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**EEB Evaluation Committee Monthly MINUTES**

***MONDAY February 7, 2022 – 10:00-11:30***

ALL VIRTUAL MEETING – NO MEETING ROOM (recordings posted)

Meeting Materials in Box folder: is <https://app.box.com/s/>xxx

**New Link: Join Zoom Meeting** - <https://us02web.zoom.us/j/2534751779>

Phone in: 408/638-0968, Meeting ID: 253 475 1779

Backup only -**Call-In Number: 303/900-3524; WEB Access:** [**www.uberconference.com/skumatz**](http://www.uberconference.com/skumatz)

Join link with video only. *USE PHONE (NOT COMPUTER) FOR VOICE, AND MUTE WHEN NOT SPEAKING*

*(Backup number – only if primary # doesn’t work –* [*https://zoom.us/j/2534751779*](https://zoom.us/j/2534751779)*; and use computer for voice.*

**COMMITTEE MEETING MINUTES**

1. **Call to order – Attendees: Donatelli\*, Viglione\*, McLean\*, Fay\*, Errichetti, Doucette, Oswald, Eigo, Emerick, Williams, Lawrence, Sherwood, Prahl, Skumatz, Gowans, Wirtshafter, Jacobs; Reed, Mosenthal.**
2. **Public Comment** 1 min
3. **Introduce new committee member** 5 min
   1. Kathy Fay of NHS of New Haven
4. **Minutes and invoices –` 5** min
   1. January Minutes – Passed via Evote (awaiting Viglione)
   2. EA Team January invoice – on track (8% of year elapsed, 7% spent) E**VOTE NEEDED; RESULTS WILL BE ADDED TO MINUTES WHEN EVOTE COMPLETED.**
5. **Non-Project Updates and Issues**  20 min
   1. Interim e-votes and meetings – (bottom of agenda)
   2. Covid Updates from utilities, if any - UI – requirements for testing and vax recinded.
   3. Update on data sharing authorized by EA Team to reduce data requests / leverage data - One
   4. Working with Exec Secretary on getting current on posted studies – sent finals, presentations; Sent links to recordings. Missing draft reports yet to be checked.
   5. Status of Data requests and deliverables - separate data tracking form:
      * Follow up on last meeting / issue on R1983 for UI - status. Friday meeting may help resolve / will update committee.
      * Eigo sent additional extract Fri afternoon; trying to set up another meeting between Eigo (after conferring with Mack) and Gavi.
   6. Update on data / PO incentives input process- will complete early February.
   7. Review of final reports issued in 2021 (below); Legislative Report underway (approval in February)
   8. Eval plan budget, EA Team budget and EA workplan approved in January 2022 EEB meeting.
6. **Items for Discussion – R1968 –RNC Baseline and Code Compliance**  25 min
   1. Refinement in code year for project R1968 (see memo for tradeoffs). Main Benefits / disadvantages. Discussion.
      * Request: Initial RFP / project description assumed study would review a sample of homes built under current code (2015) and upcoming 2021 IECC. RFQ was written before Covid, and the delays in code adoption (RFP assumed adoption summer 2021; now Oct 2022). Propose revision is to no longer examine homes built under both codes, due to the delay, and adjust the sample to include homes built under a single code version (2015).
      * Revision / Implications summary:
        1. Planned inspections of 45 under current and 45 next – with suggested revision to 70 SF under current plus 30 MF with building department visits and leveraging of MA work).
        2. Updates UDRH (currently 2009 version)
        3. Waiting for 2021 code would require waiting until 1 year after Oct 2022, with results not until Q3 or Q4 of 2024.
        4. Allows earlier results
        5. Codes are not very different – very similar UDRH 2016 and 2021/2) (see table –
           1. Exterior walls R-20 or R-13+5 🡺 R-20+5
           2. Ceilings R-49🡺 R-60
           3. Windows U-0.32 🡺 U-0.30
           4. Total duct leakage 8.0 CFM25/100sqft 🡺 4.0 or 8.0 if entirely within envelope
           5. Efficient lighting: 75% 🡺 100%
           6. No change floors (R-30), Air leakage (3.0 ACH50)
        6. Can examine additional topics (early / late cycle practices, or MF)
        7. Option:
           1. also can examine differences between as-built data from SF on-site inspections to documentation at building departments
           2. Examine difference between MF program energy models and documentation at building departments
           3. Would collect building department data for 20 SF and 10 MF
           4. Additional Cost: $10-20K (would move from “emerging issues” study.
        8. Does not examine 2022 /next code. Can consider adding as later project in 3 year plan if committee wants both.
      * Looking for comments / input / feedback from Committee.
        1. Feedback - Seems reasonable, glad to have mf included. High percent of savings. UI agrees. Reed agrees – worth moving forward and not wait. Mf important / needs UDRH.
        2. Raised later in meeting: **EA Team also recommends** that this Phase 2 of the project be awarded to the existing team that conducted Phase 1, for continuity, invested knowledge gained through Phase 1, and more timely delivery (New contractors not on board until late summer 2022, so there would be a hiatus). Committee agreed / no objections (4 voting members in attendance). EA will provide the needed documentation to authorize the change in the existing PO for this project (to add the budget for phase 2 of the project, project R2215, for $300K additional). Skumatz will send this for an evote with these minutes. If it passes, the minutes for this meeting (these minutes) will be revised to reflect the outcome of that evote.
7. **Status of Three-Year Research Area RFP 5-**10 min
   1. Issued 1/21/22 – sent directly to long list, and posted EEB, AESP, IEPEC, Women’s network.
   2. Info on number of Intent to bid received; Q&A responses sent 2/4 (most about format of submittal); Responses due 2/28.
      * Intent to bid received: 14 (-1 withdrew, -1 late); 6 res, 7 com’l, 7 XC/Topics
   3. Expect to score and request approval for recommended vendors in March; committee vote (likely email / extra meeting). Need to get documentation to utility contracting asap to get 2022-24 Plan projects underway.
8. **Discussion of Project Status** (*Gantt, Project Summaries Provided monthly w/spend*) 15 min
   1. *Gantt* C&I Projects (Gowans & Jacobs); Residential Projects (Wirtshafter & Skumatz)

