

### *C&I Program Descriptions*

The following C&I program descriptions have not materially changed from the April 30, 2009 version of the Plan. The Program Administrators contemplate revisions to these program descriptions over the next several months, however, and have worked diligently with the Council and its Consultants to update these programs in order to enable even deeper and broader savings levels, with an initial focus on achieving deeper savings and then expanding to broader implementation. A C&I Roadmap of Further Actions based on these productive, collaborative discussions is presented in Appendix E of this Plan.

### C&I Retrofit Program for Existing Buildings

<b>Primary Objective</b>	<p>This program will increasingly focus on comprehensive gas and electric energy efficiency opportunities associated with mechanical, electrical, and thermal systems in existing commercial, industrial, governmental and institutional buildings. It provides technical assistance and incentives to encourage retrofitting of equipment that continues to function, but is outdated and inefficient, and can be replaced with a premium efficient product.</p> <p>The program provides technical assistance (to identify and quantify opportunities) and financial incentives based on a percentage of project costs (both material and labor) to make equipment removal and replacement attractive to building and business owners in terms of conventional business payback requirements.</p> <p>The program also helps participants identify specific peak load management opportunities that enable participants to maximize other time-based incentives – such as those available from the ISO – to manage their electric and thermal loads, and assists occupants in improving their ongoing operation and maintenance practices.</p>
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<b>History and Description of Current Programs</b>	<p>Most Electric Program Administrators have offered retrofit programs since 1988. Over time these programs have evolved and improved through incorporation of the lessons of actual delivery experience, program evaluation recommendations, and the best practices from other programs around the country. Also, prior to the passage of the Green Communities Act, the Electric PAs had a long and productive relationship in the Massachusetts Electric Utility Collaborative, which provided a formal framework for incorporating customer input and best practices recommendations from outside consultants from all around the country into PA program designs. The Massachusetts programs developed through the Collaborative partnership came to be recognized as amongst the best in the country and both the programs and the collaborative decision-making model have been copied by a number of other jurisdictions in North America.</p> <p>The Gas PA's have collaborated through GasNetworks since 1997. GasNetworks is a nationally-recognized, award-winning collaborative of local natural gas companies serving nearly 2 million residential and C&amp;I customers throughout New England that has been promoting energy efficiency and the use of high efficiency natural gas technologies since 1997. The mission of this unique collaborative is to work with governmental agencies, trade allies, and consumers, in order to promote energy-efficient technologies. Successful strategies include the creation of common energy efficiency programs, education of consumers, and promotion and sponsorship of quality contractor training and awareness programs of ever-changing natural gas technologies. Massachusetts members include Bay State Gas, Berkshire Gas, National Grid, New England Gas, NSTAR Gas, and Unitil.</p> <p>In recent years the Electric PAs have increasingly collaborated at the management, program director, and technical staff levels to harmonize program measures, incentives, technical requirements, and participation criteria. Each PA now has a suite of retrofit program services that provides customers with technical solutions to guide better peak and overall energy management, incentives to drive customers to replace existing inefficient equipment and systems, and a means to measure the results of these replacements through cost-effective commissioning and retrocommissioning practices.</p> <p>The programs have been responsive to advancements in technologies and design standards for higher performance practices. The PAs have developed more comprehensive solutions and wider choices in incentive offerings to promote deeper savings and greater customer participation. They have also adapted offerings in response to evolving customer needs and expectations and developed targeted initiatives – such as those for cities and towns, schools, small businesses and site-specific commercial and industrial processes – to address the needs of unique customer niches.</p> <p>In addition, PA-administered programs have fostered growth of a robust private sector infrastructure of companies and individual skilled energy efficiency technical practitioners – contractors, trade allies and suppliers, engineers and analysts – who work with both the programs and the marketplace to influence the selection, replacement, and management of mechanical, electrical and gas equipment and systems. Because of</p>
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<b>2010 – 2012 Program Goals</b>	PA-specific targets go here.
<b>2010 - 2012 Budget</b>	PA-specific budgets to go here
<b>Program Design</b>	<p>In 2010 the Electric PAs will complete the harmonization of their retrofit offerings into a consistent core set statewide of prescriptive and custom offerings, incentives, and supportive services. Gas PAs will similarly organize their programs into prescriptive and custom offerings and align them into a consistent set of services and incentives. All gas and electric retrofit programs will be organized under a single program name, using application forms and other program materials that are the same, except for information pertaining to the individual PA brand identifiers, contact information, etc.</p> <p>In addition this core program, individual administrators may also test the viability of new strategies and options for their customers. Strategies under consideration for implementation in 2010 include: identifying cost effective methods to improve deep energy efficiency in retrofit markets, identifying new financing instruments to promote greater access to capital to promote deeper penetration into customer sectors, and incorporating new technologies to accelerate adoption of emerging and promising electric and gas end uses, as well as an increased emphasis to automate loads to maximize the value of time-based energy supply offerings.</p> <p>The overall Retrofit Program addresses energy efficiency opportunities in existing commercial, industrial, governmental and institutional buildings. Under this umbrella, there are multiple offerings, tailored to unique customer needs and opportunities, including:</p> <p><b>Technical Assistance Services:</b> Solid, professional, unbiased and independent technical advisory services provide the foundation for the achievement of deep and broad savings in existing buildings. The TA Services component of the program provides technical support matched to the specific needs and capabilities of each commercial or industrial customer. Services may include walk-through audits, detailed energy-efficiency studies for buildings or building components, and specialized technical studies, such as studies of industrial process improvements and compressed air projects.</p> <p>In general, study proposals will be assigned to, and performed by, TA consultants who have been selected as preferred vendors through a competitive procurement process by the PAs. TA consultants will be assigned</p>

<p><b>Program Design (Cont.)</b></p>	<p>based on an assessment of their expertise with the technology area under consideration. Customers can also elect to use a TA provider of their own choosing, as long as the co-funding PA approves with the firm’s qualifications and cost-estimate. Non-preferred vendors must comply with the same level of detail and quality as preferred vendors.</p> <p>In many instances, commercial and industrial customers may have both gas and electric equipment options for a particular end-use. In order to (a) encourage more comprehensive, integrated, and balanced consideration of all the energy efficiency options available, and (b) ensure that customers have open choices, the gas and electric PAs delivering the statewide program will provide coordinated Technical Assistance Studies. In general, the study costs will be cost-shared between the gas and electric PAs according to the proportionate share of the analysis and/or opportunities found through the analysis. Study opportunities are likely to appear in larger, complex buildings and industries. For smaller, simpler buildings and businesses turnkey vendors are expected to provide evaluations as part of their proposals without an additional cost. As an example, lighting retrofits are not eligible for technical assistance study funding.</p> <p><b>Whole Building Assessment (“WBA”)</b> is a comprehensive targeted approach designed to attain, over time, maximum savings in buildings through a detailed technical review and an integration of energy consuming gas and electric equipment and systems, including upgrades as appropriate. WBA helps commercial and municipal customers with larger buildings to, first, assess energy efficiency opportunities through benchmarking, and then provide them with an integrated, optimized, and systematic action plan to, over time, address identified opportunities and overcome institutional barriers. WBA provides the ongoing technical assistance and incentives required to achieve maximum deep and lasting savings.</p> <p>Customers sign a Letter of Agreement (“LOA”) that commits them to work in good faith to implement a menu of cost-effective energy efficiency and peak load reduction strategies identified in an energy assessment report. The in-depth technical assessment includes benchmarking buildings using ENERGY STAR’s Portfolio Manager<sup>1</sup> to analyze energy use data. The assessment also includes a lighting and mechanical all-fuels walk-through audit. This holistic analysis is summarized in a report to the customer. The report details the building’s current energy use, lists and prioritizes energy saving opportunities (both low-cost/no-cost and capital improvements), identifies incentives (gas, electric, tax and other) when available to bring the plan to</p>
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<sup>1</sup> [http://www.energystar.gov/index.cfm?c=evaluate\\_performance.bus\\_portfoliomanager](http://www.energystar.gov/index.cfm?c=evaluate_performance.bus_portfoliomanager).

