STATE OF CONNECTICUT

PUBLIC UTILITIES REGULATORY AUTHORITY

RE:	PURA CONSIDERATION OF 2013-15 CONSERVATION AND LOAD MANAGEMENT PLAN	:	DOCKET NO. 13-03-02
RE:	APPLICATION OF THE CONNECTICUT LIGHT AND POWER COMPANY FOR APPROVAL OF A CONSERVATION ADJUSTMENT MECHANISM	:	DOCKET NO. 12-11-05
RE:	APPLICATION OF THE UNITED ILLUMINATING COMPANY FOR APPROVAL OF A CONSERVATION ADJUSTMENT MECHANISM		DOCKET NO. 12-08-11
			MAY 16, 2013

INITIAL BRIEF OF THE OFFICE OF CONSUMER COUNSEL

INTRODUCTION

For over fifteen years, the Energy Efficiency Board ("EEB") has overseen the distribution of energy efficiency funds and the design of the State's energy efficiency programs. The Office of Consumer Counsel ("OCC") has advocated for robust energy efficiency measures for decades, and actively participated in the EEB since its inception. The OCC continues to advocate for savings achieved through energy efficiency as one of the most effective means of

reducing energy costs and ultimately lowering consumers' energy costs. Recently, this commitment to energy-efficiency has been echoed most emphatically by Governor Dannel P. Malloy, Commissioner Dan Esty, and other members of the current administration.

Through this historical lens, it is clear that many of the issues identified in the review of the proposed 2013-2015 Electric and Natural Gas Conservation and Load Management Plan ("2013-15 Plan")[1] are a testament to the success of the EEB and prior C&LM plans. While it there may be some declining cost-effectiveness around certain traditional energy efficiency ("EE") measures, an issue which needs to be fully explored in a robust evaluation process, this should be touted as a success story. Items such as EE lighting and more efficient building codes which once had to be subsidized by ratepayers to ensure implementation are now "baked into" the lives of Connecticut's residents and have in fact been transformed into market-based measures, as was ultimately intended by the EEB. The OCC thus believes that Connecticut is at a transformational moment in its EE programs and looks forward to participating in the development of the next generation of EE programs.[2] It is in that spirit that we submit the comments contained herein.

[1] The 2013-15 Plan was submitted by The Connecticut Light and Power Company ("CL&P"), The United Illuminating Company ("UI"), Yankee Gas Services Company ("Yankee"), Connecticut Natural Gas Corporation ("CNG"), and Southern Connecticut Natural Gas Company ("SCG") (collectively, the "Companies").

[2] OCC notes that the record is not yet closed, that there are still late-filed exhibits pending, and that there was only one week between the last hearing date and the due date for briefs. For all of these reasons, OCC was not able to address all relevant issues in this brief. There are two rounds of briefing scheduled for this docket, thus, OCC reserves to right to address its remaining issues in the next round of briefing.

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Program Cost-benefit

The Utility Cost Test has long been the test relied upon by PURA and its predecessor agency in evaluating energy efficiency programs. In recent years, the Total Resource Test was added as a secondary measure of program evaluation for most programs. The Total Resource Test is the primary test only for the Home Energy Solutions–Limited Income ("HES-IE") program, because of the amount of oil subsidy that is allowed for that program on a public policy basis. OCC advocates for the continuance of the use of the Utility Cost Test as the primary test going forward in all programs except HES-IE. OCC notes that the Companies are including environmental benefits in the Utility Cost Test now, including the avoided emissions value of NOx, SOx, and carbon. Tr. at 338-39. OCC has advocated for the inclusion of such environmental benefits in the Utility Cost Test, and is pleased to see that it has been accomplished.

With respect to the particulars of the avoided costs used to calculate the benefits side of the cost-benefit ratio, there was testimony that the Demand Reduction-Induced Price Effect ("DRIPE") portion of program savings has gone up substantially recently, and now represents 25% of the total electric benefits. Tr. at 330. There was significant discussion about this during the hearing. Tr. at 313-330. DRIPE benefits are calculated as part of a regional avoided cost

study, with various consultants weighing in on how they should be calculated, and a compromise position chosen by the consultants drafting the report. Tr. at 329. Different states also have different ways of applying DRIPE benefits - - for example, Massachusetts only counts the benefits that accrue in Massachusetts, whereas Connecticut counts regional benefits. Id. OCC is uncertain why Connecticut would count regional benefits instead of state benefits in its benefit cost calculations. Due to the varying opinions among consultants regarding how to calculate DRIPE, and the significant impact it now has on our benefit calculations, OCC believes it is necessary to explore this issue further. OCC requests that a technical session be conducted in the near future to do so, since the new avoided cost study is underway currently. Id.

However, even with the claimed increase in DRIPE and the addition of environmental benefits, program cost-effectiveness estimates have generally declined since 2012. Residential cost-effectiveness declined from the 2012 expanded plan and the IRP to the 2013-15 Plan, and does not improve over the three year planning period. Tr. at 82-83. C&I and small business cost-effectiveness also declined between the 2012 plan and this plan. Tr. at 387. While this may be partly attributable to a decline in gas prices, OCC does not believe that the decline in program cost-effectiveness is fully attributable to decreases in gas prices.

For example, the Home Energy Solutions ("HES") program has shown a general decline in cost-effectiveness over the past five years, for both gas and electric programs. LFE-24. While natural gas prices have declined since 2008, there is clearly more at work than that. A comparison of LFE-24 to gas prices over the past five years demonstrates that fluctuations in cost-effectiveness of the programs do not track gas prices on a year-to-year basis, nor do they track the adoption of new avoided costs (which avoided costs include projections about gas prices) by the Companies. Since the 2011 Avoided Cost Study ("ACS") was the first to reflect

the lower gas prices, 2012 was presumably the first year these lower gas prices were included in program savings estimates. However, for the electric programs, cost-effectiveness began its decline in 2009 (LFE-24). Moreover, since that same ACS has been relied upon since 2012, the avoided costs (and thus, the price of gas) are the same in 2012 and 2013. Yet for UI, cost-effectiveness fell significantly again between 2012 and 2013. Thus, it is clear that something besides the price of natural gas is causing the program to decline in cost-effectiveness.

