will be responsible for assisting LIPA's staff in designing, planning, reviewing, screening and providing other related assistance associated with the delivery of renewable energy and energy efficiency programs to benefit LIPA's Planning Design and Implementation (PDI).

The services of the EEC contractor shall consist of:

1. Assist with planning and design
 - developing program budgets and goals
 - completing cost-effectiveness screening
 - developing marketing plans
 - refining existing program designs based on evaluation and program results
 - developing new program designs
 - assisting in scoping evaluations
 - identifying new technologies and program approaches
 - sharing best practices
 - providing policy analysis support including cost recovery, ratemaking, portfolio management
2. Assist with implementation support
 - implementing energy efficiency programs
 - providing technical support (e.g., engineering analysis of specific energy efficiency projects and to support Leadership in Energy and Environmental Design (LEED) certification) to meet Green Building Rating System requirements
 - training
 - overseeing implementation contractors
 - reporting program status
 - Developing specifications for supporting information technology ("IT") systems.

Further information about the Authority and its Energy Efficiency Programs are available at the Authority's website: www.lipower.org.

2.0 STUDY OBJECTIVES

The principal objectives of this RFP are to:

1. Provide a summary of the Authority's Clean Energy Initiative (CEI) Programs, tying together all of the discrete evaluation studies and market research that have been conducted for each of the individual programs, after a thorough review of all studies performed for the period of 1999 through the end of 2008.
2. Provide evaluation services to the Authority for all of its energy efficiency programs, both residential and commercial, for potentially, the next five (5) years (2009 to 2014), by developing, and then implementing:
 - a. An overall strategic evaluation plan for the Authority's ELI Initiative. (Note: The selected Respondent will be expected to assess the effectiveness of each program in a manner that will provide appropriate recommendations for improvements to what has been done to date and what is being planned for the future. The overall plan will require periodic reporting to the Authority and its Board of Trustees on the status of the ELI initiative).
 - b. Detailed evaluation work plans for each program, market segment, and/or technology. Specific evaluation plans will depend upon the program characteristics, any evaluations conducted in the past for that technology or market segment, and the plans for implementation moving forward. Types of evaluations to be conducted may include, but are not limited to: Baseline Studies & Market Barrier Assessments; Impact Evaluations; Measurement & Verification; Process Evaluations; Market Assessments & Baseline Study Updates; Economic Benefits Analyses; and Customer Satisfaction Market Research.
3. While the details regarding the methods to be used in each study shall be determined through the evaluation planning process described above, ESP should make the following assumptions regarding the level of expected effort when developing their proposal.
 - a. Statistical precision of up to 90% +/- 10% may be required for key evaluation results.
 - b. Evaluations must meet current and anticipate future New York Department of Public Service requirements and guidelines, as well as any current and future New York and/or Northeast-wide protocols. ESPs should ensure that they are familiar with recent and likely future developments in these areas.

- c. Impact evaluations may need to meet future protocols developed to support the Regional Greenhouse Gas Initiative.
- d. Evaluations must cover all programs shown in Appendix J.
- e. All major programs shall receive a comprehensive impact evaluation at least every two years. Impact evaluations shall address both gross and net savings results.
- f. Programs with a significant market transformation component shall generally receive annual monitoring of appropriate market indicators, as specified by the individual program plan.
- g. The level of market assessment activity shall be sufficient to support the development of the new program approaches needed to meet LIPA's aggressive new savings goals.
- h. Evaluation activities must be designed to support a mix of resource acquisition and market transformation strategies covering the full range of markets and customer sectors.
- i. The level of effort should generally be consistent with similar efficiency programs that are being conducted in New York State.

2.1 RFP Timetable

<u>Event</u>	<u>Target Date</u>
RFP Issuance	April 13, 2009
Proposers' Conference	April 23, 2009
Deadline for Questions	April 23, 2009
Notice of Intent to Bid or Decline	April 30, 2009
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Commence Evaluation	Date of Comptroller Approval, estimated September 30, 2009

2.2 Scope of Work

General tasks and assistance that shall be provided by the ESP for LIPA's CEI and ELI Program portfolios, and individual programs within these portfolios, include, but are not limited to, the following activities:

Task 1: Perform a comprehensive review of all Clean Energy Initiatives (CEI) evaluations performed from inception of the program through 2008.

Task 2: Evaluation Planning. As discussed above, evaluation planning will be a multi-stage process, beginning with the development of an overall strategic evaluation plan covering all evaluation activities and potential studies for the entire contract period; continuing with the development of detailed evaluation

implementation plans for individual programs and/or markets; and featuring an annual process in which planned evaluation activities for the forthcoming year are refined.

Evaluation plans generally include, but would not be limited to, the following three (3) categories:

1) *Impact Evaluation*

- Determine the program demand and energy savings directly achieved from each ELI program.
- Determine the environmental impacts.
- Cost-effectiveness analyses – typically, seen as an extension of impact evaluation, but may also take into account other market factors that have the potential to increase or decrease the value of the CEI/ELI programs.

2) *Process Evaluation*

- Assess how efficiently a program was or is being implemented, by evaluating the operational efficiencies of the program administrators and contractors. Process evaluations shall also assess the customer satisfaction in every aspect, use of new practices and best practices and the effectiveness of marketing and/or any program outreach activities.
- Gap Analysis – Identify strengths, opportunities and improvement in data collections and tracking systems necessary to improve evaluation processes and studies.

3) *Market Assessment*

- Determine attitude and awareness of market actors
- Measure market indicators
- Identify market barriers, and options to reduce and/or eliminate such barriers
- Conduct baseline studies, as necessary
- Update baseline for energy efficient products, if necessary.

Task 3: Data Collection and Analysis.

Survey Data collection will consist of:

- assisting in the design and development of questionnaires, studies, and expert panels and development of other forms of data collection such as focus groups, fixture counts and usage data;
- developing and implementing strategies for the selection of appropriate samples;
- pilot testing to refine data collection instruments;
- administering data collection instruments;

Survey Design Tasks will include:

- Identify, develop, and implement strategies for the selection of appropriate samples, including specification of sample size, statistical power, and expected precision.
- Develop a data analysis plan, including hypotheses to be tested and proposed statistical techniques.

Survey Implementation Tasks

- Thoroughly pilot test data collection instruments to refine and improve them.
- Administer data collection instruments.
- Collect, compile, and transmit all data to the Authority in an organized and readable format.
- Carry out any other associated survey data collection tasks as directed by the Authority
- Prior to survey implementation, the proposed methods (e.g., telephone survey, mail survey, on-line survey) shall be justified and defined in terms of the manner in which the sample will be drawn, the sample size, the expected level of statistical power, and a cost estimate. In addition, quality control strategies such as use of Computer Aided Telephone Interviewing (CATI) systems, interviewer training, pre-testing of questionnaires, the number or attempts prior to sample replacement, and other aspects of high-quality survey administration shall be specified.

Survey Data Preparation Tasks

- Prepare a final report (per survey effort) including information on the sample acquisition process, screening and Proposer selection, data collection instruments, timeframe of data collection, staff training (if applicable), Proposer outcomes, response and refusal rates, preliminary data analyses (such as descriptive statistics and frequencies), sample disposition summary, and other data collection information.

Task 4: Reporting should generally include, but not be limited to:

1. Executive Summary;
2. Methodology;
3. Detailed findings;
4. Graphs and Charts to represent findings;

5. Explanations of graphs and charts;
6. Detailed explanation and documentation of processes and procedures used in all aspects of research project; and
7. Economic impacts of the Authority's portfolio.

Additional Responsibilities

In addition to the above-noted work tasks, Respondents should take into consideration, as they are developing their proposal, that they will be under the direction of the Authority's evaluation study team and solely responsible for:

1. Developing a detailed work plan and timetable for completing each specified task that must be reviewed and approved by the Authority's evaluation team;
2. Providing the Authority's evaluation team with a quarterly update on the study's progress;
3. Keeping all data, work products, information provided by the utility or discovered by the contractor confidential;
4. Implementing those tasks as identified by the Respondent in the proposal to meet the study objectives listed in Article 2.0 – Study Objectives.
5. Providing the Authority's study team with a monthly update on the study's progress and as requested by the Authority's study team;
6. Providing the Authority's study team with draft copies of all final survey instruments, inventory forms, checklists, and protocols for review and approval; and
7. Providing the Authority with a comprehensive status report consisting of:
 - a. A comprehensive report and an Executive Summary that summarizes the past CEI evaluations, to be issued within 90 days after the date of Comptroller approval of the contract resulting from this RFP.
 - b. A detailed Efficiency Long Island (ELI) report and Executive Summary that summarizes all evaluation studies conducted by the Respondent by March 31 of each year of the contract – i.e., 2010, 2011, 2012, 2013, and 2014.

- c. A preliminary assessment report specifying aberrations from planned program impacts in the prior year by July 1 of each calendar year of the Term. The first report shall be due on July 1, 2010.
 - d. In addition, the Authority is requesting quarterly progress reports that will provide the status of each ELI program with each progress report to be issued within two weeks of each quarter's ending.
- 8. Providing the Authority with electronic and hard copies of all survey instruments, inventory forms, data collected, and evaluation results at the end of each study for the Authority's records.
 - The Authority requires reporting that will provide comprehensive summaries of results and progress toward achieving its 10 -year Energy Efficiency Long Island (ELI) goals. Such reports should enable LIPA to achieve the following:
 - 1. Improve integration of evaluation results among the portfolio of programs;
 - 2. Greater consistency of evaluation approaches;
 - 3. Reduce the number of evaluation contracts to administer;
 - 4. Better coordination among evaluators; and
 - 5. Direct access by program implementation staff to the knowledge and skills of evaluation experts.
- 9. For status reporting the following should be included but not limited to the following:
 - a. All programs should be listed with details associated with any sub programs;
 - b. Market Transformation efforts should be referenced by program;
 - c. The veracity of any proclaimed savings should be defined and supported;
 - d. Itemize any issues that pertain to the status of goals that are met, such as the programs that have achieved great strides in working towards substantially achieving objectives through market transformation; and
 - e. Identify any program modifications that were made to reflect the level of market penetration.
- 10. Provide the Authority with feedback pertaining to the level of spending required for programs to achieve their goals, including but not limited to spending in connection with, program design, societal economic factors, and the level of incentives.

11. The economic analysis shall be assessed using a regionally accepted model such as the Regional Input-Output Modeling System (RIMS II model, or its successor developed by the Bureau of Economic Analysis of the U.S. Commerce Department) specific to Nassau and Suffolk counties of New York.
 - a. Any applicable cost factors must be taken into consideration within the economic analysis. For example, Administrative and Program Implementation Costs on Long Island. For economic analysis reporting purposes, the following example is a comparison that may be considered by the ESP in preparing such economic analysis:
 1. The Authority's Portfolio impact on Long Island Output, Earnings and Employment Increases Attributable to Residential Rebates, Administrative and Implementation Expenditures, Savings attributed to Commercial Customers and Major Long Island Industries.
 2. The Industry Mix of Long Island Employment and the Estimated Industry Mix of Savings to Commercial Customers.

3.0 PROPOSAL REQUIREMENTS

Respondents are invited to prepare a proposal detailing how they will provide the services requested in the aforementioned Scope of Work – Article 2.0. In addition, Respondents are required to provide a detailed listing of any sub-Contractors that they propose to use to meet the requirements of this RFP. After review, the Authority may invite selected Respondents to demonstrate their capabilities and to provide more details on their plans and budget for the Evaluation of the Authority's Clean Energy Initiative Programs and Future Energy Efficiency Programs. This meeting will be scheduled, if needed, following the review of proposals received in response to this RFP. Following the proposal review and any requested presentations, the Authority will select a Respondent to provide an Evaluation of the Authority's Clean Energy Initiative Programs and Energy Efficiency Programs. A final, detailed scope of work will then be developed in concert with the Authority. This scope of work will be included as part of the Authority's contract with the selected Respondent.

In addition, proposals should include the information required by this section of the RFP. A proposal that does not include all of the information requested below may be deemed non-responsive and subject to rejection. **The proposal must respond to all the areas listed below, in the order listed, and conclude with a separate section on cost. The proposal should also have a Table of Contents and all pages should be numbered for easy reference.**

3.1 Proposal Format

Proposals must be submitted in two parts, in the following format:

Part A - Technical Proposal

Part B - Cost Proposal

At least one (1) copy of the proposal should contain an original signature. Proposals, excluding appendices, should not be excessively long. Concise, yet complete proposals will be an indicator of the future effectiveness of the Respondent. Each page of the proposal should state the name of the Respondent, the RFP name, and the page number, and each section should begin on a new page. LIPA may request additional data or material to support proposals. All responses to this RFP become the property of the Authority.

3.2 Proposal Requirements

All proposals must be received by **no later than 3:00 p.m. ET May 7, 2009** and must include:

1. A cover letter, which shall be considered an integral part of the proposal, shall accompany the proposal and signed by the individual or individuals authorized to bind the Respondent contractually. In signing the cover letter, the Respondent agrees to be bound by the terms of this RFP and its submission hereunder until January 1, 2010. The cover letter shall contain a statement to the effect that the Respondent's work for the Authority will not create any conflict of interest. If your firm believes that a conflict may arise, the nature of the conflict should be described.
2. Provide the name, title, address, telephone and fax numbers, and e-mail address of the individual the Authority should contact with respect to the Respondent's proposal. Make a statement regarding the availability of this individual as the primary contact to the Authority throughout this engagement.
3. Describe your firm and describe three (3) projects similar to the one requested in this RFP in which your firm was retained to provide such services. Include the dates of service, a listing and role description of personnel involved who are also being proposed for this project, a brief project description, and the client's name, phone number, and address. Please make sure that telephone numbers and client contacts are up to date.
4. Identify any prior or current work for LILCO, Brooklyn Union Gas Company, LIPA, or KeySpan/National Grid, including any subsidiaries or affiliates.

5. Provide a summary of your firm's experience in the electric utility industry and with public power authorities, investor-owned electric, other utilities, municipalities and any other pertinent clients. Please state the nature of that experience and the name of each such client.
6. Describe the team that will be assigned to this engagement, including past experience providing the same or similar services as requested in the RFP. Please address the relevant experience your team possesses for each area described within the Scope of Work. Identify the individuals who will be involved and the primary role and responsibilities of each member, as well as the principal/senior officer who will serve as the Project Manager. Please provide resumes for these individuals. Respondents are encouraged to form teams in support of an integrated bid. However, Respondents will be required to assign a lead organization for the overall project responsibility and specifically explain how sub-Contractors will be managed. Respondents should choose the strategy, which maximizes project economies and quality. Identify any sub-Contractors that may be utilized as part of your firm's proposed team. Please discuss your capability to adjust staff levels to handle varying Authority program needs for your services as the level of implementation of negotiated cooperative and other promotions may vary significantly throughout the contract period. Provide a proposed project organizational chart that corresponds to the staffing structure.
7. Describe your firm's technical approach to the key issues associated with providing the scope of services as requested in Article 2.0 – Scope of Work of the RFP. Please include a discussion of how your firm will meet the general expectations regarding level of effort discussed in Article 2.0.
8. In addition to the broad technical approach requested in item (7), Respondents shall provide specific technical evaluation approaches for each of the four scenarios described in Appendix L. The responses to these scenarios will be used to compare proposals on technical criteria, but do not necessarily reflect actual studies that will be conducted. Therefore, the scenarios will *not* be used to score proposals on cost
9. Provide a Statement of Work, identifying all of the tasks required to complete the scope of services, including anticipated deliverables and a proposed timeline within the 3 to 5-year term. The Respondent shall identify any additional tasks (e.g., on going or one-time) that your firm believes need to be covered in this engagement that were not identified in Article 2.0 – Study Objectives. Please describe why you believe each task is relevant.
10. Discuss any past or present civil or criminal investigations, pertinent litigation and/or regulatory action involving your firm or any of its employees that could

impact your firm's role or ability to perform the relevant services. If none, include a statement that there are no past or present civil or criminal legal investigations, or pertinent litigation and/or regulatory actions that could impact your ability to serve in the required capacity.

11. Identify the nature of any potential conflicts of interest your firm might have in providing these services to the Authority.
 - (a) Discuss fully any conflicts of interest, actual or potential, which might arise in connection with your firm's involvement with the Authority, particularly with respect to your firm's representation of clients listed in response to paragraphs 3 and 4 of this Article. If your firm believes that a conflict of interest might arise, please describe how any such conflict would be resolved.
 - (b) State whether your firm represents any party that is or may be adverse to the Authority.
 - (c) Certify in writing that its representation of the Authority will not create any conflict of interest involving that firm.
12. If any Respondent or its sub-Contractor is not based in New York State, discuss the mechanism that will guarantee its ability to deliver services in New York State.
13. Provide a detailed plan and timeline describing how the Respondent's information system will interface with LIPA's Siebel CRM System. The plan shall include LIPA resources necessary to complete each task within the plan. Please provide client names and project examples of other similar system interfaces that you have successfully implemented in the past. Describe the file formats, transfer protocols, load schedules, and data security methods for each example.
14. Provide the completed ESP Cost Proposal (Employees, Contractors and associated hours) **without** the hourly pricing.

3.3 Cost Proposal Requirements

Respondents shall be required to complete the Evaluation Service Provider Cost Proposal Microsoft Excel spreadsheet set forth in Attachment B. Respondents must provide the time, materials and subcontractor (if applicable) costs for performing Tasks 1 through four (including Additional Responsibilities) as outlined in Article 2.0. Such time, material and subcontractor costs shall remain in effect for the 3 to 5-year term. The excel file set forth in Attachment B should capture all time, materials and subcontractor costs associated with the provision of Services as outlined in Article 2.0, "Study Objectives."