<p><b>Program Design</b> (cont.)</p>	<p>action and provides the basis for a jointly-developed action plan to systematically improve the building's energy performance. The plan also provides peak load management opportunities to allow participants to consider time-sensitive supply offerings.</p> <p>Customers are also encouraged to enroll their facility staff in the Building Operator Certification Program and to avail themselves of other suggested energy education opportunities in order to help building operators implement low-cost/no-cost recommendations and monitor building operations by reviewing and interpreting Portfolio Manager reports. Program Administrators pay for a portion of the cost of participating in such trainings.</p> <p><b>Municipalities</b> often have unique barriers which the Municipal Initiatives is designed to help overcome. These barriers can include: capital and staff limitations and procurement processes which were not designed to easily accommodate the vendor-driven process of energy efficiency. Also municipalities may lack the technical recourses to become familiar with complex efficiency options. Also requirements for governing body approval of all capital budget items can make it difficult for municipal officials to act on opportunities to reduce energy costs. Also many cities and towns have very old public facilities with old systems. Local government structures also delegate responsibility for energy upgrades to the individual department level, while payment of bills often resides at a central finance office. Thus, there is little incentive for departments to upgrade the energy efficiency of their buildings because the reward for reduced energy bills may simply be a reduced operating budget in the subsequent year.</p> <p>The cumulative consequence is that municipal customers often have very outdated and inefficient energy systems, but because savings per building may be low and the transaction costs of public procurements are high, energy service companies have little or no incentive to market to these customers.</p> <p>The Green Communities Act provides a new streamlined contracting process that allows cities and towns to sole-source efficiency projects to a Program Administrator, or the Program Administrators' delivery contractor, if the total work is less than \$100,000. By providing upfront competitive bidding, enhanced financial incentives, and Program Administrator financing options, including on-bill payment, some PAs have been able to provide a turnkey service with incentives structured to create positive cash flow and to encourage comprehensive projects. This addresses many of the implementation barriers cited above.</p>
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Comment [DCB1]: Rewritten to be more general.

<p><b>Program Design (cont.)</b></p>	<p>The Program Administrators will use direct, targeted outreach to municipalities to ensure they are aware of all energy services and customized assistance available to facilitate participation and will simplify transaction and administrative burdens for municipalities.</p> <p><b>Compressed Air</b> – Significant energy savings can be achieved from optimizing compressed air systems in industrial facilities (over 100 HP). The focus is on the efficiency of the compressor system elements and recovery of waste heat generated by these systems.</p> <p><b>Industrial:</b> Small and Large industrial customers will be targeted by the combined gas and electric energy efficiency program. Industrial energy savings opportunities will be viewed comprehensively and all the potential cost and savings streams will be quantified. The approach will incorporate measures like heat recovery and process improvements, as well as the DOE Steam Assessment and Savings program. Non-gas/electric energy benefits or additional costs related to improvements will be quantified to the extent possible. Examples of additional benefits might be; raw material, scrap and increased thru-put. We plan to target industrial opportunities more aggressively and more routinely and explicitly to quantify the non-energy benefits of efficiency measures and educate customers about them.</p> <p><b>Retro-Commissioning</b> – Deferred maintenance, piecemeal upgrades, “sensor drift” and other factors affect, and degrade, building operation over time. Retro-commissioning allows a thorough evaluation of all building systems to ensure they are operating as designed. Remedial actions resulting from these studies are usually low cost or no cost and have an immediate impact on the energy use and quality of the building operation. Typically these studies require a significant time investment by a higher level engineer and therefore are often not cost-effective. In order to look for ways to reduce the study costs, PA’s will support these studies on a limited basis.</p> <p><b>Retrofit Performance Lighting</b> –Many spaces have lighting that was installed without benefit of a customized lighting design matched to the work requirements in the space or with limited or no consideration for comprehensive energy performance. By combining better fixtures lamps and controls, and altering layout where cost-effective there may be a significant opportunity for both energy reduction and a better system that contributes to a better visual and working environment. This will be offered on a limited basis and projects will be evaluated through the custom path to determine the potential for a broader customer application and cost</p>
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<p><b>Program Design (cont.)</b></p>	<p>effectiveness.</p> <p><b>Renewable Energy:</b> Some existing buildings have potential for incorporating renewable energy options. PA-contracted vendors who conduct audits on existing buildings will be directed to offer a preliminary investigation of PV and solar thermal opportunities when a customer expresses an interest in pursuing such options. Where opportunities are found, the customer will be directed to the appropriate entity to secure more detailed information to properly evaluate these opportunities. Solar thermal opportunities may be eligible for custom measure incentives under PA efficiency programs as well.</p> <p><b>Governor’s Clean Energy Challenge (“GCEC”):</b> The Program Administrators fully support delivery of the Clean Energy Challenge. PAs will provide Massachusetts companies that accept the GCEC with the means to reduce their energy and operating costs, and, and to calculate the carbon savings from these actions. The assistance begins with an on-site Whole Building Assessment, including energy use benchmarking and a technical study to identify energy use reduction strategies—performed through a review of utility consumption data provided directly by utilities and other vendors.</p> <p><b>Demand Response (“DR”):</b> Demand response will help participants identify specific peak load management opportunities that maximize their opportunities to secure time-based incentives to manage their electric loads. Additional DR opportunities will be identified and automated control measures will be identified where applicable. The program also assists occupants in improving ongoing operation and maintenance practices that could favorably impact demand.</p> <p>To maximize demand resource enrollment in the FCM, Program Administrators will work with third party Curtailment Service Providers (“CSP”s) to facilitate the enrollment of as many participating large C&amp;I customers as possible. Program Administrators expect that this approach will provide a more manageable path for customers to participate in the FCM and, therefore, the need for Program Administrators to aggregate these customers should be minimal.</p> <p>Smaller businesses will be offered DR-enabled thermostats if they agree to participate in potential load curtailment in the future. The DR potential for this customer class will be aggregated and after two years the cost and market penetration impacts of this strategy will be evaluated. The intent and expectation is that this least-cost method of enabling mass market DR will produce the critical mass necessary to enroll in the FCM.</p>
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<p><b>Program Design (cont.)</b></p>	<p>DR benefits and incentives would be retained by the Program Administrators to increase the pool of program funds.</p> <p><b>Combined Heat and Power (“CHP”)</b> is an attractive offering for customers such as hospitals, thermal intensive industrials, multi-family housing and others with year round thermal use. CHP presents unique challenges, as reductions of metered electric loads are offset by increased use of fossil fuels to power the CHP system. Overall energy efficiency is improved through increased utilization of the on-site electric generator’s recoverable heat. Program Administrators will require a custom analysis and screening of potential CHP opportunities to ensure positive net benefits and a net reduction in greenhouse gases. The eligibility process will be aligned with the Alternative Portfolio Standard (“APS”) process.</p> <p>In summary, a fully integrated energy efficiency delivery model is being constructed that will deliver gas and electric efficiency, CHP, renewable energy, and the DR services necessary for adoption of Smart Grid technology. As markets evolve and change in response to other emerging clean energy technologies and new business growth, the Program Administrators will be organized in a way that allows rapid response to these new opportunities for the benefit of their customers and the Commonwealth.</p> <p>As a recent example, the expansion of the internet has driven rapid growth of power-consuming data centers, and the PAs have responded with strategies to reduce energy consumption and costs for these facilities by providing high performance ventilation and cooling for computer servers. Similarly, the growing commercial laboratories business in the Commonwealth presents unique challenges and opportunities to provide tailored energy use reduction strategies. Next to data centers, laboratories are the most energy intensive non-industrial facilities and opportunities for efficiency improvements have gone largely untouched, due to concerns about a sterile environment and safety. Program Administrators have addressed these issues directly in their proposals for efficiency projects. Success in these early projects will open the door for many more opportunities with significant potential for both electric and fossil fuel savings. Similarly, industrial customers represent significant natural gas energy savings and the PAs will work with the Department of Energy’s Industrial Technologies Program to identify steam savings and carbon reduction opportunities.</p>
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<b>Target Market</b>	The target market is all non-residential customers - commercial, industrial, governmental, and institutional. Multi-Family customers will be channeled through the separate Multi-Family Retrofit Program described separately in this filing.
<b>Marketing Approach</b>	<p>While a variety of marketing approaches will be employed, experience has established that the most successful avenue is through one-on-one communication with customers through account executives, in partnership with trade allies, who can initially identify gas and electric opportunities and gauge customer interest in pursuing an efficiency upgrade, or a comprehensive plan of upgrades. Account managers can leverage their intimate, long-term relationships with customers and their knowledge and analysis of customer data (energy use, demand, sector analysis, etc.). Trade allies such as equipment vendors, consulting engineers and energy service companies, or “channel partners” are key actors in promoting, identifying, and delivering services to customers. Account managers conduct dual sales calls, open houses, training, and new product and service demos with trade allies. All PA programs are “open” and allow significant flexibility to vendors and customers in determining the optimal implementation strategy and partners for their particular project. PA experience with non-residential customers has established that this kind of one-on-one “relationship marketing” is most successful in moving businesspeople and institutional/government customers to action.</p> <p>In addition to channel partners, Program Administrators may also leverage closer alliances with turnkey installation contractors. These are firms that have been chosen through a formal bid solicitation and act as agents to the PAs in performing specific program functions. Program Administrators use these firms to strategically market to specific customers, sectors and/or technologies. While channel partners provide widespread marketing and maintain customer flexibility, turnkey installation contractors allow for targeted, coordinated sales along with pre-approved turn-key solutions to customers.</p> <p>In 2010 the PAs will launch a statewide website and statewide media marketing. Additional marketing approaches may be used by one or more Program Administrators to increase participation and capture deeper, broader savings with their customers. These could include: direct mail; seminars and training sessions; power breakfasts; webinars; participation in trade shows and conferences; co-marketing through trade industry, public interest and civic groups that represent the target market and have extensive outreach capabilities; and informational meetings with ESCOs and contractors.</p> <p>In addition, Program Administrators expect to supplement these strategies with broad-based radio, printed</p>