Since the Companies have testified that they cannot achieve the HES savings goals in the 2013-15 Plan without an outside source of funding for oil (tr. at 727-728), and no such funding source has been identified, we can expect that the cost-effectiveness of the HES program will decline further. At a projected 1.31:1 (UI) and 1.6:1 (CL&P) benefit-cost ratio for the HES program, there is not much room for further decline.

OCC is concerned about the trend of declining cost-effectiveness of the programs overall, and the residential programs in particular. There does not seem to be a consensus on how to improve cost-effectiveness of the residential programs. OCC is also concerned that rather than try to innovate to make the programs more cost-effective <u>in reality</u>, the fallback option seems to be to try to innovate to make the programs <u>appear</u> to be more cost-effective. As further set forth below, examples of this include counting oil benefits as gas benefits and advocating for baselines that do not reflect the market transformation the programs, and others like it, have achieved. This approach could lead to continuing subsidization for the sake of subsidization, rather than for the sake of achieving true, cost-effective, efficiency measures.

Residential Programs

Home Energy Solutions (HES)

From an electric perspective, the HES program has declined in cost effectiveness over the past five years. See LFE-24. This issue has been brought up by OCC in past proceedings, to which the Companies and the EEB have responded that they would make the programs more cost-effective by encouraging broader and deeper measure adoption. There is no evidence that this approach has worked to date. In fact, when asked about the diminishing cost-effectiveness of the electric portion of the HES program in this proceeding, CL&P attributed it, in part, to the fact that the program has been providing more comprehensive measures. Tr. at 683. CL&P explained that measures like insulation do not have the same high savings historically associated with lighting. Tr. at 686.

It has been clear for several years that lighting savings would not be able to support the bulk of the HES program savings indefinitely. In this proceeding, when OCC renewed its annual question regarding how the Companies are planning to make the program more cost-effective in the long run (given that cfl lighting savings will continue to diminish with the adoption of new federal standards), the Companies did not propose any innovative program offerings. Instead, they proposed changing the co-pays and subsidies for the program. Tr. at 691-694. OCC supports making the HES program a market-based program and reducing ratepayer subsidies. However, the programs have to include innovative and meaningful ways for customers to save on their electric bills in order for them to be attractive, or even beneficial, to electric ratepayers. Otherwise, we are essentially looking at fuel-based programs with ancillary electric air conditioning and water heating savings. And, since there are relatively few electrically-heated

homes, and many of those have already been reached by the program, that would leave the gas programs as the primary offering for residential customers.[3]

OCC believes that a necessary element of maintaining an electric focus within the HES program is to have in place a real plan for how the program is going to provide savings in the face of the decline, and perhaps, the eventual elimination, of cfl lighting savings. Relying on maintaining the current baseline for lighting, without planning for when the baseline changes due to the federal standard changing, is not sustainable, and does not constitute program planning. If there are no innovative new technologies that are cost-effective, and if codes and standards have increased the baseline for existing technologies, then perhaps we have achieved what we set out to do, which is to drive the available cost-effective measures into the market. In that case, we should evaluate when we can begin to ramp down contributions from the general class of ratepayers. Unless new technologies are added to the programs, the residential programs appear to be on the path to becoming, essentially, fuel efficiency programs, with some ancillary electric benefits included.

Oil Customer Subsidization by Gas Customers

During the hearing in this matter, it became clear that there is a difference of opinion between UI and CL&P regarding when it might be appropriate to classify an oil heat customer as a gas customer for purposes of participation in HES. Tr. at 457-58. While OCC agrees that people who are in the process of switching from oil or propane to natural gas should be able to participate in the program as gas customers, OCC believes that those customers must be able to

[3] However, recent benefit-cost numbers for the gas programs are also not encouraging. LFE-24.

demonstrate that they are actually in the process of switching. They should be required to give a copy of an estimate they have received from a licensed contractor, or have a date scheduled with the gas company to have their gas turned on.

OCC disagrees with CL&P's proposal to allow oil customers to participate as gas customers if they are on the main and they simply represent that they might, or will, be switching some time within the (potentially 25 year or more) service life of measures that are installed. Tr. at 761-62. Obviously, if such a policy were in place, all oil customers would be motivated to indicate that was their intent, in order to benefit from the lower co-pays and other benefits associated with being a gas customer. This would provide an avenue for widespread subsidization of oil customers' efficiency measures by gas customers. It would also provide a means for the Companies to artificially inflate the assumed benefits calculated for the gas programs. According to CL&P, "this was introduced to essentially solve the - - one of the budget issues we have right now with the oil copay funding limitations that we have on the electric side." Tr. at 763. Thus, CL&P advocates for switching the oil subsidy from electric ratepayer bills to gas ratepayer bills, with no meaningful way to ensure that the savings would actually be gas savings.

Rather than switching the oil subsidy from electric ratepayers to gas ratepayers, OCC proposes that we should continue to work with oil dealers and legislators to develop a fund paid for by oil customers to pay for their participation in the programs, on equal footing with electric and gas heat customers. Until such a fund can be established, OCC advocates providing oil heat customers with an option for funding the HES core-services or any other measures they would like to invest in through on-bill financing, or providing them with measures offered by the HES program that are cost-effective without subsidies, such as lighting and air conditioning measures.