Any alternate pricing option should be separate when referencing program review of the Authority's renewable energy programs.

Proposals shall include the following:

1. Discuss and present your firm's proposed fees and expenses to provide the scope of services requested in this RFP. Please include, for all levels of staff, the proposed fixed and variable costs for which you would provide these services to the Authority.
2. Respondents shall be required to complete the Efficiency Service Provider Cost Proposal set forth in Attachment B, providing the cost for each task, the number of hours and billing rate for each individual/role working on that task, and any materials/expenses associated with the task, as well as estimated task and project totals. The task numbers should refer to the tasks listed and explained in the proposal.
3. In addition to the fee information requested above, the Respondent may propose any alternative fee structure deemed appropriate with respect to the proposed services outlined in the Scope of Services section. **Failure to provide the required fee structure outlined in Articles 3.2 may be deemed non-responsive.**

3.4 Other

1. Provide a copy of your firm's affirmative action policy in an appendix.
2. Respondents must identify any exceptions to the terms and conditions as set forth in Attachment A attached hereto and indicate suggested alternate language for the exceptions. The nature and extent of exceptions, if any, taken by the Respondent to the terms and conditions will be a factor considered by the Authority when evaluating the proposals. Respondents that demonstrate a willingness to accept the terms and conditions in the consulting services agreement and Attachment A hereto will be given more favorable consideration by the Authority.
3. Respondents must complete the following forms and submit them with the proposal:
 - (a) Non-Collusive Bidding Certification),
 - (b) Nondiscrimination in Employment in Northern Ireland: MacBride Fair Employment Principles,
 - (c) Contingent Fee Certification,
 - (d) Contractor Disclosure of Prior Non-Responsibility Determination, and

(e) ST220CA – Contractor Certification,

The Authority welcomes suggestions for changes to facilitate delivery of, or to improve the proposed work scope. However, the basic specification must be addressed first with all alternatives provided separately and with separate pricing. Such changes shall be described in relationship to Article 2.0 of the RFP.

4.0 Proposal Evaluation Criteria

A committee consisting of Authority staff, National Grid, and possibly outside consultants (the “Selection Committee”) will evaluate and rank proposals that meet the following evaluation criteria. The Selection Committee may afford firms the opportunity to clarify proposals for the purpose of assuring a full understanding of their response to the RFP.

- Introduction and General Information: the proposal demonstrates a good understanding of work required by the RFP and all requested information is provided.
- Scope of Work: thoroughness, practicality, and creativity of the proposed approach; proposal addresses how the study objectives will be met and how the scenario analysis will be addressed; quality of the sampling strategy and stratification techniques.
- Experience and Qualifications: the proposal demonstrates that key personnel have successfully completed similar studies. Key areas of experience include the following:
 1. Experience with energy efficiency market transformation programs,
 2. Experience in market research, measurement & verification, impact evaluation, economic benefits analysis, and process evaluation of energy efficiency programs for the residential and commercial sectors,
 3. Experience with specific energy users including, but not limited to: residential customers (homeowners, renters, lower-income households, etc.), commercial building owners and managers, engineers and architects, etc. is preferred but not required.
 4. Data Collection and Analysis: Capability to work with, and collect data from, a wide-variety of respondent populations:
 - Experience in conducting large-scale data collection using mail, telephone, or the internet.
 - Experience in small-scale data collection efforts such as focus groups, panels, and in-person interviews.

- Experience in quantitative data collection methods including but not limited to, conjoint analysis, regression analysis, and time-series analysis.
 - Experience in qualitative data collection analyses such as observation studies, interviews, and case studies.
 - Experience in conducting, presenting, and interpreting descriptive and inferential statistical analyses and significance testing.
 - Experience in economic benefits analysis including possessing the skill in performing an analysis of the employment effects and economic multiplier effect of program activities.
5. Timeline: Ability to meet the Reporting deadlines set forth in the Scope of Work.
 6. Price: the competitiveness of the proposed pricing in relation to the proposed approach and level of effort.
 7. Proposed Staffing Plan: the number and type of person-hours allocated to each task will be judged in terms of its appropriateness for the proposed work plan.

Please note: proposals may be rejected if they are not complete, if the Respondent cannot begin work in the required timeframe, or if the Respondent's qualifications are found to be not commensurate with the requirements of the RFP

The cumulative non-cost criteria will be given greater consideration than the cost criteria in the evaluation of proposals.

The Authority may conduct interviews of the Respondents found to be most qualified to perform the required services based upon the RFP evaluation criteria. If so, Respondents will be notified in advance of the proposed interview date.

Prior to award of any contracts(s), the Selection Committee will conduct a vendor responsibility determination and may require eligible Respondents to answer questions and provide additional information to supplement the information provided in the attached Vendor Responsibility Questionnaire to assist the Selection Committee in making such a determination.

Respondents shall indicate in their proposals what information, if any, is proprietary and confidential. Respondents are hereby advised that the Authority is subject to the New York State Freedom of Information Law ("FOIL"). Material marked "Confidential and Proprietary" will be treated as such to the extent consistent with the obligations under FOIL, other applicable law, regulation or legal process, and will not be disclosed by the Authority except as necessary for the evaluation of proposals.

All Respondents will be notified in writing once a Respondent has been selected.

5.0 PROPOSAL CONDITIONS AND INSTRUCTIONS

5.1 Limitations

1. This RFP does not commit the Authority to award a contract, pay any costs associated with the preparation of a proposal, or procure or contract for services of any kind whatsoever. The Authority reserves the right, in its sole discretion, to accept or reject any or all responses to this RFP, to negotiate with any and all considered Respondents, or to cancel this RFP in whole or in part. The Authority reserves the right to request additional information from any or all Respondents.
2. The Respondent may be requested by the Authority to clarify the contents of their proposal. Other than to provide such information as may be required by the Authority, no Respondent will be allowed to alter its proposal or add new information after the proposal due date.
3. Only resumes, the Respondent's affirmative action policy, and any other certifications requested in this Article 5.1 may be included in the appendix. Respondents wishing to provide additional information not covered in the proposal requirements may submit such information as an additional appendix, which is to be submitted separately from the RFP response. The Authority reserves the right to take such additional information into account in considering the proposal, or not, at its sole discretion.
4. The Respondent may be required to participate in negotiations and to submit any price, technical or other revisions to its proposal, which may result from such negotiations.
5. Under a new law that applies to all contracts issued on or after January 1, 2005, the successful Respondent will be required to certify in writing either that it and its affiliates, sub-Respondents and affiliates of the sub-Respondents are registered with the New York State Department of Taxation and Finance to collect sales and use tax, or that they are not required to register. Registration is required if the successful Respondent, affiliates, sub-Respondents and the affiliates of their sub-Contractors have made sales of tangible personal property or taxable services within New York State having a cumulative value of over \$300,000 during the last year. Therefore, please indicate in your proposal whether your firm is currently registered with the New York State Department of Taxation and Finance to collect sales and use tax.
6. All material submitted in response to this RFP will become the sole property of The Authority.

7. From among the proposals received, the Authority may select one or more Respondents to perform the Services requested. Should the Authority be unsuccessful in negotiating a contract with a selected Respondent within an acceptable time frame, the Authority reserves the right to begin contract negotiations with another Respondent to the RFP in order to serve and realize the interests of the Authority.

5.2 Administrative Specifications

1. The successful Respondent must agree to provide the Authority with audit access on request during the term of the contract and for seven (7) years thereafter.
2. The Authority at any time, in its sole discretion, may terminate this contract with the selected Respondent, or postpone or delay all or part of the contract, upon thirty (30) days written notice to the successful Respondent.
3. All Respondents are obligated to update any changes in their proposal prior to the proposal due date.

5.3 Errors and Omissions

If a Respondent discovers any ambiguity, conflict, discrepancy, omission or other error in this RFP, they shall immediately notify Michael Standridge, in writing, of such error and request clarification or modification to the document. Verbal notification must be confirmed in writing.

Non-responsive proposals include, but are not limited to, those that:

- (a) are irregular or not in conformance with RFP requirements and instructions;
- (b) are conditional;
- (c) are intended to accomplish only part of the overall work; or
- (d) are not submitted on time or are submitted at any time via facsimile or email.

The Authority may waive minor informalities or irregularities in a proposal that are merely a matter of form and not substance and the correction of which would not be prejudicial to other proposals. **Failure to submit a proposal on time will not be waived by the Authority under any circumstance (e.g., traffic conditions, mail or courier failure, etc.).**

Should the Authority find it necessary, modifications to the RFP will be made by addenda. Such modifications may be given by written notice to all parties who have been furnished an RFP.

If a Respondent fails to notify the Authority of a known error or an error that reasonably should have been known prior to the final filing date for submission, the Respondent shall assume the risk. If awarded the contract, the Respondent shall not be entitled to additional compensation or time by reason of the error or its late correction.

5.4 Contract Approval

The Authority's selection of the successful Respondent shall not be binding until such selection is, in accordance with Section 112 of the New York State Finance Law, approved by the State Comptroller of the State of New York and filed in his office. No payment for services rendered can be made under the contract until such approval is obtained.

5.5 Debriefing of Unsuccessful Respondents

Upon written request to William Funk, a debriefing will be scheduled with an unsuccessful Respondent after the Authority has provided notice of its selection of one or more successful Respondent(s). Discussion will be limited to a critique of the Respondent's proposal. Comparisons between proposals or evaluations of the other proposals will not be discussed. Debriefings may be conducted in person or on the telephone.

5.6 Siebel Requirements

Technical System Requirements

Introduction

LIPA, as well as National Grid, utilizes Siebel CRM (the "System") to manage all workflow and data tracking for their portfolio of energy efficiency programs. This System captures all program-related data, including but not limited to, contract information, program goals and budgets, marketing plans and campaign data, program applications and associated documents and details, audits and consults, installed customer assets, leads and sales data, impacts and evaluation data, and provides a comprehensive audit trail.

As a part of any proposal submittal, all Respondents must demonstrate their ability to interact with, and submit all required Program-related data into the System by the start of the contract. This can be achieved either through the use of a browser-enabled Siebel

Partner Portal or through a data interface between the Respondent's source system and the System using XML (Extensible Markup Language) encoded in UTF8. The use of Partner Portal or data interface resides solely with LIPA. Respondents must demonstrate their ability to submit all program related data and the status of all program-related activities according to guidelines and data formats as stated by LIPA concurrent with the commencement of the contract period.

The design of the Siebel Partner Portal application and the interface requirements have not been finalized as of yet. They are estimated to be finalized in the fourth quarter of 2008.

Hardware & Browser Requirements

All Respondents may be required to access National Grid systems via Partner Portal Extranet (the "Extranet"). This portal is accessible via the public internet through standard internet browsers. The following information illustrates the Extranet requirements that all Respondents must meet in order to access and utilize the Extranet.

National Grid is committed to protecting the security of your account and any sensitive information you transmit to us online. We encrypt the online services section of our site. A browser with 128-bit encryption is required.

Find your operating system below to see which browsers will work best with our online services:

Please also note that your browser must be set as follows:

- Cookies must be enabled
- Java script must be enabled
- Pop-up blockers must be turned off or allowing pop-ups from liaccount.com

Windows Users (If you have AOL, see below)

Windows XP:

Internet Explorer 6.0

Netscape 6.2.3, 7.0.2

MSN 8.0

Mozilla Firefox

Windows 98:

Internet Explorer 5.01, 5.5, 6.0

Netscape 6.22, 6.23

MSN 8.0

Mozilla Firefox

Windows ME:
Internet Explorer 5.5, 6.0
Netscape 6.2.3, 7.0.2
MSN 8.0
Mozilla Firefox

Windows 2000:
Internet Explorer 5.01, 5.5, 6.0
Netscape 6.22, 6.23
MSN 8.0
Mozilla Firefox

Windows NT 4.0:
Internet Explorer 5.01, 5.5, 6.0
Netscape 6.2.3
Mozilla Firefox

America Online (AOL) Users

Windows 98, ME, 2000, XP:
America Online 6.0 and above

Macintosh Users

Macintosh OS X v 10.2:
Netscape 7.1, 7.2
Opera 7.51
Safari
Mozilla Firefox

Macintosh OS 9:
Netscape 7.0

Macintosh OS X v 10.3:
Netscape 7.1, 7.2
Safari
Mozilla Firefox

Data Requirements

All Respondents must have the capability to either enter detailed program related data into the System via the Siebel Partner Portal or through an XML interface between the Respondents' internal systems and the Siebel System.

Data must be captured at a level that minimally includes:

- Customer information, including account number, rate code, contacts, service address, mailing address, etc
- Contractor and Partner information
- All application form data elements
- Project leads
- Workflow activities and associated statuses
- # units for each instance of unique existing equipment, proposed retrofit and actual equipment installed (where applicable)
- Attributes of each unique type of equipment found, including wattage, kwh, capacity, nameplate data, age, lifetime, technology type, location, etc as specified by LIPA
- Marketing campaign responses and promotion codes
- Document attachments and scanned images
- Customer interaction notes
- All created and updated transactions should be tagged with company, user id and date/time

All Respondents must have the capability to capture all the data specified above within a relational database that can be interfaced to LIPA's Siebel System using XML interface through web services. LIPA will provide XML page formats/WSDL (Web Services Description Language) templates.

For an interfaced solution, all data must be provided by the Respondent, via web services (HTTP or HTTPS to be specified by LIPA) in an XML format, on a regular basis as specified by LIPA. A standardized XML format will be defined by LIPA and will include, at a minimum, the data elements listed above. Interfaceable data cannot be supplied in the form of a document where LIPA is unable to extract all data elements resulting in details being stranded within the document. Additionally, any data that is stored within a document or spreadsheet must also be made available through an interface-able relational database source system. Document attachments, where applicable, must be supplied with each submitted project as long as the detailed data within the document is also interfaceable from a source database system.

Respondents that will interface to LIPA must provide the ability to publish SOAP over https messaging – request and response (**SOAP** is a protocol for exchanging XML-based messages over computer networks, normally using HTTP/HTTPS. SOAP forms the foundation layer of the web services protocol stack providing a basic messaging framework upon which abstract layers can be built).

For a Partner Portal solution, Respondents must agree to data enter into LIPA's partner portal, minimally, all of the data elements listed above, for each application processed.

6.0 Communication during RFP Process

A Respondent may be disqualified from the RFP process if it has any contact regarding this RFP, beyond that allowed in this RFP, with LIPA Board members, LIPA staff or LIPA consultants during the pendency of this RFP.

Pursuant to State Finance Law sections 139-j and 139-k, this RFP includes and imposes certain restrictions on communications between LIPA and Respondents during the procurement process. A Respondent is restricted from making contacts (i.e., an oral, written or electronic communication which a reasonable person would infer as an attempt to unduly influence the award, denial, or amendment of a contract) from issuance of the RFP through final award and approval of the resulting Procurement Contract by LIPA and the Office of the State Comptroller ("restricted period") to any LIPA staff, its consultants or Board of Trustees member other than as designated herein, unless it is a contact that is included among certain statutory exemptions as set forth in State Finance Law sections 139-j(3)(a). LIPA's designated staff for this RFP, as of the date hereof is Mr. Dan Zaweski, Assistant Vice President-Energy Efficiency (516) 719-9886, Mr. William Funk, Contract Specialist, (516) 719-9235, and Ms. Kim Bregenzer, Manager of Financial Reporting, (516) 719-9820. LIPA staff and Board of Trustees (and consultants) are also required to obtain certain information when contacted during the restricted period and make a determination of the responsibility of the Respondent pursuant to these two statutes. Certain findings of non-responsibility can result in rejection for contract award, and in the event of two findings within a four year period, the Respondent is debarred from obtaining governmental Procurement Contracts. Further information about these requirements, including the contract disclosure forms can be found in LIPA's Guidelines Regarding Procurement Lobbying posted on the RFP web site.

LIPA will host a Proposers' Conference at its offices located at 333 Earle Ovington Blvd., Suite 403 in Uniondale, New York on April 23, 2009. The Proposers' Conference will include an overview of the RFP and an opportunity for Respondents to ask questions. A transcribed record of the Respondents' Conference will be posted on LIPA's RFP website at <http://www.lipower.org/>. Please notify the Authority via ~~the RFP website~~ [\(516\) 222-9137](tel:5162229137), to Mr. William Funk if you will be attending, indicating the names and titles of the attendees, by close of business on April 21, 2009.

Questions regarding this RFP should be submitted in writing via Fax, (516) 222-9137 to Mr. Funk on or before the April 30, 2009 deadline for submission of questions. Responses to any questions received will be posted on LIPA's website at www.lipower.org on a rolling basis. No other communication of questions and answers will be made.

7.0 Proposal Submission

1. A cover letter, which shall be considered an integral part of the proposal, shall accompany the proposal and be signed by the individual or individuals authorized to bind the Evaluation Service Provider contractually. In signing the cover letter, the Evaluation Service Provider agrees to be bound by the terms of this RFP and its submission hereunder until January 1, 2010. The cover letter shall contain a statement to the effect that the Evaluation Service Provider's work for the Authority will not create any conflict of interest. If Respondent believes that a conflict may arise, the nature of the conflict should be described.
2. Non-responsive proposals include, but are not limited to, those that:
 - (e) Are irregular or not in conformance with RFP requirements and instructions;
 - (f) Are conditional;
 - (g) Are intended to accomplish only part of the overall work;
 - (h) Have no signature or an improper one; or
 - (i) Are not submitted on time or are submitted at any time via facsimile or email.

LIPA may waive minor informalities or irregularities in a proposal that are merely a matter of form and not substance and the correction of which would not be prejudicial to other proposals. **Failure to submit a proposal on time will not be waived by LIPA under any circumstance (e.g., traffic conditions, mail or courier failure).**

Proposals submitted in response to this RFP should be submitted in a manner set forth below.

