Energy Efficiency Board Comments on the DEEP Draft Decision Regarding the 2013-2015 Electric and Natural Gas Conservation and Load Management Plan

September 30, 2013

Introduction

The Energy Efficiency Board (Board or EEB) commends the Department's approval of the 2013-2015 Electric and Gas CL&M Plan, supports the Department's decision on the overall approved spending levels (with the clarifications and revisions proposed herein), and recognizes that significant investments in efficiency are critical to achieving the State's goal of securing cheaper, cleaner, more reliable energy. The Board agrees with the Department that these adjusted spending levels, along with new State-sponsored financing initiatives, constitute "an enormous step forward in ensuring that all Connecticut customers have the tools they need to affordably reduce their energy costs."

The Board wishes to affirm its commitment to ensure, in collaboration with the Companies, that the Plan delivers on the promised cost-effective energy savings and other benefits to Connecticut's residents and businesses.

The Board recognizes its responsibilities, as called for by past and recent State legislation, to assist DEEP, the Companies and other partners to assist in the development and implementation of the C&LM Plan and to help ensure the successful achievement of the Plan's ambitious goals.

The C&LM programs and innovations helped to establish Connecticut as an early national leader in energy efficiency and laid the foundation for significant progress in energy efficiency. Continuing and accelerating that progress will require not only the additional funding called for by the Decision, but also further innovation in program design and assessment in a manner that instills confidence in Connecticut's ratepayers being called upon to fund the programs that they will receive a direct and positive return on their investment. The Plan and DEEP's Decision encourage and support this further innovation, and the Board continues to be committed to the development and delivery of quality, effective C&LM programs to benefit all customer segments.

The Board believes that the Plan's innovative strategies, the contributions of the Department's Decision, and collaboration among Board, the Companies and other partners must ensure that this investment offers substantial benefits to the State's economy overall and proportional benefits to all ratepayers.

The C&LM programs provide significant benefits to customers, the economy, and the environment. The Board recommends that DEEP summarize these benefits in its Final Decision, in a manner similar to DEEP's opening remarks at the September 10th public meeting.

Budget and Revenue Clarifications

In its review of the Expanded Budgets for the 2013-2015 Plan, DEEP determined that while the proposed Expanded Plan spending levels "***reflect the costs of achieving all energy efficiency that is cost-effective,***" DEEP believed "***that increasing funding to that level should be phased in to enable the companies to build the capacity to deliver that level of quality services…***" and that "***to arrive at an approved budget, the Department reduced the spending level in the proposed Expanded Budgets by approximately one-third for most programs. If additional funding becomes available for efficiency programs, then the Department would revisit these allocations.***" (DEEP Draft Decision, p11)

Specifically, to arrive at the DEEP-approved budget, the Department reduced the spending level in the proposed Expanded Budgets by approximately one-third for most programs and made further adjustments based on the analysis of each program. The Board supports this overall budgeting approach in concept, understands DEEP's application of the additional funding authorization per Public Act 13-298, and recognizes and supports the funding levels as a "phased in" approach as set forth in the DEEP Decision, building on the current level of efforts in 2013.

The Board also acknowledges and supports DEEP's electric and gas budget allocations, including DEEP's effort to more equitably allocate education and administrative program costs among EDC and LDC budgets.

There are several clarifications of both budgets and revenues that should be addressed in the DEEP final Decision:[1]

1. Given the timing of the Decision and PURA's subsequent review, clarify that the full amount of the authorized funding for 2013 is not expected to be received in 2013 (e.g., the additional funding through the $0.003/kWh electric CAM would not be available until the CAM is approved and implemented), and therefore the full amount of the 2013 budget authorized in the Decision is not expected to be spent in 2013.
2. Clarify the nature and timing of the implementation of the temporary reallocation of Regional Greenhouse Gas Initiative (RGGI) funding to CEFIA at the discretion of the DEEP Commissioner and the impacts on available C&LM program revenues for 2013, 2014, and 2015, and show these clarified amounts in the table of approved revenues. Specifically, what will be the timing and effect of the reallocation to CEFIA in 2013; and considering that the reallocation is authorized to end in mid-2015 per the legislation, what amount of RGGI revenues should be budgeted for C&LM programs in the second half of 2015?[2] Also, as discussed at the EEB meeting in September, DEEP should clarify that RGGI auction proceeds collected prior to the July 1, 2013 effective date of the RGGI reallocation legislation should be used to fund the C&LM programs in 2013.

[1] It would be useful to have a final revenues table for electric programs, by year, similar to Base revenues in Table 2 on page 18, but for the DEEP approved revenues. The Board understands the Companies are providing updates and additional information to assist with the clarifications of budgets and revenues.

[2] Future expectations for the use of RGGI funding to support oil savings measures should also be clarified.

3. Clarify the treatment of the gross receipts tax and its impact on C&LM program revenues, including for the additional funding authorized in Public Act 13-298. The Companies are investigating this issue and plan to provide comments and additional information.
4. Clarify the treatment of lost revenues and how the lost revenues amounts are to be budgeted and funded.
5. Make two clarifying corrections to the approved electric and gas budgets for 2015. The 2015 electric and gas budgets set forth on page 15 appear to exceed the legislatively-authorized amounts derived using the Base budget plus the additional $0.003/kWh electric charge, and the gas CAM of up to $0.046/ccf (see the electric and gas total budgets for 2015 in Table 1c on page 15 compared to the electric base revenues on page 18 plus the $0.003/kWh electric charge, and compared to the authorized gas revenues in Table 3 on page 20).

In addition, the Board notes that the Companies, the Board, and the EEB consultants are reviewing the specifics of the phased-in program budgets and electric-gas funding allocations. The results of this review may suggest some revisions to the specific program budgets, the ramp up of the phase-in across the years, and/or the electric-gas funding allocation.

The Board supports the approach of using Annual Updates to the Plan, to be submitted to DEEP no later than March 1 of the intervening years between three-year plans. This approach allows for program revisions and the reconciliation of year-end carry-forward or over-expenditures to be addressed in one Plan update process, which should be an efficient process informed by the available information after the end of a program year.

Cost Effectiveness and Cost-Effectiveness Analysis

The Board acknowledges and supports the DEEP finding on overall C&LM program cost-effectiveness: **"*The Department has, in accordance with the statutory requirements, screened the programs to be implemented pursuant to the 2013-2015 C&LM Plan, and finds them to be cost-effective under the EST, GST, or TRT for the reasons described…*"** (DEEP Draft Decision, page 24)

The 2013-2015 programs were recommended by the Board in its approval of the 2013-2015 Plan, and as part of its review the Board found the programs to be cost-effective.

Cost-Effectiveness – DEEP Public Process

The Board welcomes and plans to participate in the DEEP public process on cost-effectiveness methodology and inputs. The DEEP process should address the incorporation of "all energy savings" in the cost-effectiveness analysis consistent with the requirements of Public Act 13-298 (Section 16), the appropriate tests to use for cost-effectiveness analysis in Connecticut, the application of cost-effectiveness analysis for integrated programs funded by EDC and LDC budgets, and the review and application in Connecticut of the 2013 Avoided Energy Supply Cost (AESC) regional study avoided cost input values, including the use of values for market price reductions due to the C&LM programs (i.e., Demand Reduction Induced Price Effects or DRIPE) and avoided costs of greenhouse gas emissions.

One Board consultant participated in the 2013 Avoided Energy Supply Cost (AESC) study and the multi-state working group process along with DEEP staff, the Companies, and others in New England, and the consultant participated in prior AESC studies, which are scheduled every two years. The consultant has recommended the use of the 2013 AESC values in Connecticut as reasonable updates and reliable values, developed through extensive analysis and a full regional stakeholder process. The Board consultant will be available to assist in the DEEP public process on cost-effectiveness, as appropriate.

There are two main reasons why the DRIPE values have increased as a portion of energy and capacity benefits in recent years (Draft Decision, page 23): the AESC study group decided to analyze additional components of DRIPE in each subsequent AESC study, explicitly spreading the analyses across several studies and adding to the body of knowledge in each subsequent study, thereby resulting in more DRIPE components and higher total DRIPE values in recent years; and the energy avoided cost values (comprising a major portion of the denominator in the calculation) have decreased in recent years due to lower natural gas prices.