* C1901. COMPLETE - Final report distributed for Posting 12/14.
* C1906. Process Evaluation Ongoing - Process evaluation Program staff and vendor IDIs are being administered in Q1 2022
* C2014. Phase 2 kick off held late November. Customer data requested and DNV preparing survey guides.
* C1902. Baseline surveys in field, ECB NTG participant instrument developed, wrapping up cross-cutting market actors IDIs
* C1931-1. Addressing follow up comments from utilities, and reviewing utility info provided to vendors.
* C1931-5. Addressing EA Team comments on draft report
* R1959. COMPLETE - Final report distributed for posting 11/22.
* R1965 with R2027. Results and Recs presentation on 12/10. Review draft will be submitted in Feb 2022 (holiday and COVID delays).
* R1982. Recruitment and monitoring equipment installations are feasible and underway. We have completed more than 135 installations.
* R1965 with R2027. Results and Recs presentation on 12/10. Review draft will be submitted in Feb 2022 (holiday and COVID delays).
* R1983. In discussions with utilities to get missing data; cannot complete impact or customer profiling without it (especially for UI). Preliminary findings and draft report in early Q1 2022 assuming timely delivery of outstanding data
* R2029. NMR provided revised project design to EA in Dec 2021, and are revising per final EA Team feedback. Working with Eversource on data issues (UI did not have extra data beyond R1983 request to offer).
* R2029. Complete / final. Comments from utilities addressed in Dec and report is final.
* X1939. Phase 1 report complete, Phase 2 evaluations in progress
* X2022. Presented findings, conclusions, and recommendations to utilities in mid-Dec. Full report being developed now for EA review priori to Committee's Review Draft version. Supplemental research on community partnerships effort to be completed in Q2 2022. Report soon if eval of Community program is made into a second part
* X2001. Measure Groups 1 and 2 (residential measures) are complete and analyzed. Measure Group 3 (commercial HVAC) survey is being finalized and will launch in February. Virtual site visits/callbacks for residential measures are complete.
* X1932. Presented draft results ppt to EA for discussion / drill-down in Jan 2022; working on draft report for March 2022
* X1942. Revising HES and HES IE survey and preparing to field the survey; reviewing SBEA data to develop sample
* X1931-4. Data request submitted to utilities on 1/25/2022 and data request discussions scheduled. Preparing expert interview and market actor guides.
* X1931-8. Project complete. (Phase 2 of this study cancelled due to lack of data. Remaining funds will be used for the Advanced Lighting Controls study X1931-4)
* R2015. Completed initial literature review and mid-project stakeholder briefing. Currently reaching out to programs for interviews and program-specific data, approaches, and insights.
* C2117. RCx vendors are providing detailed measure data to accurately characterize historic RCx program offerings. For ES they have provided 21/40 projects as of end of January. UI has 2 relevant projects; follow-up questions to be asked of vendors rather than additional data rquests.
* E1968. Completed project refinement with EA (with one modification to be discussed with committee); need to schedule kickoff.

