**Discussion Plan – Meeting of 12/6/2019**

**Desired outcome of the meeting**:  agreement between EA Team and Utilities on treatment of how HES evaluation results are integrated into the PSD & Plan.

**Agenda**:

* Review whether Utilities have sent marked-up / edited version of the attachment, and walk through of those changes, in order. (or walk through EA Team entries)
* Discussion of the items
* Fill in right hand column with agreed entries, if possible.

**Follow-up**:

* If agreed, present to Evaluation committee Monday.
* If not, schedule another call, preferably before end of year.

**Attendees:**

* EA Team: Skumatz, Prahl, Wirtshafter
* Utilities: Ingram, Oswald, Riddle, Bevins
* Other: Reed, Technical Consultant Lead

**Discussion Table: Utility Treatment of Evaluation Results in the PSD and C&LM Planning (after 12/6/19 meeting)**

| Topic | A. Study / EA Team Adjusted Gross Value | B. Utility Gross Value (2015-16) | C.EA Team Revised | D. Discussion | E. Utility Revised Proposal | F. Resolution |
| --- | --- | --- | --- | --- | --- | --- |
| 1.Lighting HES | 418 kWh savings;  Implied RR=47% | 891 kWh [[1]](#footnote-1) | 418 kWh savings; Calculated RR consistent with savings assumption. | 2020 Plan adopts these values.. | As filed in our 2020 PSD, we agreed to West Hill’s original results of 47%. | Resolved: Utilities agreed to adopt 47% in the 2020 Plan. Agree with plan to use 2019 actual savings throughout to reduce estimation. |
| 2. Lighting HES-IE | 262 kWh Savings;  Implied RR=28% | 927 kWh1 | 262 kWh Savings. Calculated RR consistent with savings assumption. | 2020 Plan suggests 747 gross kWh savings /home in 2019 YTD. Suggest lower delta watts and lower hours of use for number closer to 262 kWh. RR calculation depends on 2020 savings assumed by Utilities. (Utilities please provide) | Utilities conducting work to identify specific values, to be based on 2019 gross savings.  2019 gross savings per home were XXX  To get 262 kWh, implies a RR of XXX. | Appears to be resolution in principle / approach. Utilities will review whether numbers between utilities differ; if not, statewide approach may be OK; otherwise should do utility-specific |
| 3. Duct Sealing | Only combination measure value available | RR=92.5% | Agree with Utility Treatment | Agree |  | Resolved / agreed |
| 4. DHP | Adjust savings algorithm per 2016 Cadmus | Adjust savings algorithm per 2016 Cadmus | Agree with Utility Treatment | Agree |  | Resolved / Agreed |
| 5. Delivered Fuels | No separate analysis included, Natural gas findings should be applied. | Revert back to old RRs for delivered fuels. Recommend separate delivered fuels study. | Use same savings values as found for natural gas; this is best practice in other states. | Higher RR than defensible. Recommendation for delivered fuels study infeasible / not recommended / not standard practice. | Utilities maintain their position as filed. Given the already substantial uncertainties regarding the electric and gas results, we are not comfortable adding another layer of uncertainty in applying these results to fuels that were not included West Hill’s analysis. Further, we believe such analysis could be conducted going forward. As West Hill’s proposal for R1603 states, they conducted “both natural gas and delivered fuels billing analysis for NYSERDA’s HPwES program. The realization rates were 48 percent for natural gas and 60 percent for delivered fuels, which suggests that conducting a delivered fuels billing analysis may be a reasonable use of evaluation funds.” The proposal also states: “we have completed delivered fuels billing analyses for both NYSERDA’s and EVT’s HPwES Programs…and are conducting one in Maine.” | EA Team may review calculation to determine importance. 2019 actuals needed from utilities to support this review. |
| 6. Gas Savings Insulation – HES - Eversource | 15.4 MCF; results in 124% RR based on Utility reported savings of 12.4 MCF | RR of 106.5% derived using weighted RRs of each utility. This results in savings estimate of 13.2 MCF based on 2015-16 reported savings[[2]](#footnote-2) | 17.4 MCF[[3]](#footnote-3) (midpoint); implies RR=140% for 12.4 MCF reported savings. Recompute with 2020 savings assumption. Maintain utility-specific values. | Recommend 17.4 MCF savings (midpoint) to reflect positive program changes in programs. Compute RR based on 2020 assumptions. (Utilities please provide) | Utilities conducting work to identify specific values, to be based on 2019 gross savings.  2019 gross savings per home were XXX  To get 17.4 MCF, implies a RR of XXX | EA Team provided some concession in values and suggested the computations be based on evaluated savings, avoiding focus on RRs. Eversource agrees in principle; UI may agree but wants to review effect on C/E (reviewing asap). EA Team needs consistent treatment across both utilities for agreement. |
| 7. Gas Savings Insulation – HES -UI | 15.4 MCF; results in 95% RR based on Utility reported savings of 16.1 MCF | RR of 106.5% derived using weighted RRs of each utility. This results in savings estimate of 17.1 MCF based on 2015-16 reported savings2 | 17.4 MCF (midpoint); implies RR=108% for 16.1 MCF reported savings. Recompute with 2020 savings assumption. Maintain utility-specific values. | Recommend 17.4 MCF savings (midpoint) to reflect positive program changes in programs. Compute RR based on 2020 assumptions. (Utilities please provide) |  | Ditto |
| 8. Gas Savings Insulation – HES-IE- Eversource | 15.8 MCF; results in 53% RR based on Utility reported savings of 29.6 MCF | RR of 106.5% derived using weighted RRs of HES RR (not HES-IE) of each utility. This results in savings estimate of 31.5 MCF based on 2015-16 reported savings2 | 17.4 MCF; (midpoint) implies RR=59% for 29.6 MCF reported savings assumption. Recompute with 2020 savings. Maintain utility-specific values. | Recommend 17.4 MCF savings (midpoint) to reflect positive program changes in programs. Compute RR based on 2020 assumptions. (Utilities please provide) | As above.  2019 gross savings per home were XXX  To get 17.4 MCF, implies a RR of XXX. | Ditto |
| 9. Gas Savings Insulation – HES -IE- UI | 15.8 MCF; results in 32% RR based on Utility reported savings of 49.6 MCF | RR of 106.5% derived using weighted RRs of HES RR (not HES-IE) of each utility. This results in savings estimate of 52.8 MCF based on 2015-16 reported savings2 | 17.4 MCF (midpoint); implies RR=36% for 48.6 MCF reported savings. Recompute with 2020 savings assumption. Maintain utility-specific values. | Recommend 17.4 MCF savings (midpoint) to reflect positive program changes in programs. Compute RR based on 2020 assumptions. (Utilities please provide) |  | Ditto |