Treatment of Oil/Deliverable Fuels in Cost-Effectiveness Analysis

In the interim prior to the outcome of the DEEP public process on cost-effectiveness, the treatment of oil/deliverable fuel costs and benefits in the cost-effectiveness analysis should be internally consistent and technically unbiased by either *including* the oil costs and the oil benefits in the analysis, or by *excluding* the oil costs and the oil benefits from the electric or gas program calculations. The better approach would be to include both the oil costs and the oil benefits, consistent with the "all energy savings" requirement of Public Act 13-298 on an interim basis until the new methodology is developed later in the DEEP public process on cost-effectiveness. In the interim, it is not appropriate to include the oil costs but not the oil benefits in the analysis. Therefore, if the oil benefits are not included, then the oil costs should also not be included, which was the approach employed in the Electric System Test (EST) in the Plan reviewed by the Board. RGGI revenues used to fund oil and deliverable fuel measures should not be included as costs in the EST. This internally consistent treatment is especially crucial for the cost-effectiveness analysis of whole building multi-fuel programs such as Home Energy Solutions (HES).

Expectations for Increasing Cost-Effectiveness

In the Draft Decision, DEEP sets some expectations for improving the cost-effectiveness of programs: **"*The EEB and the EDCs will need to be vigilant to improve the cost effectiveness of programs by shifting a higher share of the costs to participants through education, promoting new financing options, and implementing a shift to more performance contracting, all key elements called for in the 2012 IRP.*"** (DEEP Draft Decision, page 31)

The Board shares a desire for the programs to be both effective in achieving benefits for customers and cost-efficient in the use of ratepayer monies. Expectations for financing as communicated in the DEEP Draft Decision above will not be met unless the EEB's criteria for financing are met and some hard choices are made (e.g., when and how much to reduce existing customer incentive levels as new financing offerings are implemented, and the potential impact on customer interest in the programs and therefore the savings achieved). Simply adding financing options on top of existing program offerings and existing incentive levels increases rather than decreases program costs. DEEP "led by example" previously when it accepted a lower C&LM rebate level for its State Buildings Program, and the Board recognizes and appreciates DEEP's commitment and leadership.

The Board has also been working on other program enhancements designed to increase the cost-efficient use of ratepayer monies, including some program enhancements being developed and implemented with the support of the Board's C&I and Residential Committees.

C&I Comments

The Board commends the Department's approval of the C&I section of the 2013-2015 Electric and Gas CL&M Plan, the overall approved spending levels (with the clarifications and adjustments proposed herein), and the Department's overall support of the Plan's C&I program enhancements and new strategies developed by the C&I Committee and the Companies. The EEB concurs with the Department's overall intent in the Decision comments and conditions for the C&I Programs but offers the following comments and suggested adjustments.

Approved Budgets – C&I Program Allocations – Small Business and Energy Conscious Blueprint

The EEB recommends that DEEP re-examine its allocation of approved spending levels for the Plan's C&I Programs to ensure that budget levels for the Small Business program are consistent with the level of additional activity called for in the C&I program budgets overall.

In its review of the Expanded Budgets for the 2013-2015 Plan, DEEP acknowledged that these proposed spending levels "reflect the costs of achieving all energy efficiency that is cost-effective" but believed "that increasing funding to that level should be phased in to enable the companies to build the capacity to deliver that level of quality services….Specifically, to arrive at an approved budget, the Department reduced the spending level in the proposed Expanded Budgets by approximately one-third for most programs and has made further adjustments based on the analysis of each program." (DEEP Draft Decision, page 12)

The EEB notes that although the approved EDC C&I budget is adjusted to 67% of the proposed Expanded Budget over the three year planning period (see Table 1), the Small Business program is only 59%, compared to 66% for Energy Opportunities and 83% for Energy Conscious Blueprint. Given the Plan's and CT State policy emphasis on equitable treatment for all customers, including small businesses, the EEB is concerned that this somewhat uneven adjustment may leave the Small Business program under-resourced relative to the otherwise expanded program services to the C&I sector overall driven by an aggressive marketing program and recovering economy. Therefore, the Board suggests that DEEP re-examine its allocation for the Small Business program, possibly by reallocating some funding from the Energy Conscious Blueprint program. The Board is willing to assist the Department, with the assistance of the Companies, in this re-examination.

(Note: the Decision allocates $5M for SBEA self-funding financing in a separate line item and is not included in the Table's calculations below. This amount is intended solely as an additional capital source for the SBEA financing program and not for core SBEA services. Therefore this additional financing capital proposed from ratepayer funding does not substitute for the funding necessary to support SBEA program core services. This part of the Decision is discussed further below.)

Table 1	
Three-Year C&I Budgets	**Approved EDC Budget as % of Proposed Expanded**
Energy Conscious Blueprint	83%
Energy Opportunities	66%
O&M (Services, RetroCx, BSC)	74%
PRIME	63%
Small Business	59%
Subtotal C&I	**67%**
TOTAL 3 YR BUDGETS	**69%**

EEB Responses to C&I Compliance Schedule and Conditions of Approval

[Note: All dates for responses to the DEEP Compliance Schedule and Conditions of Approval are March 1, 2014 (Annual Update) unless otherwise noted. DEEP's Compliance Orders and Conditions are listed in ***bold italic*** below. Conditions falling under the same or a similar topic or program are grouped together. Additional emphases pertaining to the EEB and C&I Committee's C&I program priorities are indicated in **bold**.]

Self-Directed Program

The Companies, together with the EEB, must develop a self-directed program that will be in place at the time that Plan revenues are available. A progress report on this development must be included in the Annual Updates. (DEEP Draft Decision, page 66)

The EEB supports the development of a self-directed program for large C&I customers that is consistent with the best practices cited by the DEEP Draft Decision, and is committed to working with the Companies in its development and implementation.

The EEB acknowledges that providing the option of a self-directed program for large C&I customers could facilitate the ability of these customers to invest in energy efficiency capital measures and strategic energy management, thereby, ensuring equitable access to the CEEF program's benefits. The Decision's stipulation of best practices requirements will also help ensure that both the individual participant and program participants overall will derive the benefits of energy efficiency.

However, the Board wishes to note that this program will require a significant effort and commitment of relevant technical expertise in both the development and the ongoing administration of the program to ensure its success without unintentionally compromising the integrity of the C&I programs overall. In addition, the EEB seeks clarity for DEEP's expectation that the program should be "in place at the time that Plan revenues are available" and how this corresponds with the Plan Update deadline of March 1, 2014 since revenues could be "available" before that date. The EEB wants to ensure that there is sufficient time to properly develop and implement the program. Finally, the EEB recommends that item #3 of the best practices list (p66) should also make reference to "strategic energy management-based savings" as well as capital project-based savings.

C&I Financing – SBEA Self-Funded Financing Capital

The Department directs that, as part of an expanded plan, a total of $5 million in ratepayer funds be allocated as financing capital for the SBEA loan program for each of the program years 2014 and 2015. The Decision also notes that "the SBEA loan program is a candidate for investigating whether there are lower cost capital alternatives than the Companies' cost of capital." (DEEP Draft Decision, p69)

The EEB supports the allocation of CEEF funds as financing capital for the SBEA loan program, but wishes to clarify its understanding of the strategic purpose of this allocation and to ensure that the core SBEA program is adequately supported. Therefore, the EEB provides the following observations and questions:

1. It would be helpful if the Decision would more fully describe the strategic objective of this budget allocation in order to clarify its long-term intentions. The Board's understanding is that this direction is part of the investigation noted above and that it is intended to lay the strategic groundwork for developing lower cost and more flexible capital alternatives for SBEA over the term of the Plan.
2. Part of the intent is to achieve actual savings for the CEEF funds, which the Board believes the allocation would accomplish if the funding is applied and supports projects in the field.
3. Clarification is needed as to how the allocation should be applied and the mechanics of its administration to ensure that the desired results are achieved. These procedures should be worked out by DEEP in cooperation with the Companies and the C&I Committee.
4. A longer-term strategy for developing lower cost and more flexible capital alternatives for SBEA based on this investigation and allocation experience is needed. As the DEEP decision suggested, "the Department will work with the C&I committee, the Companies and CEFIA to look for low cost alternatives for C&I loans….." The EEB and its C&I Committee are committed to working with DEEP to develop such a long-term strategy.
5. The Board wishes to emphasize that the SBEA loan program is in support of the SBEA core offerings (audits, direct installations, equipment incentives) and that the core budget should be commensurate with program goals and not unintentionally diverted. The Board suggests that its earlier comment concerning a proportional C&I budget for SBEA would ensure sufficient funds to meet market demand while allowing for a supplementary loan pool.

