

**Preliminary Comments of the Massachusetts Energy Efficiency Advisory Council (EEAC)
on the Statewide Electric and Gas Energy Efficiency Plans**

May 26, 2009, Draft

[Notes to the Council:

This WORKING DRAFT was compiled and prepared by the EEAC Consultants for Council review. To be reviewed by the Council on May 26; then completed by May 29 per the schedule. This document is a rough working draft at this point, including compilation of notes from meetings late last week; the consultants erred on the side of inclusiveness of recent discussions. The consultants note that some revisions to the document will be needed, including for formatting, internal consistency, and appropriate level of detail.

Purpose: to focus the efforts of the Council, its consultants, and the PAs on the highest priority topics and issues over the next two months, by highlighting some preliminary comments on the statewide Plans. We tried to limit ourselves to the top ten topics, in our view.]

Introduction

[Appreciate the efforts of the PAs in developing the statewide plans, large and momentous effort, appreciate the PAs working together, acknowledge the increased savings relative to past program years, acknowledge that some program designs, strategies, and delivery systems are in the process of development, etc.]

The Council's *preliminary* comments below are based on the review and analysis to date. Note that several analyses of the Council are ongoing, including the assessment of all available cost-effective energy efficiency and demand reduction resources, the rate and average bill impact analysis, and the continuing review of the statewide Plans. These forthcoming analyses will further inform the Council's review and its subsequent comments.

In addition, the Council is aware of the ongoing efforts of the program working groups to revise and improve the program designs and strategies to achieve deeper energy savings and reach more customers. The Council understands and acknowledges that these program design efforts are being done concurrently, in parallel to the Council's review of the Plans, and the Council encourages and supports these efforts to acquire deeper savings through revised program designs and strategies.

In developing its preliminary comments, the Council also reviewed its Priorities Resolution (March 24, 2009) and has referenced some provisions in its Resolution where appropriate below.

PRELIMINARY COMMENTS OF THE COUNCIL

1. Energy Savings Levels and the Requirements of the Green Communities Act (GCA)

Based on the Council's initial review, the PA-proposed savings levels, while a significant increase relative to prior program years, appear to be too low to meet the GCA requirements.

- The PA-proposed savings levels do not appear to be on the necessary path to acquire all available cost-effective energy efficiency and demand reduction resources, though the Council needs to complete the assessment of all available cost-effective energy efficiency potential (scheduled for June), as well as other relevant analyses, to confirm.
- The program designs and strategies are not adequately focused on achieving deeper savings, though the Council acknowledges that programs designs are in the process of being revised and improved to achieve deeper savings.
- The estimated GHG reductions are lower than recommended in the consultant analysis, and appear to be too low to “work in concert with the emissions targets of the GWSA.”

Resolution:

“The Green Communities Act calls for the acquisition of all available cost-effective energy efficiency. The Council affirms this goal and shall only approve PA plans that include savings goals in their 2010-2012 EE plans that conform with and support the successful attainment of all available cost-effective energy efficiency. In addition, the Council intends that all PA plans will work in concert with the emissions targets of the Global Warming Solutions Act once they are developed and adopted.”

2. Achieving Deeper and Broader Savings

This is the main theme for the period of the three year Plans, and the Plans and program designs do not appear to be adequately on the path to achieve both deeper and broader savings (see more in the sections below).

Resolutions:

“In order to plan for the successful on-going attainment of the savings goals derived from the Green Communities Act, the PAs are expected to develop strategies to provide comprehensive treatment and to acquire deep savings in customer facilities.”

“All programs, to maximum practical extent, should consider a whole building approach and building energy use systems in describing demand reduction elements, so as to maximize overall energy savings and enable the customer to understand all of their efficiency options and the interrelationship between energy sources and uses within a building.”

“The PAs shall strive to provide customer rebate/incentives that encourage deeper energy savings by modifying customer incentives/rebate levels and incentive/rebate caps to encourage the best energy savings strategies in the marketplace.”

3. First Priority: Achieving Deeper Savings for Customers

Achieving deeper savings is central and essential to all available cost-effective energy efficiency. The program designs and strategies are not adequately focused on achieving deeper savings, though the Council acknowledges that programs designs, strategies, and delivery approaches are

in the process of being revised and improved to achieve deeper savings (higher savings per participant, higher percent savings¹). Discussions are ongoing in the program working groups.

