

### **3.2. FlexTech Program (Electric and Natural Gas)**

#### **3.2.1 Program Description**

FlexTech provides objective and customized information to help customers make informed energy decisions. Program participants receive cost-shared analysis targeting their particular energy and business needs. The combination of both electric and gas efficiency funds for this Program results in a more holistic analysis focused on a more complete set of participant needs; and a more cost-effective program with deeper market penetration for gas and electric energy efficiency.

Eligible participants for the FlexTech Program include commercial, industrial, institutional, government, and not-for-profit sectors. Participants may use FlexTech Consultants under NYSERDA contract or their own independent consultant. FlexTech Consultants under NYSERDA contract are competitively selected to provide a statewide geographic distribution of needed technical services.

#### **3.2.2 Program Outreach, Education, and Marketing**

A detailed Outreach, Education, and Marketing Plan (OEM) was approved by the Department of Public Service on March 1, 2010. The budget for these activities is provided in Table 3-10. Additional outreach, education, and marketing information required for the FlexTech Program administration is addressed in Section 3.2.9.

#### **3.2.3 Metrics and Benefits**

Anticipated electric (MWh) and natural gas (MMBtu) savings are shown in Table 3-4 (for electric funding) and Table 3-5 (for natural gas funding) for the FlexTech Program, based on commitments through 2011, the results of which will be fully realized through 2015.

**Table 3-4. FlexTech Program: Projected Installed MWh Savings for FlexTech Program - Electric**

	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>
<b>EEPS</b>		22,630	50,850	70,047	81,184	65,676	29,761

**Table 3-5. FlexTech Program: Projected Installed MMBtu Savings for FlexTech Program – Gas**

	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>
<b>EEPS</b>		1,265	57,733	104,126	103,928	65,730	49,180

#### **3.2.4 Program Budget**

The FlexTech Program expenditures are shown in Table 3-6 for electric funding and Table 3-7 for gas funding, reflecting commitments through 2013.

**Table 3-6. Projected Annual Expenditures for the FlexTech Program<sup>1</sup> – Electric [millions]**

	2009	2010	2011	2012	2013
EEPS	\$0.52	\$2.39	\$5.33	\$5.43	\$4.14

**Table 3-7. Projected Annual Expenditures for the FlexTech Program – Gas [millions]<sup>1</sup>**

	2010	2011	2012	2013
EEPS	\$0.077	\$0.466	\$0.683	\$0.397

The Outreach and Marketing budget for the FlexTech Program (for 2008-2011) is approximately \$841,835. This amount reflects \$796,000 for the electric portion of the Program, as well as \$44,995 for natural gas outreach, education, and marketing budget.

### **Additional Information Required in DPS Guidelines for FlexTech Gas Program Administration**

Sections 3.3.5 through 3.3.17 represent additional information, as required by DPS Staff guidelines for the approved FlexTech Program natural gas funding.<sup>2</sup>

### ***3.2.5 Metrics, Benefits, and Budget***

The anticipated annual and cumulative program budgets, energy savings and customer participation goals for FlexTech electric and gas are shown in the tables below.

**Table 3-8. FlexTech Program – Electric Commitments (2009 – 2011)**

		2009	2010	2011
<b>Savings Goals</b>				
Annual Savings-Contracted in Current Year	<i>MWh</i>	80,812	72,655	166,680
Cumulative Contracted Savings	<i>MWh</i>	80,812	153,467	320,147
<b>Funding Commitments</b>				
Funds Committed in Current Year	<i>\$ Millions</i>	\$3.975	\$ 4.714	\$9.119
Cumulative Funds Committed	<i>\$ Millions</i>		\$8.689	\$17.808
<b>Activity</b>				
Customer Participation Goals-Annual	<i>Project Count</i>		150	300
Customer Participation Goals-Cumulative	<i>Project Count</i>		150	450

<sup>1</sup> Although projected annual expenditures for the FlexTech Program are shown beyond 2011, all funding is expected to be encumbered by December 31, 2011. This accounts for FlexTech studies that may begin in 2011 but may not be completed until a later date.

