EEB Evaluation Committee Monthly Meeting

Monday September 10, 2018 – 10:00-11:30 (probably will take about 1 hour)

Department of Energy and Environmental Protection – Public Utilities Regulatory Authority,
Commissioner’s Conference Room, OCC, 10 Franklin Sq., New Britain, CT

Meeting Materials in Box folder: https://app.box.com/s/i48yum80bf4o4juexblag8wc9hqv46pw

Call-In Number: 303/900-3524; WEB Access: www.uberconference.com/skumatz
(Backup number – only if primary # doesn’t work – 720/820-1390 Code (1st caller) 8296#
www.join.me/SkumatzEconomics)

COMMITTEE MEETING MINUTES

1. ATTENDEE: O’Connor*, Duva*, Wells, Oswald, Ingram, McLean-Salls, Jacobson, Chiodo, Wirtshafter, Prahl, Skumatz

2. No Public Comment

3. Approval of Minutes from previous meetings – August to be sent for E-VOTE. Need July minutes approval from DEEP / Melley has been on vacation, DEEP will send soon.

4. Non-Project Updates and Issues
   a. Review Interim progress / highlights;
      • Interim e-votes and meetings (referred to bottom of agenda).
      • No Upcoming kickoff and data meetings of note
   b. Status of Data requests and deliverables / timelines. No data requests holding up projects currently / some data due Wed.
   c. SERA team invoices – July and August presented. 1/3 of year remaining but 40% of year remaining. Expect higher spending next few months with 3 year plan development. E-VOTE INVOCES July/Aug.

5. Project Updates and Evaluation Planning Discussion
   a. Asked about discussion from last month and discussion on 2018 invoices and carry over. Talking notes from last month were distributed. Continuing to compare dollars with utility tracking. Main point is not planning on spending more than the approved dollars, and talking notes provided earlier-than-usual review of status of amounts needed for accruals or assignment of dollars to 2018. Some expenditures will happen in 2019 and one in 2020 due to: wish to have most current participants, late starts / contracting; delay in starts that caused delay in metering to next-year-season. Two projects always expected to carry over to 2019. No questions.
   b. Memo on scope / budget for C1634 (Chiodo). ECB Impact evaluation. Additional scope request related to updated baseline because current assumptions need investigation. Three areas are: Lighting in true new construction, HVAC in true new construction, boilers in new construction and replacement. Need to reflect amount program is moving industry beyond
market. Project is small part of the NTG / Baseline study that was cancelled in SWEEP. $39K budget is covered from cancelled metering work under MF, and $5K from efficiencies from Jacobson study. Covered within approved 2018 dollars. Questions about input from codes and standards report (provides some input but not the full information needed for baseline); whether market effects are included (focusing on baseline change; industry consensus that market effects are best approached prospectively rather than retrospectively / hard after program in place many years); free rider / spillover (some MA literature indicates nonparticipants adopting comparable higher efficiency, especially LED in new construction, and codes not advancing as rapidly as markets so need to compare savings to market and not archaic baseline); whether jump beyond code due to utility programs (literature and CT market actor interviews with participants and non-participants to try to examine this); question re: PSD and whether code should be baseline (although using code is cost-effective, it is not real; C&I market rapidly transforming to LED. Using code as baseline means CT ratepayers are paying for savings that would have been achieved without program); whether study will break out lighting separately (Yes, lighting; HVAC; and gas boilers, all with evidence of baseline variations from code / research needs). Questions about budget – literature review about $8K; biggest is interviews and analysis; CT-relevant research is about $31K of the $39K. Question about what would happen if the study is not conducted. If assume code baseline, savings assumptions for this program are unrealistic and this is a big program / big issue. In MA this is having a big effect, and this is likely to have important effect, especially relative to the dollars for the study, and important to program. Can look at planned What data years being used? 2017/18 study; looking forward. Code is 2012, and prospective to 2015. Budget and deliverables. $8K Task $15K Task 2; $15K Task 3. 24 In-depth market actor interviews. Does not delay the project – expected to go into 2019 already.

Motion: recommend budget and scope change – recommend EVOTE with info on budget reminded.

c. True-up with utility dollars – tracked monthly in summary and Gantt reports. Post-sweep approved dollars used as true-up / max dollars.

6. Beginning work on 2019-21 3-year plan – scheduled Sept/Oct/Nov. Planned process includes:
   - review of needs (deleted project list, PSD gaps / old numbers, program plan, timing since last evaluations, ISO gap);
   - Solicit project ideas widely;
   - Flesh out / refine; Prioritize according to criteria;
   - Submit draft list / discussions with committee; potential on-site workshop.