It is essential to determine how to achieve deeper savings first, before reaching out to more customers.

4. Program Descriptions

The statewide Plans do not describe the complete set of programs designs, strategies, and delivery approaches² necessary to achieve deeper savings for customers, to reach more customers, and to acquire all available cost-effective energy efficiency and demand reduction resources. Working within the program description template assigned, the PAs largely described their existing programs and committed to expand them, with details to follow in the individual PA filings in the fall. The Council understands the limitations of the template and the challenges of the filing timing, but feels the detail provided is insufficient for either Councilors or the Council consultants to make a determination of (a) the issues that the PAs will address in revising the program designs and strategies to achieve deeper savings and scaling up programs to reach more customers, and (b) timelines to address these issues. Additionally, the descriptions mostly, but not exclusively, describe growth of programs in reach of market share, rather than in depth of savings in buildings. While current program approaches (separate paths for retrofits and new construction/failed equipment) are proven, as are the program frameworks to address these markets, the overall program delivery mix will need to focus more on comprehensive building treatments, and less on incentives for individual measures. The Council asks the PAs to revise the program descriptions to address these issues, in revised statewide plans to the extent feasible in the tight timeframe, with the expectation that more complete detail will be developed over the summer, to be reflected in the individual PA filings to follow in the fall.

5. Ramp Up Schedule to Achieve Deeper Savings and Acquire the Available Savings

More time is needed to develop program designs and strategies to acquire deeper savings. Therefore, a slower ramp up (slower than the ramp up in the consultant analysis) to higher savings levels is appropriate, in order to achieve deeper savings first, and then go broader to reach more customers. It is crucial to sequence the program development and implementation in this sequence.

[Consultant recommendation: Slightly slower/less steep ramp up to higher savings than the ramp up in the consultant analysis, perhaps one year slower – but only if there are real and meaningful efforts at developing and implementing programs to achieve deeper savings. Still need to target savings of around 3% per year, subject to additional analyses to be completed in June.]

¹ The Council needs to know the average energy savings and average percent savings for typical participants in each of the programs contributing a major portion of the portfolio savings.

² The program architecture with the umbrella programs organized by market or market segment are appropriate and do not need to change (pending resolution of the multifamily issues) – the concerns are with the program designs, strategies, and implementation approaches.

Resolution:

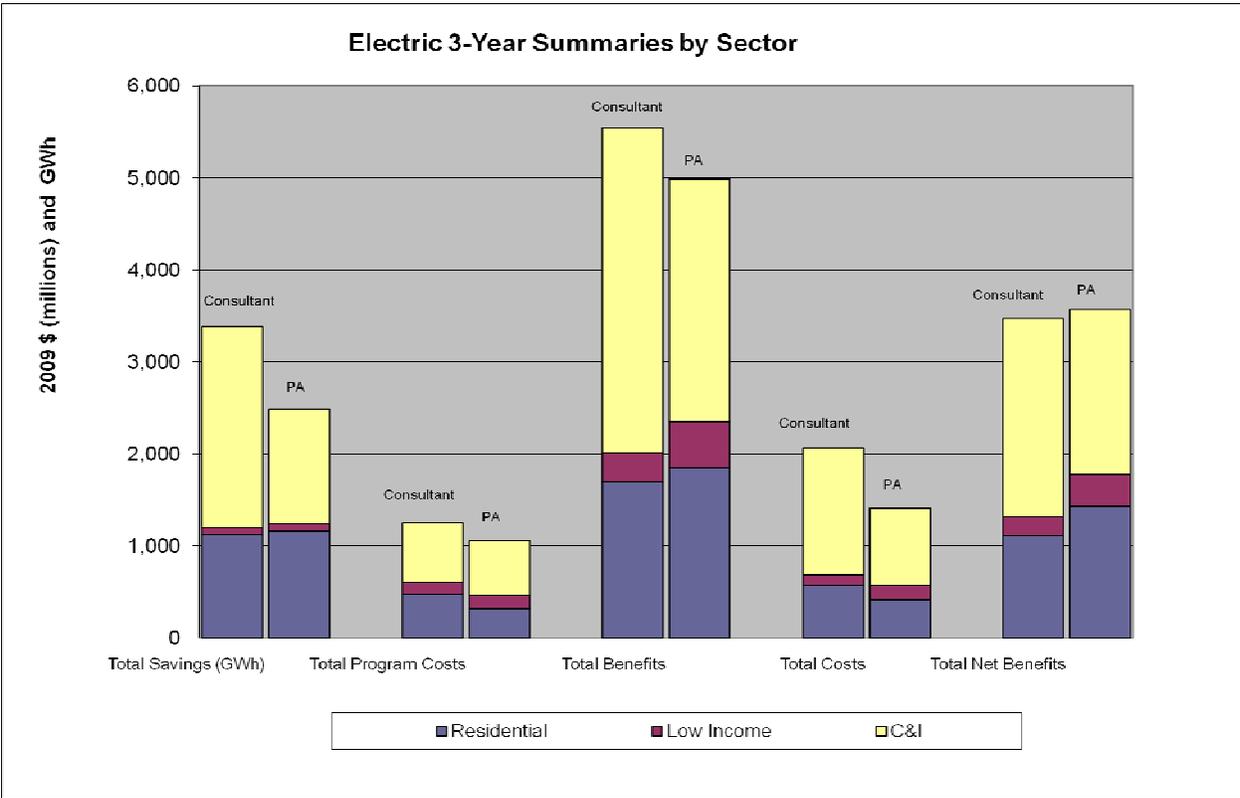
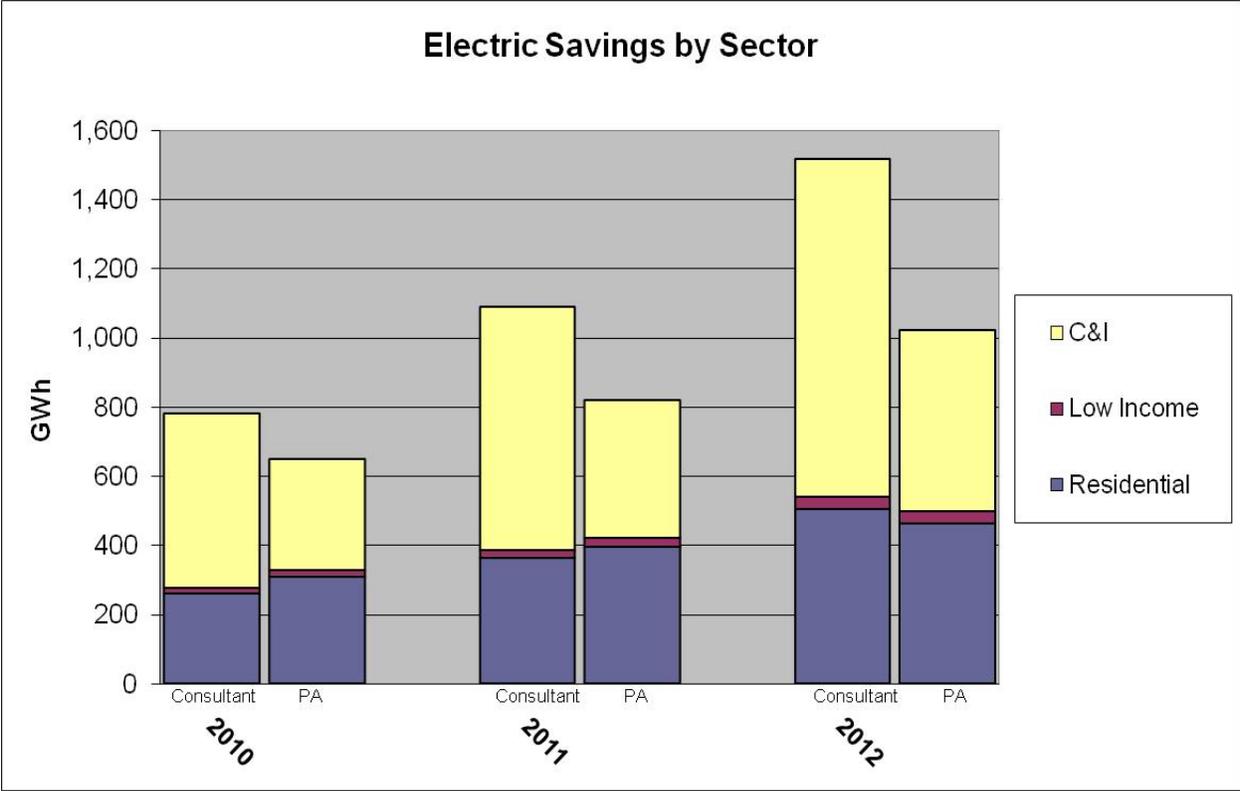
“Successful program development is achieved through an iterative process where learning and improvement is achieved over time. In order to enable such program development to take place, the PAs are encouraged to explore phasing some new programs, with ongoing re-evaluation and improvement throughout the three year plan period.”