Six bound copies of the Respondent's proposal and One CD containing the Respondent's proposal in Microsoft Office format must be mailed, sent by courier, or hand-delivered so that they are received by **3:00 p.m. Eastern Time on May 7, 2009** at the following address:

Long Island Power Authority
Mr. Dan Zaweski, Assistant Vice President—Energy Efficiency
c/o Maryanne Colabello— Evaluation Service Provider RFP
333 Earle Ovington Blvd., Suite 403
Uniondale, New York 11553

8.0 Errors and Omissions

If a Respondent discovers any ambiguity, conflict, discrepancy, omission or other error in this RFP, it shall immediately notify Dan Zaweski, in writing, of such error and request clarification or modification to the document.

Should LIPA find it necessary, modifications to the RFP will be made by written addenda. Such modifications will be posted on LIPA's web site.

If a Respondent fails to notify LIPA of a known error or an error that reasonably should have been known prior to the final filing date for submission, the Respondent shall assume the risk. If awarded the contract, the Respondent shall not be entitled to additional compensation or time by reason of the error or its late correction.

9.0 Contract Approval

LIPA's selection of the successful Respondent, on behalf of LIPA, shall not be binding until such selection is approved, in accordance with Section 112 of the New York State Finance Law, by the State Comptroller of the State of New York and filed in his office. No payment for services rendered can be made under the contract until such approval is obtained.

10.0 Debriefing of Unsuccessful Respondents

Upon written request to Mr. Dan Zaweski, an unsuccessful Respondent may request a debriefing with LIPA staff. Debriefings will be scheduled after LIPA has provided written notice of its selection of the successful Respondent(s).

Discussions during any such debriefing will be limited to an analysis of the proposal submitted to LIPA by the Respondent requesting the debriefing. Comparisons between proposals or evaluations of the other proposals will not be discussed. Debriefings may be conducted in person or on the telephone at LIPA's discretion.

Attachment A

TERMS AND CONDITIONS

Terms and conditions shall be in accordance with the formal agreement that will be executed by the successful Respondent and THE AUTHORITY and all documents referenced therein.

Please reference attached file "LIPA Contract Terms & Conditions.doc"

Attachment B

ESP Cost Proposal

Refer to the attached Microsoft Excel File "LIPA ESP Cost Proposal.xls"

Please fill out and complete the tables set forth in Microsoft Excel file pursuant to the instructions provided therein. Provide the fully completed form in the Cost Proposal. For the Technical proposal, please provide the form without the hourly pricing by employee (no actual cost information, just staffing and projected hours by task).

Attachment C

NOTICE OF INTENT TO PROPOSE OR DECLINE

Date: _____
Via Fax or Hand Delivery

Long Island Power Authority
Mr. William Funk
Evaluation Service Provider RFP
333 Earle Ovington Blvd., Suite 403
Uniondale, New York 11553

Mr. Funk Fax #: (516) 222-9137

Dear Mr. Funk:

The undersigned intends to respond to the following RFP.

RFP Title An Evaluation of the Long Island Power Authority's Residential and Commercial Energy Efficiency Programs	Intend to Propose (YES/NO W/ REASON)

Project Proposal

Respondent/Contact:

Name of Contact Person

Company

Address

Phone #

Fax #

Internet Address

Respondent Signature

Attachment D

REQUIRED FORMS

Respondents must complete the following required forms, attached with the RFP:

1. NYS Vendor Responsibility Questionnaire
2. NYS Department of Taxation and Finance – ST220
3. Contingent Fee Certification
4. Non-Collusive Bidding Certification
5. MacBride Fair Employment Principles
6. Contractor Disclosure of Prior Non-Responsibility Determination

Attachment E

SAMPLE MARKET EFFECTS TABLE – ENERGY STAR® Labeled Homes

Attachment E

LIPA New York ENERGY STAR® Labeled Homes Program: Long Term Goals, Program Theory, & Market Effects

Market Actors Influenced	Home Buyers	Builders	Distributors/ Manufacturers	Other Market Actors
Program Stimulus¹	1. Marketing campaign to inform home buyers on (1) benefits of an ENERGY STAR Home; and (2) how to obtain an ENERGY STAR Home. 2. Energy ratings are available and used to both label ENERGY STAR Homes and also to differentiate homes that go beyond.	100. Incentives to defray the incremental costs of building to ENERGY STAR Home standards. 101. Marketing and promotion of participating builders and ENERGY STAR developments. 102. Training on (1) technical requirements of building an ENERGY STAR Home; (2) marketing and selling an ENERGY STAR Home; and (3) energy code compliance through program participation. 103. Energy ratings are available and used to both label ENERGY STAR Homes but also to differentiate homes that go beyond.	200. Market share opportunities for efficient products are identified and promoted 201. Marketing and promotion of participating manufacturers and distributors	300. New York Department of State, Codes Division (DOS) endorsement of energy ratings as code compliance tool, thereby encouraging increased use of energy ratings. 301. Development of a market-based and supported HERS infrastructure to support ENERGY STAR Home labeling and energy ratings with or without utility funding. 302. Training of subcontractors, real estate agents and lenders on the benefits and key components of ENERGY STAR homes 303. Marketing and promotion of ENERGY STAR homes by participating trade associations (e.g. NYSBA, LIBI, etc.). 304. KeySpan Gas participation in marketing and supporting the New York Energy Star Labeled Homes (NYESLH) program on Long Island.

¹ This document represents a work in progress. As programs evolve and awareness changes over time, the program stimuli and emphasis will be adjusted to best respond to and impact the market.

Attachment E

LIPA New York ENERGY STAR® Labeled Homes Program: Long Term Goals, Program Theory, & Market Effects

Market Actors Influenced	Home Buyers	Builders	Distributors/ Manufacturers	Other Market Actors
Key Long Term Goals – Success Criteria 5 years	3. A large proportion of home buyers associate quality/ benefits with ENERGY STAR Homes in 5 years. 4. The majority of home buyers are aware of ENERGY STAR Homes in 5 years. 5. Home buyers pay most of the incremental costs for an ENERGY STAR Home in 5 years.	104. A growing number of Certificates of Occupancy (COs) are labeled ENERGY STAR Homes in 5 years, with a majority of COs labeled ENERGY STAR in 10 years. 105. A high percentage of builder awareness of ENERGY STAR Homes in 5 years. 106. The majority of builders (individuals) who build at least almost of the homes on Long Island are trained in building science and ENERGY STAR Homes in 5 years. 107. A high percentage of ENERGY STAR Homes have ENERGY STAR light fixtures, appliances and mechanical ventilation systems in 5 years. 108. 10 to 20 100% net-zero electric energy consumption homes in 5 years.	202. Trade allies support the balance of the program costs not borne by builders and home buyers in 5 years.	305. Vibrant market-supported HERS infrastructure in place in 5 years. 306. Base energy code requires 86 point ENERGY STAR labeled homes as the standard in 5 years. 307. LIPA NYESLH and KeySpan Gas jointly market and promote ENERGY STAR homes.

Attachment E

LIPA New York ENERGY STAR® Labeled Homes Program: Long Term Goals, Program Theory, & Market Effects

Market Actors Influenced	Home Buyers	Builders	Distributors/ Manufacturers	Other Market Actors
<i>Market Effects</i> 1 year	6. Increased general awareness of program non-participants about ENERGY STAR Homes. 7. Increased awareness of ENERGY STAR light fixtures and appliances	109. 200 completed ENERGY STAR homes on Long Island. 110. Increased awareness of ENERGY STAR Homes program by non-participating builders.	203. Distributor familiarity with ENERGY STAR qualified products and stocking levels starts to increase.	308. Solar Pioneer and LIPA NYESLH begin discussions with Long Island builders on the promotion of net-zero electric energy homes.

Attachment E

LIPA New York ENERGY STAR® Labeled Homes Program: Long Term Goals, Program Theory, & Market Effects

Market Actors Influenced	Home Buyers	Builders	Distributors/Manufacturers	Other Market Actors
Market Effects 2-3 years	8. Awareness of the presence and benefits of ENERGY STAR Homes continues to increase (comfort, safety, health, durability, etc.). 9. Consumers begin seeking out ENERGY STAR Homes when buying, resulting in increased demand. 10. A growing market share of custom homes built to ENERGY STAR Homes standards. 11. Increased word of mouth and referrals from ENERGY STAR home owners pleased with the performance of their homes. 12. Consistent per year increase in installations of ENERGY STAR light fixtures and CFL bulbs.	111. Steadily increasing market share of ENERGY STAR 112. Participation in DOE's Building America program to help large production builders achieve additional energy savings at little or no additional costs. 113. ENERGY STAR homes have on average six ENERGY STAR light fixtures, 15 CFL bulbs, and steadily increasing HERS scores. 114. ENERGY STAR appliances such as washing machines and refrigerators are increasingly installed when offered by the builder. 115. Steadily increasing demand for and participation in builder and subcontractor technical training on building codes, building science and/or the ENERGY STAR Home program.	204. Strategic alliances with a few ENERGY STAR product manufacturers/suppliers (lighting, appliances, HVAC, insulation, and windows) to work together to promote their products and increased stocking levels 205. LIPA Solar Pioneer program alliances result in a few developments that incorporate clean generation technologies.	309. DOS recognizes and supports energy code compliance through energy ratings. 310. Federal or state tax credits for energy efficient homes (and certain appliances) may be enacted, which results in a readjustment of incentive offering. 311. LIPA Solar Pioneer program working with at least one builder on net-zero electric energy home construction. 312. DOE's Building America program works with some of the islands largest production builders. 313. Appraisers and real estate agents begin to recognize and document added value of ENERGY STAR Homes in appraisals. 314. DOS begins implementation of HERS industry support and oversight effort.

Attachment E

LIPA New York ENERGY STAR® Labeled Homes Program: Long Term Goals, Program Theory, & Market Effects

Market Actors Influenced	Home Buyers	Builders	Distributors/Manufacturers	Other Market Actors
Market Effects 2-3 years (cont'd)		116. Steadily increasing demand for and participation in ENERGY STAR Homes sales training for production builders' internal sales force. 117. Small noticeable reduction in call-backs due to home envelope and energy systems. 118. An increasing number of Long Island's largest builders commit to building the majority of their homes to New York ENERGY STAR Labeled Homes standards. 119. The number of builders constructing ENERGY STAR Homes on Long Island steadily increases annually. 120. HVAC subcontractors increasingly familiar with and competent in proper sizing and installation procedures. 121. Small noticeable changes in non-participating homes incorporating increasing ENERGY STAR products and ENERGY STAR Homes program equipment and techniques. 122. Builders continue to enroll in the ENERGY STAR Homes program despite awareness of future reduced incentives.		315. LIPA NYESLH program is recognized by EPA as a leading ENERGY STAR Homes program 316. HERS infrastructure increases to more than three active firms on Long Island. 317. NYESLH program starts to offer Green Building rating program. 318. Operational partnership established between LIPA NYESLH program and KeySpan Gas.

Attachment E

LIPA New York ENERGY STAR® Labeled Homes Program: Long Term Goals, Program Theory, & Market Effects

Market Actors Influenced	Home Buyers	Builders	Distributors/Manufacturers	Other Market Actors
Market Effects 3-5 years	13. Awareness of the presence and benefits of ENERGY STAR Homes is “common knowledge”. 14. Growing market share of custom homes built to ENERGY STAR Homes standards. 15. Home buyers willing to pay incremental costs of ENERGY STAR Homes due to reduced program incentives to builders.	123. Steadily increasing market share of ENERGY STAR Homes completed despite reduction in rebates. 124. 10 to 20 net-zero electric energy homes completed and sold. 125. Builders begin to pay for portion of costs associated with energy ratings. 126. Builders begin to implement construction strategies that allow them to achieve ENERGY STAR Homes standards at very little or no incremental cost, compared to code as a result of DOE Building America program participation. 127. Greater number (>15) of CFL bulbs are installed by builders / electricians directly, in place of direct install by raters. Number of ENERGY STAR fixtures installed continues to grow. 128. Majority of builders and subcontractors in NY completed some aspect of technical training on building performance.	206. Strategic alliances with a few ENERGY STAR product manufacturers/suppliers (lighting, appliances, HVAC, insulation, and windows) to work together to promote their products.	319. Appraisers and real estate agents begin to recognize and document added value of ENERGY STAR Homes in appraisals and sales. 320. Lenders begin to offer preferential mortgage products for ENERGY STAR Homes. 321. EPA nationally may modify ENERGY STAR Homes standards to include proper HVAC sizing and air flow due in part to NY experience.

Attachment E

LIPA New York ENERGY STAR® Labeled Homes Program: Long Term Goals, Program Theory, & Market Effects

Market Actors Influenced	Home Buyers	Builders	Distributors/Manufacturers	Other Market Actors
Market Effects 3-5 years (cont'd)		129. Majority of production builders with an internal sales force received ENERGY STAR Homes sales training. 130. Reduced number of builder call-backs. 131. Two of Long Island's largest builders commit to building the majority of their homes to ENERGY STAR Homes standards. 132. The number of builders constructing ENERGY STAR Homes on Long Island steadily increases annually. 133. Builders continue to enroll in the ENERGY STAR Homes program despite incentive reductions and increased HERS point requirements.		

Attachment E

LIPA New York ENERGY STAR® Labeled Homes Program: Long Term Goals, Program Theory, & Market Effects

Market Actors Influenced	Home Buyers	Builders	Distributors/ Manufacturers	Other Market Actors
Market Effects 6-10 years	16. Most home buyers are aware of the presence and benefits of ENERGY STAR Homes. 17. The majority of all new homes built to ENERGY STAR Homes standards due to consumer demand. 18. The “incremental costs” of ENERGY STAR Homes disappear because building this way becomes standard practice. 19. A majority of homes include a majority of ENERGY STAR light fixtures, appliances, and mechanical ventilation systems due to demand from educated home buyers.	134. The majority of all new homes built to ENERGY STAR Homes standards (without rebates) due to consumer demand. 135. Market demand increases for net-zero electric energy homes. 136. Builders fully support a vibrant energy rating industry through fees for services without subsidies. 137. Through training and experience, builders routinely construct homes to ENERGY STAR Homes standards at very little or no incremental cost. 138. A majority of homes (participating and non-participants) include a majority of ENERGY STAR light fixtures, appliances, products and mechanical ventilation systems. 139. Builders support minimum training requirements in building science as part of registration/licensing. 140. Call-backs significantly reduced.	207. Trade allies provide the majority of ENERGY STAR Homes program and net-zero electric energy home training, funding and support beyond what home buyers are willing to cover.	322. DOS increases code standards up to ENERGY STAR Homes standards with mechanical ventilation system component and combustion safety standards. 323. Competitive, builder-funded HERS infrastructure in place. 324. National and regional “green building” become the umbrella certification program under which ENERGY STAR Homes and net-zero electric energy homes reside. 325. Preferential mortgage products available that recognize highly rated homes supported by appraisals that reflect increased value of these homes. 326. Statewide builder registration / licensing including building science provision. 327. EPA national standards become more inclusive of all energy using and saving products in house and ratchet up.

Attachment E

LIPA New York ENERGY STAR® Labeled Homes Program: Long Term Goals, Program Theory, & Market Effects

Market Actors Influenced	Home Buyers	Builders	Distributors/Manufacturers	Other Market Actors
Market Barriers Reduced / Overcome	20. Lack of awareness of benefits of energy efficient homes. 21. Inability to differentiate between efficient and inefficient new homes. 22. Lack of demand for energy efficient homes, appliances and other home products. 23. Low geographic and housing type variety that meets ENERGY STAR standards. 24. Lack of financing to enable high performance homes.	141. Lack of information and awareness on the multiple benefits in building energy efficient homes. 142. Insufficient training on building science. 143. Lack of awareness of renewable technologies and applications. 144. Inability of builders to differentiate efficient homes from inefficient homes 145. Lack of skill on how to “sell” efficiency 146. Split incentives for builders is reduced due to lower incremental costs.	208. High incremental cost for high efficiency equipment and products due to low sales volumes. 209. Low volume of marketing and distribution of high performance and ENERGY STAR products on Long Island.	328. DOS – Builder resistance to increasing building code standards. 329. HERS raters – Insufficient business opportunities to operate an energy rating business 330. Lenders – Little demand or energy cost savings track records to justify offering differentiated mortgage products. 331. EPA – Insufficient field information to justify modifying ENERGY STAR Homes standards.

Attachment E

LIPA New York ENERGY STAR® Labeled Homes Program: Long Term Goals, Program Theory, & Market Effects

Market Actors Influenced	Home Buyers	Builders	Distributors/ Manufacturers	Other Market Actors
Potential Transition Strategies	25. Rely on widespread home buyer awareness and understanding of the benefits and value of ENERGY STAR / highly rated homes to ensure on-going strong market demand and willingness to pay for ENERGY STAR / highly rated homes and components	147. Builders financially profit at least as much with ENERGY STAR / highly rated homes as with conventional homes 148. Builders adopt ENERGY STAR homes as their standard business model. 149. Builders receive building science / technical continuing education through builder association training requirements (funded by trade allies), thereby reducing the need for direct program intervention. 150. To compete in the marketplace, builders utilize techniques learned through Building America's cost-optimization strategies. 151. Sales divisions of construction companies are well-versed on selling the benefits of ENERGY STAR / highly rated homes. 152. Encourage builders to support minimum training requirements in building science as part of registration/licensing.	210. Trade allies are profiting more from sales of ENERGY STAR / highly rated homes products than from their conventional sales 211. Trade allies on Long Island benefit from the public relations value of selling and promoting ENERGY STAR Homes products	332. Building energy codes ratcheted up to lock in future energy savings 333. Support DOS efforts to implement builder continuing education requirements to ensure energy efficient quality homes 334. HERS infrastructure supported by builders to differentiate homes based on energy efficiency 335. Encourage lenders to offer preferential mortgage products for ENERGY STAR Homes to spur home buyer demand 336. EPA ratchets up ENERGY STAR Homes standards based on national program success; codes follow suit up to previous (current) ENERGY STAR Homes standards 337. Help to develop and support market-based green building programs that incorporate ENERGY STAR and higher performance standards.