<sup>2</sup> Pursuant to Letter, Barwig to Barone, November 6, 2009, regarding supplemental revision to SBC Operating Plan.

**Table 3-9. FlexTech Program – Natural Gas Commitments (2010 – 2011)**

		<b>2010</b>	<b>2011</b>
<b>Savings Goals</b>			
Annual Savings-Contracted in Current Year	<i>MMBtu</i>	114,683	267,280
Cumulative Contracted Savings	<i>MMBtu</i>	114,683	381,963
<b>Funding Commitments</b>			
Funds Committed in Current Year	<i>\$ Millions</i>	\$ 0.549	\$ 1.073
Cumulative Funds Committed	<i>\$ Millions</i>	\$ 0.549	\$ 1.623
<b>Activity</b>			
Customer Participation Goals-Annual	<i>Project Count</i>	35	50
Customer Participation Goals-Cumulative	<i>Project Count</i>	35	85

**Table 3-10. FlexTech Program – Electric Budget (2010-2011)**

<i>(\$ millions)</i>	<b>2009-2011</b>
<b>Program Planning</b>	-
<b>Program Outreach, Education and Marketing</b>	<b>0.796</b>
Research	.212
Marketing Support	.495
Tool Kits/Literature	.0885
<b>Trade Ally Training</b>	-
<b>Incentives and Services</b>	
Customer Incentives	16.57
<b>Direct Program Implementation</b>	
Contractor QA/Reporting	0.446
<b>TOTAL (Projected)</b>	<b>17.81</b>

**Table 3-11. FlexTech Program – Gas Budget (2010-2011)**

<i>(\$ millions)</i>	<b>2010-2011</b>
<b>Program Planning</b>	-
<b>Program Outreach, Education and Marketing</b>	<b>0.045</b>
Research	.012
Marketing Support	.028
Tool Kits/Literature	.005
<b>Trade Ally Training</b>	-
<b>Incentives and Services</b>	<b>1.545</b>
Customer Incentives	1.545
<b>Direct Program Implementation</b>	<b>.032</b>
Contractor QA/Reporting	0.032
<b>TOTAL (Projected)</b>	<b>1.622</b>

### **3.2.6 Total Resource Cost (TRC) Benefit/Cost Screening**

The FlexTech Program engages customers, service providers, and NYSERDA in prescreening of projects during study initiation and scope of work development. The scope of work development, review process, and customer cost-share requirement help ensure the value of the study information to the participant and eliminate projects or studies that lack economic viability or are outside the participant's business or mission investment interest. The process helps deliver studies that provide objective, customized information to facilitate participant energy decisions and helps reduce the potential for publicly cost-shared study of non-cost-effective projects and project components. Project-specific steps involved with maintaining and improving project and program cost-effectiveness are further detailed in Section 3.2.14, Quality Assurance Plan. The prescreening and quality assurance processes increase project and program cost effectiveness (\$/MWH and TRC) and likelihood of project installation.

With regard to the directive in the Order<sup>3</sup> requiring “prescreening analysis both at the specific measure and project level before project funding commitments are made,” due to the nature of the FlexTech Program, the inputs needed to perform a TRC test are not available until after the FlexTech study is completed. Therefore, the TRC analysis will be conducted for the program during activities performed under the approved evaluation plan for this Program.

### **3.2.7 Target Customer Market and Energy End Uses**

All commercial and industrial customers that contribute to the SBC charge are eligible. The Program will specifically target certain market sub-sectors such as commercial, industrial, institutional, municipal, and not-for-profits. Cost-sharing will be provided on studies that have a majority focus on gas saving measures and opportunities.

<sup>3</sup> Case 07-M-0548, et al, Proceeding on Motion of the Commission Regarding an Energy Efficiency Portfolio Standard, *Order Approving Certain Commercial and Industrial Customer Energy Efficiency Programs with Modifications*, issued October 23, 2009, p. 17.