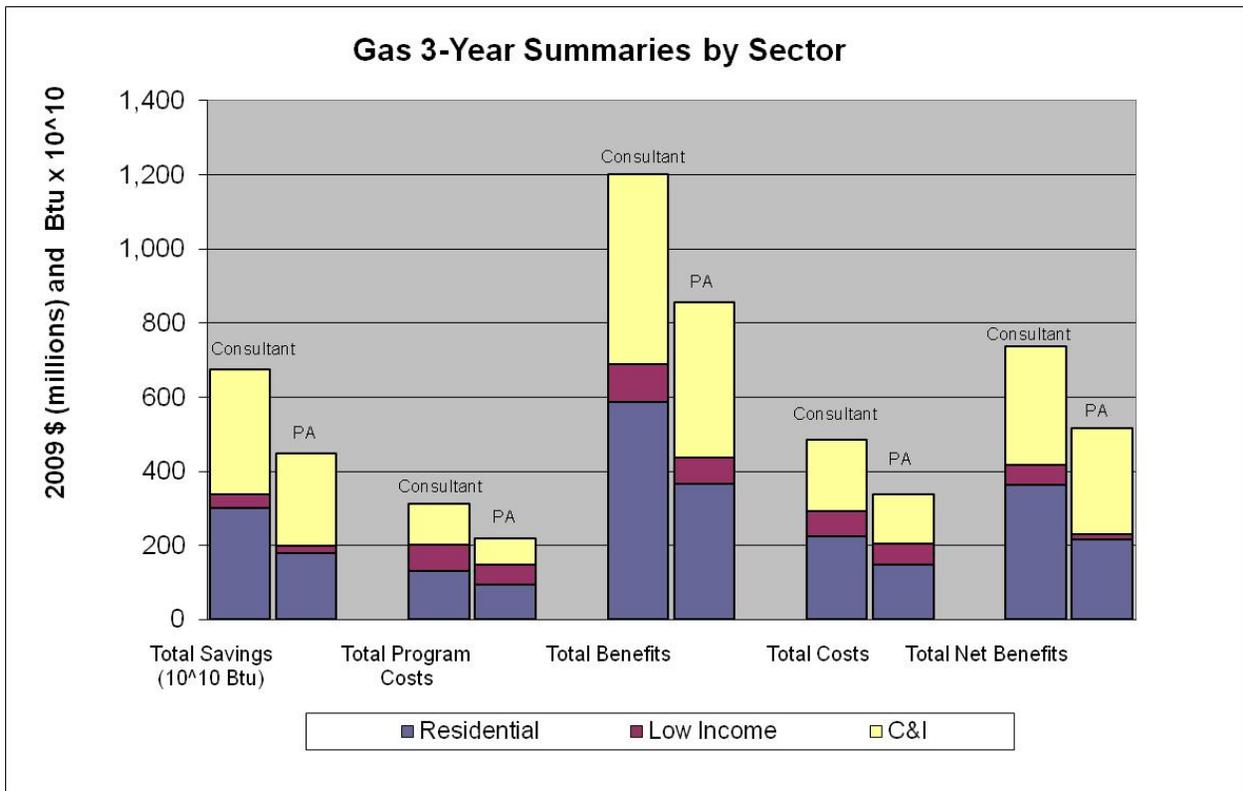
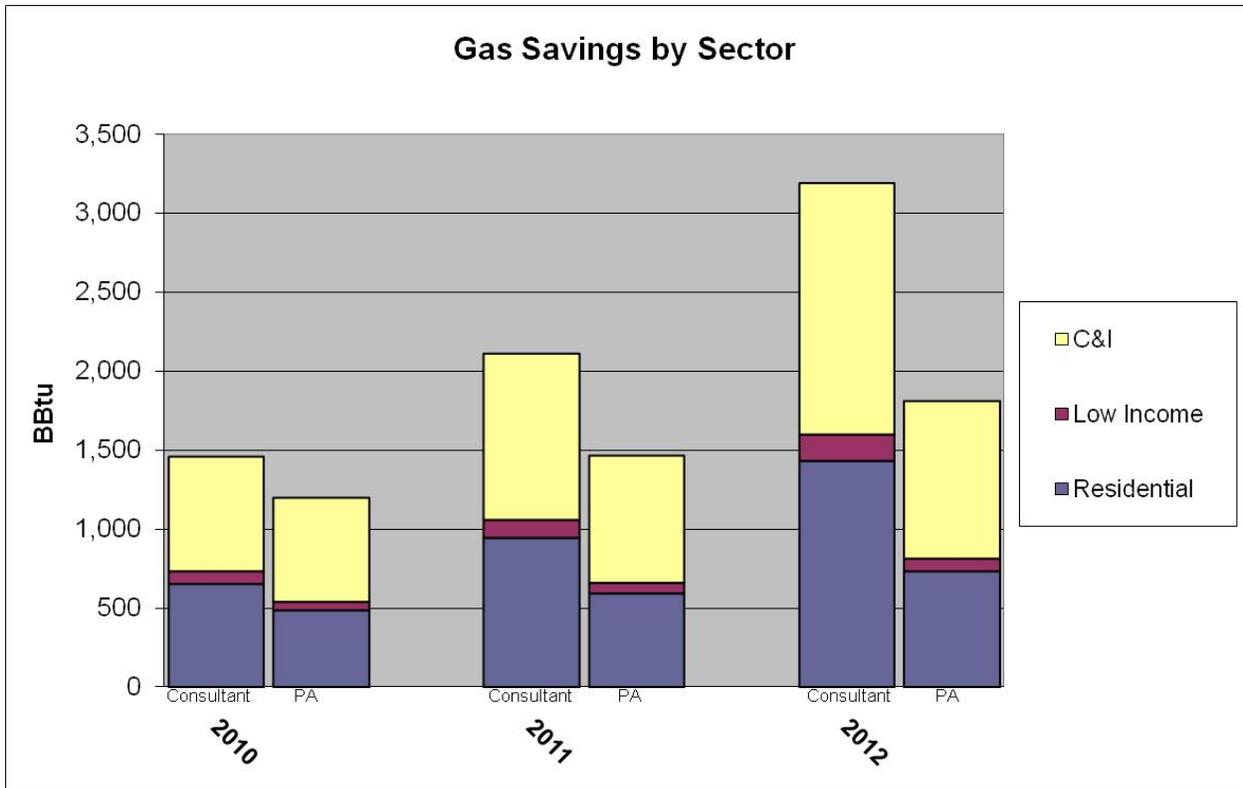
[See additional Resolutions in #2 above]