Residential Comments

Consideration of Possible Re-Allocation of a Portion of the Retail Products Lighting Budget to HES in 2014-2015

Lighting has long been the residential end use with the largest contribution to the residential sector electric savings portfolio. While significant amounts of lighting savings come from direct install efforts in HES and HES-IE, the large majority of lighting savings come from the Retail Products Program. The Retail Products Program has an allowed three year budget of $57M. This represents 29% of the allowed EDC three year residential budget and 20% of the allowed combined EDC and LDC residential budgets. In comparison, lighting represents 5% of total residential energy use.[3]

Lighting has long been an attractive savings opportunity for the C&LM programs. All customers have lighting, energy efficient lighting is highly cost-effective on both an EST and TRC test basis, and the total potential savings are quite large relative to the base energy use. In its Draft Decision DEEP supported continued aggressive pursuit of lighting savings, albeit with a number of appropriate recommended program changes. The allowed three year Retail Products budget was funded at 97% of the proposed Expanded Budget amount. In comparison, the total allowed three year EDC budget is 73% of the Proposed Expanded Budget.

As discussed below, the Board has raised concerns about the ability of the EDC HES budget to fully meet the needs of both oil heat customers and of much greater gas HES participation over the three-year period. While the Board supports increased LDC funding of the HES program, larger numbers of gas-heat HES participants will require increased EDC expenditures to support measures with electric savings that these gas heat HES participants install, e.g., lighting, ENERGY STAR furnaces with efficient fan motors, and thermal envelope measures when central air conditioning is present.

The overall success and effectiveness of HES depends not only on the total amount of funding available to serve customers, but also on the relative amounts of funding available to serve oil heat, gas heat, and electric heat customers, plus the funding available to support measures with electric savings in all homes across all heating fuels. The Board believes that, absent the identification of a stable and sizeable source of funding to treat oil heat customers (which should continue to be a priority), the proposed electric funding for HES may need to be increased in 2014 and 2015 in order to serve oil heat customers *and* ensure adequate electric funding to support electric savings measures in all homes. The most likely source for such additional funding would be the Retail Products Program. As noted in the Draft Decision there are a number of other factors that may modify the amount of funding available for HES and HES-IE including a reexamination of the EDC/LDC budget allocations for the programs, the findings from the ongoing HES impact evaluation, and the planned HES innovation proceeding.

The Board recommends that the EDCs and LDCs review and assess the relative funding amounts available and allowed for HES in 2014 and 2015 to serve oil heat, gas heat, and electric heat customers,

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[3] 2013 Comprehensive Energy Strategy for Connecticut. Department of Energy and Environmental Protection. February 19, 2013. P 12.

plus the electric funding available to support measures with electric savings in all homes across all heating fuels, and propose a budget reallocation from Retail Products to HES, if such a reallocation is necessary. The Board requests that DEEP consider this possible funding need and a potential electric budget increase for HES in 2014 and 2015, funded through a reallocation of a portion of the Retail Products allowed budget.

EEB Responses to Residential Compliance Schedule and Conditions of Approval

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EDC/LDC Allocation & Home Energy Solutions

The Board concurs that the costs for gas and electric program programs should be properly and equitably allocated between the EDCs and the LDCs. However, the Board questions whether all costs including 100% of the costs of HES core services associated with HES gas conversion participants should be allocated to the LDCs. Similarly, the Board questions whether all costs for all gas heating measures should be allocated to the LDCs. Finally, the Board seeks clarification as to whether DEEP's Condition to *more evenly distribute the funding for oil measures between gas and electric customers and submit specific recommendations for such reallocation* only applies to oil heat customers who are fuel conversion participants or requires some broader reallocation of the costs for treating oil (and propane) heat customers in HES.

The Department requires the Companies to revise and resubmit budgets for certain programs in the 2014 Annual Update with proportionately adjusted budgets, or defaulting to an 80/20 basis between the EDC and the LDC budgets, for 2014 and 2015.

The Companies should propose an update to the Plan that allocates 100% of the cost for gas heating measures to gas customers. Further, the Companies should more evenly distribute the funding for oil measures between gas and electric customers and submit specific recommendations for such reallocation.

The Companies must propose an update to the Plan that allocates 100% of the costs of HES core services to natural gas budgets for any HES participant who becomes a gas customer (or newly converts their home heating equipment to natural gas) in the same calendar year in which they received HES services.

The Companies should allocate costs of HES core services to natural gas budgets for any HES participant who becomes a gas customer (or newly converts their home heating equipment to natural gas) in the same calendar year in which they received HES services. The Department welcomes

comments and will consider alternative approaches that will ensure efficient compliance with this directive.

Currently HES Core Service costs are allocated primarily based on estimates of the value of benefits that accrue to the EDCs and to the LDCs (p 192. 2013-2015 Electric and Natural Gas Conservation and Load Management Plan). The Board believes that this approach should continue. If so, assigning, as DEEP requests, *100% of the costs of HES core services to natural gas budgets for any HES participant who becomes a gas customer (or newly converts their home heating equipment to natural gas) in the same calendar year in which they received HES services* fails to fully acknowledge the significant electric benefits that fossil-fuel HES participants – both oil and gas - generate and to properly assign those costs to the EDCs.

The Draft Decision also requires that 100% of the cost of gas heating measures be assigned to the LDCs. However, significant electric benefits are also generated when several measures are installed in gas heated homes. In particular, for homes with both gas heat and central air conditioning duct sealing and attic insulation yield significant electricity and peak demand savings. Similarly, ENERGY STAR gas furnaces provide electricity saving due to the presence of an efficient circulation fan. Currently the EDCs pay for some portion of all of these "joint" measures and the Board believes that this practice should continue as long as the allocation is properly calculated.

Currently all oil and propane heating customer costs are assigned to the EDCs for the HES, HES-IE and residential new construction (RNC) programs. However, participation of fuel conversion (oil and propane converting to gas) customers in HES and the proposed assignment of these program costs to the LDCs will likely require modifications to the current HES cost allocations. The Board agrees that the appropriate allocation of program costs incurred by customers converting to natural gas should be borne by the LDCs. The Board also notes that an approach based on conversions within the same calendar year may not be the best approach, since the fall and early winter are when customers are most aware of home heating costs, and a significant portion of home heating HES services and conversions may begin in the early winter yet the completion of all work may carry into the next calendar year.

The Board will work with the Companies to review all of the current HES Core Service, follow-on measure, and standalone HVAC measure cost allocations. A similar review will also be made of how HES-IE and residential new construction program costs are allocated to the EDCs and to the LDCs. It is the Board's understanding that DEEP's Conditions are specific to residential program implementation costs and do not address allocation of other planning and evaluation costs, nor activities such as Museum Partnerships, overall Fund marketing, evaluation, etc.

The Board seeks clarification as to whether DEEP's Condition to *more evenly distribute the funding for oil measures between gas and electric customers and submit specific recommendations for such reallocation* only applies to oil heat customers that are fuel conversion participants or requires some broader reallocation of the costs for treating oil (and propane?) heat customers in HES.

Residential Retail Products (Lighting)

The Board concurs with the objective and with nearly all of the details of the proposed changes recommended by DEEP to the lighting component of the Retail Products Program including a greater focus on LEDs, cessation of dimmable CFL rebates, and increased efforts to target hard-to-reach markets.

For 2014 and 2015, the EDCs must demonstrate that the Retail Products Program has been modified to address changing market conditions.

The Retail Products Program for 2014 and 2015 must be redesigned by the EDCs and EEB to address the findings and recommendations contained in the Lighting Evaluation as well as the directives in this Decision.

Target the market segment that has not yet replaced incandescent bulbs throughout their homes.

Discontinue providing incentives for dimmable CFLs and should instead use these funds, as well as funds available due to the reduction in CFL incentives, to support expansion of the LED market.