Attachment F

**MARKET EFFECTS TABLE – HOME PERFORMANCE WITH ENERGY
STAR®**

Attachment F

MARKET EFFECTS TABLE – HOME PERFORMANCE WITH ENERGY STAR®

Market Actors Influenced	Home Buyers	Builders	Distributors/Manufacturers	Other Market Actors
Program Stimulus	1. Desire for improved building performance, whether for comfort, energy efficiency including reduced energy costs or indoor air quality.	100. Desire to offer services comparable to those available elsewhere in NY state.	200. Desire to offer services comparable to those available elsewhere in NY state.	300. NYSERDA HPES program. 301. EPA marketing of HPES.
Key Long Term Goals – Success Criteria	2. Ability to call upon a well developed infrastructure of building performance contractors in both Nassau and Suffolk counties.	101. Existence of multiple contractors (20 – 25) who are Building Performance Institute certified as Building Analysts or as Shell Specialists.	201. Existence of multiple contractors (20 – 25) who are Building Performance Institute certified as Building Analysts or as Heating Specialists.	301. Seamless integration with NYSERDA HPES program.
<i>Market Effects</i> 1 year	3. Full participation of at least 10 home owners in program.	102. At least 5 building envelope contractors who are BPI certified.	202. At least 5 HVAC contractors who are BPI certified.	302. Integrated marketing with NYSERDA HPES.
Market Effects 3-5 years	4. Full participation of at least 100 home owners in program.	103. At least 15 building envelope contractors who are BPI certified.	203. At least 15 HVAC contractors who are BPI certified.	303. Active support from contractor associations and affiliated entities such as home inspectors.

Attachment F

MARKET EFFECTS TABLE – HOME PERFORMANCE WITH ENERGY STAR®

Market Actors Influenced	Home Buyers	Builders	Distributors/Manufacturers	Other Market Actors
Market Effects 6-10 years	5. Most homeowners are aware of the presence and benefits of HPES. .	104. The majority of building envelope contractors are aware of the presence and benefits of participation in HPES. 105. Whether or not a contractor formally participates in HPES, BPI best practices have become the typical practice. 106. Call-backs significantly reduced.	204. The majority of HVAC contractors are aware of the presence and benefits of participation in HPES. 205. Whether or not a contractor formally participates in HPES, BPI best practices have become the typical practice. 206. Call-backs significantly reduced.	304. Active marketing by LIPA and NYSEDA no longer required.

Attachment F

MARKET EFFECTS TABLE – HOME PERFORMANCE WITH ENERGY STAR®

Market Actors Influenced	Home Buyers	Builders	Distributors/Manufacturers	Other Market Actors
Market Barriers Reduced / Overcome	6. Lack of awareness of the full range of benefits from a comprehensive retrofit work scope 7. Lack of a building performance contractor infrastructure 8. Lack of financing to allow comprehensive retrofits	107. Lack of information and awareness on the multiple benefits from a comprehensive work scope rather than competing strictly on price or volume. 108. Insufficient training on building science.	207. Lack of information and awareness on the multiple benefits from a comprehensive work scope rather than competing strictly on price or volume. 208. Insufficient training on building science. .	305. Difficulties associated with integrating marketing of NYSERDA and LIPA brands/needs.

Attachment F

MARKET EFFECTS TABLE – HOME PERFORMANCE WITH ENERGY STAR®

Market Actors Influenced	Home Buyers	Builders	Distributors/Manufacturers	Other Market Actors
Potential Transition Strategies	9. Promote general ENERGY STAR brand as well as the potential for increased comfort and value from a comprehensive package of energy efficiency improvements. 10. Provide financing packages and other incentives for participating in HPwES.	109. Promote market differentiation based on a comprehensive work scope rather than having to compete on price alone. 110. Provide building performance training. 111. Provide low/no cost BPI certification. 112. Provide financing for diagnostic equipment purchases 113. Provide financing packages that can be offered home owners for participating in HPwES. 114. Provide incentives for promotion of comprehensive work scopes.	209. Promote market differentiation based on a comprehensive work scope. rather than having to compete on price alone. 210. Provide building performance training. 211. Provide low/no cost BPI certification. 212. Provide financing for diagnostic equipment purchases. 213. Provide financing packages that can be offered home owners for participating in HPwES. 214. Provide incentives for promotion of comprehensive work scopes.	306. Work with NYSERDA to leverage their existing resources to benefit from lessons learned.

Attachment G

HISTORY OF EVALUATION STUDIES PERFORMED FOR CEI PROGRAMS

Program	Evaluation Performed	Findings
ENERGY STAR® Labeled Homes	Baseline Study 2003/2004 Attitude & Awareness Baseline Study and Market Barrier Assessment- 2007-2009	- Established a technical baseline to document the baseline market for ENERGY STAR homes to inform initial program design and future program evaluation - Enhanced LIPA's understanding of the new and existing residential construction markets to inform program design. - Gained a thorough understanding of how homes are being built on Long Island in order to develop appropriate builder outreach strategies - Provided a technical baseline against which to compare participating homes and assess their savings. - Research included site visits to 76 newly constructed single family homes and multi-family buildings in Nassau and Suffolk Counties. A comprehensive inspection of the building, its thermal properties and it leakiness was conducted, refrigerant charge and air flow of the cooling system was tested, and an inventory of all equipment and appliances in the home was completed. This baseline study began in June 2007 and is scheduled to be completed in the first quarter of 2008; one follow-up study is included in the contract with KEMA, to be conducted in 2009. Please note that this is a joint study being conducted for both the ENERGY STAR® Labeled Homes and Home Performance with ENERGY STAR® Programs. Objectives: - Define and estimate baseline values for key indicators of market changes expected to result from the programs, particularly attitude and awareness indicators - Validate or refine the study team's preliminary assumptions about the structure and functioning of the residential new home and home renovation markets. - Validate or refine the study team's preliminary assumptions about the barriers to the adoption of energy efficiency in Long Island homes. - Identify any specific market segments or niches that offer special opportunities for the implementation of the programs - Provide recommendations for possible improvements to the programs. Research to be conducted for this study includes: quantitative telephone surveys of recent home buyers and homeowners who have recently renovated their homes; a combination of in-depth telephone interviews and quantitative telephone interviews with builders and renovation contractors; and in-depth telephone interviews with specialty contractors, other market actors, and LIPA/contractor program design & implementation staff.

Home Performance with ENERGY STAR®	An Attitude & Awareness Baseline Study & Market Barrier Assessment – 2007 - 2009	This baseline study began in June 2007 and is scheduled to be completed in the first quarter of 2008; one follow-up study is included in the contract with KEMA, to be conducted in 2009. <i>Please note that this is a joint study being conducted for both the ENERGY STAR Labeled Homes and Home Performance with ENERGY STAR Programs</i> <u>Objectives:</u> • Define and estimate baseline values for key indicators of market changes expected to result from the programs, particularly attitude and awareness indicators. • Validate or refine the study team's preliminary assumptions about the structure and functioning of the residential new home and home renovation markets • Validate or refine the study team's preliminary assumptions about the barriers to the adoption of energy efficiency in Long Island homes. • Identify any specific market segments or niches that offer special opportunities for the implementation of the programs • Provide recommendations for possible improvements to the programs. Research to be conducted for this study includes: quantitative telephone surveys of recent home buyers and homeowners who have recently renovated their homes; a combination of in-depth telephone interviews and quantitative telephone interviews with builders and renovation contractors; and in-depth telephone interviews with specialty contractors, other market actors, and LIPA/contractor program design & implementation staff.
Energy Efficient Products	Appliance & Lighting Baseline Study-2000/2001	• Addressed the market for energy-efficient residential lighting products and appliances by assessing the market barriers, marketing effects and their associated indicators to be used to measure the effects of the lighting and market transformation programs. • Lighting research analysis was based on hundreds of residential phone surveys, mail surveys and on-site visits. In addition, manufacturers, remodelers, retail store managers and conducted a retail store shelf inventory • Appliance study consisted of phone and mail surveys with residential customers and interviews with retail store managers, property managers and manufacturers.
	Resi Lighting Baseline Study-2002	• Estimated the baseline efficiency of lighting measures in residential dwellings and the side of the targeted residential lighting market. • Estimated the baseline values for key indicators of market changes expected to result from the programs. • Validated/refined the preliminary assumptions about the structure and operation of residential lighting markets and barriers of the spread of efficient lighting products targeted by the program. • Identified specific market segments that may offer special opportunities for lighting efficiency.
	Resi Lighting & Appliance Baseline tracking Study-2003	• Follow-up research to assess the market changes that had occurred since the baseline survey in 2000/2001 consisting of 650 residential customer telephone surveys as well as 32 surveys with retail store managers.

Energy Efficient Products (Cont'd)	Final Report: Evaluation of LIPA's Resi Lighting & Appliance Program- 2004 LIPA Residential Lighting Program Evaluation -2006	• Estimated the latest values at the time of key indicators of market changes expected to result from the program compared to indicators that were measured in the baseline study in 2002. • Made some conclusions about the extent of any market changes at that time and the impacts of the programs on those changes. • Provided insights and strategies regarding the design and operation of the programs. • Updated planning factors used in the Residential Lighting Program energy savings algorithms. • Determined where the LIPA's Residential Lighting Program stood in the transformation of the residential lighting market and assess the remaining market potential through telephone and on-site surveys.
Cool Homes	Baseline Evaluation -2002 Impact Evaluation-Market Effects-2003 Impact Evaluation-Market Progress and Evaluation - 2004	• Identification of drivers and barriers of the residential HVAC market in LIPA's service territory through a baseline study of this market. • The information will be used to implement a market transformation program for the residential HVAC market and will also serve as a baseline for measuring changes in the market. • Estimate baseline efficiency of recently installed HVAC equipment and systems in residential dwellings in LIPA's service territory (including baselines for other components of the program, such as programmable thermostats, proper sizing, refrigerant charge, and air flow). • Estimate baseline values for key indicators of market effects/changes expected to result from the program • Validate or refine LIPA's preliminary assumptions about the structure of targeted residential HVAC market channels, barriers to transformations targeted by the program, and decision-making practices of key market indicators • Summarize the market effects attributed to LIPA's residential HVAC program. This summary is based on a comparison of results of a baseline study conducted at the end of 2000 and the beginning of 2001, covering the 2000 HVAC program, and a follow-up study conducted at the end of 2002 and the beginning of 2003, covering the 2002 program. • This study is a follow-up to the baseline study conducted in 2000. The overall objective of this study is to update the status of market drivers and barriers previously identified in the baseline study of this market. This information will help LIPA determine the progress toward market transformation program for the residential HVAC market in the LIPA service territory, and to assess changes in the market and the effects of the program • The specific objectives of this study are as follows: • To provide updated values for key indicators of market changes that have resulted from the program • To identify any changes in the structure and functioning of the residential HVAC market, and to assess the current status

Cool Homes (Cont'd)	Update Energy Savings Algorithm - 2007	of market barriers - To recommend program changes that could enhance efficiency of delivery or increase marketing effectiveness - To provide estimates of key adjustment factors to the algorithms for estimating energy and demand savings resulting from the program, including free ridership and spillover Update to Energy Savings algorithm from 10.2 baseline to 13 SEER standard - Review and updated baseline per Proctor Engr. Group - No Charge
Residential Energy Affordability Partnership (REAP)	Preliminary Process and Impact Evaluation Evaluation Site Visits of REAP Program Participants (Fall 2002) Impact Evaluation – 2003 Process Evaluation-2004	- First process evaluation and preliminary impact of evaluation of this program. (Program implemented Apr 2000) - Study included a telephone survey of program participants, in-depth interviews with program staff, planners, evaluators, contractors and community agencies, and an engineering analysis study. - The study concluded that the REAP Program is proving successful in meeting its goal of saving energy for its low income customers and doing so in a high quality and efficient manner. - Site visits conducted by CMC Energy Services under contract to Megdal & Associates. - Site visits were conducted as part of a two-year evaluation process. A summary of the results and overall findings was included in the year two impact evaluation below. - Two impact evaluation efforts were conducted. These were site visits and billing analysis. - The report also references a limited refrigerator metering study conducted to assist answering evaluation and planning questions and a study conducted by NSTAR Electric and Gas Services, Inc. concerning lighting usage. - Findings: Refrigerators had an almost 100% retention rate. Limited refrigerator metering study found refrigerator savings estimates are probably overestimated. Lighting savings, a large part of program savings, may be significantly less than estimated. Customers relocate many of the retained CFLs. - Third and final report in a multi-year initial evaluation effort. Data was collected through interviews with program personnel and a participant telephone survey.
Residential		

Energy Affordability Partnership (REAP) - (Cont'd)	Preliminary Analysis of REAP Customer Arrears pre-and post Energy Efficiency Measures (2004) Paper: Learning from Successive Evaluations of a Low-Income Program (2005) Analysis of 2006 REAP Customer Arrears pre-and post Energy Efficiency Measures (2006)- Completed March, 2008	• Overall program continued to be successful in the view for program staff, contractors, and participants. • Program staff rated the successfulness of the program to be 8.0 on a scale of 1 to 10. The quality of the program was rated 7.8. Participant satisfaction was 81%. (These 3 ratings were all up from the ratings in the 2001 Preliminary Impact and Process Evaluation). • Researched the availability of historic arrears data collection within the existing framework of KeySpan's • Researched the availability of historic arrears data collection within the existing framework of KeySpan's intervention in order to collect historic data. • Proceeded with an analysis to quantify (a small sample of) 2004 REAP customers arrears before & after energy efficiency measures were implemented. Received LIPA approval to proceed with automating data collection and expand customer scope. • Worked with IT to put in place avenues of data collection for REAP customers and the total residential population for future analyses. • Paper was presented at the IEPEC Conference (Brooklyn, NY: Aug 2005) by Lori Megdal of Megdal & Assoc. • Authors reported on a multi-year process evaluation of a LIPA's program to help low-income customers afford their energy bills. The multi-year approach allowed the evaluation team to examine whether change in the program had been effective or not. The approach separated the effects of changing participant demographics from changes in program satisfaction and concluded that program changes had significant impacts on participant satisfaction. • Analyzed the 2006 REAP customer arrears as compared to the total residential population. • Worked with Honeywell to modify and set parameters to ensure that all REAP accounts are in the desired format in order to meet Datamart template requirements. This work was performed by Honeywell at no extra cost. • Requested further program refinements, from IT, in order to better reflect the arrears before and after energy efficiency implementation. Results of analysis are anticipated during 4th quarter of 2007. • We recommend that this analysis be replicated some time in the future; preferably when economic factors are more stable. We believe this would yield more conclusive and favorable results.
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Solar Pioneer	Photovoltaic Baseline Study (2002)	• Estimated the baseline values for key indicators of market changes expected to result from the program. • Validated/refined LIPA's preliminary assumptions about the structure and functioning of the rooftop solar PV market and the barriers to PV market transformation targeted by the program. • Identified specific market segments or niches that may offer special opportunities for the residential rooftop solar PV market. Research conducted for this study included: in-depth telephone interviews with manufacturers, PV contractors, local and regional market actors, and the managers of several PV programs nationwide; and a quantitative telephone survey of homeowners.
	Market Progress and Evaluation Report (2003)	• Provided updated values for key indicators of market changes that have resulted from the program. • Identified any changes in the structure and functioning of the rooftop solar PV market, and assessed the current status of market barriers. • Performed a partial process evaluation of the program. • Recommended program changes that could enhance the efficiency of the delivery of photovoltaics to the market or increase marketing effectiveness. Research conducted for this study included: in-depth telephone interviews with manufacturers, PV contractors, local and regional market actors, LIPA system planners, and LIPA program design & implementation staff; and a quantitative telephone survey of non-participating homeowners, environmentally conscious homeowners, homeowners who attended a LIPA Solar Seminar, and residential & commercial program participants.
	Paper & Presentation: "Using Theory-based Evaluation to Help Plan Improvements – (2004)	Presented by Timothy Pettit (Nexus Market Research) and Ann M. Clarke (LIPA), and co-authored by Carolyn Jaskot (LIPA), David Hill (VEIC), Ralph Pahl (Pahl & Associates), and Marjorie McRae (Research Into Action), American Solar Energy Society (ASES) Annual Conference, Portland, Oregon, July 10-14, 2004. • Recommended program changes that could enhance the efficiency of the delivery of photovoltaics to the market or increase marketing effectiveness. Research conducted for this study included: in-depth telephone interviews with manufacturers, PV contractors, local and regional market actors, LIPA system planners, and LIPA program design & implementation staff; and a quantitative telephone survey of non-participating homeowners, environmentally conscious homeowners, homeowners who attended a LIPA Solar Seminar, and residential & commercial program participants
	RFP Issued, A Study of Photovoltaic System Performance-2004/2005	RFP issued in fall of 2004 but only two bidders, with widely varying costs, submitted proposals. After a thorough review of each proposal, including a separate Q&A session with each bidder, Purchasing and the evaluation team decided not to award the contract, and instead re-issued the RFP with revisions.
	Paper & Presentation: "A	Revised RFP issued in Nov. 2005, this three-year study began in the fall of 2006. <u>Objectives:</u>