6. Savings and Costs in the Statewide Plans

Initial observations about the savings and costs in the Plans – see May 5 consultant presentation. There are significant differences between the statewide Plans and the prior analysis of the consultants. Analysis of the available data from the PAs is ongoing, but without program level data and data on the number of participants (and savings per participant or percent savings) from all PAs, the analysis will be somewhat incomplete.

See the summary charts below (two for electric, two for gas):





7. Common Statewide Programs

The Plans do not appear to fully commit to common statewide programs, and/or are not always clear when the goal of common statewide programs will be achieved.

Resolution:

“In order to continue to provide increased value to customers with the availability and delivery of energy efficiency programs and to reduce program differences across the PAs, it is the Council’s expectation that programs serving similar customer segments across the Commonwealth will with all deliberate speed transition to common programs with the same program characteristics, delivered either by each PA or by one or more combinations of PAs.”

8. Electric and Gas Program Integration

Integrated electric and gas programs means fully integrated from the perspective of the customer (customer shouldn’t perceive separate programs), and fully integrated and seamless delivery to the customer, with full coordination of program administration among the PAs.

This area is one of great Council interest, both because we feel that its successful resolution is vital to assure seamless program delivery and because we view it as an indication of PA commitment to full program coordination.

We ask the PAs to: (a) clarify from their perspective the distinction between ‘Integration’ and ‘Coordination’; (b) provide greater detail on the paramount issues they believe must be addressed to arrive at seamless programming; and (c) provide a more explicit timeline to achieve integration. (Commitment to completion by the end of the Plan period is not sufficient.)