Discussion/questions: Note there is no total budget available yet from the 3 year program plan, budgets will be assigned for the projects, Plan filing is due Nov 1. No information on Evaluation was requested as part of Plan development. Evaluation placeholder will be included, and can be updated.

7. Discussion of Projects / Status (and data) – see Gantt & Project summaries -20 min
   a. Walk-through of Projects / Monthly Status Report – focus on Gantt “changes” and status of new projects; update on results of call / meeting on “new” steps for projects
      - Jacobson: C1641 – BES / Prime: final report with comments conducted / being sent and posted; final presentation this Friday afternoon. C1635 – EO Impact: data request due Wednesday and late start meant some metering has to happen next summer (not all done this summer); moving into winter-dependent gas. Ingram
asked for update on data status for him / Jacobson will follow up; UI’s request will be there Wednesday. NTG project: in field in next 2-3 weeks. Surveys have been reviewed / being edited. Moving along.

• Chiodo: C1634 already discussed. Meters installed 6 sites, recruiting and scheduling. Nothing outstanding from utilities.

• Wirtshafter: R1702 is complete / report posted. R1707 NTG submitted draft report and received some comments / NMR processing into final soon. R1603 HES impact analysis is underway. 3 data requests outstanding. Several requests needed soon. Some program and billing data questions / have gone back to utilities to clarify. R1705 MF – out of field, and doing data cleaning and coordinating closely with RASS. RNC NTG question – comments received from Reed and utilities, and wondered about MF results separate from program-wide are available since PSD needs are immediate. Recommendation from EA Team that results not be disaggregated because not enough data for MF separately. Suggestion to consider providing enough information to allow for rebalancing number for changes in portfolio in future years (study has high spillover; would like some more detail, but pushing limitations of data). Would like ability to have program-wide number that works if portions of all-electric homes increases; study finds that over many sectors and fuels and year, program has more net savings than gross savings. Program needs to continue to support new measures and push the edge. Suggests revising in 2 years. UI expects comments to be provided today.

• Skumatz: Final report R1613 posted; scheduling presentation. DHP draft modeling tool provided and real impact data has been put into the model. RASS completed site visits and working on weights, with heavy coordination between RASS, SF, and MF. NEI study was started before sweep, and then told to stop with sweep at a point that allowed draft deliverable; sent out for 2-week review recently.

3 e-votes needed: minutes, invoice, C1634 budget.

8. Other items –
   a. Update on DEEP / NEEP M&V 2.0 Grant or other projects.

*** Supporting Materials in Box folder and attached before meeting, including:
   • Updated Gantt Chart & Project Status Summary & timeline report
   • E-votes / call notes (attached)
   • Interim Status update from last month
   • Minutes from previous meeting
   • SERA Invoices
### Minutes & Invoices Approvals –