Solar Pioneer (Cont'd)	Theory-based Evaluation of LIPA's Solar Pioneer Program - Measuring Early Progress in the Transformation of the PV Market on Long Island" 2005-2009 Paper & Presentation: "A Performance Evaluation Study of Photovoltaic Systems "	• Review the system design and its appropriateness for that home or location, inspect the quality of the system installation, and verify that the PV system performs as designed. 70 site inspections have been completed in 2007; an additional 50 will be performed in 2008 and 2009, for a total of 170 for the three years. • Define a performance index, or indices, that will be used to compare expected to actual system performance. • Implement a methodology for benchmarking the inspection results. • Develop a site visit checklist/protocol to be used in the future to perform routine quality control and performance monitoring inspections of PV systems. • Monitor the output of a sample of PV installations. Monitoring equipment will be installed on 35 of the 70 PV systems inspected in 2007, and on 25 of the 50 systems inspected in 2008 and 2009, for a total of 85 monitored systems by the end of the three-year study. Presented by Ann M. Clarke (LIPA) and co-authored by Robb Aldrich (Steven Winter Associates), Robert Allgor (LIPA), David Hill (VEIC), and Ralph Pahl (Pahl & Associates), International Energy Program Evaluation Conference (IEPEC), Chicago, Illinois, August 14-16, 2007.
Information Education	Impact Evaluation - 2007	• Estimated the program induced energy savings according to the program involvement and effort associated with "In Concert with the Environment" (ICWE) and the on-line "Home Energy Analyzer" that are not currently rebated through other LIPA CEI programs. • Based on about forty efficiency and/or behavioral measures by equipment type, RLW estimated the per unit energy savings that would be generated if those measures/behaviors were implemented. • Review the existing Info/Ed Program approach and activities compared to other nationally recognized utility energy efficiency education programs. • Conduct a round table discussion with teachers (both program participants & non-participants) to get their input to the design of a customized residential energy efficient lesson plan and a mechanism to document kwh savings attributed to LIPA's new In-School program. • Begin preparation of an RFP to solicit companies that offer workshop training, customized lesson plans and reporting mechanisms that allow LIPA to document residential energy savings (not captured in other CEI programs) in the 2008/2009 school year OR • Consider working jointly with NYSERDA (& their implementation Contractor NEF) to develop and pilot test a custom residential energy efficiency lesson plan to document & credit kwh savings to the In-School program and contribute to

		the Governor's 15 x 15 energy reduction goals.
Commercial Construction	C&I Baseline Study – 2000-2002	- Summarized similar baseline research studies performed by other utilities, states, or regions, and analyzed them for their applicability to Long Island - Estimated baseline values for key indicators of market change expected to result from these programs - Validated or refined the study team's preliminary assumptions about construction decision-maker processes, functioning of market channels, and barriers to market transformation targeted by LIPA's programs - Identified the differences and similarities in standard market practices for the new construction, renovation, and remodel market segments, as well as the replacement chiller market segment - Validated and refined LIPA's preliminary assumptions about the structure and functioning of the unitary HVAC market and the barriers to market transformation targeted by LIPA's programs - Estimated the baseline, or standard market practices for equipment specification, building design, and system design for the new construction, renovation, and remodel market segments. All of the measures included in LIPA's Commercial/Industrial Construction Program were covered in this analysis, including lighting, unitary HVAC, chillers, motors, and variable speed drives. - Research conducted for this study included three major data collection efforts: detailed on-site surveys were performed for a sample of newly constructed and renovated buildings; in-depth interviews and surveys with decision makers and design professionals were performed for the new construction and renovation markets; and in-depth interviews and surveys with distributors, contractors, and building occupants were performed for the replacement and remodel market segments. These primary data collection efforts were supplemented with information obtained from a review of baseline studies and market assessments conducted for other utilities.
	C &I Baseline Study Update Phase 1: Participant Market Impact Study (2002-2003)	- Phase 1 was a qualitative study of market participants who directly experienced the program in some way, to determine the extent to which there were signs of lasting market changes among this subset of the general population of market participants. - Estimated values for key indicators of market changes expected to have resulted in the early years of this program, as well as assessed the continued existence of barriers to the market transformation targeted by the program - Estimated the baseline for specification of Energy Management Systems (EMS) and Variable Air Volume (VAV) systems in the new construction, renovation, and replace/remodel market segments - Obtained updates to any of the other baseline market indicators within the Phase 1 timeframe - Gauged the interest of distributors (lighting, motors, and HVAC) in participating in a continuing market share tracking project - Analyzed Phase I results, compared them to the results of the initial baseline study, and drew defensible conclusions about how various aspects of the C/I construction market did or did not change - Research for this study included telephone surveys of market participants that were touched by the program in one or more of the following ways: they or their customer received a rebate from LIPA for installing energy efficient equipment; they attended a LIPA-sponsored seminar; or they had one-on-one contact with LIPA program staff. The

Commercial Construction (Cont'd)	Commercial & Industrial Baseline Study Update Phase 2: Commercial Construction Program Equipment Inventory Market Impact Study (2002-2003) Paper & Presentation: "LIPA's Commercial Construction Program: Demonstrating Initiative Influence along the Road to Transformation" - 2005 Baseline Study Update Phase 3: Market Impact Study (2006-2008)	market actors that were surveyed included design professionals (architects, HVAC engineers, and lighting designers), builders/developers, and contractors (lighting and HVAC). • Phase 2 was a full-scale update to the comprehensive on-site surveys conducted in the Baseline Study. • Estimated key indicators of market changes that were expected to show signs of movement after 3-5 years of program activity, according to the program theory developed at the program's inception. • Compared Phase 2 results to the results of the on-site surveys performed in the initial baseline study; where possible, drew defensible conclusions about how various aspects of the C/I new construction and renovation markets have or have not changed. • Research for this study included on-site visits to schools, retail facilities, and offices that had new construction and/or renovation work performed in 2002 or 2003. An inventory of all electricity-using equipment was performed during each site visit. In addition, after the on-site visit was completed, a telephone survey was conducted with the decision-maker(s) for each facility. • Phase 3 will provide an update to the baseline for the market as a whole, but will also answer some information needs of the program implementation team. • Update metrics expected to change within 5 years of program inception on the market actors that showed early signs of increased adoption of energy efficiency practices and equipment in the Phase 1 research • Estimate the annual total square footage of new construction and major renovation activity on Long Island • Establish populations of trade allies and design professionals serving the Long Island market • Gather information about motivations for pursuing Green Building certification and the priority of energy efficiency in obtaining certification • Primary research for this study will include telephone surveys and telephone interviews with lighting designers, HVAC engineers, architects, and green building owners/developers. Secondary research will be conducted using CMD, Dodge, Dun & Bradstreet, and InfoUSA, among other secondary sources. • Recommend changes to the program that will improve its delivery • Presented by Thomas A. Ledyard (RLW Analytics) and co-authored by Ann M. Clarke (LIPA), Ralph Pahl (Pahl & Associates), Todd Romano (LIPA), and Eric Belliveau (Optimal Energy), International Energy Program Evaluation Conference (IEPEC), Brooklyn, New York, August 17-19, 2005. • Phase 3 will provide an update to the baseline for the market as a whole, but will also answer some information needs of the program implementation team. • Update metrics expected to change within 5 years of program inception on the market actors that showed early signs of increased adoption of energy efficiency practices and equipment in the Phase 1 research
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		• Estimate the annual total square footage of new construction and major renovation activity on Long Island • Establish populations of trade allies and design professionals serving the Long Island market • Gather information about motivations for pursuing Green Building certification and the priority of energy efficiency in obtaining certification • Primary research for this study will include telephone surveys and telephone interviews with lighting designers, HVAC engineers, architects, and green building owners/developers. Secondary research will be conducted using CMD, Dodge, Dun & Bradstreet, and Info USA, among other secondary sources.
Retrofit Energy and Capacity Program (RECAP)	Measurement & Verification Protocols –2003	• Established by the Program Manager and LIPA's consultants, and reviewed by Energy Efficiency Program • Includes, for some technologies, stipulated algorithm factors the contractor can use if they don't want to measure savings for each specific project.
LIPAEEdge	Impact Evaluation –2003, 2004,2005 Impact Evaluation - 2007	• AEG conducted a multi-year field inspection - test of approximately 500-600 CAC participants on High Load Days to determine an average adjustment to the unit's nameplate wattage. This percent adjustment is used to calculate the Adjusted Kw Load • ES&M mailed letters to all Pool Pump customers (who still receive \$25/yr.) to verify who still had these DLC devices installed. Follow-up field visits of customers who did not respond to the survey were performed by Honeywell. • AEG made telephone calls and sent mail surveys to customers who had a Non-Response Thermostat (NRT); (i.e. AEG did not get a response signal back from these customers). • Honeywell conducted follow-up field visits to determine the cause and either initiate corrective measures or remove the thermostat
Customer Driven Efficiency	1999	The CDE Program provides assistance to Commercial and Industrial customers wishing to make energy efficiency improvements not covered in any of LIPA's other Clean Energy Initiative programs. The overall objective of the CDE Program is to facilitate energy efficiency investments through identification of cost-effective measures and referral to other programs offered under LIPA's Clean Energy Initiative The CDE Program has been in operation since May 3, 1999. While the CDE Program is managed by LIPA Clean Energy Initiative staff, marketing, referrals and follow-up are the primary responsibility of LIPA's Major Account Executives, Customer Representatives, and Economic Development Representatives. The CDE Program initially was not a formal component of the Clean Energy Initiative. Rather, it was developed first as a customer relations program to provide valuable service to its customers, no specific evaluations were performed until 2007 Program Evaluation -KEMA Inc.

Customer Driven Efficiency (Cont'd)	2007	This evaluation is structured to assess the effectiveness of both in terms of customer relations and support for the overall CEI effort. The two principle objectives are as follows: 1. Assess the effectiveness of the consult and audit services at leveraging energy efficiency investments by participating customers. In particular, determine the extent to which participants went on to implement measures with and without assistance from Clean Energy Initiative programs. 2. Conduct an overall process and performance evaluation of the CDE program. Review procedures, tracking system data, audit report documents, and interview staff, contractors, and customers to identify potential improvements that would enhance performance of the program. Also examine operations of similar programs for guidance on this issue Note: As a result of the evaluation study it was decided the plan for 2008, No energy savings resulting from the CDE will be reported, the costs would be captured under a Business Services umbrella per discussions among Optimal and Program Managers Presentation given at 4th Annual Spring Conference: The Secrets to Successful Energy Efficiency Program Implementation, Session: Integrating Implementation with Evaluation May 7-9, 2007,
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Attachment H

OVERVIEW OF CLEAN ENERGY INITIATIVE PROGRAMS

1. ENERGY STAR® Labeled Homes
2. Home Performance with ENERGY STAR®
3. Energy Efficient Products
4. Cool Homes
5. Residential Energy Affordability Partnership (REAP)
6. Solar Pioneer
7. Information Education
8. Commercial Construction
9. Retrofit Energy and Capacity Program (RECAP)
10. LIPAEdge
11. Customer Driven Efficiency

1. ENERGY STAR® Labeled Homes

In accordance with the specific New York State Public Service Commission mandate to support energy efficiency and affordability to New York State residents, the Authority is implementing energy-efficiency market transformation initiatives targeting residential new construction and existing homes and buildings. The purpose is to encourage the construction of ENERGY STAR® qualified homes and to facilitate the growth of the nascent building performance industry on Long Island, as well as to promote comprehensive and safe energy efficiency

In early 2001, the New York State Energy Research and Development Authority (NYSERDA) began the implementation in upstate ENERGY STAR® Labeled Homes initiatives targeted towards transforming the residential energy efficiency marketplace. the Authority is adopting these programs to create a competent and professional contractor, builder and designer infrastructure to deliver energy efficiency services to the Authority customers. The ENERGY STAR® Labeled Homes initiative provides a focus for residential new construction through the use of HERS (Home Energy Rating System) certified energy raters who verify the performance characteristics of residential new construction.

In 2003, a Long Island Residential New Construction Technical Baseline Study was completed. It is available on the Authority's web site at the following link:
www.lipower.org/cei/nyesh.html.

An integral component of these initiatives is a comprehensive consumer awareness/education marketing campaign, including: an extensive print, television, and radio marketing campaign; a toll-free phone number, which is currently 1-877-NY-SMART; and a website, which is currently GetEnergySmart.org. When consumers call

the toll-free number or access the web site, they receive an information packet, a video, and a list of participating, certified contractors in their area. Providing customers with a contractor list not only serves to boost their comfort and confidence level in the initiative, but it also provides consumer assurance and the impetus for market transformation for ENERGY STAR® Labeled Homes.

ENERGY STAR® Labeled Homes initiatives are designed to move the Long Island home market to energy efficiency through a comprehensive "house-as-a-system" concept, using contractor certification (existing homes) and the Home Energy Rating System (new construction), coupled with a comprehensive consumer and contractor awareness/education campaign, and incentives aimed at overcoming barriers to mid-stream market participants. The underlying principles of these initiatives are the following:

- Facilitate the growth of the building performance industry on Long Island.
- Increase the home energy efficiency, health, safety, and comfort of the residential housing stock on Long Island.
- Build the infrastructure of certified home performance contractors and home energy raters on Long Island.
- Promote the "house-as-a-system" philosophy.
- Maintain the high technical standards, guidelines, and integrity of the ENERGY STAR® Labeled Homes initiatives.
- Increase adoption and application of the technical "best practices" for home improvement and new construction among all parties that influence consumer decisions regarding the improvement of existing homes and the building of new homes on Long Island.
- Incorporate a proven marketing template that increases consumer awareness and demand and encourages contractor participation.

The objective of the program is to build a sustainable market infrastructure that reliably, professionally, and capably supports energy efficiency and ENERGY STAR® in the home building and home remodeling/renovation market on Long Island.

Although the NYSERDA programs have been operating since 2001, the Authority kicked off the ENERGY STAR® Labeled Homes Program in the summer of 2004.

Table 1 lists the actual participation, energy savings, and peak savings through December 31, 2007.

Table 1: ENERGY STAR® Labeled Homes			
Year	Number of Homes Certified	Summer Peak (MW)	Energy (MWh)
2004	16	0.027	37.4

2005	59	0.172	154.2
2006	349	0.959	1015.0
2007	87	0.176	313.7

2. Home Performance with ENERGY STAR®

In accordance with the specific New York State Public Service Commission mandate to support energy efficiency and affordability to New York State residents, the Authority is implementing energy-efficiency market transformation initiatives targeting residential new construction and existing homes and buildings. The purpose is to encourage the construction of ENERGY STAR® qualified homes and to facilitate the growth of the nascent building performance industry on Long Island, as well as to promote comprehensive and safe energy efficiency

In early 2001, the New York State Energy Research and Development Authority (NYSERDA) began the implementation in upstate New York of Home Performance with ENERGY STAR® and initiatives targeted towards transforming the residential energy efficiency marketplace. The Authority is adopting these programs to create a competent and professional contractor, builder and designer infrastructure to deliver energy efficiency services to the Authority's customers. The Home Performance with ENERGY STAR® initiative, through a comprehensive "house-as-a-system" energy assessment, focuses on increasing the health, safety, durability and energy efficiency of existing one-to four-family homes.

An integral component of the initiative is a comprehensive consumer awareness/education marketing campaign, including: an extensive print, television, and radio marketing campaign; a toll-free phone number, which is currently 1-877-NY-SMART; and a website, which is currently GetEnergySmart.org. When consumers call the toll-free number or access the web site, they receive an information packet, a video, and a list of participating, certified contractors in their area. Providing customers with a contractor list not only serves to boost their comfort and confidence level in the initiative, but it also generates qualified leads for Home Performance contractors.

The Home Performance with ENERGY STAR® Homes initiatives are designed to move the Long Island home market to energy efficiency through a comprehensive "house-as-a-system" concept, using contractor certification (existing homes) and the Home Energy Rating System (new construction), coupled with a comprehensive consumer and contractor awareness/education campaign, and incentives aimed at overcoming barriers to mid-stream market participants. The underlying principles of these initiatives are the following:

- Facilitate the growth of the building performance industry on Long Island.
- Increase the home energy efficiency, health, safety, and comfort of the residential housing stock on Long Island.

- Build the infrastructure of certified home performance contractors and home energy raters on Long Island.
- Promote the "house-as-a-system" philosophy.
- Maintain the high technical standards, guidelines, and integrity of the Home Performance with ENERGY STAR® initiatives.
- Increase adoption and application of the technical "best practices" for home improvement and new construction among all parties that influence consumer decisions regarding the improvement of existing homes and the building of new homes on Long Island.
- Incorporate a proven marketing template that increases consumer awareness and demand and encourages contractor participation.

The objective of these programs is to build a sustainable market infrastructure that reliably, professionally, and capably supports energy efficiency and ENERGY STAR® in the home building and home remodeling/renovation market on Long Island.

Although the NYSERDA programs have been operating since 2001, the Authority began implementing the Home Performance with ENERGY STAR® Program in the fall of 2005.

Table 1 lists the actual participation, energy savings, and peak savings through December 31, 2007.

Table 1: Home Performance with ENERGY STAR®			
Year	Number of Homes Certified	Summer Peak (MW)	Energy (MWh)
2004 – 2005	0	0	0
2006	71	0.074	109.4
2007	43	0.414	72.5

Home Performance with ENERGY STAR (HPwES) is a residential retrofit program which seeks to transform the way energy efficiency services are delivered to existing one to four family homes on Long Island. At the program's core is its "house as a system" approach to home improvement contracting. This approach incorporates an extensive building science component to ensure that sub-system interactions are appropriately acknowledged, particularly regarding health and safety. This approach also places a high priority on quality of installation and comprehensiveness of work scope.

A key program component is the recruiting, training, and credentialing of the participating contractors as part of the effort to transform the existing retrofit market from its current fragmented state to one in which contractors recognize the value of coordinating their services. This is being done through requiring that participating contractor field staff be certified through the Building Performance Institute (BPI). A

third-party QC contractor has been engaged to ensure compliance with program standards.