The Board notes that the Companies have already been aggressively promoting LEDs through the Retail Products Program in 2013, beyond the levels initially forecasted in their Plan. This is a function of falling prices, increased product availability and growing consumer interests. All three trends are certain to continue and possibly even accelerate.

Nonetheless, the Companies efforts to promote LEDs must been done carefully and strategically to avoid some of the past mistakes of program administrator efforts throughout the country to stimulate CFL sales.[4] For example, while dimmable LEDs generally dim better than dimmable CFLs, there are non-trivial and ongoing compatibility issues with LED lamps and dimmers. Some LEDs will not dim either at all or properly when paired with particular, mostly older, dimmers. While this can be addressed in part by consumer education, it is nonetheless one of several considerations that the Companies will need to consider as they increase their LED unit sales.

The Board believes that the longer-term goals and strategies put forward in NEEP's soon to be released 2013 Residential Lighting Strategy (RLS) Update are entirely consistent with DEEP's recommendations. This RLS Update can serve as a template for Companies' lighting activities over the duration of the Three Year Plan, particularly when informed by Connecticut specific evaluation and market research results.

The Board also notes that the Companies have already undertaken a variety of efforts to target underserved lighting markets including foreign language advertising. Such efforts can be increased and pursued and tracked more systematically, informed by recently completed evaluation activities. The

[4] See for example: Compact Fluorescent Lighting in America: Lessons Learned on the Way to Market http://apps1.eere.energy.gov/buildings/publications/pdfs/ssl/cfl_lessons_learned_web.pdf

Program Administrators (PAs) in Massachusetts and Rhode Island run separate upstream promotions working with retailers that mostly serve hard-to-reach (HTR) customers. These HTR sales are tracked separately, incentives are often higher for these promotions, and the PAs claim higher net savings for these products based on lower free ridership in the HTR customer segment. The Board recommends that the same approach to hard-to-reach customers should be implemented in Connecticut.

While Company increased marketing efforts are important to reach both the general and underserved lighting markets, there are limits to the Companies' ability to influence both general and HTR customers. These constraints include available budget for these efforts, consumer bandwidth, and industry and retail stakeholders that at times work contrary to our goals by marketing EISA-compliant halogen incandescent bulbs as an efficient lamp choice. Conditions for participation in future upstream negotiated cooperative promotions could place greater emphasis on stakeholder marketing support and/or provide higher markdown/buy down incentives for partners that do provide marketing support.

Appliance Rebates

The Board concurs that a more comprehensive assessment of appliance and consumer electronics opportunities is warranted. However, the Board believes that current efforts to support TopTen appliances should be continued and funded by both EDCs. The Board also questions adding a possible refrigerator retirement component only to HES as opposed to also having this measure offered to all customers through the Retail Products Program. Finally, the Board has concerns regarding inconsistency with long standing fuel switching policies as to replacing electric appliances, including domestic hot water (DHW,) with gas ones unless there is a significant gas efficiency increment to be supported by the Fund and there is no comparable efficient electric technology for that appliance or end use.

DEEP directs the Companies to explore the cost effectiveness of offering rebates for other appliances, electronics, and replacement of electric appliances in gas conversion applications, then present a revised Appliance Rebate Program for 2014, if cost-effective opportunities are identified.

Over the last few years the Companies have had little, if any, engagement in the appliance market, in large part due to free ridership concerns at the ENERGY STAR level. However, starting in 2012 Connecticut became the first state in the nation to support TopTen USA levels of efficiency on a statewide basis. These TopTen products represent the most efficient models on the market, offering savings beyond those achieved with ENERGY STAR products. The Board requests that both Companies be directed to continue to promote TopTen at both retail and through the HES program.

The Board also agrees that an appliance early retirement program should be re-examined for both cost effectiveness and inclusion in the Companies' residential portfolio. However, if cost effective, the Board recommends not limiting this program component only to HES (and HES-IE) participants, but to make it an integral component of the Retail Products program. The Draft Decision points to the inclusion of refrigerator early retirement efforts in the Massachusetts single family existing home retrofit program. The Board notes that for 2013 NSTAR forecasts 350 refrigerator early retirements through its estimated 16,500 existing single family retrofit program participants. In comparison, NSTAR estimates that it will recycle 3,600 refrigerators and an additional 400 freezers through its Retail Products program in 2013. While including an appliance early retirement component in HES is appropriate, having a broader-based Retail Program based effort may generate much greater participation and should be considered.

The Board understands that the last evaluation of the Companies' appliance recycling efforts raised questions of cost effectiveness, yet many program administrators continue to implement such programs cost effectively. The Board recommends that DEEP direct both Companies to determine whether an appliance recycling effort should be implemented both through HES and as a standalone component of their Retail Products Programs.

The Draft Decision also directs the Companies to consider supporting the replacement of electric appliances with gas, specifically noting electric dryers and gas DHW (p 44). While such opportunities should be considered, the Fund should inform customers of all energy efficient options including efficient electric options such as heat pump water heaters and dryers. Cost-effectiveness and Fund promotion of replacement of electric appliances with gas should be limited only to the incremental increase in the efficiency of the gas appliance compared to a baseline gas appliance. Regarding gas dryers, the Board notes the current lack of an ENERGY STAR specification for dryers (one is expected in early 2014), the small savings associated with the likely ENERGY STAR gas dryer specification (less than 6 therms), and the likelihood of near-term commercial availability of electric heat pump dryers.[5] This latter technology has been in place for over a decade in Europe and Asia and efforts have been underway for several years to bring this technology to the US. Also, while there are a number of efficient gas hot water technologies already being promoted, the Board notes the active promotion of heat pump water heaters can reduce the cost to heat hot water by half or more for those customers using standard electric storage hot water tanks.

The Board agrees that the savings opportunities for consumer electronics should be more thoroughly investigated. However, while there has been significant growth in overall consumer electronics energy use, the savings opportunity through CEEF programs may be small, or even nonexistent. NEEP's recent report on savings opportunities in business and consumer electronics identifies a number of strategies to pursue savings in this sector. However, many of these strategies are more policy or regulatory focused.[6] Even those recommendations that are more program-focused require a national or regional engagement, e.g., working with game console manufacturers. While regional efforts should be explored, the ability to accurately estimate and attribute savings to the Companies for most of these proposed efforts would be challenging.

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[5] ENERGY STAR® Residential Clothes Dryers *Draft 2 Version 1.0 Specification* Stakeholder Webinar September 5, 2013.
http://www.energystar.gov/products/specs/sites/products/files/Clothes%20Dryers%20Draft%202%20V1%200%20Stakeholder%20Webinar%20Final.pdf

[6] http://www.neep.org/Assets/uploads/files/market-strategies/BCE/2013%20BCE%20Strategy_FINAL.pdf

Residential New Construction & Cost Effectiveness

The LDCs and EEB must propose program design changes to improve the cost effectiveness of the Residential New Construction Program and submit recommendations to DEEP.

The Board will work with the LCDs to review and revise the current Residential New Construction Program design to improve its cost effectiveness.

Home Energy Solutions (HES)

The Board largely concurs with the recommendations and Conditions regarding HES put forward in the Draft Decision. As proposed in the Draft Decision, the Board will review and revise the HES co-pays as appropriate. The Board and the EEB Evaluation Committee have already identified the timely completion of the HES Impact Evaluation as one of its most important near-term evaluation activities. As it has done in the past, the Board strongly supports a more active Home Performance track within HES to grow the market for Home Performance services, achieve deeper per participant savings, and potentially reduce overall costs to serve HES participants. The Board also supports the expansion of the current HES contractor licensing efforts to include other options such as registration and/or certification as well as the requirement that all HES vendors be able to provide home energy labels. However, the Board is concerned that the proposed funding level for the EDCs' HES program may not allow the needs of oil heat customers to be fully met, both in terms of ability to participate and depth of services.

In a time of continued high oil prices, fully serving oil heat customers continues to be a significant concern of the Board. The identification or development of a stable and significant funding source for oil heat customers continues to be a Board priority. The Board strongly encourages DEEP to continue its efforts to secure such funding.

The Board supports the proposed increased LDC funding of the HES program, in part to achieve deeper savings through increased follow-on measure implementation. The Board also supports higher per unit natural gas goals in 2014 and 2015 commensurate with the increased LDC funding for HES. The Board continues to recommend the current HES performance incentive metrics in the Plan, which are based on achieving higher MMBtu savings from all fuels.