### **3.2.8 Eligible Energy Efficiency Measures and Associated Customer Incentives**

The addition of natural gas funds will enhance the FlexTech program allowing for a more holistic approach to meeting participants' needs by expanding efforts that focus on electric energy efficiency improvements. Funding for integrated measures will facilitate program delivery and increase the penetration of electric and gas energy efficiency improvements. For most customers, NYSERDA will contribute fifty percent (50%) of the eligible study costs, based on an approved scope of work.

New and expanded initiatives will include: retro-commissioning, benchmarking, energy master planning, long-term energy management, sector-based emphasis, carbon footprint and reduction analysis, and sustainability planning and practices.

### **3.2.9 Customer Outreach, Education, and Marketing**

The proposed OEM budget for FlexTech represents 4% percent of the total approved FlexTech budget. The budget and work will be executed using the DPS approved OEM Plan.

**Table 3-12. OEM Budget for FlexTech – Electric and Gas**

<b>OEM Activity</b>	<b>2010-2011</b>
Research	224,490
Additional Marketing Support	523,808
Tool Kit/Collateral Items/Templates	93,537
<b>Total</b>	<b>\$841,835</b>

### **3.2.10 Descriptions of Roles and Responsibilities of the Program Administrator and Program Contractors**

As the program administrator, NYSERDA's primary role is to achieve the energy reduction goals of the program within the allocated budget and timeframe. NYSERDA provides leadership, management, and oversight to the consultants and customers who participate in the Program. NYSERDA staff provide assistance selecting NYSERDA FlexTech Consultants; creating and approving study proposals (scopes of work); and reviewing and approving final FlexTech reports.

NYSERDA administration of the program is supported by consultants who perform the technical and engineering analysis studies including:

- NYSERDA FlexTech Consultants who have been competitively selected, and are under contract to NYSERDA, to provide customer specific energy related engineering analyses and feasibility studies; and
- Consultants chosen by customers, not under contract to NYSERDA who also provide customer specific engineering analyses and feasibility studies through the open-enrollment FlexTech Program Opportunity Notice (PON).

External Technical Review contractors occasionally provide technical support for Program applications and studies as requested. NYSERDA's External Technical Review contractors are selected through a competitive Request for Proposal (RFP) process.<sup>4</sup>

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<sup>4</sup> Submitted proposals are reviewed and evaluated in accordance with the criteria noted in the solicitation by a Technical Evaluation Panel (TEP), comprised of NYSERDA staff, Department of Public Service staff, and outside

### ***3.2.11 Procedures for Customer Enrollment***

Customers may enroll into the FlexTech Program in one of the following ways:

- A customer may simply contact NYSERDA directly in person, by phone, or by email to request assistance;
- A customer may submit a referral form via online, email, U.S. mail, or fax;
- A customer may apply directly using the FlexTech Program Opportunity Notice (PON) application;
- A NYSERDA FlexTech consultant may submit a project to NYSERDA on behalf of a customer;
- Sector Focus contractors may assist the customer with applying to the program.

### ***3.2.12 Training for Appropriate Trade Allies***

Outreach and training activities to inform equipment suppliers, trade associations, and installation contractors about FlexTech gas will be coordinated with the **New York Energy \$mart<sup>SM</sup>** Business Partners and Workforce Development Programs.

### ***3.2.13 Contractor Training and Program Orientation Plan***

FlexTech gas efforts incorporate outreach sessions around the State for participant engineering and consulting firms, construction firms, energy service companies, and other service providers. Orientation sessions will be held annually for NYSERDA FlexTech Consultants. Customized one-on-one guidance is provided, as needed, for service providers to complete successful projects. Guidance and orientation sessions address program rules, eligible measures and study categories, energy calculation methodology, and other items requested by the marketplace.

In addition to outreach and orientation sessions, NYSERDA maintains ongoing communication with customers and service providers participating in the program starting with a face-to-face meeting or telephone conversation to explain program expectations before project initiation. Once projects are initiated, NYSERDA or its external technical reviewer maintains frequent customer and consultant communication to discuss project progress and regular communication occurs throughout project management.