1. Utilities increased Delta watts from 35 kWh per lamp in 2011 PSD, to 54 kWh per lamp for 2015-16. Increase is not defensible. Utilities calculate savings using 55 kWh x 2.7 hours per day. EA team argues 1) Delta watts too high (EISA and baseline), and 2) more defensible hours of use per day from studies is less than 2.3 hours/day and potentially closer to 1 hour/day. [↑](#footnote-ref-1)
2. The Companies were asked their reason for using a weighted statewide RR. Their reasoning was that having different offerings or different incentive levels between service territories in CT creates issues for vendors and confusion for customers. They therefore generally try to have statewide RRs so that they can offer the same incentive. This approach relies on problematic mathematics and produces divergent savings estimates. Also, it is not necessary to have a statewide RR in order to have statewide incentives and offerings. We note that no other state that we work in has adopted this practice. In those states, incentives are set statewide, and the reported RRs differ by utility when evidence of differences are detected. RRs may differ because of the underlying differences in weather or housing conditions or because one utility performs differently than another. [↑](#footnote-ref-2)
3. As the Plan notes, program changes have significantly reduced the over-estimation of savings that the billing analysis found.  We can see the possibility that these changes may also improve the performance within each home and result in some additional savings. For that reason, we are suggesting that the 15.4 MCF found for HES and 15.8 MCF found for HES-IE be raised to 17.4 MCF. The 17.4 value is the midpoint between the 15.8 value found for HES-IE and the 18.9 MCF Eversource reported as their 2019 projected gross HES-IE savings. We recommend setting HES values at this same amount. We also note that no significant differences were found between utility evaluated savings, so savings amounts apply to each utility. [↑](#footnote-ref-3)