HES Impact Evaluation

One of the most-discussed issues during the course of this docket was whether there is any reliable billing data to demonstrate that the HES program is actually achieving savings. PURA staff attempted to address this issue by issuing Order Number 2 in Docket No. 11-10-03, which required the Companies to provide billing data for a random sample of 100 program participants for one year before and after participation in the programs, weather normalized. That data was provided in EN-003 to -005 in this docket. The chart below shows the percentage of participants who used more energy after participating in the program.

Company	HES	HES-IE
SCG	52%	45%
CL&P	34%	31%
UI	59%	55%

OCC recognizes that the sample size for this data was small and that in a true impact evaluation, there would be a control group or regression analysis would be performed. See Tr. at 893. Still, the data that was provided was extremely troubling, and should raise serious red flags that warrant a full investigation into program performance. One of the Companies' responses to why the numbers reflected what they did is that some of the homes showed low or no usage before participating, so those homes may not have been occupied prior to participation. Tr. at 519-20. However, that does not account for the high percentages of participants who used more after they participated, as shown in this chart.

The EEB consultant and, at times, the Companies, cited to the prior impact evaluation of the HES program, which was provided as LFE-19 (the "2011 HES Evaluation"), for evidence that the program is achieving savings. Tr. at 521; 911; 918. The 2011 HES Evaluation was

based on 2008 data, was plagued with data collection and communications problems, took three years to complete, and the application of the results changed significantly from early drafts to later drafts. Although it was first expected that a billing analysis would be central to the study, in the end the evaluators did not recommend the application of the realization rates stemming from the billing analysis to claimed savings in the PSD. See LFE-19 at 57-59. Moreover, the 2011 HES Evaluation did not evaluate any of the program's "secondary measures" such as insulation and HVAC upgrades, as the number of participants who adopted those measures was small within the sample and the evaluation contractor was unable to recruit participants into the study. LFE-19 at 11.

The 2011 HES Evaluation was also subjected to considerable influence by the Companies throughout its course, as evidenced by the 380 emails between the Companies, the evaluation consultant and the evaluation contractors during the course of the evaluation, which emails were provided in response to an OCC data request in Docket 10-10-03. See Final Decision dated January 6, 2011, Docket No. 10-10-03, at 40-41 (attached hereto). PURA's predecessor agency, the former Department of Public Utility Control ("DPUC"), issued a Final Decision in that docket that sets forth the evidence relied upon by the DPUC to find that the evaluation process during the course of the prior HES evaluation was "neither independent nor transparent", that the Companies lobbied for substantive changes to draft reports including the HES evaluation, and that "the program evaluation process must change immediately to ensure its integrity." Id. at 40-41, attached.

In this proceeding, the Companies and the EEB consultant fluctuated between encouraging PURA to rely on the 2011 HES Evaluation and hedging on its results. Tr. at 521;

543; 551-52; 706-07; In one example of such double speak, the witness for UI did so within the same answer, as follows:

> I agree completely with what [the witness for CL&P] just said in regards to [undersigned counsel's] comments, that the companies have disavowed themselves of the impact evaluation. Nothing could be further from the truth. I think the fact of the matter is the impact evaluation that was done on the HES program was flawed, and I'll -- we filed our Late-File 19 response, a memo from [the former evaluation consultant], who was the prior evaluation consultant, from June 10, 2011. And in the results section, [the former evaluation consultant] writes that, "Both the engineering and billing analysis are flawed."

Tr. at 920-21. It is unclear why UI wouldn't want to disavow the results of an admittedly flawed study, except that the flawed study found that there were program savings.

The Board Consultant points out that the 2011 HES Evaluation was based on data from the early stages of the program (2008), which data does not reflect program activity today. Tr. 551. While the Board consultant believes the program would only be more cost-effective today because more deep measures are being adopted today (tr. at 911-912), as noted above, CL&P testified that one of the reasons for the decline in cost effectiveness of the program over the past five years is that the program is doing broader and deeper measures. Moreover, it is well established that the Companies' estimates show a decline in cost-effectiveness since 2008 (LFE-24), not an increase. Thus, the evidence does not suggest that achieving broader and deeper measures would have a positive impact on program savings.

For all of these reasons, OCC does not see how the results of the 2011 HES evaluation can be relied upon to verify program savings for purposes of the 2013-15 Plan. This leaves us with the only other data available in the record, that which was submitted in EN – 003- 005. The EEB's evaluation consultant does not believe that this data can provide meaningful guidance based on the lack of a control group and the sample size being too small. Tr. at 894-95; 920-21.

However, if that is the case, then we have no valid data with which to determine the cost-effectiveness of the HES program.

ISO-New England is relying on the Companies claimed savings from these programs for reliability purposes for regional system planning. Connecticut is doing the same when we compare energy efficiency as a resource against generation resources, through the Integrated Resource Plan ("IRP") process. The Companies also rely on claimed savings in their rate case sales forecasts. For example, UI relied on the projected savings from the Expanded Plan in its sales forecast in its pending rate case, Docket No. 13-01-09. Docket No. 13-01-09 Transcript of the May 13, 2013 hearing, at 1918-1919 (OCC requested that PURA take administrative notice of this transcript in a filing dated May 14, 2013). In so doing, UI reduced its projected sales, which, if accepted by PURA, would have the effect of increasing rates.[4] The Companies also rely upon claimed savings for collecting their performance incentives, which are also paid for by ratepayers. Thus, the Companies claimed savings from these programs are instrumental to Connecticut's energy reliability and have an impact on Connecticut's rates. Therefore, that is essential that we ensure that these claimed savings are actually occurring, and that they are durable.