<table>
<thead>
<tr>
<th>Month</th>
<th>Minutes for the month</th>
<th>SERA Invoice</th>
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<tbody>
<tr>
<td>Aug 2018</td>
<td>IN PROCESS: (Dornbos 9/6, O’Connor 9/7 AYE); Gorthala 9/7 abstain</td>
<td></td>
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<tr>
<td>June 2018</td>
<td>PASSED: (O’Connor &amp; Gorthala 7/9; Melley 7/31)</td>
<td>PASSED: (O’Connor &amp; Gorthala 7/9; Melley 7/31)</td>
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<tr>
<td>May 2018</td>
<td>PASSED: (O’Connor Abstained 6/18; Gorthala in favor 6/18; Melley in favor 6/26; Dornbos 7/6)</td>
<td>PASSED – (O’Connor 6/18; Gorthala 6/18; Melley 6/26; Dornbos 7/6)</td>
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<tr>
<td>April 2018</td>
<td>PASSED – (O’Connor 5/17, Melley 5/22, Dornbos 5/31)</td>
<td>PASSED – (O’Connor 5/17, Melley 5/22, Dornbos 5/31)</td>
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<tr>
<td>Mar 2018</td>
<td>PASSED – (O’Connor 5/17, Melley 5/22 with edit to add her attendance, Dornbos 5/31 abstain)</td>
<td>PASSED – (O’Connor, Gorthala 5/17; Melley 5/22, Dornbos 5/31)</td>
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<tr>
<td>Dec 2017</td>
<td>December minutes – PASSED – (O’Connor and Dornbos 1/9; Gorthala Abstained not present 1/9, Deep approved to approve in 1/17/18 email with question / question answered)</td>
<td>Invoice thru 12/13 - PASSED EVOTE / Distrib 12/13; In favor Dornbos, Gorthala, O’Connor 12/14. Est invoice thru EOM – PASSED EVOTE (Distrib 12/21; In favor O’Connor and Gorthala 12/21, In favor Dornbos 12/22.</td>
</tr>
<tr>
<td>Nov 2017</td>
<td>PASSED vote during meeting 12/11/17 (O’Connor / Melley / Gorthala)</td>
<td>PASSED vote during meeting 12/11/17 (O’Connor / Melley / Gorthala)</td>
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<tr>
<td>Sept 2017</td>
<td>PASSED e-vote Melley, Dornbos, O’Connor 10/13; Gorthala 10/14.</td>
<td>See above</td>
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<tr>
<td>Aug 2017</td>
<td>PASSED-e-vote O’Connor, Gorthala 9/11; Melley 9/12; Dornbos 9/19.</td>
<td>See above</td>
</tr>
<tr>
<td>July 2017</td>
<td>PASSED-e-vote O’Connor, Gorthala 9/11; Melley 9/12; Dornbos 9/19.</td>
<td>PASSED e-vote O’Connor, Melley, Gorthala 9/13; Dornbos 9/19.</td>
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<tr>
<td>June 2017</td>
<td>PASSED-e-vote O’Connor, Dornbos, Gorthala passed 7/10/17; Melley abstains (minutes too long, not always accurate)</td>
<td>PASSED-e-vote O’Connor, Dornbos, Gorthala passed 7/10/17</td>
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<tr>
<td>May 2017</td>
<td>PASSED-in meeting O’Connor, Gorthala, Melley (6/12/17)</td>
<td>PASSED-in meeting Gorthala, O’Connor, Melley (6/12/17)</td>
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<tr>
<td>April 2017</td>
<td>PASSED-Evote Oconnor, Gorthala (5/31/17); re-sent 6/9; in favor Dornbos, Melley (6/12/17)</td>
<td>PASSED-Evote Oconnor, Gorthala (5/31/17); re-sent 6/9; in favor Dornbos, Melley (6/12/17)</td>
</tr>
<tr>
<td>Mar 2017</td>
<td>PASSED-Evote O’Connor, Dornbos, Melley, Gorthala 4/13/17</td>
<td>PASSED-Evote O’Connor, Dornbos, Melley, Gorthala 4/13/17</td>
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<tr>
<td>Jan 2017</td>
<td>E-vote O’Connor 2/6, Gorthala 2/6; re-sent out for third vote 7/10/17</td>
<td>PASSED-Evote O’Connor, Melley, Gorthala (3/9/17)</td>
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### Other Votes / Meetings / Tracking –

September 2018

- 9/5 – Review Draft of R1709 NEI study circulated for comment – 2 week review period
• 9/5 – Final report for R1613/1614 HVAC posted

August 2018
• 8/9 - R1707 RNC NTG Review Draft circulated for comment – due 8/30

July 2018
• 7/18 – Technical presentation on R1702 Codes & Standards

June 2018
• 6/28;7/5 – R1702 Codes and Standards Finalized report issued
• 6/13 – data call C1634
• 6/6 – Kickoff C1644

May 2018
• Data call UI – R1603
• 5/15 – Data call, C1635
• 5/10 – R1702 Codes and Standards Draft report for committee review

April 2018
• 4/2 – Presentation C1639 SBEA
• 4/10 – Data Call C1634 Request #1
• 4/23 – HES & IE Impact Data and program discussion
• 4/25 – C1630 report posted

March 2018
• 3/20 – HES & IE Impact Kickoff
• 3/21 – Kickoff for SF and MF On-site Studies (R1616, R1705)

February 2018
• 2/6/18 – EA Team memo on viable project / oversight combinations
• 2/15 – Data Request #1 call C1635
• 2/27 – DHG Working Group meeting R1617

January 2018
• 1/25/18 – Review draft C1630 distributed
• 1/19/18 - EA Team Sent note to contractors on project status
• 1/17/18 – PASSED – Add $70K to budget for R1641 (discussion & memo in eval committee meeting). Votes via email: O’Connor 1/8/18; Dornbos 1/9/18; Melley 1/17/18; Gorthala abtain 1/9/18 (not at meeting).
• 1/9/18 – one pager for EEB Board summarizing Eval Rec’m for sweep prepared; delivered / discussed with EEB by Skumatz.
• 1/9/18 – Motion / Memo on Sweep Passed. EA Team memo on Eval Rec’m for sweep – Projects and EA team budget recommendation – BOTH PASSED by committee (O’Connor, Dornbos, Gorthala with clarifications, 1/9);
• 1/4/18 – Review draft R1613/14 distributed