1. **Status of EA Team non-project assignments for 2020/21 & Next Steps: 5 min**
   1. 2022 - underway:
      * Assessment of utility handling of 2021 data requests / POs – in progress, finishing early Feb 2022
      * DONE: Review of C&LM Plan elements related to Eval – Completed briefing – January EEB / Plan and EA budget and EA scope approved;
      * EA contract submittals complete at ES, underway at UI.
      * 2022-24 Evaluation Plan – COMPLETE / voted by committee and EEB Jan 2021
        1. Update will begin earlier in year to synch with C&LM Plan update (Aug-Oct)
      * RFPs for 2022-24 3 year subject areas –begun Nov/Dec 2021, issued 1/21/22, due 2/28; scoring / recommendation early March.
      * Legislative report – in progress; to be submitted for Evaluation Committee approval in Feb 2022
      * **PSD process 2022** (consistent with Roadmap) – EA currently responding to memo from utilities on treatment of evaluation recommendations from Reports delivered by Dec 1 2021.
        1. Utilities Submitted memo: 1/14/22 (6 weeks after 12/1)
        2. EA team response in process – due: 2/11/22 (Friday; 4 weeks after)
        3. PSD#2 - studies close May 15 per Roadmap (utility memo is due 6 weeks after, EA team 4 weeks later – those results are included in the updated TRM and feed into the Annual Update of the C&LM Plan).
2. **Other items** – None

**To do:**

\*\*\* Supporting Materials in Box folder and attached before meeting, including:

|  |  |
| --- | --- |
| * Updated Gantt Chart & Project Status Summary & data timeline report; Data status (attached) * E-votes / call notes (attached / bottom of agenda) * January minutes (attached) * January invoice (coming) | * Final 2022-24 Evaluation Plan (attached) * Final adopted 2021 Roadmap, for good measure (attached) * 2022-24 Three-Year Research Area RFP as issued (attached) * Memo on R1968 code year recommendation / tradeoffs (attached). |