<b>Marketing Approach (cont.)</b>	matter and email-blast outreach. Email alerts and other low-cost means to reach customers will also be adopted to advance customer participation. Program Administrators are currently using on-line communications to bring new and emerging technologies to the attention of their customers. Other social marketing techniques will be used to increase customer awareness of program services and the means to access these services. All these strategies will be integrated into a common marketing plan that will identify key drivers, objectives, strategies, and tactics to increase customer participation.
<b>Target End Uses</b>	Targeted end uses include, but are not limited to, lighting and lighting controls, motors and drives, HVAC equipment, energy management systems, compressed air and unique industrial processes. Gas end uses include: building envelope and glazing, commercially sized heating and water heating equipment, system and building controls. Any commercially available energy efficiency technology may be considered through a custom application. Fully integrated and comprehensive gas and electric approaches will be taken to ensure the capture of all cost-effective achievable technical potential.
<b>Recommended Technologies</b>	Recommended technologies include efficient lamp technologies, efficient lighting fixtures, lighting controls, efficient motor drive systems, efficient HVAC systems, CHP, compressed air systems, heat recovery, steam systems, industrial process systems and controls, building controls, demand controlled ventilation, Energy Recovery Ventilation Units (“ERVs”), advanced gas technologies, dehumidification and humidification. Solar hot water, advanced cooling systems and other emerging technologies may also be addressed.
<b>Financial Incentives</b>	<p>In recent years the PAs have increasingly collaborated to harmonize program measures, incentives, technical requirements, and participation criteria. The process of fully harmonizing prescriptive measures and the accompanying incentives will be complete for 2010. Similarly, the criteria for vetting and approving custom projects, and assigning incentives will be standardized in 2010.</p> <p>Financial incentives cover a portion of the total installed project costs, typically by providing up to 50% of labor and equipment costs, or by incentivizing the installed costs down to the equivalent of a fixed payback period. Financial incentives may also include co-funded engineering and commissioning studies and/or design incentives covering a portion of incremental architectural and design costs for efficiency improvements. In addition, Program Administrators with the capability will offer on-bill financing options for municipal customers in 2010 to enable them to implement comprehensive energy efficiency treatment in their</p>

<b>Financial Incentives (cont.)</b>	<p>communities.</p> <p>The Program Administrators anticipate that some incentives will be adjusted higher to support emerging or underutilized technologies in order to accelerate market acceptance and sales volume. Over time, this strategy is intended to bring down the cost of these measures, and thus the incentive requirements. Incentives for more accepted efficient electric and gas end use technologies may also be increased when they are used in combination with other measures to promote broader and deeper savings. This is the so-called “Multi-Measure Incentive.”</p>
<b>Delivery Mechanism</b>	<p>Program Administrator staff, trade allies and project administrators perform most sales, marketing, program administration, and implementation functions. In addition, outside contractors are retained for technical review of applications, on-site energy analysis, technical and design assistance for comprehensive projects, project commissioning services, and the actual measure installations, including turn-key services.</p>
<b>Joint program administrator enhancements planned for 2010-2012</b>	<p>Key joint Program Administrator enhancements are identified in the narratives above. In summary, program services and incentives will be offered under one common umbrella program with a statewide platform. Individual PAs will administer the program in their locales, using common procedures, qualifications and incentives. Application forms and promotional materials will feature the statewide program name; the local PA brand, and will be common, except for any unique information required to properly administer the program in an individual PA’s locale – such as contact numbers and addresses, etc. There will also be an integrated website and statewide program marketing and customer outreach campaigns. Program Administrators will also work together on CHP and DR activities, introduction and promotion of new and emerging technologies, integration of multi-family program options, and responding to GCA directives.</p> <p>Programs are kept in harmony by regular meetings of the respective program managers around policy and delivery issues, and the Joint Standing Technical Committee around issues of measure savings quantification, vetting new measures, and testing of emerging technologies. The Gas Technologies Committee was recently formed to coordinate on the review of savings, new measures and technologies. This group will also work to keep trades and vendors apprised of new technologies and program design.</p> <p>Over the next three years the Program Administrators will increase their capacity to deliver deeper savings by evaluating internal staff capacity and needs, and adjusting accordingly, retaining additional installation</p>