### ***3.2.14 Quality Assurance Plan***

The quality assurance plan for the FlexTech Program is managed by NYSERDA with support from external technical review contractors. Each FlexTech project is subject to the following process:

#### ***Step 1: Project Initiation***

Customers may contact NYSERDA to apply or consultants can bring project leads to NYSERDA through any of the methods listed in Section 3.2.11. A NYSERDA project manager addresses eligibility and project information with the potential customer as needed dependent upon the information included in the initial lead. If the customer is not currently working with a consultant, the NYSERDA project manager assists the customer in selecting a FlexTech Consultant.

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reviewers with relevant expertise. TEP recommendations are reviewed with NYSERDA staff and approved by NYSERDA management.

*Step 1a: Site Visit*

Dependent upon the project complexity and development, the NYSERDA project manager, consultant and customer often arrange a meeting at the customer's site to discuss the project in detail, tour the site, and gather enough information for the consultant to develop a proposal (scope of work). Potential project tasks to be considered are discussed at this meeting.

*Step 2: Scope of Work Review*

NYSERDA reviews the scope of work for program compliance and technical quality. NYSERDA provides comments and works with the consultant and customer, as necessary to achieve an agreed-upon scope of work.

*Step 3: Project Funding*

Upon agreement and approval of a scope of work by the customer, consultant and NYSERDA; NYSERDA issues a Purchase Order authorizing commencement of the FlexTech study.

*Step 4: Project Oversight*

NYSERDA maintains communication with the consultant and customer to ensure timely progress of drafts and deliverables outlined within the scope of work. This oversight also ensures that the scope of work tasks are being completed as approved.

*Step 5: Report Review and Project Completion*

NYSERDA reviews the draft report to ensure technical quality and completion of the approved scope of work. NYSERDA provides comments and communicates with the consultant and customer, as necessary. Comments are reviewed and discussed via conference call and written correspondence. Once the report has been approved by NYSERDA, the consultant and customer can fully invoice and receive cost-share payment for the study.

**3.2.15 Coordination with New York Energy Efficiency Programs and Program Administrators**

Working with other program administrators, NYSERDA is addressing coordination issues and potential for overlap with other energy efficiency programs. NYSERDA is working to coordinate with other program administrators to minimize confusion where multiple opportunities for study cost-sharing assistance are available to customers.

FlexTech provides objective and customized information to help customers make informed energy decisions. SBC evaluation results have confirmed that most FlexTech resource acquisition occurs without use of programs that offer installation incentives.<sup>5</sup> Accounting for overlap in an accurate and appropriate manner is important. NYSERDA will follow the directions in the October 23, 2009 Order, and any subsequent PSC or DPS staff direction.

**3.2.16 Evaluation Plan**

NYSERDA will continue to work with DPS Staff and the EEPS Evaluation Advisory Group to draft, revise and finalize evaluation plans that meet established protocols. The primary goal of the FlexTech Program evaluation effort is to measure and verify the savings attributable to the program. Secondary goals are to better understand the market for tailoring the program to the needs of the audience and fostering an efficient program delivery mechanism.

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<sup>5</sup> Supporting Documentation for the Estimate of Overlapping Savings for the Technical Assistance Program dated September 9, 2008 from Megdal & Associates to NYSERDA.

NYSERDA expects that evaluation plans described in the detailed FlexTech Program Evaluation, Measurement and Verification Plan can also apply to the FlexTech gas funding and the evaluation of both the electric and gas program components will be fully coordinated.<sup>6</sup> NYSERDA anticipates that the approach, implementation, rigor level, and timing of evaluating natural gas savings will be similar to that described for the FlexTech Program electric savings and funds earmarked for evaluating the natural gas portion of the Program will be added to the existing electricity-focused evaluation budget to accomplish the coordinated evaluation. NYSERDA's estimated evaluation budget for this program includes a set-aside for updating the detailed FlexTech Program Evaluation, Measurement and Verification Plan to include the natural gas funding and make any adjustments to the timing or approach for conducting the electric program evaluation. NYSERDA will work with DPS Staff on this effort.