***Summary of 2021-22 Votes To Date -***

|  | Minutes for the month | SERA Invoice |
| --- | --- | --- |
| Jan 2022 | *Approved: Sent for evote after Jan 2022 meeting: Sent 1/10, 2/4; Approved McLean 2/5, Donatelli 2/7; Viglione 2/7 (assume no vote Fay /not on committee at the time)* | *For Feb meeting – for EVOTE – will be updated in minutes when vote is completed* |
| Dec 2021 | *Approved: Sent for evote after Jan 2022 meeting: Sent 1/10, 2/4; Approved McLean 2/5, Donatelli 2/7; Viglione 2/7 (assume no vote Fay /not on committee at the time* | *Approved: Sent both portions for evote 12/17. Approved Donatelli, Viglione, McLean 12/17.* |
| Nov 2021 | *Approved: Sent 12/14. Approved McLean 12/16, Viglione 12/17, Donatelli, 1/10.* | *Approved: Sent 12/14. Approve Donatelli, McLean 12/16. Viglione 1/10* |
| Oct 2021 | *Approved: Sent 12/14. Approved McLean 12/16, Viglione 12/17, Donatelli 1/10.* | *Approved: Sent for evote 11/23, resent 11/30 (Approved McLean, Donatelli on 11/30, Viglione 1/10).* |
| Sept 2021 | *Approved: July/Aug/Sept sent 9/26 for evote; (Sept amended, then approved 9/27 Donatelli & McLean) Awaiting Vigliione.* | *Approved: Sent for evote 10/26. Approved McLean 10/26, Donatelli on 10/27, Viglione 1/10).* |
| Aug 2021 | *Approved: July/Aug/Sept sent 9/26 for evote; approved 9/27 Donatelli & McLean, Viglione 1/10)* | *Approved: July/Aug sent for evote 9/13. (Approved McLean 9/14. Evote resent to others 9/26; Donatelli approved 9/27, Viglione 1/10).* |
| July 2021 | *Approved: July/Aug/Sept sent 9/26 for evote approved 9/27 Donatelli & McLean, Viglione 1/10).* | *Approved: July/Aug sent for evote 9/13. (Approved McLean 9/14. Evote resent to others 9/26; Donatelli approved 9/27, Viglione 1/10).* |
| Jun 2021 | *Approved - May and June Minutes-Sent for e-vote 7/1/21, 8/9/21, 9/9 (In favor, Donatelli, 9/7, Viglione 8/9, Resent, McLean approved 9/26)* | *Approved – Combined Apr/May/June sent for evote 9/3, (in favor Donatelli and Viglione 9/4, 9/7, resent 9/9, 9/26; McLean approved 9/26)* |
| May 2021 | *Approved - Sent for e-vote 7/1/21, 8/9/21, 9/9 (In favor, Donatelli, 9/7, Viglione 8/9; Resent, McLean approved 9/26)* | *Approved – Combined Apr/May/June Sent for evote 9/3, (in favor Donatelli and Viglione 9/4, 9/7) , resent 9/9, 9/26; McLean approved 9/26)* |
| April 2021 | *Approved - Sent for evote 4/12, 4/22 (In favor, Wells, McLean, and Viglione 4/22/21)* | *Approved – Combined Apr/May/June Sent for evote 9/3, (in favor Donatelli and Viglione 9/4, 9/7) , resent 9/9, 9/26; McLean approved 9/26)* |
| Mar 2021 | *Approved , Sent for evote 3,8, 4/12, 4/22 (In favor, Wells, Viglione 4/22/21, McLean abstain)* | *Approved , Sent for evote 4/12, 4/22 (In favor, Wells, McLean, and Viglione 4/22/21)* |
| Feb 2021 | *Passed. Sent for Evote 2/8, 3/8, 4/12, 7/1 (In Favor: McLean 3/8, Viglione 3/8, Wells 7/1)* | *Approved , Sent for evote 4/12, 4/22 (In favor, Wells, McLean, and Viglione 4/22/21)* |
| Jan 2021 | *Passed. Sent for Evote 2/8, 3/8, 4/12, 7/1 (In Favor: McLean 3/8, Viglione 3/8, Wells 7/1)* | *Approved , Sent for Evote 2/8, 3/8, 4/12, 4/22 (In favor, Wells, McLean, and Viglione 4/22/21)* |

**Other Votes / Meetings / Tracking (2020-2021)**

**Feb 2022 –**

* Special data meetings R1983 / UI
* 2/4/22 - Meetings on C&I verification refinement suggestion from CIE (Jan and Feb and ongoing)
* 2/3/22 - TRM meeting on level of detail of results for R1983 realization rates

**Jan 2022 –**

* 1/10 Stakeholder briefing for Phase 2 directions for R2015 (low load residential homes).
* 1/10 **APPROVED** EVALUATION PLAN, REVISED, by evaluation committee. In meeting.
* 1/12 Briefing with EEB on Evaluation Plan.
* 1/12 – **APPROVED BY EEB VOTE**
  + 3-year Evaluation Plan and Budget - $14.775 million ($4.5 million, $4.5 million, $5.775 million across the 3 years)
  + EA team budget – 2022=$444,110; 2023=$444,110; 2024=$531,155.
  + EA Team scope of work; provided to utilities.
* Meetings on C&I verification refinement suggestion from CIE (Jan and Feb and ongoing; including C&I meeting, January)