This program began as a collaborative effort between the Authority and the New York State Energy Research and Development Authority (NYSERDA) but, since July 1, 2006, has been operated independently of the NYSERDA version to allow meeting the needs of the Authority customers more effectively.

3. Energy Efficient Products (Formally Residential Lighting & Appliance (RLA) Program

The Authority's Energy Efficient Products Program (EEP) formally Residential Lighting & Appliances Program is a proud sponsor of ENERGY STAR® and encourages customers to purchase appliances and lighting products that have earned the ENERGY STAR label. Through the Authority's efforts, 100% of Long Island Appliance retail stores now carry refrigerators, dishwashers and clothes washers that bear the ENERGY STAR label.

The Authority's EEP formally RLA is also part of a regional programmatic effort coordinated by Northeast Energy Efficiency Partnership (NEEP). Common program initiatives are implemented throughout the region in order to facilitate regional transformation of the residential lighting and appliance markets. The Authority's program offers:

- Customer Incentives – the lighting component offers retail price reductions for ENERGY STAR qualified residential lighting products available at participating retail establishments.
- Retailer Services – The Authority, through its contractor Applied Proactive Technologies (APT), provides support to retailers to increase their effectiveness in selling CFL products. Specific retailer services provided by APT include:
 - Development, placement and maintenance of point-of-purchase materials to call customer attention to ENERGY STAR qualified residential lighting products and available rebates or buy-downs.
 - Training of retail sales staff on the advantage of ENERGY STAR qualified residential lighting products and how to sell them.
- Marketing & Advertising Support – through its contractor, The Authority develops marketing programs to promote customer purchase and usage of ENERGY STAR qualified residential lighting products. These programs are both in concert with other NEEP sponsors and for the Authority's RLA program alone.

Introduced in 1999 as part of the Authority's Clean Energy Initiative, the EEP formally RLA seeks to transform specific components of the residential lighting markets through a comprehensive set of market interventions.

The fundamental objective is to generate long-lasting impacts that increase the market share for ENERGY STAR qualified lighting products. Achieving these goals provide significant economic benefits for Long Island households and contribute to the attainment of important regional and international environmental objectives. The program has been designed and implemented to reduce market barriers (e.g., performance risk, higher first cost, and limited product availability) that inhibit more widespread adoption of residential compact fluorescent products. Key program objectives include:

- Increasing consumer awareness and familiarity with energy efficient lighting products;
- Improving product availability at distribution and retail levels;
- Marketing differentiation between ENERGY STAR qualified lighting products and conventional lighting products;
- Decreasing the first cost premium for ENERGY STAR qualified lighting products;
- Increasing the quality of ENERGY STAR qualified residential lighting products; and
- Educating retail sales force personnel on the selling of energy efficient lighting products.

To increase the residential penetration of ENERGY STAR qualified lighting products, the Authority offers consumers incentives through a variety of mechanisms including in-store instant coupons, mail-in rebates and retailer wholesale cost buy-downs to reduce the incremental cost of ENERGY STAR qualified products.

- The average customer incentive per unit offered by the Authority for ENERGY STAR qualified bulbs and fixtures has decreased over time in response to changes in the market:
 - Compact fluorescent light bulbs in-store rebate coupons:
 - May 1999 to December 1999 = \$7
 - January 2000 to May 2001 = \$6
 - May 2001 to October 2001 = \$5
 - October 2001 to December 2001 = \$4
 - January 2002 to December 2002 = \$3
 - January 2003 to March 31, 2005 = \$2
 - March 2005 to December 2005 = \$1.50
 - November 2004 to December 2004 = \$1 per bulb on multi-packs only (special limited time "clip-less coupon" promotion at all retail lighting partners)
 - October 1, 2005 to November 30, 2005 = \$1 per bulb on multipacks only

- October 1, 2005 to December 31, 2005 \$5 off LED Holiday Light packages
 - March 1, 2006 to April 30, 2006 \$1 off per bulb per pack
 - September 1, 2006- November 30, 2006 \$1 off per bulb per pack
 - February 1, 2006 to December 31, 2006 \$1.50 off per bulb per pack
 - October 1, 2006 to December 31, 2006 \$2 off LED Holiday Light packages
 - May 1, 2007 to December 31, 2007 \$2.50 off high heat tested reflectors, \$2 off specialty bulbs, \$2 off Cold Cathode bulbs
 - April 1, 2007 to May 31 2007 \$1 off per bulb per pack
 - October 1, 2007 to December 31, 2007 \$2 off LED Holiday Light packages
 - September 1, 2007 to November 30, 2007 \$1 off per bulb per pack, \$2 off LED light packages
 - January 1, 2008 to December 31, 2008 \$2.50 off high heat tested reflectors, \$2 off specialty bulbs, \$2 off Cold cathode
 - March 1, 2008 to May 30, 2008 .50 cents off per bulb, per pack
 - September 1, 2008 to November 30, 2008 .50 cents off per bulb, per pack
 - November 1, 2008 to December 31, 2008 \$2 off LED Holiday Light packages
- Compact fluorescent light bulbs retail buy-downs:
 - In 2002, the Authority conducted a pilot retailer buy-down promotion with one Costco location on Long Island. The buy-down was \$2 per bulb contained within a variety of multi-pack sizes (3 packs, 4 packs, 5 packs, or 8 packs).
 - In 2003, the Authority rolled out a wider reaching retailer buy-down promotion in all of Costco's Long Island Locations. The buy-down was \$2 per bulb contained within a variety of multi-pack sizes (3 packs, 4 packs, 5 packs, or 8 packs).
- Compact Florescent light fixtures in-store rebate coupons:
 - Fixture incentives were initially set at \$15 - \$30 for a wide variety of qualified products.
 - In 2002, rebate levels were changed to \$10-15 per qualified fixture.
 - In 2004, the fixture rebate level is \$15 per qualified fixture.
 - In 2006, \$10 per qualified fixture & \$15 for ceiling fans, \$5 off LED packs
 - In 2007 fixtures and ceiling fans were only offered through an upstream incentive.
- Clothes Washers – Mail in rebate
 - January 1, 2005 – December 31, 2005 \$50.00 rebate on qualified ENERGY STAR washers
 - February 1, 2006 to December 31, 2006 \$15.00 rebate on qualified ENERGY STAR washers with an Modified Energy

Factor (MEF) of 1.42-1.79; \$35 rebate MEF of 1.80 – 1.99; \$50 rebate MEF of 2.0 or higher

- January 1, 2007 to December 31, 2007 \$15.00 rebate on ENERGY STAR qualified washers with an MEF of 1.72 – 1.99; \$50.00 rebate MEF of 2.0 or higher
- January 1, 2008 to December 31, 2008 \$50.00 rebate on qualified ENERGY STAR washers with an MEF of 2.2 or higher and a Water Factor (WF) of 4.5 or lower.

○ Dehumidifiers – Mail in rebate

- January 1, 2008 – December 31, 2008 \$10 off ENERGY STAR qualified dehumidifiers

The design and implementation of the lighting component of the EEP program has changed and is moving more upstream, by working with retailer and manufacturers we hope to utilize buy-downs on a wider basis and eventually move toward stressing advertising and education for residential customers and reduce the use of rebates.

In addition to the Authority's retail store incentives, a mail order catalog was developed to offer energy efficient home energy products at subsidized rates. Products included in the Energy Wise Home Catalog included ENERGY STAR qualified screw-base compact fluorescent lamps, and dedicated light fixtures as well as replacement lamps and water saving devices. In 2003, the development and distribution of this catalog was stopped and an on-line web based catalog was offered. A smaller variety of products were offered at subsidized rates.

Table 1 lists the actual participation, energy savings, and peak savings through December 31, 2007.

Table 1: Energy Efficient Products Program participation				
Program Year	Measure	Quantity Rebated	MWh savings	MW savings
1999	CFL Bulbs *	41,506	3,166	0.98
2000	CFL Bulbs *	394,533	24,392	2.84
2001	CFL Bulbs *	293,795	17,921	1.17
2002	CFL Bulbs *	284,238	17,338	1.14
2003	CFL Bulbs *	569,911	31,110	1.86
2004	CFL Bulbs *	443,511	23,048	1.82
2005	CFL Bulbs *	608,148	33,806	2.49
2006	CFL Bulbs *	784,374	43,569	3.20
2007	CFL Bulbs *	1,408,665	78,556	5.76
1999	CFL Fixtures	533	0.6	0.01
2000	CFL Fixtures	41,828	3,773	0.45
2001	CFL Fixtures	75,358	6,706	0.45
2002	CFL Fixtures	9,764	869	0.05

2003	CFL Fixtures	25,813	2,120	0.12
2004	CFL Fixtures	5,698	437	0.02
2005	CFL Fixtures	19,360	1,596	0.11
2006	CFL Fixtures	14,483	1,194	0.08
2007	CFL Fixtures	4,723	389	0.03
1999 - 2004	LED	0	0	0
2005	LED	2,350	23.2	0
2006	LED	3,763	37.2	0
2007	LED	6,507	64.2	0
1999	CFL Torchieres*	200	71.7	0.02
2000	CFL Torchieres*	10,663	3,102	0.36
2001	CFL Torchieres*	11,054	3,173	0.21
2002	CFL Torchieres*	3,497	1,004	0.06
2003	CFL Torchieres*	1,539	409	0.02
2004	CFL Torchieres*	3,238	801	0.04
2005	CFL Torchieres*	0	0	0
2006	CFL Torchieres*	0	0	0
2007	CFL Torchieres*	0	0	0
1999	Clothes Washers	3,603	0	.58
2000	Clothes Washers	4,988	1016.1	.03
2001	Clothes Washers	6,748	1356	.18
2002	Clothes Washers	6,741	1355	.18
2003	Clothes Washers	9,276	2403	.27
2004	Clothes Washers	13,411	3235	.47
2005	Clothes Washers	21,906	5675	.77
2006	Clothes Washers	17,176	3495	.47
2007	Clothes Washers	12,267	2340	.32

Note: The savings for any measure whose average life has expired is subtracted from that column, these measures are denoted by *.

4. Cool Homes Program

Central residential cooling has become standard in new homes on Long Island. In addition, an unexpectedly high number of existing homes are having central cooling installed. However, most of the central cooling equipment being installed on Long Island is not as efficient as it could be, and that efficiency is further degraded by improper sizing and installation practices. The Authority's residential customers pay for this inefficiency through higher bills, but everyone pays for the exaggerated impact that residential central cooling has on the peak demand for electricity.

The Cool Homes Program encourages customers to purchase and install energy-efficient central air conditioning (CACs) and geothermal heat pumps by providing financial incentives to offset a portion of the equipment's higher initial cost. Cool Homes also provides an incentive to contractors for proper sizing and installation of such systems. (The two rebates are not separable; all efficient systems rebated through the program must also have documentation showing proper sizing and installation.) The program's long-range goal is to encourage contractors 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 efficiency.

The Cool Homes program combines several intervention strategies in a coordinated effort to increase the efficiency of new central air conditioners and air source heat pumps installed in new and existing homes on Long Island. The program's goal is to transform the market over time so that quality installations of high efficiency equipment become common place. The RHVAC program began in late 1999 and included the following:

1. Financial incentives (rebates) for high efficiency central air conditioners and heat pumps rated at SEER 12 and above;
2. Supplemental incentives for the installation of Energy Star-rated programmable thermostats;
3. Customer and contractor education on key elements and benefits of energy efficient installation; and
4. Training for contractors on key elements of proper equipment sizing and installation.

Beginning in January of 2001, the program incorporated a few changes/enhancements as follows:

1. Financial incentives (rebates) for high efficiency central air conditioners and heat pumps only if rated at SEER 13 and above, and only for systems/equipment meeting documentation requirements for proper equipment sizing relative to ACCA Manual J and proper installation including levels of refrigerant in the system relative to manufacturer recommendations, and air flow rates over the indoor coil.

2. Efforts to certify publicize and provide marketing assistance to quality contractors.
3. The Year 2000 and 2001 programs also paid each customer installing an Energy Star-labeled programmable thermostat an additional incentive of \$50, but only if their central air conditioner or heat pump also met the requirements of the program. This offer has been discontinued for the 2002 program year. Finally, the 2000 program provided an incentive of \$75 to each contractor who certified that they had installed a qualifying central air conditioner or heat pump consistent with Air Conditioning Contractors Association (ACCA) Manual J procedures. In 2001 this incentive was dropped, and contractors were required to certify that they had sized and installed the systems according to Manual J procedures in order to receive the central electrical cooling equipment efficiency incentive.

Cool Homes program offers customers who work with Cool Homes participation contractors to purchase and properly install qualified energy efficient central air conditioners or heat pumps will be entitled to a rebate, as well as enjoying energy dollar savings for years to come. Geothermal Heat Pump Rebates are offered on Geothermal Systems use the energy stored in the earth for heating, cooling and hot water. The Authority offers cash incentives to customers who install geothermal heat pumps in their homes.

**2008 Customer Energy Efficient Equipment Installation Incentive
Tier Equipment Efficiency Requirements Customer Incentive
Table 1: Residential HVAC Program Air Conditioner Rebate Schedule**

Tier	Equipment	Efficiency Requirements	Customer Incentive
1	A) Split Central Air Conditioners B) Air Source Heat Pumps C) Ductless Mini Split Systems	A) SEER>= 14 and EER>= 12.0 B) SEER>= 14 and EER>= 12.0 and HSPF>= 8.2 C) SEER>= 14 and EER >= 11.5	\$250/unit
2	A) Split Central Air Conditioners B) Air Source Heat Pumps	A) SEER>= 15 and EER>= 12.5 B) SEER>= 15 and EER>= 12.5 and HSPF>= 8.5	\$400/unit
3	A) Split Central Air Conditioners B) Air Source Heat Pumps	A) SEER>= 16 and EER>= 13 B) SEER>= 16 and EER>= 13 and HSPF>= 8.5	\$600/unit

- Customer may earn one incentive per unit based on the highest Tier the unit will qualify for

The Year 2000 and 2001 programs also paid each customer installing an Energy Star-labeled programmable thermostat an additional incentive of \$50, but only if their central air conditioner or heat pump also met the requirements of the program. This offer has been discontinued for the 2002 program year.

Finally, the 2000 program provided an incentive of \$75 to each contractor who certified that they had installed a qualifying central air conditioner or heat pump consistent with Air Conditioning Contractors Association (ACCA) Manual J procedures. In 2001 this incentive was dropped, and contractors were required to certify that they had sized and installed the systems according to Manual J procedures in order to receive the central electrical cooling equipment efficiency incentive.

Cool Homes program offers customers who work with Cool Homes participation contractors to purchase and properly install qualified energy efficient central air conditioners or heat pumps will be entitled to a rebate, as well as enjoying energy dollar savings for years to come. Geothermal Heat Pump Rebates are offered on Geothermal Systems use the energy stored in the earth for heating, cooling and hot water. The Authority offers cash incentives to customers who install geothermal heat pumps in their homes.

Table 1 lists the actual participation, energy savings, and peak savings through December 31, 2007.

Table 1: Cool Homes Residential HVAC			
Year	Number of Units	Summer Peak (MW)	Energy (MWh)
1999	2,922	1.531	1,025.0
2000	8,282	5.603	3,740.0
2001	4,112	3.986	3,029.0
2002	5,445	5.873	4,511.0
2003	5,527	5.754	4,473.0
2004	5,305	5.634	4,389.8
2005	4,763	8.674	4,935.3
2006	2,959	5.865	3,210.6
2007	1,595	1.071.3	2.0078

5. Keep Cool (AC Turn in Bounty Program) – Phased out in 2003

Keep Cool - The statewide Keep Cool Air Conditioner Replacement and Bounty Program was a partnership between the Authority, the New York State Energy Research & Development Authority (NYSERDA) and the New York Power Authority (NYPA). The goal of this program was to create opportunities for New York State residents to replace old inefficient room air conditioners with new Energy Star units, saving on the unit's initial purchase while enjoying greater efficiency and premium features. Keep Cool was phased out in 2003 upon meeting its program goals.

Total number of units rebated / sold and associated energy savings since program inception in 2001 through 2003 follow:

Cumulative Annual Units:	93,512 MW
Cumulative Annual Energy Savings:	20,324 MWh

Cumulative Annual Peak Demand Savings: 26.4 MW

6. Residential Energy Affordability Partnership (REAP) Program

The REAP Program is dedicated to improving energy affordability for lower income households through the direct installation of a comprehensive set of cost-effective efficiency measures, extensive energy education and counseling. The fundamental program objective is to improve energy affordability for the Authority's low-income customers, with a special emphasis on customers who are payment troubled and in the greatest need of assistance. Achieving these goals provides significant economic and social benefits for participating households and also reduces the Authority's costs associated with collections and bad debt issues. Further, while market transformation is not a specific goal of REAP, there may be modest spillover benefits associated with training of program delivery technicians (including local community-based weatherization providers) in state-of-the-art techniques such as blower-door guided air sealing and duct sealing.

Coordination with other related Authority programs, such as Lighting and Appliances, and the Assisted Home Performance with ENERGY STAR pilot program, begun in late 2003, continues. The Home Performance program provides a particularly important linkage with REAP since it is intended to assist customers with energy efficiency opportunities beyond the scope of REAP or whose incomes are just beyond federal weatherization program eligibility thresholds. The pilot is initially targeting customers with electric heat or central air conditioning and provides partial subsidies for qualifying measures. Coordination with non-Authority programs also continues.

Table 1 lists the actual participation, energy savings, and peak savings through December 31, 2007.