For these reasons, OCC cannot advocate for an increase in spending for the HES program at this time. OCC agrees with the Companies that an impact evaluation of the HES program should be prioritized by the EEB. The EEB evaluation consultant stated that an impact evaluation would take four to six months to complete once the data is received from the Companies. OCC notes that there are several steps that need to happen before that time,

[4] Although this would be trued up later due to UI's decoupling mechanism, the same is not true for the rest of the Companies, which do not have full decoupling.

including the scoping of the evaluation and the development of the best methodology for its completion. OCC believes that the EEB evaluation committee should prioritize this process, but should also take the time necessary to ensure it is done as accurately and thoroughly as possible. According to the EEB's evaluation consultant, such a study could be completed by the first quarter of 2014, if data is provided by the Companies in a timely manner. Tr. at 868. As a member of the evaluation committee, OCC will be an active participant in that process.

The primary methodology for the HES evaluation should be a billing analysis, as stated by the evaluation consultant during the hearings in this docket. The evaluation contractor should err on the side of a larger than necessary sample size to ensure robust results, and that the sample should be stratified so that we can evaluate not only the program as a whole, but also the savings of the program based on the type of measures participants have installed. These include, but are not limited to electric measures such as lighting and air conditioning, and fuel-based measures such as air sealing, duct sealing, insulation, HVAC upgrades, and windows (to the extent windows have been provided as a measure). For program planning purposes, it is extremely important to evaluate the program on a measure-specific basis, so that we will have an understanding of which measures are achieving the most savings and whether any measures are not achieving savings and should therefore be eliminated to improve the cost-effectiveness of the overall program.

OCC suggests that HES continue at the base funding level until such time as the impact evaluation is completed, and that the issue of expanded funding of HES be reconsidered at that time. Any changes should then be made to the HES program based on the results of the evaluation. OCC looks forward to working with PURA, DEEP, and the members of the EEB in

developing ways to make the HES program more cost-effective after the results of the impact evaluation are released.

Residential New Construction

It would be generous to refer to the gas portion of the Residential New Construction program as marginally cost-effective. On a combined basis for the gas companies, the projected benefit cost ratio under the utility cost test is 1.06:1. 2013-15 Plan at 98r. The total resource test does not help the programs, as it currently not cost-effective under that test, with a ratio of .66:1. Id. Once again, the Companies do not have a plan in place to increase the gas benefits of this program. Rather, the Companies would like to do a study to establish that the baseline is actually lower than the building code, which would allow them to claim the difference in the program savings. Tr. at 731-33. OCC objects to this approach by the Companies and believes that using the building code as a baseline is entirely reasonable. If this program cannot be made more cost-effective because the building code has already caught up with currently available, cost-effective efficiency technology, then we should consider the program market-based and discontinue ratepayer funding for it.

Residential Behavior Program

At 13.4 cents per kWh, the proposed Residential Behavior Program is more expensive than any other program, including the limited income program. Tr. at 357-58. Given that this is the newest offering for residential programs, this is not encouraging for the future of residential program cost-effectiveness. According to the Board consultant, the numbers in the 2013-15 Plan are based on the early phase pilot programs run by the Companies. Tr. at 358. The Board issued a Request for Information to aid in planning a program that improves upon the pilot

program, and "that discussion informed the Board's desire to continue moving forward with residential behavior." Tr. at 359. At this time, however, it is not at all clear what the elements of this proposed program would be. The Board expects the cost-effectiveness of this as-yet unplanned program to improve, but they do not yet have "adequate information to budget for that, in particular, the savings and the cost side." Id.; tr. at 361.

The Companies and the Board should be expected to meet a higher threshold of proof regarding the cost-effectiveness and specifics of a program before $4-6M/year should be approved. CL&P has testified that one of the reasons for its proposed ramp up of this yet-to-be-determined, untested behavioral program is to reach an IRP goal of 2.1% average program savings over the three years of the Plan. Tr. at 754-55. OCC submits that since this program has not been planned with any level of specificity, and results have not been evaluated, we should not be relying on a significant budget increase for it to reach IRP goals.

The current behavioral program is still in the pilot phase, with year-two results yet to be evaluated. That program is primarily a mail-based program. The evaluation of the pilot program found that less than 2% of participants engaged in the web application that was offered. The Board consultant has indicated that one way the Board hopes to get costs down is to shift the program to a primarily web-based application. Tr. at 360-61. According to the Board consultant, this would change the program by allowing it to be more targeted to the customer. Id.

If the Board wants to implement a completely different program than the pilot being evaluated, OCC has two suggestions. First, such a program should be rolled out on a smaller scale and evaluated for cost-effectiveness before being implemented with the larger population.

Second, unless the EEB Evaluation Committee can provide significant justification for how ratepayers will benefit from the continuation of the evaluation of year two of a pilot program that is not going to be adopted, that ongoing evaluation should be halted, since the results will presumably not be applicable to a new, proposed program. We should not be spending evaluation dollars on evaluations that have become moot due to significant program changes.

In sum, OCC supports cost-effective residential energy efficiency. OCC is concerned about the decline in cost-effectiveness of the residential programs, and believes that we need to develop a plan to address this decline. In order to develop truly cost-effective programs that customers will value and want to participate in, we need to evaluate the programs to find out what is working well, and what is not. When we have that data, we can make effective improvements to the programs and discuss increases to the budgets.

Performance Incentives

Performance incentives can be useful in creating clear utility financial interest in the success of energy efficiency programs. Testimony of Richard F. Spellman, filed by OCC on April 15, 2013 ("Spellman PFT"), at 4. As described in the Spellman PFT, there are several basic principles that may assist regulators in establishing performance incentives for utilities offering energy efficiency and demand response programs. These principles include:

- Rewarding utilities when energy efficiency and demand response targets are exceeded;
- Penalizing utilities when performance falls short of targets;
- Incenting utilities to achieve superior performance with respect to meeting established targets;
- Striking an appropriate balance of risk/reward between utilities/customers;
- Promoting stabilization of customer rates and bills; and
- Maintaining administrative simplicity and managing regulatory costs

Spellman PFT at 5-6. OCC has developed a variety of recommendations, set forth at the end of this section, that conform with these principles.

