

# NEW JERSEY CLEAN ENERGY PROGRAMS

## 2001 OVERVIEW: APPROACH TO PROGRAM COST-EFFECTIVENESS, EVALUATION, ASSESSMENT OF SAVINGS AND REGULATORY REPORTING

### A. Energy Efficiency Program Cost-Effectiveness Analysis

New Jersey's electric and gas utilities will provide to the BPU by July 9, 2001 a comprehensive cost-effectiveness analysis of the statewide energy efficiency programs. This analysis will be presented for each of the statewide energy-efficiency programs, excluding information-only and load management programs.

The purpose of the analysis is to assess the economic value of ratepayer-funded investments in statewide energy-efficiency programs. The analysis captures and compares all the benefits and costs attributable to the programs over a multi-year horizon to capture the effects of market transformation where that is a stated goal. The analysis is closely coordinated with program planning, evaluation and the assessment of energy savings.

Program benefits included in the analysis consist of electricity, natural gas, and other energy and non-energy resource savings (e.g., oil and water savings) estimated over the lifetimes of the efficient products installed as a result of the programs. Program energy and resource savings will be estimated as the product of projected changes in market penetration for targeted efficiency products over time multiplied by corresponding estimates of per-unit resource savings rates. All savings projections will be consistent with protocols developed to track actual program savings and results. The cost-effectiveness analysis will assign value to these savings based on current and projected future avoided resource costs. The analysis will be conducted with and without avoided environmental externalities. Projected costs will include both utility program costs and product related costs (i.e., the incremental cost of the efficiency option compared to standard technologies and practices).

The results of the cost-effectiveness analyses will be presented with documentation of key inputs and assumptions.

### B. Program Evaluation

New Jersey's electric and gas utilities will evaluate the programs to serve the following essential purposes:

- Assess progress towards program goals;
- Support lost margin revenue recovery and cost-effectiveness assessments;

- Inform ongoing program design and implementation; and
- Provide information to regulators and program administrators for determining eligibility for administrative performance incentives (to the extent that such incentives are approved by the BPU).

This is a broader evaluation scope than previous measurement and verification activities for New Jersey utilities. While energy savings resulting directly from participants' measures will continue to be relatively straightforward to estimate, identification and attribution of indirect energy savings resulting from market transformation initiatives will require new approaches. To effectively serve these needs, near-term evaluation will assess tracking systems for new programs and identify baseline conditions and metrics for each target market. Future evaluation activities will assess changes in comparison to the baseline efficiency levels, attitudes, and practices of various market players.

#### **Evaluation Plans for 2001**

New Jersey's electric and gas utilities will provide to the BPU by July 9, 2001 an evaluation plan for all 2001 programs. The plan will identify program evaluation goals and objectives, review evaluation approaches and activities, and identify existing baseline information sources. The plan for each program will consider how the program information is tracked as well as how issues of savings measurement, market effects and other parameters will be addressed for the purposes of estimating program impacts. It will also identify which evaluation activities will be performed by independent contractors.

#### **Evaluation of Future Program Performance**

After 2001, evaluation activities will be identified and scheduled as part of future program plans. As programs and markets evolve and evaluation results become available, the evaluation plans will be updated.

### **C. Protocols To Measure Program Resource Savings**

New Jersey's electric and gas utilities will provide to the BPU by July 9, 2001, protocols for measuring energy and capacity savings, and other resource savings. The protocols will be used consistently statewide to assess program impacts and calculate energy and resource savings to:

- Report to the Board on program performance.
- Provide inputs for planning and cost effectiveness calculations.
- Calculate lost margin revenue recovery.
- Provide information to regulators and program administrators for determining eligibility for administrative performance incentives (to the extent that such incentives are approved by the BPU).

- Assess the environmental benefits of program implementation.

Resource savings to be measured include electric energy (kWh) and capacity (kW) savings, natural gas savings (therms), and savings of other resources (oil, propane, water, and maintenance), where applicable. In turn, these resource savings will be used to determine avoided environmental emissions.

The protocols will use measurements and customer data as input values in industry-accepted algorithms. The data and input values for the algorithms will come from the program application forms or from standard values. The best available measured or industry data applicable for the New Jersey programs will be used for standard input values.

The protocols will be updated periodically to incorporate evaluation results and available data, and then applied prospectively for future program years.

## **D. Regulatory Reporting**

New Jersey's electric and gas utilities will provide to the BPU Staff interim and final program results in both quarterly and annual statewide reports. Standardized reporting spreadsheets will be developed and used by each gas and electric utility. Utility specific information will be compiled into a summary report showing statewide results.

The spreadsheets will include all information required by the Board's CRA Order and other information including a comparison of program budgets to actual expenditures and commitments, and a breakdown of expenditures into categories such as administration, incentives, advertising costs, marketing costs, training costs, consultant costs and contractor costs. The reports will also include a comparison of achievements to the goals and any incentive metrics. For renewable energy programs, the reports will include all of the above information as well as the information identified in the Board's CRA Order concerning the types and sizes of technologies receiving incentives, the cost of the systems, energy savings provided, application dates, etc.

### **Quarterly Reports**

Quarterly reports will provide utility specific and statewide results by program and sector (i.e. residential, C&I, renewable energy). The reports will include:

- A comparison of actual program expenditures and commitments to budget amounts
- Progress towards program goals, such as number of participants or energy savings for both completed and committed projects.
- Market progress by program (i.e. # builders enrolled, # contractors trained, # retailers signed up, etc.).
- Annual and lifetime energy savings (kWh and summer peak kW, summer/winter therms) from installed and committed measures.

- A narrative describing major accomplishments.
- Estimate of environmental benefits based on energy savings from program tracking and evaluation and emission factors provided by the NJ Department of Environmental Protection.

The report will include explanatory notes regarding significant variances in program costs and results compared to budgets and goals.

### **Annual Reports**

The utilities' annual reports to the BPU will include the calendar year totals for all of the information included in the quarterly reports. In addition, the annual reports will include:

- A cost effectiveness report for each efficiency program.
- A performance report that will include a discussion outlining to what degree minimum administrative requirements were met, timelines and milestones were met, any administrative performance incentives were met and summaries of any evaluation, market research, baseline and market progress studies performed.
- Summary of lost revenues.

Much progress has been made in developing the standardized statewide reporting spreadsheets. However, these formats will be updated to incorporate the reporting requirements identified in the BPU's CRA Order as well as other information requested by BPU staff.