Examples of text or language in the statewide Plans that concern us are the following:

1. The GCA language is clear that “administration” by PAs means ultimate responsibility for oversight, collection of funds and spending, and ultimate responsibility for achieving goals but it does not preclude joint contracting by one PA to another. In fact, it specifically encourages as much competitive procurement as possible, which could include joint contracts.
2. Gas/Electric Integration plans will require unanimity (consensus and non-binding on PA that does not agree) (p. 37) and could take the full three years (p. 38). Programs will be delivered “on a coordinated statewide basis” (p.77) but this is not defined.
3. P. 36 says will integrate and coordinate “to the optimal extent” without discussing what might define optimal.
4. On p. 37 similar language in first two bullets needs to be clarified: “where appropriate” and “to the extent reasonable”.

Resolution:

“The PAs shall strive to maximize seamless delivery to the customer, without duplication or complexity, regardless of a given property’s rate class, territory or utility type...”

9. Leveraging Ratepayer Funding by Increasing Customer Contributions

On-the-bill financing and other strategies are needed to leverage ratepayer funding. If customers are receiving deeper savings and higher benefits, the programs need to implement strategies to have customers pay more of the project costs while making it easy for customers to participate.

National Grid has successfully deployed on-bill financing for its small business customers for a number of years and, more recently, for its municipal customers (other PAs have also deployed on-bill financing). This mechanism has proven to be the single best financing tool available to expedite significant customer investment in efficiency. The Council believes that the increased customer investment necessary to achieve depth and volume of energy savings necessary to achieve the GCA's goals will require that all PAs revise their billing systems to accommodate this strategy as soon as it technically feasible within the pending three year plan cycle, and that the on-bill financing option should be made available to a broader segment of customers.

10. Working with Program Contractors and Vendors, and Competitive Procurement

[Also need to work with contractors and vendors to help achieve deeper savings – set the expectations, training, reporting, contractor incentives, etc.]

Resolution:

“In order to make the best use of the various technologies and service providers available in the marketplace, the Council asserts that it is essential that program administrators engage in open, transparent and competitive solicitation processes. In doing so the Council recognizes the need to maintain high standards of performance and accountability, but believes a robust marketplace is essential to expanding the total energy efficiency efforts to achieve our long term goals. In any market or self-directed effort the standards applicable to the PA programs and projects regarding cost-effectiveness and evaluation, measurement and verification shall apply.”

11. Topics to be Addressed Later, in Parallel Processes before the Council

Performance Incentives

Evaluation

ADDITIONAL MORE DETAILED COMMENTS ON SELECT PROGRAMS

Low Income

The Council recognizes the extraordinary opportunity to more comprehensively serve low-income customers through the increase in funding from multiple sources, including \$125 million from the federal ‘Recovery and Reinvestment Act’ funding. The Council would like to better understand how the PA funding, along with the other funding, will be used to “deepen efficiency penetration” in both existing homes and the new construction programs. What are the specific strategies envisioned for achieving deeper energy savings per home served?

Residential Lighting

With residential lighting historically producing the vast majority of residential sector energy savings, and with federal lighting standards beginning in 2012, the Council wants to clearly understand the PAs' thought process and assumptions used to develop lighting savings goals. Some important questions include: What overall percentage of residential savings does retail lighting represent? How many and what types of CFLs are planned? What is the assumed net-to-gross-ratio and how does it change over the 3 year period? How do the federal lighting standards factor into the assumptions? How are the PAs intending to increase CFL sales and to reach homes (estimated at 20-25% of the market) that still do not have any CFLs at all?

MassSAVE and Existing Homes

As the 'flagship' program of the residential sector, the success of the MassSAVE program is of primary importance to the Council. In order to better understand the PAs proposed program energy savings it will be important to have data on the projected number of program participants and the expected average overall gas and electric energy savings per home. The Council would also like to have better clarity on how enhanced quality control will work in the program, and how the MassSAVE program and the Gas Weatherization program will be seamlessly integrated into one program. It is acknowledged that program design discussions among the MassSAVE working groups have been and continue to be underway. The Council believes that a new (or significantly modified) program model may be required in order to achieve the ambitious energy savings goals, and encourages the PAs to continue to explore program design modifications that can serve to achieve deeper energy savings per home. In particular, any new program design should be built around the following principles:

- Design it so it works for the customer – easy, clear, compelling.
- Set it up to achieve deep savings.
- Set it up to ensure reliable and measurable achievement of goals (adequate controls, protocols, EM&V, data gathering and sharing).
- Set it up to provide customers with sufficient information to act in the most useful (energy saving) ways. Lay out the Zero Net Energy vision, and provide a roadmap to that destination. Provide motivating communications including goals and information on benefits.
- Develop bold outreach mechanisms using whatever means available and appropriate to bring customers into the programs and encourage them to act.