	<p>contractors to deliver services to customers, and expanding the pool of qualified contractors, engineering and architectural consulting firms in order to deliver larger scale energy efficient technical solutions to customers. In addition, the Program Administrators are looking to develop additional strategic partnerships with other energy services providers.</p> <p>To address customer needs for additional capital to invest in more comprehensive or expensive solutions in their facilities, various financing options will be tested and implemented. Also, as described earlier, program components targeting specific customer groups and building types with specific needs and energy saving opportunities will be expanded to increase participation and savings.</p>
<p><b>Special Notes</b></p>	<p>The current Massachusetts portfolio of retrofit services is mature and successful. Massachusetts gas and electric programs have received numerous awards from peer organizations (EPA, DOE, AGA, American Council for Energy Efficient Economy (“ACEEE”), Natural Resources Defense Council, NEEP and others) for being examples of exemplary program design. The Massachusetts Electric PA programs have also been identified as “Best Practices” in studies commissioned by the Energy Trust of Oregon, the California program administrators, ACEEE, and others.</p> <p>The PAs have long collaborated with their peer program deliverers in other states and regions, through active participation and leadership in such organizations such as the American Council for and Energy Efficient Economy, the Alliance to Save Energy, Northeast Energy Efficiency Partnership, the Consortium for Energy Efficiency, GasNetworks, etc. The PAs also regularly collaborate with individual utilities or groups of utilities to develop new program delivery models and strategies. With growing common challenges to develop comprehensive and deep treatments in buildings, leading program deliverers have joined to develop common, national approaches. For example, the Massachusetts PAs are currently actively involved in the Office of the Future Project for deep treatments of office space (with such partners as the Energy Trust of Oregon, BC Hydro, Southern California Edison, Pacific Gas and Electric, the US Department of Energy, and others); the Advanced Buildings program for new construction (with the New Buildings Institute, Efficiency Maine, Efficiency Vermont, Efficiency New Brunswick, We Energies, and others); and the DesignLights Consortium Solid State Lighting Program (with all the major New England program administrators, the Long Island Power Authority, the Energy Center of Wisconsin, the California utilities, and others).</p>

### C&I Lost Opportunity Program

<b>Primary Objective</b>	<p>The program is designed to optimize the efficiency of equipment, building design and systems in new construction and renovation of commercial, industrial, institutional and government facilities. These are opportunities that would otherwise be lost because of the myriad of barriers to efficiency that operate in these markets. The focus is on offering a comprehensive set of electric and gas efficiency options that are specific to the needs of each unique facility. The program also targets the brief window of opportunity to install premium grade replacements when equipment fails or is near the end of its useful life. The Program Administrators also partner with advocates, building scientists, and regulators to ensure that the best practices in building design and equipment specification which introduced and propagated by the program are ultimately built into the evolution of better building requirements.</p>
<b>History and Description of Current Programs</b>	<p>The electric and gas Program Administrators have offered new construction services since 1987 and 1997, respectively. Massachusetts and the states of the Pacific Northwest were the first jurisdictions to offer such programs, and the Massachusetts program model has been widely replicated in subsequent years, in New Jersey, New York, at the Long Island Power Authority, New Hampshire, and Maine, for example. The programs have evolved and been refined over time, incorporating field experience, market feedback, evaluation results, and successful measures developed by other states. The experience of the Massachusetts Program Administrators, and those of our peers elsewhere, have produced such cooperative ventures between jurisdictions as the <i>Advanced Buildings/ Core Performance</i> initiative, the Advanced Energy Office (currently in the pilot phase), and targeted initiatives to unique building types – such as data centers, commercial laboratories, and other industrial processes with unique energy and business requirements.</p> <p>The programs provide value to the unique financial and operational needs of each building owners, by using a variety of strategies in combination – technical assistance, case studies of similar facilities, incentives, commissioning, etc. Program Administrators use skilled technical assistance contractors, recognized experts</p>

<b>History and Description of Current Programs (cont.)</b>	<p>drawn from the marketplace, to work with the customer's design team to identify the best design and equipment options for their particular building, and then provide incentives to ensure that these options are incorporated into the structure. These design principles and equipment selections are verified as part of the design and construction process.</p> <p>For smaller buildings interested in a holistic approach that can lead to LEED designation, the Advanced Buildings approach is applied. For buildings already in progress where comprehensive treatment is not possible, or where the owner is interested in upgrading targeted end uses only, prescriptive approaches, or prescriptive in combination with some custom measures, are applied.</p> <p>The gas Program Administrators have collaborated through GasNetworks since 1997. GasNetworks is a nationally-recognized, award-winning collaborative of local natural gas companies serving nearly 2 million residential and C&amp;I customers throughout New England that has been promoting energy efficiency and the use of high efficiency natural gas technologies. The mission of this unique collaborative is to work with governmental agencies, trade allies, and consumers, in order to promote energy-efficient technologies. Successful strategies include the creation of common energy efficiency programs, education of consumers, and promotion and sponsorship of quality contractor training and awareness programs of ever-changing natural gas technologies. Massachusetts members include Bay State Gas, Berkshire Gas, National Grid, New England Gas, NSTAR Gas, and Unitil.</p> <p>As is the case with the retrofit program, the Program Administrators have increasingly collaborated at the management, program director, and technical staff levels to harmonize lost opportunity program measures, incentives, technical requirements, and participation criteria. The Joint Standing Technical Committee, now composed of representatives of each Program Administrator, reviews emerging technologies, monitors test installations, and maintains communications with peers in other efficiency programs and at various research laboratories. A Program Review Committee of Program Administrator staff annually reviews standard measures, incentives, and administrative procedures across Program Administrators and harmonizes the offerings. Additionally, the program managers of each Program Administrator meet as needed to address policy and program issues of common concern.</p>
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**Program Design  
2010-2012**

In 2010, the electric Program Administrators will complete the harmonization of their lost opportunity offerings into a consistent core set statewide of prescriptive, custom, and comprehensive design approaches incentives, and supportive services. Gas Program Administrators will similarly organize their programs and align them into a consistent set of services and incentives. All lost opportunity programs will be organized under a single program name, using application forms and other program materials that are substantially the same, except for information pertaining to the individual Program Administrator brand identifiers, contact information, etc.

In addition, this core program, with one or more Program Administrators, may also test the viability of new strategies and options for their customers. Strategies under consideration for implementation in 2010 address data centers, high performance laboratories, targeted LED installations, and an investigation of Zero Net Energy Buildings.

The statewide offering will allow C&I customers the opportunity to receive financial incentives, technical services, and commissioning services for their projects. The program addresses two broad types of time-dependent projects:

- Projects involving new construction of a building or the major renovation/remodeling of an existing facility
- Projects involving primarily new equipment purchases and/or the end-of-life replacement of fully depreciated equipment.