The Board and the Companies have made many enhancements to HES in recent years, and lists of HES enhancements have been provided to DEEP on several occasions. The Board recommends that DEEP, in its final Decision, acknowledge the enhancements to HES that have been implemented or that are currently being developed and implemented.

DEEP requires that an evaluation of the HES program be completed, and/or program design changes developed through the HES Innovation proceeding being implemented, before funding beyond the Base Level is approved for 2014 and 2015.

DEEP therefore requests that the EEB reconsider whether the current co-pay for HES is appropriate, and whether such co-pay amounts should be increased in order to reduce the ratepayer subsidy for the program while not negatively impacting participation levels.

The Companies and EEB must develop marketing analyses and marketing campaigns targeted to specific residential segments that are designed not only to drive participation in HES, but also to encourage uptake of deeper measures, use of financing, and understanding of the concept and value of home performance. Therefore, the Department directs the Companies to include, in the 2014 Annual Update, a plan for the implementation of a marketing campaign to increase awareness about the concept and value of home performance.

The Companies and EEB should advance efforts to level the playing field by establishing standards for home energy performance professionals through licensing or registrations, requiring third-party certification, or an alternative standard-setting mechanism. The Companies must provide a progress report in the 2015 Annual Update.

The Companies must establish targets, as soon as practicable, for the number and type of deeper measures that they intend to achieve through the HES program in 2014 and 2015.

The Department has allocated an increase of $5 million to the LDC budget for HES to encourage residents to select deeper efficiency measures, such as high efficiency furnaces, insulation, and appliances, as they elect to convert to gas. The Department directs that the per unit ccf goal increase by 8% in 2014 and by 10% in 2015.

The Companies and EEB must provide a plan certifying HES service providers or vendors to provide home energy labels and that labels be provided as part of the program.

The HES program continues to improve its participation rates (subject to funding variations) and its engagement to achieve deeper per participant savings (e.g., note that insulation completion rates have nearly doubled to approximately 30%). As it has been for some time, the Board's focus is on achieving deeper savings. This objective of greater per participant savings better meets participant needs, generates larger savings, and helps the state achieve its 80% weatherization goal. One means of achieving these deeper savings is to grow the number of non-HES Core Service contractors that actively provide Home Performance services.

The Board strongly supports a more active Home Performance track within HES. The three month Residential Committee engagement earlier this year on the future of HES and the proposed HES innovation process will help inform any required program modifications to achieve this outcome. The Board notes that through previous program modifications the playing field for Home Performance contractors to participate in HES has been largely, if not completely, leveled in terms of rebate access. Increased home performance marketing will help support such growth, and the proposed marketing analyses and plan for the marketing campaign will help define the best approach to inform consumers of the Home Performance option and to address deeper savings and financing availability more generally. The recently completed, though still draft, Weatherization Baseline Assessment report may also help inform these marketing efforts, regarding which customer groups to target and how best to target them. The Board recommends that the marketing campaign focus on all of the topics that DEEP noted (p. 49), thereby driving participation in HES, encouraging uptake of deeper savings measures, promoting the use of financing, and increasing understanding of the concept and value of home performance. The Board and the EEB Marketing Committee have been working with the Companies on market segmentation and strategy.

The Board supports increased LDC funding of the HES program. This funding should be used to achieve deeper savings through more aggressive Core Services implementation, including a means to better address project deferrals, and increased follow-on measure implementation. The Board also supports higher per unit natural gas goals in 2014 and 2015 commensurate with the increased LDC funding for HES. The Board continues to recommend the current HES performance incentive metrics in the Plan, which are based on achieving higher MMBtu savings from all fuels.

While the Board supports the increased funding of the LDCs' HES Program, it is concerned that the proposed funding level for the EDCs' HES program may not allow the needs of oil heat customers to be fully met. These concerns remain even with the proposed additional HES funding and given the possible impacts of any changes in HES co-pays or in the allocation of HES costs between the EDCs and the LDCs. The Board notes that increased gas-heat customer participation in HES also impacts the EDC budgets. The EDCs pay for some or all of the cost of electric savings measures; e.g., lighting, duct sealing, and insulation when central air conditioning is present, etc. in gas-heat customer homes. Even after these EDC/LDC cost allocations are re-examined, any increase in LDC HES budget expenditures will result in increases in EDC budget expenditures. These increased EDC HES expenditures will occur because of the increase in gas heat customers served in HES, and without any increase in the number of electric, oil or propane customers served. (See the Board recommendations above regarding a potential electric budget increase for HES in 2014 and 2015 funded through a reallocation of a portion of the EDC Retail Products allowed budget.)

The Board supports some form of Home Performance contractor licensing and notes both the inclusion of a related performance metric in the Plan for 2013 as well as the several BPI certifications currently required of HES Core Service vendors and their technicians. The Board supports an expansion of this investigation to include consideration of both registration and certifications as a substitute or complement to licensing.

The Board also supports the requirement that HES vendors provide building energy labeling. The Companies continue to offer training on the DOE Home Energy Score (HES) tool and a growing number of HES technicians are now approved to generate labels. The Board recommends that generating building labels should become an HES vendor requirement in mid-2014.

Home Energy Solutions – Income Eligible (HES-IE)

The Board largely concurs with DEEP's Draft Decision and fully supports the need to serve the income eligible population to reduce their energy burden. These efforts should include continued efforts to work with the CAP agencies and consideration of how best to fully leverage DOE Weatherization Assistance Program (WAP) funding. The Board notes that expanding the number of customers served by HES-IE should be a secondary goal to achieving deeper savings among participants. Finally, the lower than requested EDC budgets for HES-IE may limit the ability of the Companies to adequately serve oil heated income-eligible customers.

The Department approves an Expanded Budget for the HES-IE program, in order to ensure that more income-eligible residents can access energy savings. The EDCs must work closely with the CAP Agencies to increase HES-IE market penetration, and to consider opportunities for integrating HES-IE program implementation with implementation of the federal DOE Weatherization Assistance Program.

Fully serving the needs of Connecticut's income eligible population is a key objective of the Board's oversight of the Companies' programs. While increasing participation in HES-IE is a key goal of the program, there needs to be an appropriate balance between expanding participation in HES-IE and achieving deeper savings among those participating. The Board believes that DEEP's proposed engagement with the CAP agencies and its direction to consider how best to leverage DOE WAP funds can serve both of these needs.

The DEEP Draft Decision funds the HES-IE Program at 74% of the requested Expanded Budget over the Three Years. In 2015 the allowed budget is 61% of the proposed Expanded Budget amount. The Board notes that continued high oil prices will likely drive demand for HES-IE services from the income eligible customer heating with oil. Some portion of these customers may be treated if converting to gas, with the LCDs paying the majority of the incurred program costs. However, this may represent only a portion of participating oil-heated HES-IE customers. The Board continues to stress the importance of developing a stable funding source for oil-heated homes for all residential energy efficiency activities including for HES-IE. Further, the Board reiterates its recommendation and long-standing practice of budget parity, to ensure that the customer segment of income-eligible customers be allocated electric and gas HES-IE budgets equal to or greater than the Fund contributions from income-eligible customers. Additional electric funding for HES-IE may be needed in 2014 and 2015 to address these concerns and recommendations. (See the Board recommendations above regarding a potential electric budget increase for HES in 2014 and 2015 funded through a reallocation of a portion of the EDC Retail Products allowed budget. A portion of the EDC Retail Products budget could also be reallocated to HES-IE in 2014-2015 if necessary.)

Performance Incentives

The DEEP Draft Decision directs "***the Companies to work with the EEB to establish for 2014 and 2015 specific, readily measurable performance goals for measures installation…….to aggressively target investment in deeper savings measures needed to achieve the State's long-term energy savings goals***." (DEEP Draft Decision, pages 33-37, for EDCs and LDCs)

The EEB agrees with DEEP's direction but suggests that the performance incentive development and revision process needs to be conducted in conjunction with the entire Annual Update process for 2014 in order to ensure consistency with respect to the Plan's budgets, program strategies, and DEEP's other directions. Therefore the EEB recommends that the deadline for the establishment of the 2014 and 2015 EDC and LDC performance goals should be March 1, 2014, and not January 1, 2014, consistent with the Annual Update development process and deadline. Note that in the Compliance Schedule for Conditions of Approval (page 87), some compliance dates for performance incentive revisions are January 1, 2014 while others are March 1, 2014.