Such principles for MassSAVE argue for a program direction that includes:

- Setting goals and developing communication strategies that drive toward the ZNEB vision (kbtu/sf; energy goals; what you could do to achieve the ZNEB vision in your home; here's what you can do today, tomorrow and next year; etc.)
- Moving toward certification of auditors and installers, and maintaining a public list of who is certified to do work in the programs (this can be done either at DOER, at the PA, at the Division of Profession Licensure, or elsewhere).
- Paying implementers per savings achieved, with a focus on achieving deeper savings.
- Paying PAs per savings achieved with a focus on deeper savings (in performance incentives, and in program design/goal setting).
- Developing data on the performance of implementers.

- Developing minimum standards for what savings should be achieved – or work should get done – in which buildings.
- Thinking more about the customer entry points.
- Tracking enough data to know which buildings need what treatment, and what exit they are at on the road to ZNEB.

Residential High Efficiency Heating Program (Gas)/CoolSmart Program (Electric)

It is essential for these two fuel-specific programs to be integrated into one program. Yet it is unclear from the Plans how these programs will be “seamlessly integrated...into one program”.

Multifamily

The Council has articulated very clear goals with regard to the multifamily sector, which are detailed in item 23 of the EEAC ‘Priorities’ document. The PAs appear to understand the importance of and issues involved with creating a “seamless multifamily service” for customers, regardless of rate-class or fuel type, and have just convened the Multifamily Program Design Working Group. Of primary importance to the success of the working group will be a work plan, and a detailed timeline, including dates of expected deliverables. As with the other programs, the Council expects that the PAs and the working group will develop clear strategies for achieving deeper savings per building. The Council should be regularly updated on the progress of the multifamily working group, including through the revised statewide Plans in July, and should be given the opportunity to provide feedback on the evolving program design. The Council expects that a fully fleshed out multifamily program description will be presented in the October 31 PA filings.

Small Business

In its Priorities Resolution of March 24th, the Council noted its “expectation that programs serving similar customer segments across the Commonwealth will with all deliberate speed transition to common programs with the same program characteristics, delivered either by each PA or by one or more combinations of PAs”

The contractor-delivered small business direct install model delivered by National Grid and NSTAR has a proven record of success in cost-effectively serving a large number of customers with a menu of electric-saving measures that approaches comprehensive. Based on this performance, the Council believes that this model should provide the basis for a seamless, comprehensive, and consistent statewide program targeted to the small business market. Gas measures should be incorporated into the existing mix of electric measures (and the measure lists should be reexamined for cost effectiveness assuming both thermal and electric savings), and the program can be rebid on a statewide basis (with a series of “franchise zones” for delivery contractors, as with the current delivery model). Compared to other program areas, the Council believes that developing and delivering a seamless statewide program involving both fuels based on this model should be relatively uncomplicated, and thus would be a testing ground for resolution of the integration, contracting, and administrative issues that might surface elsewhere.

Large Commercial and Industrial (C&I)

In its March 24th Resolution, the Council also stated that: “All programs, to the maximum practical extent, should consider a whole building approach ... so as to maximize overall energy savings and enable the customer to understand all of their efficiency options...”

As existing larger non-residential buildings represents the largest potential reservoir of savings in the Commonwealth, the Council is particularly focused on examining a more detailed program description in the next iteration. While the PAs note that “pilots under consideration for implementation in 2010 include cost effective methods to improve energy efficiency in retrofit markets, 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...., (detailed information on pilot offerings and budgets will be provided in the October PA-specific plans.” The Council requests that more detail be provided on the nature and content of these pilots, as well as some information about results of the referenced pilot “Whole Building Assessment”, an evaluation of which was to have been completed by now.

It is crucial to explore, demonstrate, and document the achievement of deeper savings in large C&I facilities.

New Construction Programs

Focus on and fully integrate with ZNEB efforts.