Connecticut has had some type of utility performance incentives for energy efficiency since 1988. The exact mechanism has changed over time, but Connecticut has been a leader among states in recognizing the benefit of performance incentives for administrators of energy efficiency programs. The former Connecticut Department of Utility Control ("DPUC"), PURA's predecessor agency, has fine-tuned performance incentives over time, in order to encourage specific behaviors.

There are three major types of performance incentive mechanisms in place in various states, including:

- Performance target incentives as a share of program costs;
- Shared savings incentives; and
- Rate of return incentives.

Spellman PFT at 8-9. Connecticut's current and proposed incentive mechanism is performance target incentives as a share of program costs, as this approach is authorized by Conn. Gen. Stat. § 16a-49.[5] Performance target incentives as a share of program costs allow utilities to benefit if they achieve some minimum fraction of the proposed savings target, and incentives are typically capped at some level above projected savings. In this mechanism, utilities generally earn a percentage of program costs or budgets. Spellman PFT at 8.

[5] Another type of incentive authorized by Conn. Gen. Stat. § 16a-49 is a rate of return incentive, which allows utilities to earn a rate of return on investment that is similar to the return on supply-side investments. However, rate of return issues are ideally dealt with during utility rate cases, and addressing performance incentive issues in a rate case would further complicate (and perhaps lengthen) the process of determining and paying the incentive to a utility. Moreover, § 16a-49 limits the application of this type of incentive to expenditures that are included in a company's rate base, which does not apply to the proposed 2013-15 Plan. In any case, rate of return incentives appear to be declining in popularity as only two states currently utilize enhanced rate of return as an incentive mechanism. Spellman PFT at 9, and at FN2.

To implement this approach, during annual hearings, Connecticut regulators review the past year's results relative to the established goals and determine a performance incentive for the distribution utilities for achieving or exceeding the goals. The incentive, referred to as a "management fee," can be from 1-8% of the program costs before taxes. The threshold for earning the minimum incentive (1%) is 70% of the goal. At 100% of the goal, the incentive is 5% of program annual costs. At 130% of goal, the incentive is 8% of program costs. Anticipated incentives are built into the annual budgets. The expenditures used to calculate the incentive may include administrative and overhead costs, but not EEB costs and incentive costs.

The 2011 ACEEE Study on performance incentives provides a list of lessons learned from various successful shareholder incentive policies. LFE-26. One such lesson learned is that efficiency savings goals should be designed to galvanize the utilities to exceed the goals. Goals and incentive caps that are easily obtained can "invalidate the rationale for an incentive." Spellman PFT at 14; LFE-26. To address this concern, most states have implemented a minimum threshold of savings required in order to trigger an incentive. The study found that among states that have established a threshold, the average is 81% to trigger an incentive payment.

On October 6, 2009, the Regulatory Assistance Project conducted a workshop titled, "Energy Efficiency Incentives for Utilities: A Review of Approaches So Far", which was presented at an Idaho Office of Energy Resources Workshop. LFE-26. The speakers explained that performance based shareholder incentive mechanisms can control costs while promoting energy efficiency spending, but also found that a management fee approach, such as that used in Connecticut, could encourage a utility to spend more to make more. The speakers noted that this type of perverse incentive can be addressed, "by basing incentive rates on carefully vetted and

approved budgets, not expenditures, by adopting aggressive goals and clear performance metrics, and through good oversight." LFE-26 at 12.

Performance Incentive Metrics

Incentives are typically based on one of three metrics: savings, value, and performance. A savings metric establishes incentives based on specific savings targets. A value metric establishes incentives based on a pre-specified cost-effectiveness target. Finally, a performance metric rewards specific initiatives and goals that require more focus or that do not fit in well with the savings or value. Spellman PFT at 16. The 2013-15 Plan proposes some targeted performance metrics that would encourage deeper savings in the Home Energy Solutions program and more comprehensive projects in the C&I sector. The 2013-2015 Plan is also proposing a penalty metric if a sufficient level of spending is not achieved in the low income sector.[6] The Spellman PFT (at 16-17) provides examples of performance metrics in other states that provide targeted incentives for specific program achievements.

Several states, including Connecticut, provide incremental incentives well above the targeted level of savings. Spellman PFT at 17-18. In Connecticut, the utilities earn 5% at 100% of savings goals, and 8% at 130% of savings goals. However, the savings goals in the Plan do not reflect what is set forth in the IRP. OCC recommends that the IRP goals should be reflected in the performance incentive goals, as further set forth in the recommendations below.

Historically, Connecticut's energy efficiency performance mechanism has helped Connecticut electric utilities achieve high levels of kWh savings (savings as a percent of annual kWh sales) at a relatively low levelized cost per lifetime kWh saved. Connecticut utilities have a long track record of implementing cost-effective energy efficiency programs. Spellman PFT at

[6] As currently proposed, this is included only in the proposed base budget scenario. The penalty performance metric does not appear to be included if the increased savings budgets are adopted.

20. Connecticut's performance incentive is also well constructed. The mechanism includes savings, value, and targeted performance metrics that ensure utilities achieve significant cost-effective savings within approved budgets. Id. at 20. The length of time it has been in place and the updates made to the mechanism over the years demonstrate that it has remained a focus of Connecticut regulators.

Although the performance incentive mechanism in place in Connecticut demonstrates many best practices, it can be improved. Recent studies of performance incentive mechanisms provide useful information relating to lessons learned and key principles that should be considered. Spellman PFT at 20.

The Office of Consumer Counsel has several recommendations for improving Connecticut's performance incentives. First, we recommend that the threshold for the establishment of a minimum performance level with respect to performance goals in order for utilities to earn an incentive be no less than 80%, rather than the current 70%. The average minimum threshold for earning an incentive among states utilizing a threshold is 81%. Spellman PFT at 21. Raising the minimum threshold for earning an incentive from 70% to 80% in Connecticut is an appropriate modification to the existing mechanism in order to more closely align the Connecticut management fee mechanism with the principle that performance incentive mechanisms should award utilities for superior performance. Spellman PFT at 21.