Table 1: Residential Energy Affordability Partnership (REAP)			
Year	Number of Participants	Summer Peak (MW)	Energy (MWh)
1999	2,211	0.1920	1,580.0
2000	3,050	0.2320	2,414.0
2001	4,250	0.3500	3,991.0
2002	4,201	0.4460	4,312.0
2003	4,485	0.5660	4,450.0
2004	4,599	0.7002	4,773.3
2005	3,970	0.7878	4,631.0
2006	4,185	0.6433	5,508.0
2007	3,968	0.5713	6,010.0

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7. Solar Pioneer Program

The Authority's Solar Pioneer Program promotes the use of solar energy captured by PV systems as an environmentally clean and viable alternative to energy generated from fossil fuels. Introduced in 1999 as part of the Authority's Clean Energy Initiative, the Solar Pioneer Program seeks to increase demand for PV systems among the Authority's customers. Identifying key barriers (e.g., high PV system costs and lack of consumer knowledge) that inhibit more widespread adoption of residential PV systems, The Authority has committed to transform the market within its service territory and increase the number of PV installations over the life of the program. Key program objectives include:

- Increasing consumer awareness and demand for PV systems;
- Accelerating the development of self-sustaining local infrastructure for the delivery and maintenance of PV systems;
- Accelerating the reduction in system costs while increasing system reliability and performance; and
- Developing and institutionalizing new mechanisms to overcome financial barriers to purchasing PV systems.

To increase the installation of PV systems, the Authority offers a direct financial incentive to reduce a system's cost—making the cost of installing a PV system within its service territory among the most affordable in the country. The level of these incentives has varied over time as described below:

- The Authority rebates the installation costs for its customers on a \$/watt (DC) basis. The current rebate level is \$4.00/watt for utility-grid connected PV installations up to 10 kW. The rebate started at \$3.00/watt, went up to \$6.00/watt for a six-month promotional period, was at \$5.00/watt for about a year to fill the first 1 MW allotment, was at \$4.50/watt for over a year to fill the second 1 MW allotment, and is now at the \$4.00/watt level to fill the next 1 MW allotment. Please note that schools, government, and not-for-profit customers are eligible for an additional \$1.00/watt incentive, added on to the current rebate level.

In addition to the Authority's rebate, homeowners can also take advantage of:

- Electricity generated by PV systems receives full retail credit through net metering
- A New York State tax credit of 25%, up to a maximum of \$3,750, depreciable up to 5 years.
- A New York State fifteen-year real property tax exemption.

Table 1 lists the actual participation, energy savings, and peak savings through December 31, 2007.

Table 1: Residential Solar Pioneer Program			
Year	Number of Participants	Summer Peak (MW)	Energy (MWh)
2000	2	0.0013	2.8
2001	13	0.0195	49.9
2002	184	0.4723	1,131.4
2003	142	1.2401	997.7
2004	131	1.7031	982.6
2005	127	0.4630	1,055.1
2006	242	0.9416	2,000.2
2007	291	1.0248	2,159.6

Table 2: PV All Systems	
Year	Number of Installations
2000	2
2001	13
2002	184
2003	142
2004	131
2005	128
2006	242
2007	291
Subtotal	1,133
1999 Lottery	31
2002 Lottery	41
Lottery Subtotal	72
Total	1,205

Lottery systems were installed at no cost to the customer. Included in this total are 63 rebates for PV systems installed on commercial buildings – the program began accepting applications from commercial customers in 2000 and the first commercial installation was completed in 2001.

The program uses a number of means to raise public awareness, including public seminars, newspaper advertisements, bill stuffers, trade shows, and other outreach and education. The Authority markets directly to customers through monthly Solar Pioneer Seminars and maintains a comprehensive web site on the program and solar energy (www.lipower.org/solar). In addition, the Authority: sponsors training workshops for electricians, architects, and solar contractors, held at The State University of New York, Farmingdale, on installing utility grid-connected PV systems; publishes a list of contractors on its web site (26 Solar Contractor Allies are listed as of June 2008); maintains relationships with local installers and encourages them to network with homeowners at Authority-sponsored Solar Pioneer seminars; and participates with “Renewable Energy Long Island” - a local renewable energy advocacy organization that promotes technologies including solar power.

8. Information and Education Program

The Information and Education Program provides valuable energy-saving information to customers through printed materials, advertising and marketing, a student education component, an Info line, the Authority’s Web site and energy audit services. A big part of the program, the Authority’s free Home Energy Audit helps customers analyze and

lower their energy costs by answering a series of questions about their home and how it uses energy, and then recommending steps to reduce their energy costs. As a component of this effort, the Authority offers “ENERGYsmart”, a CD-ROM based program that lets customers perform their home energy audit quickly, simply and on-line. the Authority’s Web-based version of the ENERGYsmart Home Energy Analysis continued to provide energy savings ideas tailored to each customer’s home.

The InfoEd Program serves as a marketing, education, and market transformation oriented program to broadcast the services available from the entire CEI portfolio to the residents of Long Island. This is accomplished through educational website postings, on-line home energy analysis tools available at www.lipower.org, preparation and distribution of educational bill inserts, email newsletters, booth participation at local events (e.g. home shows), and classroom energy education presentations to Grades 4-8 students through the In-Concert with the Environment Program (the “ICWE”).

The InfoEd Program has one full-time program manager, a full-time education contractor (Nexus Energy) who delivers the ICWE Program, and a part-time program advisor. The InfoEd Program consists of three major areas:

- 1) Shows: The Info/Ed Program is responsible for selecting and managing the Authority’s participation in trade shows and community events. The purpose of the Authority’s participation in shows is to reach customers and trade allies and help them learn more about the Authority’s rebates for electrical energy efficiency and renewable systems available through the CEI Programs. The Authority currently participates in approximately one hundred (100) shows a year. The Info/Ed Program oversees all aspects associated with the logistics and staffing for the events and distribution of CEI program printed materials and an interactive CD-ROM called “Energy Smart” that is produced on behalf of the Authority by Nexus Energy Software.
- 2) On-Line Resources: The Info/Ed Program also has a presence on the the Authority’s website where general information is presented to the viewer about the services available through the InfoEd Program and specifically on-line games, tools, and educational resources for children and adults. An important component of the on-line resources is the “Home Energy Analyzer”, a web-based audit that is available for free to the Authority’s customers (<http://www.lipower.org/residential/tools/center.html>.) This web audit, created on behalf of the Authority by Nexus Energy Software, allows customers to download the program to their personal computer and model the energy consumption and existing efficiency features of their home and identify areas for energy efficiency upgrades. In 2005, approximately ten thousand (10,000) downloads of the tool took place.
- 3) Classroom Education: The Info/Ed Program also sponsors a two-day energy efficiency education class for students i n Grades 4-8 known as In-Concert with

the Environment Program. The ICWE program is run under contract by Nexus Energy Services and reaches approximately five thousand (5,000) students a year through two (2) forty (40) minute classroom sessions run by the Nexus classroom instructor. A key component of the instruction is the completion of a home energy audit paper survey by the student and their parents that identifies areas for energy efficiency actions in their homes.

Currently, kWh and kW savings are claimed by the Info/Ed Program based on a per “participant” basis, where a participant is defined as: 1) Distribution of each “Energy Smart” CD-Rom at shows, 2) Each download and completion of stage one of the on-line “Home Energy Analyzer”, and 3) Each completion of the home energy audit survey by the student/parent as part of the ICWE classroom instruction. Regardless of the “participant” type, 219.7 kWh, and 0.078 kW of savings are claimed. The justification for these savings is derived from a 1993 impact evaluation of The Long Island Lighting Company’s “Energy Sense Profile” survey audit service.

Table 1 lists the actual participation, energy savings, and peak savings through December 31, 2007.

Table 1: Information & Education Program				
Year	Component NYSERDA Pilot	No. of Participants	Summer Peak (MW)	Energy (MWh)
2000	WEB	975	0.0762	214.1
2001	WEB	944	0.0733	1,401.4
2002	WEB	4352	0.3399	956.1
2003	WEB	7509	0.5865	1,649.9
2004	WEB	18,337	1.4321	4,028.6
2005	WEB	10,664	0.8329	2,342.6
2006	WEB	9,461	0.7389	2,078.6
2007	WEB	1,784	0.8615	2,423.5
2000	Diskette	10,066	0.7872	2,211.7
2001	Diskette	8,671	0.6799	1,216.4
2002	Diskette	8,883	0.6698	1,951.5
2003	Diskette	13,619	1.0590	2,992.3
2004	Diskette	8,140	0.6357	1,788.4
2005	Diskette	9,754	0.7617	2,143.0
2006	Diskette	8,346	0.6518	1,833.6
2007	Diskette	1,784	0.1393	391.9
1999	ICWE	309	0.0240	68.0
2000	ICWE	727	0.0327	91.9
2001	ICWE	6,008	0.4663	833.2
2002	ICWE	3,336	0.2605	732.9
2003	ICWE	3,454	0.2698	758.9
2004	ICWE	3,518	0.2748	772.9
2005	ICWE	3,334	0.2604	732.5

2006	ICWE	3,159	0.2467	694.0
2007	ICWE	3,706	0.2894	814.2
2000	Paper	229	0.0179	50.3
2001	Paper	230	0.0179	32.0
2002	Paper	89	0.0070	19.5
2003	Paper	86	0.0067	18.9
2004	Paper	3	0.0002	0.7
2005-2007	Paper	0	0	0

9. Commercial Construction Program

The Commercial Construction Program (CCP) commenced in the fall of 1999. Today's new commercial buildings are much more efficient than those built even ten (10) years ago. Nevertheless, new commercial buildings and major renovations of existing buildings still offer some of the biggest and least expensive opportunities for energy-efficiency savings. The greatest opportunities exist in the early design phases. Those options narrow as the construction process continues, and become more expensive once the building or major renovation is complete. Planning for energy-efficiency takes extra time and money, and building owners and developers operate on tight budgets and schedules. The extra effort and higher costs pose obstacles for energy-efficiency investment in new construction.

The CCP program aims to influence current design and construction practices on Long Island to achieve greater energy efficiency, as well as promote greater efficiency among the remodeling and equipment replacement markets. It offers technical and financial assistance to cover the extra time and effort to incorporate efficient designs, and does it in a manner that fits into the client's design and construction process. The Authority will pay a portion of the incremental cost and it is closer to fifty (50%) percent or less of the price premium paid for energy-efficient HVAC, lighting, and other equipment that meets the Authority's high efficiency standards. As more building owners and developers incorporate energy-efficient design and construction practices into new and existing buildings the standard practices baseline will increase and eventually affect building codes and equipment standards. As this occurs, the program can then shift efforts to new efficiency opportunities as technologies change and design innovations emerge. The program is coordinated, where appropriate, with other regional and national efforts (e.g., NYSERDA, NEEP, EPA ENERGY STAR, etc.).

Customers can participate in the program through three different components:

- Prescriptive: allows customers to choose equipment from a pre-qualified list of measures and receive an incentive.

- Custom: customers can request technical assistance to qualify unique measures of their choosing that are not on the prescriptive list, and receive an incentive that is calculated based on the application of that technology.
- Comprehensive, or Whole Building Design: the customer, the customer's design team, and the Authority-supported experts work together from the conceptual design stage of a project to consider holistic design and equipment and options to improve the overall efficiency of a building. Under this approach, the financial incentive will be calculated and awarded based on an analysis of the entire project design and the interrelationship between the various building systems, such as lighting, cooling, and building envelope.

Table 1 lists the actual participation, energy savings, and peak savings through December 31, 2007.

Table 1: Commercial Construction Program			
Year	Number of Participants	Summer Peak (MW)	Energy (MWh)
2000	238	0.2192	1,794.9
2001	450	2.9501	18,427.4
2002	527	4.5268	26,212.4
2003	527	3.4474	17,163.0
2004	526	3.7986	21,567.9
2005	564	5.0733	20,656.6
2006	569	5.0770	24,032.1
2007	485	5.2343	25,358.3

10. Retrofit Energy and Capacity Program (RECAP)

The Authority has created an energy efficiency program called Retrofit Energy and Capacity Program (RECAP). This program is designed to lower demand which will help gain the greatest utilization of our energy resources, especially during peak summer months when electricity consumption is traditionally at its highest levels.

RECAP targets commercial customers, multi-family buildings with more than four apartments, and publicly owned facilities, and looks for retrofit or replacement opportunities that provide money and energy savings for:

- Lighting upgrades (retrofit and new fixtures)
- Lighting controls
- Upgrading HVAC units
- Refrigeration upgrades
- Motors and VFD's (variable frequency drives)
- Energy Management Systems
- Retro-commissioning of HVAC systems

Participation in RECAP is facilitated by energy service companies, called ESCOs that the Authority has competitively selected. These ESCOs may contact a customer by mail or telephone or, you can choose one of the approved ESCOs listed. As with any purchasing decision, a customer has a choice of several contractors. The ESCO will evaluate your facility and make recommendations for upgrades and improvements. They will provide you with a proposal to perform the work.

- The ESCO along with the customer will choose the equipment most suitable for the customer's business.
- The ESCO handles the Authority's approval of the project.
- The Authority approves the project and provides an incentive to the ESCO to help offset the cost of the project
- The ESCO installs the new, energy-efficient measures.

The customer and the ESCO will agree upon a price that the customer will be charged for the work being performed at your site. Since the Authority is paying the ESCO and incentive for the energy savings actually achieved at the site as well as other locations, the amount the customer is paid will only be a fraction of the actual cost of the job.

The RECAP program is a unique partnership designed to help commercial customers, multi-family buildings, and publicly-owned facilities save money by lowering their demand and energy consumption. The program focuses on retrofit or replacement opportunities in existing buildings. The partnership is between commercial customers, competitively selected Energy Service Companies (ESCOs) and THE AUTHORITY. The ESCOs facilitate participation in RECAP by contacting commercial customers directly or responding to customer inquiries. The retrofit or replacement energy saving opportunities that RECAP focuses on are lighting, lighting controls, HVAC, refrigeration, motors and variable frequency drives, energy management systems, and retro-commissioning.

RECAP's ESCOs evaluate the customer's facility and make recommendations for upgrades and improvements. They then provide the customer with a proposal outlining the work to be performed. There are at least two ESCOs for each market segment so customers are encouraged to contact multiple ESCOs. The customer chooses the equipment that meets their needs and the ESCO handles the Authority's approval of the project. Once the Authority approves the project, it may be pre-inspected to ensure the measures are applicable, the measures are installed, and the project design is verified. In the final step, and according to international measurement and verification protocols, the ESCO receives either the full payment or one of three payments depending on the type of measure. The payment schedule is based on the energy and capacity savings for each project and the relative certainty of the measure's ability to deliver savings.

Table 1 lists the actual participation, energy savings, and peak savings through December 31, 2007.

Table 1: Retrofit Energy and Capacity Program (RECAP)			
Year	Number of Participants	Summer Peak (MW)	Energy (MWh)
2006	164	1.6140	9,545.2
2007	713	7.0750	33,783.0

11. LIPAedge Program

LIPAedge is the largest deployment of a direct load control program in the United States using a two-way communication system. LIPAedge reduces grid load during critical peak capacity days by curtailing the demand of central air conditioning (CAC) systems installed by residential and small commercial customers. It does these in two ways - neither of which will harm the customer's system or significantly decrease their level of comfort.

First, the Authority may temporarily adjust the unit's compressor, allowing the fan to continue to bring cool air into the home. By cycling thousands of CAC units on Long Island, the Authority can tap into the extra CAC power - known as "power reserves" - without affecting the customer's comfort. Second, the Authority may turn the temperature setting on the thermostat up a few degrees from the current setting, and then return it to its previous setting when the power reserve is no longer needed. In either case, the Authority will only be adjusting the customers' CAC system up to seven times per summer between the hours of 2 pm and 6 pm. The LIPAedge system can control load for all participating customers or just for certain customers based on geography. This is beneficial if and when demand on a particular portion of the system becomes critical.

Table 1 lists the actual participation, energy savings, and peak savings through December 31, 2007.

Table 1: LIPAedge Program			
Year	Number of Participants	Summer Peak (MW)	Energy (MWh)
2001	7,124	6.5130	0
2002	15,120	16.30	0
2003	6,062	6.4840	0
2004	29,269	30.5500	0
2005	31,827	37.5430	0
2006	32,854	48.5700	0
2007	33,859	50.7300	0

12. Customer Driven Efficiency Program

The Customer-Driven Efficiency program provides assistance to residential and commercial customers wishing to make energy efficiency improvements not covered in any of the Authority'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. The Authority provides financial incentives for those opportunities shown to be cost-effective. The audit report is used to identify savings, to verify/refute claims of savings from manufacturers, and to understand the energy bills. It has also been as a bid document to go out to bid for construction projects, to seek energy services contracts and to set budgets for capital projects. It is the first step in an energy master plan.

Table 1 lists the actual participation, energy savings, and peak savings through December 31, 2007.

Table 1: Customer Driven Efficiency Program			
Year	Number of Participants	Summer Peak (MW)	Energy (MWh)
1999	367	.2040	896
2000	855	.6310	1,430
2001	450	.2690	1,830
2002	412	.3110	1,330
2003	421	.2690	3,721
2004	425	.3760	4,260
2005	544	.3590	2,115
2006	612	.4169	3,010
2007	689	.3587	1,811.9

Attachment I

OVERVIEW OF THE ENERGY EFFICIENCY-LI PROGRAMS

This section describes the proposed Energy Efficiency initiatives and the approach to supporting the delivery of the services within each initiative. The Authority plans to intervene in these markets through five broad strategies or initiatives (“Energy Efficiency Initiatives”). The design of the initiatives minimizes the amount of overlap and competition across them.