The Board fully supports the emphasis on investment in deeper savings measures and achieving the State's long-term energy savings goals.

Performance Incentive Threshold

The Department agrees that the incentives should only begin when the companies reach a minimum of 80% of goals. ...The Department also agrees that there should be no performance incentive awarded for achieving 50-79% of goals. The Companies shall therefore adjust the performance incentives tables in the Plan to reflect the revisions described above. (DEEP Draft Decision, pages 33-35)

The Board has not taken a position on increasing the performance incentive threshold from 70% to 80%, though in discussions the Board has acknowledged that there are both advantages and potential disadvantages to doing so. The Board will review and comment on this issue as part of its work on performance incentives and revisions for the 2014 Annual Update process.

In the interim, the Board recommends that the performance incentive structure for 2013 remain in place as proposed in the Plan and reviewed by the Board, including the 70% threshold, since the 2013 programs are about three-quarters through the year.

Performance Incentives for Home Energy Solutions

The Board believes that the current HES MMBtu metrics provide clear and sufficient direction to the Companies as to the importance of increasing per participant savings in the HES program. If DEEP moves forward with measure-based HES metrics the Board strongly recommends that only *some portion* of the HES incentive mechanism be tied to follow-on completion rates for specific measures. These measure goals should be in addition to, not in place of, the current two sets of MMBtu metrics already in the

Plan. If DEEP moves forward with measure-based goals the Board recommends that they be established for all key gas HVAC and DHW measures, not just for the gas DHW goals in Table 16. The Board will work with the Companies to develop appropriate targets for these gas HVAC and DHW measures and propose what proportion of the HES Program incentive should be tied to these targets. For both the LDCs and the EDCs insulation goals for 2014 and 2015 should be tied to a percent increase over the 2013 follow-on completion rate. The Board does not recommend that goals tied to performance metrics be established for appliances.

The Companies shall adjust the performance incentives tables in the Plan to reflect the revisions described in the Performance Incentives section of this Decision.

The LDCs' ability to earn a performance incentive for HES will be based, among other things, on meeting the targets in Table 16 (DHW goals). DEEP directs the Companies to work with the EEB to establish for 2014 and 2015 specific, readily measurable performance goals, including the goals in the above table.

DEEP directs the Companies to work with the EEB to establish for 2014 and 2015 specific, readily measurable performance goals for measures installation, such as for insulation, high efficiency equipment, and appliances, to incent the Companies to aggressively target investment in deeper savings measures needed to achieve the State's long-term energy savings goals.

The Board and DEEP have provided the Companies with clear and consistent direction that increased savings per participant is a key, if not the most critical, goal for the HES program. The Board notes that the Three-Year Plan currently contains aggressive savings goals for the HES program. There are two sets of goals whose requirements become increasingly stringent in each successive year of the Plan. The first metric sets goals for average MMBtu savings per participant. The second metric establishes the percent of program participants heating with electricity and gas that must attain at least 25 percent total savings. Both of these metrics require greater focus by both the Companies and by the HES Core Service vendors on deeper savings through both improved Core Services *and* through higher follow-on measure completion rates. MMBtu savings per home is also a large component of the vendor scorecard providing direct links between key state policy objectives, the Companies' goals and performance metrics, and HES vendor performance.

While the Board agrees that follow-on measure completion rates for key measures such as HVAC and DHW must continue to increase, the Board believes that the current performance incentive structure adequately addresses this goal by focusing on total savings per home, not just on a subset of measures. If DEEP does decide to require specific follow-on measure completion targets, the Board recommends that:

- The current two sets of HES MMBtu savings metrics be retained and that the majority of the performance incentive amount be assigned to these two metrics.

- The LDC goals include all key HVAC and DHW measures, not just the DHW goals in Table 16 in the Draft Decision. This would require establishing goals for furnaces and boilers. The Board requests that it develop such goals for 2014 and 2015 and propose them to DEEP.
- Goals for insulation follow-on completion rates be based as a percent increase over 2013 completion rates. The Companies have achieved significant improvement in insulation completion rates through a combination of higher rebates levels, higher vendor MMBtu scorecard goals, more attractive financing offers, and innovative marketing efforts, e.g., waiving the co-pay requirement for up to $500 in LEDs for HES participants installing insulation. Largely as a result of these efforts current insulation completion rates have nearly doubled to approximately 30%.
- Goals for appliance rebates not be established. While many such opportunities may exist, savings are generally small and/or short lived and appliances are not the principal focus of an existing home retrofit program targeting thermal envelope, lighting, and heating, cooling and hot water equipment opportunities.

The Board notes that many oil heat customers, particularly those with furnaces, currently have electric storage hot water tanks. For these customers, replacing their electric storage hot water tank with a heat pump water heater (HPWH) may be a better option than converting to natural gas for DHW purposes. The Board will consider this option in developing any 2014 and 2015 gas DHW goals if DEEP decides to move forward with establishing HES measure goals.

The Board also recommends that in in any subsequent Plan-related documents filed by the Companies that costs, savings, and unit numbers associated with all HVAC and DHW equipment occurring outside of HES In Home Services be reported and tracked separately.

Performance Incentives for Residential Retail Products

The Board understands and shares many of the concerns raised by DEEP as to the future direction of the residential lighting program. The Board notes the most recent evaluation findings of relatively small CFL socket saturation increases in Connecticut despite selling over 12 million CFLs through the retail lighting program between 2009 and 2011. The Board recommends that DEEP leave the current 2013 Lighting Program savings metric in place. For 2014 and 2015 the Lighting Program performance metric should be split equally between savings and a market share metric. This latter metric would require a minimum percentage of all Lighting Program products that are LEDs. For 2014 a value in the 25% range would be appropriate, over twice that currently being attained by the Companies in 2013.

For 2014 and 2015, the performance incentive for the lighting component of the Retail Products Program must be revised to move from the broad estimate of energy savings to another more targeted metric, such as overall saturation of efficient lighting, market share, etc. If the EDCs do not properly address this issue they will not earn a performance incentive for this program in 2014 and 2015.

The Companies' Lighting Program has been very successful in moving very large quantities of CFLs into the market and into homes, attaining some of the highest number of units promoted per household in the country. However, CFL socket saturation has remained relatively unchanged over the past few years, at least through early 2012 when the last lighting saturation study was completed. A similar situation exists in Massachusetts and potentially in other northeastern states. The Board notes that work in Massachusetts indicates that many, if not most, CFLs sold at retail appear to be replacing failed CFLs and that such sales prevent "backsliding" of savings as DEEP notes in the Draft Decision. This "CFL replacing CFL" conclusion is largely supported by a subsequent and more rigorous analysis of nearly a decade of Massachusetts lighting program data.[7] Nonetheless, the need to continue to increase efficient lamp saturation – both CFLs and LEDs – remains a critical goal of the Lighting program.

There is a growing consensus that the continued success of Connecticut's residential lighting efforts will be predicated on rapidly accelerating the introduction of high performing LEDs into the market. The Board recommends that the current 2013 Lighting Program savings metric be left in place. For 2014 and 2015 the Lighting Program performance metric should be split equally between savings and a market share metric. This latter metric would require a minimum percentage of all Lighting Programs products that are LEDs. For 2014 a value in the 25% range would be appropriate, over twice that currently being attained by the Companies in 2013. Through August of 2013 LEDs represented 11% of lighting products promoted through the Companies' upstream program efforts.

Note that the Board does not recommend the use of efficient lamp saturation as the basis for the Companies' Lighting Program performance metric. While socket saturation should continue to be measured, it may be sufficiently imprecise to measure relative small changes in efficient lamp saturation over short periods of time.

Customer Engagement and Behavior Programs

The Department directs the EEB to review evaluations of such programs in other states, the RFI proposals, and if necessary, review additional program designs addressing the broader design options noted above. The Department directs the EEB Residential Committee to propose a customer engagement strategy which will include recommendations on program design and delivery, including the potential integration with the Companies existing and developing customer relationship systems. (Draft Decision, pages 59 and 91)

The Board notes that there are some overlapping roles and functions regarding customer engagement vs. behavior programs. Therefore the Plan and Draft Decision should be clarified regarding the definitions, roles, and funding levels for customer engagement vs. behavioral programs. The Board suggests the following definitional distinctions based on the primary purposes of each:

[7] *Study It 'til You're Sick of It: CFL Research as an Example for Other Efficiency Markets.* Lynn Hoefgen, Lisa Wilson-Wright, Chris Russell, Matt Nelson, Wendy Todd, Ralph Prahl, and Glenn Reed. Presented at the International Energy Program Evaluation Conference. Chicago, Illinois. August 2013.