The program encompasses the Comprehensive Design track, high efficiency heating and water heating, a Core Performance track, Performance Lighting, and a variety of prescriptive and/or custom options. In addition, specific technologies can be addressed through Massachusetts MotorUp, Massachusetts Cool Choice and various GasNetworks initiatives. The program also supports advancing federal equipment standards, the Massachusetts Building Energy Code and code compliance training.

**Technical Assistance Services:** Provision of timely, high-quality, independent technical advisory services to design teams is central to the achievement of comprehensive savings in new construction. The TA Services component of the program provides technical support matched to the specific requirements of each project and

<p><b>Program Design (Cont.)</b></p>	<p>the needs of each design team. Services may include detailed energy modeling of the performance of the proposed building using various configurations of design and equipment, targeted studies and recommendations for specific building components or systems, or specialized technical studies, such as proposed industrial process improvements and compressed air projects.</p> <p>In general, study proposals will be assigned to, and performed by, TA consultants who have been selected as preferred vendors through a competitive procurement process by the Program Administrators. TA consultants will be assigned based on an assessment of their expertise with the technology under consideration. Customers can also elect to use a TA provider of their own choosing, as long as the co-funding Program Administrator approves the firm’s qualifications and cost-estimate. Non-preferred vendors must comply with the same level of detail and quality as preferred vendors.</p> <p>In many instances, customers may have both gas and electric equipment options for a particular end-use. In order to (a) encourage more comprehensive, integrated, and balanced consideration of all the energy efficiency options available, and (b) ensure that customers have open choices, the gas and electric Program Administrators delivering the statewide program will provide coordinated Technical Assistance Studies. In general, the study costs will be cost-shared between the gas and electric Program Administrators according to the proportionate share of the analysis and/or opportunities found through the analysis.</p> <p><b>Advanced Buildings Core Performance</b> is a comprehensive, prescriptive program for small commercial new construction built around delivering the New Building Institute’s national Advanced Buildings Program.</p> <p>The Advanced Buildings <i>Core Performance Guide</i> applies proven and available energy efficient technology and building science to the design of commercial and institutional buildings in the 10,000–100,000 square foot range. The Core Performance criteria address better performance characteristics in the building envelope, dedicated mechanical heating, cooling and lighting systems, multiple demand control ventilation practices, indoor air quality improvements, and domestic hot water system efficiency. These criteria are based on the results of 30,000 energy modeling evaluations of three major building prototypes (retail, office, school), with four high-efficiency thermal and HVAC system permutations for each prototype. That analysis identified a package of consistent strategies (the “core” in Core Performance) that lead to predictable energy savings across all climate zones. In Massachusetts, application of all Core Performance criteria will result in buildings with energy savings that exceed the Massachusetts Energy Code by 20-30 percent. In addition, peak energy reduction techniques will</p>
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<p><b>Program Design (cont.)</b></p>	<p>be employed to allow participants with either third-party energy supplier time sensitive rate offerings or those enrolled in the ISO-NE Price Response Program additional savings opportunities. Core Performance is accepted by the US Green Buildings Council as an alternative pathway to achieve the energy and environment points required to qualify a smaller building for Leadership in Energy and Environmental Design (“LEED”) certification.</p> <p>Program Administrators will provide technical assistance consultants to help design teams incorporate all the Core Performance features in their buildings, incentives (presented to the customer in easy-to-comprehend \$ per square foot (sqft) terms), independent third party verification of Core Performance compliance, and recognition via certification of the building as an “Advanced Building” as well as ancillary publicity as jointly agreed to by the Program Administrator and the client.</p> <p>The Core Performance model is best applied in small office, retail, public assembly, and school/preschool applications. (The benefits diminish in lodging, large multi-family and assisted living circumstances.) The economics are based on buildings with central mechanical cooling systems. Building owners and their design teams must agree to comply with all of the essential requirements of the program (the “core”) in order to participate, and they may select other features (“Enhanced Performance Strategies”) to exceed the base savings potential.</p> <p><b>Advanced Energy Office (“AEO”)</b> is being developed by a consortium of utilities, including some of the Massachusetts Program Administrators, Southern California Edison, California Gas &amp; Electric, BC Hydro, and others. It will target time-dependent energy efficiency opportunities that occur when a new office building is fit out for new tenant occupancy, or when an existing office building is refit at the time of tenancy change.</p> <p>The largest areas of energy use in office buildings are interior lighting, plug loads (computers, office equipment, etc.), ventilation, and cooling. The AEO Consortium has developed, and is now field testing, a comprehensive package of measures—the “25 Percent Solution”—that can predictably reduce lighting, plug, and HVAC loads in office spaces by 25 percent. In addition, peak energy reduction techniques will be employed to allow participants with either third-party energy supplier time sensitive rate offerings or those enrolled in demand response programs to achieve additional savings opportunities. The package also highlights such occupant amenities as improved lighting quality and comfort system performance. The 25 Percent Solution is structured to complement the tenant improvement process, when new or existing office spaces are “fit up” for an incoming tenant.</p>
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<p><b>Program Design (cont.)</b></p>	<p>Implementers of the AEO initiative will work with property owners/managers, tenants, design professionals, and contractors to create a more responsive and responsible office environment—one that better serves tenants’ needs while also reducing energy costs, enhancing property values, and supporting a reduced carbon footprint. It is expected that with today’s heightened concern about both high energy prices and climate change, tenants will aspire to achieve “25% Solution Certified” space.</p> <p><b>Advancements to Massachusetts Building Energy Codes:</b> Program Administrators have worked with the Massachusetts Board of Building Regulations and Standards (“BBRS”) and other interested partners on the advancement in building energy codes for over a decade. Representatives of the Program Administrators sit as active members of the Energy Advisory Committee (“EAC”) where they have helped BBRS develop the technical requirements for more stringent energy codes in the commonwealth.</p> <p>In addition, the Program Administrators support the “stretch” energy code option for local communities. The stretch code is based on <i>Advanced Buildings Core Performance</i>, which is supported as a voluntary program outside of stretch code communities. Program Administrator’s will support the adoption of local stretch codes through continuation of upstream and/or downstream incentive structures for a set transition period, targeted at two years after local adoption, or until the next statewide code upgrade.</p> <p><b>State and Federal Equipment Standards:</b> Appliances and plug loads often account for 25 percent of a building’s total energy consumption and can be as much as 50 percent or more, especially in hospitals and laboratories.<sup>2</sup> Appliances are usually not regulated by building energy codes, which is why supporting higher equipment standards may be as important as supporting a rigorous code.</p> <p>Gas and electric programs offer incentives for energy-efficient equipment that is more efficient than required by state and federal standards, thereby helping “mainstream” these products in the marketplace, and increasing the likelihood that they can be incorporated in future cycles of standards upgrades.</p> <p>The Program Administrators will continue to work with regional and national groups, such as the Consortium for</p>
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<sup>2</sup> From “*The Role of Energy Codes in Public Policy A White Paper by the Northwest Energy Codes Group*” - December 2008