Table 1. Contemplated Energy Efficiency Initiatives

Residential Markets	Commercial & Industrial Markets
Efficient Products	New Construction
New Construction – ENERGY STAR® Labeled Homes	Existing Buildings
Existing Homes - Home Performance with ENERGY STAR®	
Assisted Home Performance	

These five (5) initiatives are:

1) **Residential New Construction**

The Residential New Construction Initiative seeks to increase the efficiency of new homes in the Authority’s service territory through a series of approaches. The Initiative provides financial incentives and technical services to builders to construct homes that meet or exceed ENERGY STAR requirements and that also meet minimum kWh savings thresholds. The Initiative also strongly supports efforts by towns on Long Island to adopt Energy Efficiency ESLH Initiative requirements as minimum energy codes. Finally, the Initiative supports the growth of an on-Island rater infrastructure that provides home energy ratings for program eligible homes (which also serve as code compliance documentation in ENERGY STAR-code towns), technical services to the builders of these homes, and assists in the marketing and promotion of the Initiative to non-participating builders.

Target market players: builders, general contractors, future homeowners, town governments.

2) **Residential Existing Homes**

The Existing Homes Initiative seeks to increase the efficiency of energy use in existing residential homes, with a focus on opportunities that produce electricity and summer demand savings. The Residential Direct Install track will provide duct sealing and

instrumented tune-ups for homes with central cooling, and will also install CFLs (subject to customer approval) and manage the Initiative's second refrigerator removal component, if applicable. The Home Performance track will develop a market-based contractor infrastructure that will provide comprehensive whole house retrofit assessment and installation services. For income-qualified customers, the Residential Energy Affordability Program (REAP)/Assisted Home Performance track will provide a defined set of electricity-saving measures at no cost. The Initiative's final Central Cooling track will continue to offer stand alone efficiency incentives and services for central air conditioner and heat pump installations.

Target market players: homeowners, contractors, distributors.

3) **Efficient Products**

The Efficient Products Initiative targets retail purchases of efficient appliances and lighting. While all the Authority's customers are eligible to participate, the target market is the residential customer sector. Initiative efforts are therefore focused on this sector. The Initiative provides a variety of incentives and marketing to support the stocking, promotion and sale of high efficiency lighting and appliance products. Nearly all of the efficient products supported by the Initiative are ENERGY STAR® qualified. Financial incentives offered through the Initiative are targeted to both upstream market actors (retailers and manufacturers) and directly to consumers.

Target market players: homeowners, retailers.

4) **C&I New Construction**

The C&I New Construction Initiative will target all new buildings, significant building expansions, and major renovations. The Initiative will promote the installation of comprehensive efficiency measures using a systems approach that capitalizes on interactions between technologies serving multiple end-uses. The Initiative will offer services including prescriptive and custom financial incentives (both measure and design and analysis costs), technical and design assistance, and coordination services to assist consumers, design professionals, vendors and contractors to overcome various transaction barriers. The Initiative will focus its outreach efforts on architects, engineers, design-build firms, and major commercial real estate firms. The Energy Efficiency Solution Provider will play a significant role in achieving the goals of this initiative.

Target market players: business constructing new or renovating facilities (including commercial real estate firms), architects, engineers, design-build firms, contractors, distributors.

5) **C&I Existing Facilities**

The C&I Existing Facilities Initiative targets efficiency opportunities at all existing commercial and industrial buildings on Long Island, regardless of type or end-use. For larger C&I customers (also called “Major Accounts”), the Initiative will establish direct relationships to integrate initiative staff into capital planning activities at as many Major Account customers as possible. This Initiative will establish relationships with between X and X customers. For smaller C&I customers, the Initiative will address retrofit and lost opportunity events separately. The Market Opportunity track will provide prescriptive incentives either directly to the consumer or passed down to them through upstream incentive programs, as well as custom incentives and technical assistance for projects that fall outside the scope of prescriptive offerings. The Energy Efficiency Solution Provider will play a significant role in achieving the goals of this initiative.

Target market players: all business, contractors, distributors, manufacturers and their vendors or representatives.

Attachment J

CURRENT & RECOMMENDED EVALUATION

Program	Evaluation Performed	Findings
ENERGY STAR® Labeled Homes	Attitude & Awareness Baseline Study and Market Barrier Assessment-2007-2009 Update to A&S Baseline Study-2010	- This baseline study began in June 2007 and is scheduled to be completed in the first quarter of 2008; one follow-up study is included in the contract with KEMA, to be conducted in 2009. Please note that this is a joint study being conducted for both the ENERGY STAR® Labeled Homes and Home Performance with ENERGY STAR® Programs. - Objectives: - Define and estimate baseline values for key indicators of market changes expected to result from the programs, particularly attitude and awareness indicators - Validate or refine the study team's preliminary assumptions about the structure and functioning of the residential new home and home renovation markets. - Validate or refine the study team's preliminary assumptions about the barriers to the adoption of energy efficiency in Long Island homes. - Identify any specific market segments or niches that offer special opportunities for the implementation of the programs - Provide recommendations for possible improvements to the programs. Research to be conducted for this study includes: quantitative telephone surveys of recent home buyers and homeowners who have recently renovated their homes; a combination of in-depth telephone interviews and quantitative telephone interviews with builders and renovation contractors; and in-depth telephone interviews with specialty contractors, other market actors,

		and LIPA/contractor program design & implementation staff.
Home Performance with ENERGY STAR®	Attitude & Awareness Baseline Study and Market Barrier Assessment- 2007-2009 Update to A&A Baseline Study- 2010	This baseline study began in June 2007 and is scheduled to be completed in the first quarter of 2008; one follow-up study is included in the contract with KEMA, to be conducted in 2009. Please note that this is a joint study being conducted for both the ENERGY STAR Labeled Homes and Home Performance with ENERGY STAR Programs Objectives: 1. Define and estimate baseline values for key indicators of market changes expected to result from the programs, particularly attitude and awareness indicators. 2. Validate or refine the study team's preliminary assumptions about the structure and functioning of the residential new home and home renovation markets. 3. Validate or refine the study team's preliminary assumptions about the barriers to the adoption of energy efficiency in Long Island homes. 4. Identify any specific market segments or niches that offer special opportunities for the implementation of the programs. 5. Provide recommendations for possible improvements to the programs Research to be conducted for this study includes: quantitative telephone surveys of recent home buyers and homeowners who have recently renovated their homes; a combination of in-depth telephone interviews and quantitative telephone interviews with builders and renovation contractors; and in-depth telephone interviews with specialty contractors, other market actors, and LIPA/contractor program design & implementation staff.
Energy Efficient Products	No formal lighting or appliance	• Begin preparation of an RFP to assess the extent of market transformation achieved through 2008 to be conducted during the year

	evaluations or studies in 2008 Impact Evaluation of LIPA's Energy Efficient Products - 2009	2009. • Assess Savings estimate & degree of MT • Perform an evaluation to determine if the increase in the residential CFL saturation warrants LIPA to claim the residential efficient lighting market has been transformed and therefore price buydowns for general purpose CFLs should cease • Assess the potential of directing residential marketing effort more towards high hat lighting and other lighting fixtures
Cool Homes	Update to Energy Savings algorithm - 2007 Recommended Impact Analysis - 2009	Update to Energy Savings algorithm from 10.2 baseline to 13 SEER standard - Review and updated baseline per Proctor Engr. Group - No Charge Planned RFP - Implementation Services for LIPA Residential Baseline Study Update of Energy Efficiency Investments by LI Owners of 1-4 Family Homes. Scope needs to be re-evaluated with changes to Home Performance with Energy Star & Cool Homes pilot program by Last Qtr 2008
Residential Energy Affordability Partnership (REAP)	Analysis of 2006 REAP Customer Arrears pre-and post Energy Efficiency Measures (2006)- Completed March, 2008	• Analyzed the 2006 REAP customer arrears as compared to the total residential population. • Worked with Honeywell to modify and set parameters to ensure that all REAP accounts are in the desired format in order to meet Datamart template requirements. This work was performed by Honeywell at no extra cost. • Requested further program refinements, from IT, in order to better reflect the arrears before and after energy efficiency implementation. Results of analysis are anticipated during 4th quarter of 2007. • We recommend that this analysis be replicated some time in the future; preferably when economic factors are more stable. We believe this is would yield more conclusive and favorable results. • Quantify the 2007 REAP customer arrears as compared to the total residential population before and after the implementation of energy efficiency

	Analysis of 2007 REAP Customer Arrears pre-and post Energy Efficiency Measures (2007) to perform in 2008 Analysis of 2007 REAP Customer Arrears pre-and post Energy Efficiency Measures (2008) to perform in 2009	measures. Quantify the 2007 REAP customer arrears as compared to the total residential population before and after the implementation of energy efficiency measures. Quantify the 2008 REAP customer arrears as compared to the total residential population before and after the implementation of energy efficiency measures.
Solar Pioneer	Paper & Presentation: "A Theory-based Evaluation of LIPA's Solar Pioneer Program - Measuring Early Progress in the Transformation of the PV Market on Long Island" 2005-2009 Equipment evaluation study continues - 2008 Recommendation: Conduct a second Market Progress and Evaluation	Revised RFP issued in Nov. 2005, this three-year study began in the fall of 2006. Objectives: • Review the system design and its appropriateness for that home or location, inspect the quality of the system installation, and verify that the PV system performs as designed. 70 site inspections have been completed in 2007; an additional 50 will be performed in 2008 and 2009, for a total of 170 for the three years. • Define a performance index, or indices, that will be used to compare expected to actual system performance. • Implement a methodology for benchmarking the inspection results. • Develop a site visit checklist/protocol to be used in the future to perform routine quality control and performance monitoring inspections of PV systems. • Monitor the output of a sample of PV installations. Monitoring equipment will be installed on 35 of the 70 PV systems inspected in 2007, and on 25 of the 50 systems inspected in 2008 and 2009, for a total of 85 monitored systems by the end of the three-year study. • Provide updated values for key indicators of market changes that have resulted from the program • Identify any changes in the structure and

	Study-2009	functioning of the rooftop solar PV market, and assessed the current status of market barriers Recommend program changes that could enhance the efficiency of the delivery of photovoltaics to the market or increase marketing effectiveness.
Information Education	Impact Evaluation – 2009 Evaluate New In School Program Perform an update evaluation of the existing 2010 Info/Ed Program in place	If a joint NYSERDA - LIPA pilot is implemented in the 2007/2008 school year, then evaluate the impacts credited to the program, and make recommendations for expanding the pilot in 2008/2009. Evaluate New In School Program If a joint NYSERDA - LIPA pilot was expanded in the 2008/2009 school year then evaluate this expanded program OR If LIPA initiated a new competitively bid In-School program the 2008/2009 school year then evaluate this program's and initiate recommendations to improve its impacts (if possible). Perform an evaluation to estimate the residential energy savings attributed to the Info/Ed program in place at the time. Review the existing program in place at the time for changes/modifications to reflect best practice programs in other utilities.
Commercial Construction	Baseline Study Update Phase 3: Market Impact Study (2006-2008)	• Phase 3 will provide an update to the baseline for the market as a whole, but will also answer some information needs of the program implementation team. • Update metrics expected to change within 5 years of program inception on the market actors that showed early signs of increased adoption of energy efficiency practices and equipment in the Phase 1 research • Estimate the annual total square footage of new construction and major renovation activity on Long Island • Establish populations of trade allies & design professionals serving the Long Island market • Gather information about motivations for pursuing Green Building certification and the priority of energy efficiency in obtaining certification • Primary research for this study will include telephone surveys and telephone interviews with lighting designers, HVAC engineers, architects, and green building owners/developers. Secondary

	Conduct a C&I Process Evaluation Study in 2010	research will be conducted using CMD, Dodge, Dun & Bradstreet, InfoUSA, among other secondary sources. - Propose to write an RFP in 2009 for a process evaluation that can cover just the Commercial New Construction Program, or both the New Construction and Commercial Retrofit Programs. The study itself will be conducted in 2010. - Review the effectiveness of the delivery of the program, possibly including: interviews with program and contractor staff, satisfaction surveys with customers, satisfaction surveys with contractors and trades, a review of program materials, and a review of the program tracking database - Recommend changes to the program that will improve its delivery
Retrofit Energy and Capacity Program (RECAP)		No evaluation planned, contracts are scheduled to end.
Customer Driven Efficiency - 2008		No evaluation planned, final Evaluation Report completed in 2007. No Energy savings will be reported, costs planned to be captured under a Business Services umbrella
LIPAEdge		Per Seth Holkower's directive in the September 24th Operating Meeting: - Clean up the 2,086 invalid residential account #'s in AEG's database. This is also needed to support LIPA's 2008. Post Peak Day AC Inventory & Usage Survey for LIPA. - Identify new LIPAEdge customers in the 23,156 existing LIPAEdge homes and inform them of the program prior to the 2008 summer. - Develop a "system" that will identify new customers in existing homes each month on an on-going basis. - Purchase a meter that can measure power factor accurately and revisit a sample of commercial business and residential CAC sites to refine the wattage adjustment test. Investigate sharing the cost for this meter with Con Ed and conducting a joint study of CAC units in both service areas. - The new Honeywell thermostat has messaging capability. This new feature could help support

		offering a subset of the customer's participation in an economic curtailment version of the program. LIPA could offer sharing savings with this subset of participants if there is a curtailment when real time energy prices spike and LIPA must either buy or can sell energy in the market. 6. A marketing study would have to be performed first to obtain estimates of potential customer participation at varying incentive levels. Dual income families where the house may be empty during peak hours could potentially shed load with no sacrifice. Retiree's might also be interested. 7. Work with K.Jones on proposed NYISO Rule changes (see 9/20/07 conference call agenda).
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Attachment K

EVALUATION SCENARIOS

Please provide a technical approach for each of the following evaluation scenarios. For each scenario, please discuss:

1. Issues regarding the policy context, program design and status that you would need to know more about in order to develop a fully informed evaluation approach.
2. What data is to be collected from what sources, and why.
3. Data collection methods.
4. Sampling frames.
5. Sample sizes.
6. Sample stratification methods.
7. Analysis techniques.
8. Threats to validity, and how such threats could be minimized.
9. Personnel hours, rates, and total costs associated with the proposed approach.
10. Evaluation timeline.

As discussed in the body of the RFP, these scenarios do not necessarily represent actual work tasks, but are hypothetical scenarios intended to help LIPA assess how bidders might approach various types of specific evaluation tasks. As such, the responses shall be used to help score proposals on technical approach. Although LIPA may be interested in the estimated costs that might be incurred by the Bidders, LIPA will not rely on these hypothetical cost responses to score proposals on cost.

Bidder's are encouraged to provide a summary, consisting of no more than five pages, of their recommended approach to address the following scenarios:

1. **Residential Process Evaluation.** Process evaluations assess how efficiently a program has been implemented. In your proposal, please outline a process evaluation for the Residential Home Performance with ENERGY STAR program. A description of this program is found in Appendix J. This program typically has had 170 participants. However, it is currently anticipated that the Program's goals will be increased up to nearly 2,000 jobs for 2009 by a network of 23 installation contractors. Please identify the primary issues that you would focus your research efforts on based on the current program design and status, as well as your experience in conducting process evaluations of similar programs elsewhere.
2. **Commercial, Industrial and Municipal Impact Evaluation.** Impact evaluations determine the Energy and Demand savings impacts (MWh and MWs) and co-benefits that directly result from a program. In your proposal, outline an impact

evaluation for the Authority's Commercial Construction Program. A description of this program is found in Appendix J. This program typically involves 8.660 MW and 33,130 MWh of savings annually, from 485 applicants. The last impact evaluation study is currently in progress; information from this evaluation can be provided upon request.

3. **Market Effects Assessment.** A market effects assessment gauges the effectiveness of the program's ability to influence market actors and stimulate additional energy efficiency projects under various market intervention strategies. In your proposal, summarize the approach you would take to conduct a market effects evaluation for the Residential Home Performance with ENERGY STAR program. The response should describe how an evaluation might be able to assess the role and effectiveness of the Market Channel Coordinator. The summary should also take into consideration how you would assess variables such as Freeridership and Spillover effects, the structure of the residential new construction market, market barriers affecting the HPw/ES program, and how energy savings may be fairly attributed to the upstream activities of the Market Channel Coordinator. The market effects tables (Attachments E and F) are to be used to guide the development of baseline indicators for this study. Although it will not be practical to study all of the indicators in the tables, the Authority would like to study as many as possible, with a priority given to those occurring in the early years (1 to 3) of the programs. Beyond developing baseline indicators, another purpose of this study is to improve the Authority's understanding of the market in order to design appropriate market intervention strategies. This may call for measuring some additional indicators not specifically identified in the market effects table noted above, and may require additional suggestions with respect to how LIPA's markets should be assessed. Please discuss whether and why you would propose to interview the following types of market actors: new home buyers; homeowners who recently renovated, repaired, or addressed deficiencies in their home, or are planning to do so soon; new home builders; new home contractors; renovation and remodeling contractors; homeowners who are planning to renovate their home; and other market actors.
4. **Cost-effectiveness analysis.** A cost-effectiveness analysis is typically understood to be an extension of impact evaluations. However, they may also take into account other types of market factors. Such factors may include but are not limited to a quantification of environmental attributes and life-cycle costs, new technologies, non-energy benefits, resource competition, market barriers and customer satisfaction. In your summary, please describe how you would evaluate an existing solar photovoltaic program that takes into account the above-noted market factors and any others that may affect LIPA's Solar Pioneer program. A current description of this program can be found in Appendix J. In the future, LIPA may offer renewables to the commercial, municipality sectors

and a small wind energy project to the residential and agricultural sector. LIPA is also considering solar thermal electric heating technology as part of their future program initiatives. Please include commentary on how you would also measure expected savings at generation given the existing and future capacity ratings of photovoltaic panels, avoided fossil fuel generation costs and avoided transmission costs.