Second, the OCC further recommends that PURA should consider adopting a penalty for poor performance. A performance incentive mechanism without a penalty sends mixed signals to the utilities regarding the importance of the mechanism. Spellman PFT at 22; LFE-26. The OCC recommends that the penalty be structured so that no financial punishment occurs if a utility achieves greater than or equal to 50% or less than 80% of the target. In addition, if the

utility achieves less than 50% of the target, OCC recommends that a prudence review should be triggered, during which a penalty of up to 5% of program spending could be assessed if the utility is determined to have been imprudent. Financial penalties for underperformance have been adopted in many states, including California, Pennsylvania, Washington, Indiana, and Illinois. Spellman PFT at 22. While Conn. Gen. Stat. § 16a-49 provides for incentives for "prudently incurred conservation and load management expenditures", nothing in the statute prevents PURA from imposing a penalty on imprudently incurred expenditures.

Third, OCC recommends that the majority of the performance incentive continue to be determined annually so that utilities will routinely recognize the importance of energy efficiency resources, and receive positive feedback for exemplary performance without a long time lag. Otherwise, utility interest might wane over fear that actual rewards will not materialize. Spellman PFT at 22. However, some multi-year incentives could help to ensure that long-term savings goals are prioritized over short-term offerings.

Fourth, the proposals from CL&P and UI do not provide for what would happen to the performance incentive mechanisms if the companies take advantage of the flexibility of the three-year budget for programs in the C&LM Plan. For example, if the companies increase their spending (as compared to budget) in Year 1 but decrease spending (as compared to budget) in Year 2, this could have unanticipated impacts on the performance incentive calculation. A method for dealing with this issue should be determined in advance, not when the companies come forward to collect their performance incentives.

Fifth, performance incentives should be structured to encourage utilities to not only meet, but exceed, their program goals. Again, this echoes the principle that performance incentives should award utilities for superior performance. However, superior performance should also not

be an easy level to achieve, and regulators should ensure that "stretch" goal targets are sufficiently structured to encourage deeper and broader savings.

OCC believes that the Integrated Resource Plan (IRP) should provide the "stretch" goals for the Companies. The IRP includes a recommendation regarding whether Connecticut electric utilities should spend more to achieve more energy efficiency (over the 3 mill per kWh rate in the non-bypassable charge for energy efficiency), based on resource needs. This recommendation in the IRP is supposed to be based on a thorough analysis of supply-side and demand-side needs and what is cost-effective, reliable and achievable. That analysis includes assumptions about the cost of demand-side measures, which assumptions are used to justify additional spending for demand-side measures. The EDCs are supposed to implement the demand-side measures specified in the IRP through the C&LM Plan, as approved by PURA. Conn. Gen. Stat. § 16a-3b. The proposed spending amounts to achieve the savings target are considerably higher in the C&LM Plan than in the latest approved IRP. Over the period 2013 to 2015, the proposed C&LM expenditures for CL&P and UI combined are $705 million in the Expanded Savings scenario or 14% higher than expenditures in the approved 2012 IRP's Expanded EE Budget. In the IRP's Expanded EE Budget, the utility cost per lifetime kWh saved is calculated to be approximately $0.034. According to the proposed 2013-2015 Expanded Savings C&LM Plan, the combined electric utility cost per lifetime kWh saved from 2013-2015 is between $.042-$.045.[7] Since the IRP is the planning document which provides a justification for further spending on energy efficiency, C&LM Plan spending, savings, and thus the performance incentive goals should be consistent with the IRP.

[7] Utility cost is based on 2013-2015 projected budgets exclusive of EEB costs, management incentives, and audit costs.

The table below demonstrates how the C&LM Plan savings would need to be adjusted, given existing Base Plan and Expanded Plan budgets, to align the C&LM Plan scenarios with the IRP in terms of cost per lifetime gigawatt-hour (GWh) saved. The table also demonstrates how the C&LM Plan budgets would need to be adjusted in order to achieve existing Base Plan and Expanded Plan savings targets, to align the C&LM Plan scenarios with the IRP in terms of cost per lifetime-GWh saved. The first section of the table calculates the cost per lifetime GWh saved for the various scenarios in the IRP and the revised Base Plan and Expanded Plan scenarios in the 2013-2015 C&LM Plan. The IRP – Base Case is less costly than the C&LM Plan – Base Plan. The IRP – Expanded EE is less costly than the C&LM Plan – Expanded Plan.

The second section of the table shows two things. First, the section shows the savings that the C&LM Plan (Base Plan and Expanded Plan) would need to achieve, given the budgets provided in the revised Base Plan and Expanded Plan tables, in order to align the cost per lifetime GWh saved of the C&LM Plan scenarios with the parallel IRP scenarios (Base Case and Expanded EE). Second, the section shows a corresponding percentage increase in the savings of the Base and Expanded Plan scenarios of the C&LM Plan in order to achieve these increased savings. The percentage increase in savings ranges from 5% to 13% for the Base Plan, and from 24% to 26% for the Expanded Plan.

The third section of the table again shows two things. First, the section shows the necessary budget of the C&LM Plan (Base Plan and Expanded Plan) in order to achieve the given savings targets provided in the revised Base Plan and Expanded Plan tables at the cost per lifetime GWh saved set forth in the parallel IRP scenarios (Base Case and Expanded EE). Second, the section shows a corresponding percentage decrease in the costs of the Base and Expanded Plan scenarios of the C&LM Plan in order to achieve these increased. The percentage

increase in savings ranges from 5% to 13% for the Base Plan, and from 24% to 26% for the Expanded Plan.