<p><b>Program Design (cont.)</b></p>	<p>Energy Efficiency, the Alliance to Save Energy, Northeast Energy Efficiency Partnerships, and the Appliance Standards Awareness Project to support legislation and regulation that calls for more stringent state and federal equipment standards. Program Administrators will also support efforts underway to ensure that states seeking exemptions from federal standards to enhance local standards be allowed to do so. Support provided by Program Administrators in the Program Administrators has included legislative testimony, briefings with state and federal legislators, and letters of support for specific legislation on codes and standards.</p> <p><b>Training for Building Code Compliance:</b> Program Administrators will continue to provide support for training of code officials, building design professionals and contractors. Improved knowledge helps both the regulated community (architects and engineers) and code regulators improve compliance. The Program Administrators will make recommendations to BBRs and seek their direction on training and outreach efforts that might be offered for the current code and any stretch codes that might be adopted. The Program Administrators and BBRs will then coordinate efforts to implement those efforts.</p> <p><b>Product Availability:</b> The Program Administrators will continue to work with distribution houses to facilitate product access and provide competitive pricing of efficient products. In some cases, this involves bidding for specific products (lamps, ballast, fixtures, drives, heating, water heating equipment, controls, etc.), which are then promoted to customers and vendors. This is especially vital to smaller customers and vendors who do not have the resources and size to procure at bulk pricing.</p> <p><b>Performance Lighting:</b> The Programs Administrators promote high performance lighting technologies and design practices that are either more efficient than standard practice and/or the requirements of the Massachusetts Building Code through incentives for better lighting design. The Performance Lighting option promotes the thoughtful combinations of energy efficient lighting fixtures and lighting controls in site-specific lighting designs that produce quality lighting using lower watts per square foot than the current commercial Massachusetts building code.</p> <p><b>DesignLights Consortium:</b> The Program Administrators will introduce solid state (“LED”) lighting technologies as these become cost-effective in various applications. The Massachusetts Program Administrators participate with a number of regional and national program administrators in the DesignLights Consortium, which has contracted with the Lighting Design Laboratory at Rensselaer Polytechnic University to qualify specific LED products submitted by manufacturers for lighting quality, reliability, and energy savings. After</p>
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	<p>vetting, these technologies will be approved for incentives by each of the DesignLights cooperating program administrators.</p> <p><b>Massachusetts Cool Choice and MotorUp:</b> The Program Administrators will continue to jointly deliver state-wide initiatives that target high efficiency HVAC equipment and controls and NEMA Premium efficiency motors. Additional gas technologies for heating and cooling will be evaluated, as well as new electric technologies such as variable refrigerant flow heat pump systems, as to their overall energy savings benefits for future integration as a prescriptive incentive.</p> <p><b>Gas Technology and Application:</b> The Program Administrators will continue to jointly deliver state-wide initiatives that target high efficiency heating, water heating, and kitchen equipment and control systems. Program Administrators will continue to identify and evaluate high efficiency gas technologies, as well as incorporating energy savings electric technologies, as joint offerings to our customers.</p> <p><b>Combined Heat and Power (“CHP”)</b> is an attractive offering for customers such as hospitals, thermal intensive industrials, multi-family housing and others with year round thermal use. CHP presents unique challenges, as reductions of metered electric loads are offset by increased use of fossil fuels to power the CHP system. Overall energy efficiency is improved through increased utilization of the on-site electric generator’s recoverable heat. Program Administrators will require a custom analysis and screening of potential CHP opportunities to ensure positive net benefits and a net reduction in greenhouse gases. The eligibility process will be aligned with the Alternative Portfolio Standard (“APS”) process.</p>
<p><b>Target Market</b></p>	<p>The target market is all time-dependent gas and electric energy efficiency opportunities in the C&amp;I sector – commercial, industrial, institutional, and government customers. Key market actors are architects, engineers, commissioning agents and owners/ developers of new buildings, and manufacturers and distributors of energy efficiency gas and electric technologies.</p>
<p><b>Marketing Approach</b></p>	<p>Projects involving new construction have significantly different dynamics than retrofit projects. New construction typically requires longer lead-times and involves more decision makers and influencers than retrofit projects. In addition, while retrofit projects typically involve turn-key vendors selling a project specifically on efficiency attributes, a parallel market actor does not exist in new construction. Products are usually specified, not sold.</p>

	<p>While the customer is still a key decision maker, it is critical that all stakeholders are included and are informed and influenced toward a common goal of energy efficiency. Although this process starts with the architect, the final design/product can be changed (value-engineered/alternate specification) by the engineer, contractor, distributor and so forth. To address these dynamics, specific outreach strategies are designed for each of these stakeholders groups. Extensive one-on-one communication is the primary outreach strategy – building relationships by partnering on successful projects and adding value ensures commitment to efficiency. This direct marketing is supported through numerous other channels including brown bag educational seminars, formal training such as Labs21, newsletters, and open houses. Direct marketing pieces have been developed to pursue new construction leads identified through such publications as the REED Construction Database and New England Construction News. Additional marketing approaches used by one or more Program Administrators include direct contact with customers identified through trade publications and advertising in local trade publications, seminars and training sessions.</p> <p>The statewide website and statewide media marketing will build overall awareness of the program.</p> <p>For time-dependent projects involving replacement of failed or end-of-life equipment, marketing efforts focus on customers and equipment vendors rather than on developers and designers. Program Administrators market the equipment replacement track to customers and vendors through extensive one-on-one communication. Supplemental marketing efforts include distribution of promotional material (such as case studies), attendance at trade shows and conferences, power breakfasts, and other customer and vendor focused training seminars. Program Administrators are constantly looking for additional innovative ways to work with equipment distributors and installers to help them promote energy-efficient equipment and systems to their customers.</p>
<p><b>Target End Uses</b></p>	<p>Targeted end uses include can include: lighting equipment and controls, lighting design, motors, variable speed drives, high performance HVAC equipment, chilled water systems / refrigeration systems, building envelope measures, compressed air, high efficiency heating and water heating, and industry-specific gas and electric industrial processes. Site-specific custom measures, including CHP distributed generation, may also be considered. Full comprehensive gas and electric approaches are aggressively promoted to ensure the capture of all cost-effective achievable and technical potential in a given facility.</p>

<p><b>Recommended Technologies</b></p>	<p>Recommended technologies can include: efficient lamp and ballast technologies, direct/indirect lighting fixtures, lighting controls, building envelope measures, efficient motors and motor drive systems, efficient cooling systems, chillers, gas-fired infrared heating systems, efficient boilers and hot water equipment, combustion controls, compressed air, ERVs, dehumidification, humidification, gas and electric process improvements and energy management systems. Other cost-effective electric or gas efficiency measures will be evaluated for eligibility.</p>
<p><b>Financial Incentives</b></p>	<p>All Program Administrators' financial incentives structures will be consistent. Both prescriptive incentives (fixed amounts for specific measures) and custom incentives (based on the unique energy savings criteria of a project) are available. Financial incentives may cover up to 75 percent of incremental labor and equipment costs. Prescriptive financial incentives are offered for selected lighting, motor, variable frequency drive, HVAC measures, heating and water heating, controls and kitchen equipment. Other cost effective measures are promoted with custom incentives based on the incremental equipment and installation labor costs (if any) of installing high efficiency equipment compared to standard efficiency equipment, or brought down to an equivalent of a fixed payback period. Design incentives covering a significant portion of incremental architectural and design costs associated with comprehensive energy efficient designs are promoted to encourage holistic design treatments. Program Administrators also co-fund targeted engineering and commissioning studies.</p>
<p><b>Delivery Mechanism</b></p>	<p>The Program Administrators will work together to market and implement the program as a unitary statewide effort to maximize the acquisition of potential energy savings (gas and electric) in the ongoing market for new facilities and replacement equipment in the Commonwealth.</p>

**Joint Program Administrator Enhancements Planned for 2010-2012**

Key joint Program Administrator enhancements are identified in the narratives above. In summary, program services and incentives will be offered under one common umbrella program with a statewide platform. Individual Program Administrators will administer the program in their locales, using common procedures, qualifications and incentives. Application forms and promotional materials will feature the statewide program name; the local Program Administrator brand, and will be common, except for any unique information required to properly administer the program in an individual Program Administrator's locale – such as contact numbers and addresses, etc. There will also be an integrated website and statewide program marketing and customer outreach campaigns.