- Behavioral programs – specific programs designed to influence the energy-using behavior of customers and to achieve energy savings through the programs, such as home energy reports or in-home displays.
- Customer engagement – generally means a broader overall effort (more than a specific behavior program) to engage customers over a longer period, through multiple interactions, and often for multiple purposes (to promote energy-saving programs but also to pay a utility bill, examine energy usage, or receive other notifications from the utility), generally through a web-based platform. One focus of the Board over the last year has been on customer engagement *platforms or systems*, using web-based information technology to support multiple engagement interactions with customers, with a major focus on energy efficiency (though the customer engagement system could have other purposes, funded through other funding sources).

Based on this clarification, the Board provides the following comments and recommendations on the Draft Decision, using the budget summary table as a mechanism to implement the clarifications:

1. "Residential Behavior/Engagement" should be changed to "Residential Behavior" and should be for specific behavior programs such as home energy reports, and not for customer engagement.
2. Initially, for the final DEEP Decision, the Residential Behavior program budgets should be funded at the level of the proposed Expanded Plan, which the Board reviewed and approved, adjusted approximately using the overall adjustment factor DEEP applied to many of the program budgets (i.e., two thirds of the Expanded Plan budgets). Specifically, the Board supports the DEEP approved budgets for 2013 and 2014 ($1.0M for 2013 and $3.0M for 2014), and suggests a budget of $4.2M in 2015 (67% of the $6.27M in the Expanded Plan). The Board will review the best available information on opportunities, performance, costs, cost-effectiveness, and cost-efficiency of residential behavior programs as part of the 2014 Annual Update process, and may propose revisions to these initial budgets in the Annual Update.
3. A new budget line item for "Customer Engagement" should be added to the budget table under "Other – Education." This line item should be used to fund customer engagement systems and platforms, to support engagement with residential and business customers. Therefore the engagement system should not be budgeted solely in the Residential area.
4. As a placeholder budget for customer engagement systems, for use in the DEEP Decision, the Board suggests $750,000 annually in 2014 and 2015 (no budget in 2013). This amount is suggested as a placeholder only, and the Board will review and update the proposed budget as part of the 2014 Annual Update process by March 2014. Note that customer engagement systems are multi-year projects that require multi-year commitments, and depending on the objectives and components, some components (non-energy efficiency) could be co-funded by the Companies with other funding. The Board has been considering these issues as part of its research and review.

The Board will conduct the research and review of customer engagement opportunities and systems, continuing the work it has been doing since 2012, which is fully consistent with the direction of DEEP in the Draft Decision. The Board will propose a customer engagement strategy in the 2014 Annual Update, the timing of which will also allow the Companies to provide the additional information, including proposed budgets and scopes of work plus clarifications about components and the appropriate other-than-C&LM funding of non-energy efficiency components, sought by the Board and the Marketing Committee in recent reviews of strategies proposed by the Companies and others.

The customer engagement opportunities and systems should be researched, considered, and proposed by the EEB Marketing Committee, coordinating with the Residential and C&I Committees when necessary, and with input and information from the Companies. To date, the Marketing Committee has taken the lead in reviewing customer engagement opportunities and systems.

Marketing

DEEP… approves an increased budget for the Marketing Program, above the amount requested by the Companies. This increased budget should be used to retain world-class marketing experts to develop and execute a market segmentation and analysis strategy. (Draft Decision, page 70)

The Companies and EEB must develop marketing analyses and marketing campaigns targeted to specific residential segments that are designed to not only drive participation in HES, but also to encourage uptake of deeper measures, use of financing, and understanding of the concept and value of home performance. Therefore, the Department directs the Companies to include, in the 2014 Annual Update a plan for the implementation of a marketing campaign to increase awareness about the concept and value of home performance. (Draft Decision, page 49)

It is essential to make the presentation of multiple financing options as simple and seamless as possible for the customer, through vendor training, coordinated marketing, and simplified presentation on the EnergizeCT website. (Draft Decision, page 62)

In recognition of the important role that marketing, outreach, education, and the unifying Energize Connecticut brand play in driving customer uptake of deeper savings measures and effecting market transformation, DEEP increased the marketing budgets for the approved Plan (e.g., for 2014, from $1.05M to $3.05M combined for electric and gas). DEEP described two primary purposes for the increase in the marketing budget:

- Retaining a marketing expert to develop and execute a market segmentation and analysis strategy to inform all aspects of C&LM program implementation.
- The execution of targeted residential marketing campaigns, supported by segmentation analyses, to drive participation in HES, deeper measure uptake, and use of financing, and also to improve consumer understanding of the value and concept of home performance.

In response to DEEP's recommendations, the Board notes and recommends the following:

1. The Board clarifies that the total funding available to support C&LM marketing efforts is larger than the "Marketing" line item in the summary budget tables. The Plan includes funding for marketing for both the individual programs (see Table C budget breakouts) and for the "Marketing" line item under the "Other - Administrative & Planning" section of the budget table. When aggregated to the sector level, funding for program marketing typically comprises between 2-4% of program budgets.

While program marketing is distinct from general marketing, it nonetheless supports statewide policies and consumer awareness of energy efficiency. In developing the marketing proposal, the Board's Marketing Committee plans to consider all marketing objectives, the effective coordination of program marketing and general or awareness marketing, and the total marketing funding available in both categories, as one comprehensive and coordinated effort.

2. The Board has considered and approved targeted expansions of marketing budgets in the past. In doing so, the Board has been clear that before any significant expansion in marketing is approved, adequate C&LM program funding and program resources must be in place to serve increased customer demand. This is the primary reason that more marketing of C&LM programs and Energize Connecticut has not been implemented – because the C&LM program budgets prior to this Draft Decision have not contained adequate funding to serve the increased volume of customers who would respond to such marketing, and therefore any increased marketing efforts would have resulted in program curtailments and disappointed customers.
3. With the increased C&LM program budget levels proposed in the Draft Decision, it is reasonable to consider additional marketing activities and an increased marketing budget. While the Board accepts a marketing budget increase of up to ~$2M each year, the actual marketing expenditures could be less and should be determined by the objectives of marketing, the marketing activities employed, the effectiveness of the existing and additional efforts, and the actual costs. Marketing efforts should be effective and cost-efficient, the effectiveness of the efforts should be tracked and monitored, and the increased marketing expenditures should demonstrate value.
4. The segmentation and market analysis activities that DEEP is proposing should be coordinated and integrated with market segmentation activities that have been conducted in the recent past or that are underway currently for the C&LM programs, including but not limited to the recent segmentation analysis conducted by the companies and presented to the C&I Committee, and the residential segmentation being conducted by the Companies with review by the Residential Committee. These segmentation efforts are valuable, and duplicating efforts with additional ratepayer funding should be avoided.
5. The Board recommends that the residential marketing campaign focus on all of the topics that DEEP noted (p. 49), thereby driving participation in HES, encouraging uptake of deeper savings measures, promoting the use of financing, and increasing understanding of the concept and value of home performance, and not be focused solely on the concept and value of home performance.
6. Any marketing proposal of this scope should be clear regarding the purpose, objectives, nature, and focus of the activities that would be supported by the increased marketing budgets and how monies should be allocated to different activities to ensure effectiveness. The Board's Marketing Committee, with input from the Companies and DEEP, will address these issues in its development of the marketing proposal.