The evaluation approach presented in this section is designed based on NYSERDA's plans for the FlexTech Program in the absence of final evaluation protocols, potential funding set-asides, and plans for overarching evaluation projects that would serve the needs of all EEPS program administrators. Thus, this evaluation plan affords NYSERDA and its independent evaluation contractors flexibility to adapt approaches that best suit the program as implemented once final evaluation protocols and other evaluation projects for which funding will need to be allocated are established.

### ***Evaluation Budget***

NYSERDA expects the evaluation budget for the FlexTech Program to be approximately 5% of program funding, less yet-to-be determined funds set aside for Statewide studies and other overarching costs borne by program administrators. NYSERDA expects that approximately 80% of the evaluation funding will be allocated to impact evaluation. The remainder will be split between process and market evaluation.

### ***Evaluation Schedule***

Evaluation studies expected to be part of the FlexTech Program evaluation plan are shown in Table 3-11, along with the time frame for their anticipated completion. The anticipated time frame for evaluation completion may be adjusted based on program performance, timing of data availability or other factors. Any changes to this proposed time line will be outlined in the detailed evaluation plan.

**Table 3-11. Evaluation Schedule for the FlexTech Program**

Evaluation Element	Expected Completion			
	2011	2012	2013	2014
M&V (Impact)		X		X
Net-to-Gross (Impact)		X		X
Process Evaluation				
Market Evaluation		X		

### ***Impact Evaluation***

*Measurement and Verification.* Measurement and verification (M&V) will involve site visits and simple engineering modeling of installed measures, as well as an analysis of energy use data for all participants

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<sup>6</sup> Subsequent to the electric-focused filing described above, NYSERDA developed a detailed evaluation plan for the FlexTech Program that was approved by DPS in July 2009. This evaluation plan will be updated to incorporate the natural gas funding and will be provided to DPS Staff for review and approval.

(those that received studies). Due to the potential lag in savings between participation and implementation, a full impact evaluation of EEPs funded projects is not anticipated until 2012.

The FlexTech Expansion Program M&V methodology is designed to address the unique nature of the program, whereby NYSERDA cost-shares an investigation and a report of a facility's energy operations, but no action is required by the facility. The realization rate will reflect both the percent of savings from measures recommended in completed studies that have been implemented, and the percent of estimated savings for implemented measures that is actually achieved, as determined by a site visit. A sub-sample of site visits may involve monitoring and/or measurement (meeting as a minimum the standards of International Performance Measurement and Verification Protocol [IPMVP] Option A including the use of direct measurement). The impact evaluation methodology will involve a major direct, on-site verification component that will provide the data necessary for these calculations.

Initially, participants will be surveyed to determine whether any recommended measures or actions were implemented. The survey sample will be stratified by utility service territory and then the magnitude of potential (recommended) savings within that stratum. Due to the relatively small number of anticipated program participants, it is expected that a 90/10 confidence/precision level by utility service territory can be achieved, even given the smaller overall dollar value allocated to this program evaluation effort. Then potential site visits will be selected based upon the results of the telephone surveys. A census of large energy-saving sites and a sample (meeting 90/10 confidence/precision levels) of remaining sites in each utility stratum will be selected for verification site visits. The smallest savers may be eliminated as site visit candidates. Savings will be estimated, using simple engineering models at a minimum,<sup>7</sup> based on reported baseline conditions (or equipment standard assumptions) and as-built conditions. Results will be weighted by utility and for the program as a whole.

Due to the lag time in the implementation of measures for this type of program, impact evaluations would be conducted in 2012 for measures installed or implemented through 2011, and again in 2014 for installation and implementation completed through 2013. Savings are expected to accrue past 2013, but these projects are not expected to differ markedly from those examined in the first two impact evaluations, so follow-up will be significantly less intensive. Process evaluations involving calls to participants can help assess attrition. These calls can also be leveraged to identify sites available for M&V activities.