Programs are kept in harmony by regular meetings of the respective program managers around policy and delivery issues, and the Joint Standing Technical Committee around issues of measure savings quantification, vetting new measures, and testing of emerging technologies. The Gas Technologies Committee was recently formed to coordinate on the review of savings, new measures and technologies. This group will also work to keep trades and vendors apprised of new technologies and program design.

Over the next three years, the Program Administrators will increase their capacity to deliver deeper savings by evaluating internal staff capacity and needs, and adjusting accordingly, retaining additional installation contractors to deliver services to customers, and expanding the pool of qualified contractors, engineering and architectural consulting firms in order to deliver larger scale energy efficient technical solutions to customers. In addition, the Program Administrators are looking to develop additional strategic partnerships with other energy services providers. The intent of the Program Administrators is to build on our successful base of twenty years of experience with a continued focus on offering all-fuels-integrated design solutions to move buildings to optimal levels of performance.

To address customer needs for additional capital to invest in more comprehensive or expensive solutions in their facilities, various financing options will be tested and implemented. Also, as described earlier, program components targeting specific customer groups and building types with specific needs and energy saving opportunities will be expanded to increase participation and savings.

<b>Special Notes</b>	<p>Improving the energy performance of commercial buildings is essential to achievement of minimizing carbon emissions. The next generation of building science planning will examine how buildings can move to <i>Getting to Fifty</i>—50 percent more efficient than current codes. The Program Administrators will work with a number of the leading organizations that are investigating technical solutions and practices to meet this next threshold. These include the New Buildings Institute, the US Green Buildings Council (USGBC), the American Institute of Architects, the American Council for and Energy Efficient Economy and other experts in the building science field.</p> <p>The current Massachusetts portfolio of lost opportunity services is mature and successful. Massachusetts gas and electric programs have received numerous awards from peer organizations (EPA, DOE, AGA, American Council for Energy Efficient Economy (“ACEEE”), Natural Resources Defense Council, NEEP and others) for being examples of exemplary program design. The Massachusetts electric Program Administrators programs have also been identified as “Best Practices” in studies commissioned by the Energy Trust of Oregon, the California program administrators, ACEEE, and others.</p> <p>As noted elsewhere in this document, the Program Administrators have long collaborated with their peer program deliverers in other states and regions, through active participation and leadership in such organizations such as the American Council for and Energy Efficient Economy, the Alliance to Save Energy, Northeast Energy Efficiency Partnership, the Consortium for Energy Efficiency, GasNetworks, etc. The Program Administrators also regularly collaborate with individual utilities or groups of utilities to develop new program delivery models and strategies. With growing common challenges to develop comprehensive and deep treatments in buildings, leading program deliverers have joined to develop common, national approaches. For example, some of the Massachusetts Program Administrators are currently actively involved in the Advanced Energy Office Project for deep treatments of office space (with such partners as the Energy Trust of Oregon, BC Hydro, Southern California Edison, Pacific Gas and Electric, the US Department of Energy, and others); the Advanced Buildings program for new construction (with the New Buildings Institute, Efficiency Maine, Efficiency Vermont, Efficiency New Brunswick, We Energies, and others); and the DesignLights Consortium Solid State Lighting Program (with all the major New England program administrators, the Long Island Power Authority, the Energy Center of Wisconsin, the California utilities, and others).</p>
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### C&I Direct Install Program

<p><b>Primary Objective</b></p>	<p>The primary objective of the C&amp;I Direct Install Program is to provide cost-effective, comprehensive electric and gas retrofit services to business customers on a turnkey basis using the same delivery model throughout the Commonwealth.</p>
<p><b>History and Description of Current Programs</b></p>	<p>Each Electric Program Administrator began offering some kind of specialized services for hard-to-reach small business customers in the 1990s. The “direct install” turnkey model was first offered by National Grid in 1990 for customers 50 kW and smaller. With experience it evolved and improved over time and was subsequently adopted, with some variations, by all the Massachusetts Electric PAs except for FG&amp;E. The Gas PAs have no history of offering a direct install option.</p> <p>The Massachusetts direct install model has been recognized by many national “best practices” studies and awards as the best delivery mechanism to comprehensively and cost effectively address this market, and it has been replicated by programs in New Hampshire, Rhode Island, Vermont, and Nova Scotia to date.</p> <p>With the direct install model, Program Administrators solicit competitive bids for the labor and materials costs of installing improved lighting equipment, lighting controls and, in some cases, improved refrigeration measures for walk-in coolers. Through a turnkey process, a single contractor conducts an audit to identify better lighting options and installs recommended measures. Some Program Administrators offer on and/or off-bill financing options to help customers finance their share of the cost of installing improvements. Program Administrators offer incentives ranging from 35% to 80%. Over time the Program Administrators have learned that, depending on the financing mechanism, it is possible to alter the mix of incentives and financing and maintain attractive customer penetration rates.</p> <p>Current variations in incentives:</p> <ul style="list-style-type: none"> <li>• NSTAR has a 30% customer co-pay (with no discount for the customer making a one-time payment of their share of the project cost), remainder financed through separate sundry bill for 12 months at 0%</li> </ul>

	<p>interest</p> <ul style="list-style-type: none"> <li>• WMECo has a 65% customer co-pay (with a 5% discount off the total project cost for a single payment by the customer), remainder financed on the bill</li> <li>• National Grid has a 30% customer co-pay (with 4.5% discount off the total project cost for a single customer payment), remainder financed on the bill for 12 or 24 months at 0% interest</li> <li>• Cape Light Compact has a 20% customer co-pay, balance due to contractor upon completion. Municipal projects require no co-pay. Projects are capped at \$150,000 per project year unless exempted by vote of the Governing Board.</li> <li>• Fitchburg Gas &amp; Electric has a 20% customer co-pay, balance due to contractor upon completion</li> </ul> <p>Current variations in “Small Business” definition:</p> <ul style="list-style-type: none"> <li>• NSTAR: &lt;300 kW</li> <li>• WMECo: &lt;200 kW</li> <li>• National Grid: &lt;200 kW</li> <li>• Cape Light Compact: &lt;300 kW</li> <li>• Fitchburg Gas &amp; Electric: &lt;100 kW</li> </ul>
<b>National Grid Goals - 2010</b>	(PA-specific goals go here)
<b>National Grid Budget - 2010</b>	(PA-specific budgets go here)
<b>Program Design –2010 - 2011</b>	The Program Administrators will offer a consistent statewide delivery model in 2010. That is, the electric and gas measures offered and delivery through a direct install turnkey mechanism will be the same throughout the Commonwealth.