The Board accepts the assignment and the oversight responsibilities for the increased marketing efforts, as proposed by DEEP in the Draft Decision:

The Marketing Committee should ensure that the scope and terms of this marketing services contract furthers the objectives outlined in the 2013 CES and in this Decision, and is harmonized with marketing efforts undertaken by CEFIA. To maximize efficiency, the Companies should be

responsible for the day-to-day administration of the contract, with regular oversight and direction on major milestones from the Marketing Committee. (Draft Decision, page 71)

EEB Consultant Budgets and Consultant Management

The Department approves the 2013 and first quarter 2014 consultant budget that the EEB proposed, and intends to revisit the Expanded Budget levels for the EEB consultants line items for subsequent periods and evaluate the appropriate level based on the outcome of the EEB process for reviewing and supervising consultants. Therefore, DEEP requires the Companies to submit to the Commissioner, no later than in the 2014 Annual Update, an updated proposal which revises, as appropriate, the budget for the balance of 2014 and for 2015. (Draft Decision, page 83)

Currently the Board has processes and procedures for supervising consultants to ensure that work is assigned and performed in an effective and efficient manner, for developing work plans and budgets that guide and direct the work of the consultants, and for reviewing and approving consultant invoices. The Board's Consultant Committee is primarily responsible for consultant oversight and management, and the Committee directs the Managing Consultant and the EEB Executive Secretary. The Board's C&I Committee, Residential Committee, Marketing Committee, and Evaluation Committee direct the work of the respective program, marketing, financing, or evaluation consultants.

A Board committee is currently reviewing the Board processes for consultant oversight. The clarified processes and procedures for consultant oversight, development and approval of work plans, and submission, review and approval of consultant invoices will be documented through revisions to the EEB's bylaws or operating procedures, which the Board committee is reviewing and the full Board plans to review and adopt.

The Board will submit proposed work plans and budgets for EEB consultants for 2014 and 2015 as part of the 2014 Annual Update process in March 2014. The Draft Decision (page 83) should be revised to clarify that the Board, and not the Companies, will submit the updated proposal for Board consultants. The Companies do not have a role in overseeing the EEB consultants or developing the consultant work plans or budgets.

EEB Comments on the Evaluation Section of the DEEP Draft Decision

(Prepared by the EEB Evaluation Committee)[8]

Section VI (p. 75) of the DEEP Draft Decision regarding evaluation raises questions for the EEB. It appears to shift significant responsibility for planning and implementation of program evaluation from the EEB to DEEP. We urge DEEP to ensure in its final decision that the EEB retains meaningful evaluation planning and implementation responsibilities as set forth in state statute.

[8] SERA, the independent evaluation consultant, also provided comments on the evaluation section of the Draft Decision previously.

The EEB believes its current evaluation processes meet the letter and intent of state law articulated in PA 11-80 § 33 and PA 13-298 (now codified at Conn. Gen. Stat. § 16-245m(d)(4)), ensuring effective and independent evaluations. This provision contemplates high level oversight by DEEP with planning and implementation by the EEB. In accordance with the law, the EEB adopted a roadmap creating its independent evaluation processes that was approved by DEEP. As required by law, the EEB contracted with a consultant team with significant breadth and depth of expertise in evaluations. The consultants act as the independent evaluation administrator, advising the EEB regarding development of a schedule and plans for evaluations and overseeing the program evaluation, measurement and verification process on the EEB's behalf. Consistent with the law, roadmap and DEEP decisions, the consultants have begun implementation of the evaluation processes. The consultants work with the EEB's evaluation committee, which, along with the full EEB, stands ready to deal with any administrative issues or problems that may arise during the course of any evaluation, while ensuring the independence of evaluations. The EEB is prepared to meet its other responsibilities under governing law, including acceptance of required evaluation reports to the EEB and posting such reports on its website for public review.

Section VI of the Draft Decision significantly changes the roles of members of the EEB evaluation committee from members with full voting rights on important evaluation program matters to members with only advisory rights. An advisory role has no way to guarantee that an EEB evaluation committee member is able to provide input in early stages of the development of an evaluation project or evaluation plan. The language makes it possible for all evaluation activities to be performed with DEEP in consultation with EDCs. This new potential committee process could allow for decisions to be made about the evaluation plan, budgets, and project scopes without the full input and consultation from EEB evaluation committee members.

Section VI of the Draft Decision gives full authority for determining the evaluation program budget to DEEP, removing this authority from the EEB and its evaluation committee. Section VI also gives full authority for determining the number and type of evaluation studies to DEEP and removes this authority from the independent evaluation consultant and evaluation committee. It is difficult to understand how program evaluation will be independent, or perceived independent, when the number and type of studies will no longer be determined by the independent evaluation consultant, but solely by one state agency involved heavily in the program design. In addition, the evaluation consultant would no longer be directed by the chair and the EEB evaluation committee and members; the evaluation consultant would receive direction only from DEEP.

Section VI of the Draft Decision blurs the lines between program design and evaluation. The language instructs the evaluation consultant to work with DEEP to create implementation plans that would instruct companies on programmatic changes. The companies would be instructed to implement those changes by DEEP. The evaluation consultant would then evaluate their own suggested program designs during the next program evaluation, which violates some basic principles of independent evaluation.

The EEB welcomes DEEP's guidance in its decisions and on an ongoing basis regarding conducting effective and independent evaluations to ensure Connecticut remains a national leader in efficiency program development and implementation. To this end, it has developed an evaluation process that is consistent with state statute and should be protected.

Conn. Gen. Stat. § 16-245m(d)(4), including PA 13-298 technical amendments, governing CEEF evaluations:

(4) The Commissioner of Energy and Environmental Protection shall adopt an independent, comprehensive program evaluation, measurement and verification process to ensure the Energy Conservation Management Board's programs are administered appropriately and efficiently, comply with statutory requirements, programs and measures are cost effective, evaluation reports are accurate and issued in a timely manner, evaluation results are appropriately and accurately taken into account in program development and implementation, and information necessary to meet any third-party evaluation requirements is provided. An annual schedule and budget for evaluations as determined by the board shall be included in the plan filed with the commissioner pursuant to subdivision (1) of this subsection. The electric distribution and gas company representatives and the representative of a municipal electric energy cooperative may not vote on board plans, budgets, recommendations, actions or decisions regarding such process or its program evaluations and their implementation. Program and measure evaluation, measurement and verification shall be conducted on an ongoing basis, with emphasis on impact and process evaluations, programs or measures that have not been studied, and those that account for a relatively high percentage of program spending. Evaluations shall use statistically valid monitoring and data collection techniques appropriate for the programs or measures being evaluated. All evaluations shall contain a description of any problems encountered in the process of the evaluation, including, but not limited to, data collection issues, and recommendations regarding addressing those problems in future evaluations. The board shall contract with one or more consultants not affiliated with the board members to act as an evaluation administrator, advising the board regarding development of a schedule and plans for evaluations and overseeing the program evaluation, measurement and verification process on behalf of the board. Consistent with board processes and approvals and the Commissioner of Energy and Environmental Protection's decisions regarding evaluation, such evaluation administrator shall implement the evaluation process by preparing requests for proposals and selecting evaluation contractors to perform program and measure evaluations and by facilitating communications between evaluation contractors and program administrators to ensure accurate and independent evaluations. In the evaluation administrator's discretion and at his or her request, the electric distribution and gas companies shall communicate with the evaluation administrator for purposes of data collection, vendor contract administration, and providing necessary factual information during the course of evaluations. The evaluation administrator shall bring unresolved administrative issues or problems that arise during the course of an evaluation to the board for resolution, but shall have sole authority regarding substantive and implementation decisions regarding any evaluation. Board members, including electric distribution and gas company representatives, may not communicate with an evaluation contractor about an ongoing evaluation except with the express permission of the evaluation administrator, which may only be granted if the administrator believes the communication will not compromise the independence of the evaluation. The evaluation administrator shall file evaluation reports with the board and with the Commissioner of Energy and Environmental Protection in its most recent uncontested proceeding pursuant to subdivision (1) of this subsection and the board shall post a copy of each report on its Internet web site. The board and its members, including electric distribution and gas company representatives, may file written

comments regarding any evaluation with the commissioner or for posting on the board's Internet web site. Within fourteen days of the filing of any evaluation report, the commissioner, members of the board or other interested persons may request in writing, and the commissioner shall conduct, a transcribed technical meeting to review the methodology, results and recommendations of any evaluation. Participants in any such transcribed technical meeting shall include the evaluation administrator, the evaluation contractor and the Office of Consumer Counsel at its discretion. On or before November 1, 2011, and annually thereafter, the board shall report to the joint standing committee of the General Assembly having cognizance of matters relating to energy, with the results and recommendations of completed program evaluations.