Cost per lifetime GWh saved across various IRP/C&LM Plan scenarios	**2013**	**2014**	**2015**
	$ (mill.)/LT-GWh		
IRP - Base Case	0.0442	0.0454	0.0465
IRP - Expanded EE	0.0343	0.0343	0.0343
C&LM Plan - Base Plan	0.0499	0.0490	0.0488
C&LM Plan - Expanded Plan	0.0451	0.0425	0.0432
Changes to C&LM Plan to align savings with cost per lifetime GWh saved stipulated in IRP, <u>given existing budgets</u> in revised Base and Expanded Plans	**2013**	**2014**	**2015**
C&LM Base Plan LT-GWh Savings at IRP - Base Case $ (mill.)/LT-GWh	2168	2127	2090
% Increase in C&LM Base Plan <u>LT-GWh savings</u> to align with IRP Base Case	13%	8%	5%
C&LM Expanded Plan LT-GWh Savings at IRP Expanded EE $ (mill.)/LT-GWh	5407	6816	8361
% Increase in C&LM Expanded Plan <u>LT-GWh savings</u> to align with IRP Expanded EE	32%	24%	26%
Changes to C&LM Plan to align budgets with cost per lifetime GWh saved stipulated in IRP, <u>given existing savings targets</u> in revised Base and Expanded Plans	**2013**	**2014**	**2015**
C&LM Base Plan Budget to align with IRP Base Case $ (mill.)/LT-GWh	85	90	92
% Change in C&LM Base Plan <u>Budget</u> to align with the IRP Base Case	-11%	-7%	-5%
C&LM Expanded Plan Budget to align with IRP Expanded EE $ (mill.)/LT-GWh	141	188	227
% Change in C&LM Expanded Plan <u>Budget</u> to align with IRP Base Case	-24%	-19%	-21%

While the 2012 IRP provided the justification for increased spending on energy efficiency, the Companies have put forth a three-year C&LM Plan which indicates the companies do not expect to achieve the expected outcomes of the IRP in a dollar spent per kWh saved basis. Therefore, the OCC recommends that in order for the companies to be eligible for

incremental performance incentives for achievement of savings beyond 100% of the savings targets in the Base and Expanded Plans, the companies should demonstrate the achievement of savings at a level of cost effectiveness on a utility cost per kWh saved basis commensurate with the Base Case and Expanded EE scenarios in the IRP. For example, if we assume a Base Plan budget, in order for the companies to be eligible for a 6% incentive, the companies should demonstrate savings of at least 110% of the savings targets at a level of cost-effectiveness commensurate with the Base Case scenario in the IRP. In other words, according to our analysis, the companies would need to achieve 110% of the savings targets at a utility cost of 0.0442 ($mill./LT-GWh) in order to unlock the incremental performance incentive of 6%. If the companies achieve 110% of savings, but do not demonstrate that the savings were met at a utility cost of 0.0442 ($mill./LT-GWh) in this example, the performance incentive would remain capped at 5%. We believe this modification to the performance incentive would appropriately tie the mechanism to the savings targets projected by the IRP and would still provide enough of an incentive for the utilities to work to exceed the savings targets set forth in the C&LM Plan.

Sixth, the OCC recommends increasing existing performance metrics and installing additional performance metrics to incent program goals beyond typical energy savings and cost-effectiveness. These targeted performance metrics would provide utilities incentives to achieve specific program design elements not measured through aggregate kWh and/or net benefits. For instance, Massachusetts has several performance metrics that encourage utilities to achieve participation and/or per project savings levels that are incrementally greater than past program years. Spellman PFT at 25. Similarly, Connecticut currently has several performance metrics in place that could be expanded to ensure deeper savings and broader participation is being achieved on a year-by-year basis. For example, one of the proposed performance metrics for the

Home Energy Solutions Program calls for an incentive if 10% of all participating homes in 2013 achieve greater than 25% savings per home over the 2012 baseline. OCC supports the proposed increases in such metrics in 2014 and 2015 that are already embedded in the latest C&LM Plan, but DEEP and PURA should consider whether the proposed increases for such metrics are aggressive and broad enough. The OCC suggests the following additional metrics for consideration:

- Add a metric tied to the percentage of program participants which realize actual decreases in consumption (normalized consumption), according to the results of any impact evaluations (recognizing that this metric would only be achievable for programs that are evaluated in any particular year). For example, DEEP and PURA could set a performance metric requiring that 85% of participants realize actual decreases in consumption. DEEP and PURA could assign a "weight" which they deem appropriate to this type of performance metric.

- Because the Plan indicates that utility sponsored programs will become more market-based over time, we suggest adding a requirement that the cost-effectiveness of programs which pass the electric system or gas system test with a 2.0 or less (in any of the three years of the Plan) be required to demonstrate a 10% increase in program cost-effectiveness each year of the three year Plan in order for the companies to be eligible for the full incentive. This would provide necessary motivation to the companies to work towards transitioning the costs of these marginally cost-effective programs towards the participants. We recommend this requirement apply to the HES-IE program as well.

- Consider eliminating or modifying the performance metrics tied to the installation of 2 upstream technologies for CL&P and UI in 2013 in favor of more meaningful achievements.

Furthermore, OCC contends that metrics for performance incentives must be reasonable, understandable, measurable, believable, and achievable. This and other possible modifications to proposed performance metrics should be re-assessed to ensure the goal of deeper, broader savings are being realized over the next three years.

OCC's seventh recommendation relates to procedures to incent achieving deeper savings. One of the primary objectives of the Integrated Resource Plan and the C&LM plans is to

encourage comprehensive or deep energy savings measures for homes and businesses. The Plans discuss several strategies to achieve this stated objective. One additional strategy to achieve this objective could be the establishment of a simple award structure that incents vendors (companies performing the installation of energy efficiency measures) to achieve deep savings rather than merely focusing on the "low hanging fruit" measures that yield lesser savings at lower cost over less time. This type of award structure could be designed to also unlock additional incentives for the utility. This implementation strategy could support the utilities' efforts to meet their savings targets in a cost effective manner, and should be considered.