December 2017
• 12/1 - HES Process and Impact Data meeting
• 12/6 – Data Call R1707
• 12/11 - Memo (during meeting) reconfirming data cost allocations to projects (for utility notice), funds to draw temporarily from evaluation, authority for contractors to spend and re-submit invoices to utilities.
• 12/11 - Call between Skumatz /Swift on Sweep calculations / clarification of carryover treatments, etc.
• 12/11 – Vote in committee to augment budget of C1641 by $70K
• 12/12 - VOTE APPROVE sweep approach - O’Connor sent EA team budget sweep revised memo from 12/11 meeting to committee; in FAVOR of general recommendations / approach: O’Connor (12/12), Dornbos (12/13), Gorthala (12/13) with conditions (O’Connor - try to work with DEEP on 1663; Dornbos – approve overall compromise effort / approach with clarifications; Gorthala – agree with Dornbos / address DEEP issues); DEEP abstains but raises issues / questions.
• 12/13 – Skumatz responded to DEEP question.
• 12/13 - EEB meeting on Sweep – Skumatz attended via phone.
• 12/13 - Skumatz attended Residential committee meeting to monitor regarding evaluation / sweep
• 12/12 - Skumatz and Chiodo(?) attended Commercial Committee meeting to monitor regarding evaluation / sweep
• 12/19 – Call with utilities to understand / discuss elements of budget sweep (Skumatz and others)
• 12/20 - R1602 RNC report presentation

November 2017
• 11/2 – Kickoff NEI project (R1709)
• 11/13-DR pilots programs info (R&C)
• 11/14 – PASSED October minutes
• 11/14 – PASSED SERA invoice Aug-Oct
• 11/28 – Impromptu data call R1707/RNCNTG

October 2017
• 10/2 - Data Processes meeting
• 10/4 – Data call – R1707 (RNCNTG)
• 10/5 – Data call – R1706, R1616, R1705 (RASS, Lighting, MF)
• 10/5 – Kickoff R1702 (codes and standards)
• 10/13 – Evotes requested on minutes (passed; see table above)
• 10/13 – PASSED - C1630 budget increase of $5K (evote #2); In favor O’Connor 10/13, Dornbos 10/13; Melley no answer in 10/13 email; Gorthala abstain 10/14; Gorthala in favor 10/30.
• 10/16 – Data meeting NEI project (R1709)
• 10/20 – UI contracts approval process update meeting
• 10/30 – R1704 HES Programs update discussion

September 2017
• 9/5 – Discussion of UDRH
• 9/5 – Data request discussion 1706/1616/1705
• 9/21 - R1615 LED NTG Project Presentation
• 9/22 - R1706 RASS Kickoff
• 9/28 - R1707 RNC NTG Kickoff
- 9/29 - R1606 Behavior Retention Project Presentation

August 2017
- 8/1 – Meeting on recommendations for PSD revisions to Residential HVAC measures – boilers, furnaces, HPWH, circulating pumps
- 8/9 – presentation to EEB on data costs issue
- 8/11- Data cost call
- 8/24-Data request meeting 1630
- 8/25-Data cost call

July 2017
- EEB full board vote on Data memo passed
- 7/31 – Meeting on recommendations for PSD revisions to Steam Trap equation
- 7/23 – Meeting on recommendations from 1602 on UDRH

June 2017
- Approved / Passed – Memo Summarizing Mini-RFP Results (in favor O’Connor, Dornbos, Gorthala, 6/5/17)
- Approved / Passed – 2 parts / both approved: Approving Memo identifying extra costs to evaluation projects because of data issues from utilities and identifying the assessment to each utility and recommending addition to each of the project budgets, with the money to be pulled out of funds that are not evaluation funds. (in favor O’Connor, Dornbos, Gorthala. 6/22/17)

May /June 2017
- None additional.

April 2017
- Interim Meeting -1617 DHP Working Group – 4/10/17

March 2017
- None additional

February 2017
- Approved/passed Evaluation Plan Update (votes in favor 2/8/17: O’Connor, Dornbos, Gorthala)

January 2017 Interim votes and interim committee meetings – not final
- Votes in favor of evaluation plan (in favor O’Connor & Gorthala 1/9/17; Dornbos 1/12 – passed). 1/24 DEEP votes against.
- December 2016 minutes passed (In favor 1/9 O’Connor, Melley, Gorthala, Dornbos).