**Net-to-Gross.** Net savings will be estimated at the 90/10 confidence/precision level via an enhanced self-report survey method with key decision-makers (customers, service providers, etc.) for specific measures, using state of the art survey instruments. Savings-weighted freeridership and spillover will be estimated using these data. Non-participant spillover will be estimated based on a commercial/industrial existing building non-participant study conducted by NYSERDA's impact evaluation contractor.<sup>8</sup> Initially, the survey instruments will be based upon NYSERDA's long-term refinement of these questions, including additions to ensure construct validity and other potential reliability issues to achieve the highest cost-efficient rigor levels. Net to gross evaluations will be conducted on adopters found through the M&V analysis in the years 2012 and 2014.

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<sup>7</sup> More sophisticated methods may be selected for the largest energy-saving sites and the method selected will depend upon an assessment of the most reliable, and cost-efficient method for the application being examined. For example, a large industrial process measure might best be measured through IPMVP Option B and calibrated DOE-2 modeling (IPMVP Option D) might be most appropriate for a comprehensive large office building application.

<sup>8</sup> The Commercial/Industrial Existing Facilities Non-Participant Spillover Study and Technology-Specific Alternative Net-To-Gross/Market Effects detailed impact evaluation plan was approved by DPS in January 2010.

### ***Process Evaluation***

A full process evaluation of the FlexTech Program is warranted. Process evaluation activities will include interviews with NYSERDA staff, service providers, and surveys of customers that have participated in the program. A sample of non-participants, matched to the NAICS characteristics of participants, should be surveyed as well. Customers who participated in the program but did not adopt recommendations will also be examined. Specific objectives of the process evaluation could include further examination of the program processes; database adequacy; allocation of resources between program overhead versus direct services to customers; serving both large and small customer needs; an investigation of customer linkages between participation in this program and other implementation programs; and an examination of measure adoption rates by customer type, customer needs, and potential differential marketing and informational approaches.

This process evaluation is expected to be conducted during the later program implementation period and will provide feedback regarding the program processes, participation rates, and further expand on and explore reasons for attrition. Typically, past process evaluation work has achieved 90/10 confidence and precision levels, thus it is expected that future planned process evaluations will attain these levels. Efforts will also be made to eliminate, reduce, or mitigate bias in the research design.

### ***Market Evaluation***

An important part of any program evaluation is a thorough understanding of the market environment in which it is operating. NYSERDA believes that the best approach to fully characterize the target market for this and other commercial/industrial sector programs includes a large-scale baseline and measure saturation study, coupled with surveys of various market actors such as engineering firms, manufacturers, and specialty contractors.

The large-scale baseline and measure saturation study would be conducted through site visits to fully characterize buildings and facilities in these sectors, the equipment in use, vintage and efficiency levels of motors, HVAC, lighting, etc., to establish an understanding of equipment holding in the sector, and other factors. The survey element should focus on current practice, customer and market response, and decision making processes.

NYSERDA believes this type of study would benefit all EEPs program administrators, and therefore proposes that it be undertaken in a joint-funded manner with all parties contributing. The full study, including both the site visit and survey components, cannot be conducted by NYSERDA alone as part of the evaluation budget for the FlexTech Program. However, if it is decided that this type of joint study is not worthy of support by all potential program administrators, NYSERDA would conduct more limited customer and market actor surveys to serve its program information needs. Although the full value of this effort will be highly diminished, the survey component will still provide valuable information to assist NYSERDA in targeting this program to better serve the industrial market and meet overall electricity savings goals.

### ***Evaluation Plan Variations***

Given the level of uncertainty regarding final evaluation protocols, statewide studies to be conducted by all program administrators, and funding levels needed to support other overarching evaluation activities, the evaluation plans presented in this section should be viewed as scalable and flexible. Specifically, if the total evaluation budget for this program needs to be reduced, impact evaluation would no longer be able to meet 90/10 at the individual utility level and process evaluation would likely eliminate the non-participant sample and other potential participant groups in an attempt to focus on only the most relevant samples for achieving the highest priority goals of the evaluation. Conversely, if more of NYSERDA's

total evaluation funding could be allocated to this program, the additional funds would allow for more site-specific data collection as part of the impact evaluation.

**3.2.17 NYSERDA Contact Information**

Program participants can contact Jaime Ritchey, NYSERDA using the following contact information:

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