Eighth, OCC recommends, based on Mr. Spellman's direct testimony, that deemed savings (where available) should be used in Connecticut to report claimed savings. Deemed savings assumptions need to be adjusted prospectively based on actual experience and on-going evaluation, measurement and verification of energy efficiency measures. However, if deemed savings are relied upon, it is very important that deemed values for measure assumptions and realization rates be as accurate and reliable as possible when C&LM Plans are developed. Using the latest available and most reliable measure assumptions and realization rate in C&LM Plans will help ensure that savings targets are met within the approved budget. Spellman PFT at 28.

Where deemed savings are not available for custom commercial and industrial projects, actual savings should be determined using the International Performance Measurement and Verification Protocol (IPMVP). Finally, the Program Savings Document should continue to be updated routinely. The same program savings document should be used when establishing the savings target and when calculating the performance incentive. Applying the realization rates retrospectively would be unfair because utilities lack certain control over installation and usage rates. Spellman PFT at 28.

Ninth, the OCC recommends that claimed kWh and kW savings should be reported on the same basis as the targets for kWh and kW savings. If targets are based on gross savings, savings should be reported based on gross savings. If targets are based on net savings, savings should be reported based on net savings. This formula serves to eliminate confusion between program plans, reported savings, and performance incentive metrics.

Lastly, the OCC recommends that the electric distribution companies should only be incented for electric savings, and the gas distribution companies should only be incented for gas savings, so that there is no double-recovery by utilities. Moreover, although both electric and gas companies propose to receive an incentive based on specific savings and value metrics, only the electric companies have individual program performance metric targets and incentives in order to collect the maximum allowed incentive. The OCC recommends that performance metrics targets also be included in the gas company performance incentive matrix to encourage targeted goals be achieved for gas customers as well. The suggestions OCC offered as part of its seventh recommendation are intended to apply to both the electric and gas companies. These suggestions and some of the existing performance metrics included in the Plan could serve as a starting point for the gas companies in terms of developing appropriate performance metrics for the gas companies. This might also ensure that both electric and gas companies receive proper credit and reward for savings that are achieved through various programs that result in multiple fuel savings.

EEB Process Issues

Based on the hearings in this docket, OCC believes that there are some process issues that should be addressed by the EEB. First, the EEB should be informed in advance when a member is going to appear on its behalf in a public hearing, and should have an opportunity to review and

vote on any documents submitted on its behalf in that hearing that have not already been voted on by the Board. Tr. at 435-46. Second, it is clear that the EEB needs to develop a process for supervising its consultants. The Board's consultant costs have increased dramatically in recent years. See LFE-3. OCC believes that this may be partly attributable to a need for additional supervision and more formal, regular oversight by the Board over the work being performed by the consultants. More specifically, after the development of the annual consultant work plan, there is no system in place for Board members to supervise the work being performed by consultants on a day-to-day basis. Tr. at 441-446. The consultant subcommittee has not elected a chair or vice chair, and there is no delegation of duties among the members of that subcommittee. Id.

OCC believes that it is necessary for the EEB to develop a process whereby the consultant subcommittee is closely and formally supervising all Board consultants (with the exception of the Evaluation Consultant, who is supervised by the Evaluation Committee pursuant to a separate process) to ensure that work is assigned and performed in an efficient manner, and that consultants are not engaging in work to which they have not been specifically assigned, such as attending or phoning in to meetings at which their presence is not necessary. EEB bylaws should also be revised to require that consultant bills be reviewed and approved by the consultant subcommittee before they are paid by the utilities.

Small Business and C&I Programs

The Small Business Program and the C&I Program have been more cost-effective, historically, and continue to be more cost-effective in the 2013-15 Plan. OCC has focused its efforts in this portion of the docket on review of the residential programs, given problems with

cost-effectiveness therein. Since these programs have not been the focus of OCC's efforts in this, attenuated, portion of this docket, OCC will address the proposed increases to these programs in the next round of briefing.

CAM and Lost Revenue Proposals

OCC also reserves the right to brief the issue of the Companies' CAM and lost revenue proposals for the second round of briefing.

Conclusion

In sum, OCC recommends the following:

- A technical meeting should be held to evaluate how DRIPE benefits are being calculated and applied to Connecticut's programs, given that a new avoided cost study is currently underway;

- PURA and DEEP should reject CL&P's proposal to allow oil customers to participate as gas customers if they are on the main and they merely represent that they might, or will, be switching some time within the service life of measures that are installed, as this would create a potentially large subsidy of oil heat customers by gas customers, and would artificially inflate the Companies' claimed savings from the gas program;

- The issue of increased spending on the HES program, and any program changes, should be considered after the impact evaluation has been completed;

- The EEB evaluation committee should determine when it would be best to do an evaluation regarding the baseline for cfl lighting measures, given ongoing changes to federal standards.

- When baselines increase because of changes to codes and standards, we should consider that a program success and plan when to ramp down ratepayer subsidies for those measures;

- The Residential Behavior Program should be conducted as another pilot program, given that significant changes are being made since the previous pilot program; and

- The Companies performance incentives should be adjusted in accordance with OCC's specific recommendations herein.

OCC looks forward to working both within the EEB process and through the PURA and DEEP processes to increase the benefits of energy efficiency to Connecticut's ratepayers.

Respectfully submitted,

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By: _____
Victoria P. Hackett
Staff Attorney

I hereby certify that a copy of the foregoing has been mailed, electronically filed, and/or hand-delivered to all known parties and intervenors of record, this 16th day of May, 2013.

_____
Victoria P. Hackett
Commissioner of the Superior Court