**2010** will be a “transition year” during which the following issues will be addressed for implementation in 2011.

1. All PAs will move to a common <300 kW cap and reevaluate after six months for its impact on gas measures and opportunities.
2. FG&E will transition to the standard DI model
3. All PAs will identify and add prescriptive gas measures and potentially more prescriptive electric measures, and adjust their screening tools to allow for custom gas measures.
4. All PAs will renegotiate their current contracts to add identified gas prescriptive measures and provide for screening of gas custom measures
5. The gas PAs will commence actions to provide on-the-bill-financing by 2011 or, in the alternative, negotiate arrangements with the electric PAs servicing their areas to bill gas measures through the electric bill, with a reimbursement to the electric PAs for measure and financing costs.
6. FG&E and NSTAR will commence actions to provide on-the-bill financing payments in 2011
7. All PAs that offer financing will offer a common discount for single customer payment
8. All PAs that offer financing will explore flexible repayment terms to produce a positive cash flow for the customers, beyond 24 months.
9. The PAs will develop and pilot the structure of a “mid-tier” DI option, with an expanded portfolio of measures to address this sector business retrofit DI measures as well as additional opportunities found in a selected band to be determined, for implementation in 2011. (Target band in the range of 200/300 – 750 kW); pilot as necessary
10. The PAs will develop and pilot a “Main Street” DI retrofit project for very small customers, size, eligibility and delivery mechanism to be defined
11. All PAs will move to a 70% incentive, except for CLC, which will negotiate to use NSTAR billing

	<p>services. If successful, CLC will drop to the common incentive level in 2011.</p> <p><b>2011</b></p> <ol style="list-style-type: none"> <li>1. The PAs will either form a single contracting entity or present another administrative model that assures maximum efficiency of delivery statewide.</li> <li>2. All PAs will offer two or three tiers of DI options, if the analyses/pilots with the upper and lower range of small customers show promise</li> <li>3. The continuation or expansion of the “Main Street” project TBD</li> </ol>
<b>Target Market</b>	The program will target all direct install retrofit business customers within the defined size limitations identified above in 2010. There will be a common size definition in 2011.
<b>Marketing Approach</b>	There will reference to the program at the common statewide website, but the program will continue to be primarily marketed by the direct installation contractors directly to the customers on lists of eligible customers provided to them by the PAs. Contractors use direct mailings and telemarketing, as well as specialized targeted efforts for hard-to-reach market segments, such as customers in economic development zones and ethnic neighborhoods, and outreach through neighborhood business associations. Trade allies, industry stakeholders, suppliers and company field personnel also inform customers about the program’s benefits and incentive mechanisms. In addition, small business customers with high-bill complaints may be referred to the program as a way for them to reduce their electric and gas usage.
<b>Target End Uses</b>	<p>Targeted electrical end uses include, but are not limited to: lighting and lighting controls, HVAC equipment, water heating, VSDs and refrigeration. A variety of other electric end uses may be served through a custom approach.</p> <p>Targeted gas end uses may include, but not be limited to: heating system controls, commercial dishwashing - water heating and potentially building envelope.</p>
<b>Recommended Technologies</b>	Recommended electric technologies include energy-efficient fluorescent ballasts, lamps, and fixtures; hard-wired and screw-in compact fluorescent systems; high intensity discharge systems; LED lighting and occupancy sensors; energy management systems; and refrigeration measures such as evaporator fan controls, efficient evaporator fan motors, automatic door closers and door heater control devices for walk-in coolers. To create greater depth and appeal for the program, customers are offered the opportunity to

	<p>install non-prescriptive lighting and other comprehensive energy efficiency measures through the custom approach.</p> <p>Recommended gas technologies include programmable thermostats, pre rinse spray valves, pipe insulation, and potentially some weatherization and infiltration measures. Other identified gas measures may be served through a custom approach to include EMS and Hood controls</p>
<b>Financial Incentives</b>	<p>Qualified participants receive an audit to identify cost effective opportunities for saving energy. Both prescriptive incentives (fixed amounts for specific measures) and custom incentives (based on the unique energy savings criteria of a project) are available. Financial incentives cover a portion of the total installed costs, including labor and equipment. In addition, some Program Administrators currently offer low- or no-interest financing options and/or discounts for upfront payment of their share of the cost, and all PAs will move to include these options.</p>
<b>Delivery Mechanism</b>	<p>Vendors are selected through a competitive bidding process to implement the program. These vendors market the program, perform audits at customers' facilities, offer recommendations to customers, complete audit forms and questionnaires, purchase lighting materials from a supplier also selected through a competitive bid process, install measures, input data into a database, and prepare progress reports for the Program Administrators on a regular basis.</p>
<b>Three-Year Deployment</b>	<p>Over the next three years the Program Administrators will examine their capacity to deliver deeper savings by evaluating internal staff and contractor capacity and needs, and adjusting accordingly, as well as by retaining additional installation contractors to deliver services to customers and promote the installation of custom measures. The PAs will also pilot variations of the direct install model both up market, to larger facilities, and down market, to very small customers. Additional technical assistance consultants will be retained to help installation contractors with a broader array of custom projects. After program harmonization in 2010, PAs will pilot various modifications to the current incentive formulas, including extending payment terms beyond two years and adjusting incentive levels.</p>

**C&I Pay & Save Financing/Loan Pilot**

<b>Primary Objective</b>	To establish a pilot loan program that creates an alternative financing mechanism for customers to finance the customer contribution cost of the implementation and installation of energy efficiency measures. The desired effect is to eliminate a barrier for customers to participate in energy conservation.
<b>Program Inception</b>	New pilot program (see Special Notes regarding 2009 Energy Pay and Save Pilot Program)
<b>2010-2012 Program Goals</b>	PA-specific targets to be provided with October 2009 filings.
<b>2010-2012 Budget</b>	PA-specific targets to be provided with October 2009 filings.
<b>Joint vs. Program Administrator-Specific Offering</b>	Joint offering.
<b>Program Design</b>	The program would make funds available to customers to assist in financing energy efficiency improvements and enable customers to repay those loans through their utility bills without interest.
<b>Target Market</b>	To be used by programs designated by Program Administrators.
<b>Marketing Strategy/ Approach</b>	Pilot program will be incorporated into the small business audit process as well as other C&I programs
<b>Target End Uses</b>	C&I customers who install non-portable measures.
<b>Recommended Technologies</b>	Non-portable measures

<b>Financial Incentives</b>	Financing the customer contribution assists customers who do not have the ability to pay in full at the time of the installation. It is expected that this incentive will allow for increased customer participation in programs.
<b>Delivery Mechanism</b>	C&I program delivery vendors.
<b>Three-Year Deployment</b>	Once the pilot program is completed on December 31, 2009, an evaluation will commence and a decision to incorporate this program into 2010-2012 programs will be explored by Program Administrators.
<b>Special Notes</b>	The Program Administrators will incorporate findings of the Department-approved Energy Pay and Save pilot program offered to residential and small business customers from April 1, 2009 – December 31, 2009 (D.P.U. 09-07) in any new financing initiative which may be developed.