**2021 Final Reports Issued**: 3/24 RR1973 ESRPP; 4/16 C1906 SEM Phase 1; 7/23 X1941 MF; 10/21 (or before) X1931-2 (CF&Loadshape), X1931-3 (air compressor), X1931-6 (HOU), X1931-7 (DD), X1931-8 (Adv. T-Stat); 11/22 R1959 Renov&Addn; 11/24 X1931 Early Retirement Phase 1; 12/14 C1901 C&I Sector-wide Process. Roadmap, Legislative report, Evaluation Plan.

**Dec 2021**

* ***Approved 2022-24 Evaluation Plan*** 12/17 (Sent 12/16; Donatelli abstain 12/16; McLean in favor 12/16; Viglione in favor 12/17) 2022=$4,500K; 2023=$4,500K, 2024=$5,775K
* ***Approved 2022-24 EA Team Budget 12/17***(Sent 12/17; Donatelli abstain 12/17; McLean in favor 12/17; Viglione in favor 12/17); 2022=$444,110, 2023=$444,110, 2024=$531,155
* ***Approved PO Budget reallocations, revised, replacing 10/26 version:*** *Sent 12/16, in favor Donatelli 12/16, McLean 12/16, Viglione 12/17. Add $203.6K to R1982; Add $8K to C1902; Add $25K to R2029; Addd $56K to R1965/2027/1983.*
* 12/17 - R1965/2027 HPs Key results presentation
* 12/14 – Final report - C1901 C&I Sector-wide Process
* 12/13 – X1931-4 (Lighting Controls) Phase 2 Kickoff
* 12/10 – X2022 Outreach / workforce Key results presentation

**Nov 2021**

* 11/24 Final Report - R1959 final report (R&A)
* 11/24 11/19 – R2014 Kickoff
* 11/22 Final report - X1931 Early Retirement Phase 1;
* 11/16 – Update on Evaluation to DEEP Day long workshop
* 11/9, 11/11, 11/12, 11/15 – Discussion meetings on Evaluation Project List, plus meeting
* 11/10 – Evaluation update to EEB

**Oct 2021**

* ***10/27 – PASSED Budget Realloc****: Evote to augment budgets for several projects: +211.6 for R1982 HP/HV Metering for covid stop/start, higher incentives, and meters remaining in a 2nd year; +25K for R2029 Wx from back-and-forth WAP data; and $56K for analysis of attribution and other issues related to HPs. (Votes in favor received: Donatelli 10/26, McLean 10/27). Awaiting Viglione.*
* 10/21 - X1931-8 (Adv. T-Stat)
* 10/21 – X1931-7 Report complete (HDD)
* 10/21 – Last 2021 PSD meeting with utilities
* 10/19 – R2014 – Phase 2 kickoff
* 10/19 – X1931-3 Report complete (Air Compressor)
* 10/18 – X1931-2 Report complete (CF& Load shape)
* 10/18 – X1931-6 Report complete (HOU)
* 10/13 – Eval presentation to EEB
* 10/1 – R2015 meeting

**Sept 2021**

* 9/17 – 2021 PSD redline from utilities (Ghani) to EA Team, requesting comments by 9/21. EA responded more time needed. Reviewed and called meeting with questions / discussion for 9/23. Utilities and EA reviewing the small number of comments raised / discussed to finalize shortly.
* ***PASSED 9/13:  C&LM Plan budget directions:***Approved agreement with discussion of the general structure of recommendations for C&LM Plan evaluation budgets to be forwarded to EEB Board – 1) increase evaluation project budgets to $4.5 million in 2022, increasing to $6 million by 2024.  2) Also approved agreement with general recommendation of structure for increasing EA Team budget by 35% with 50% increases in evaluation project budgets.   *Motion / Second: McLean & Donatelli in favor during Committee meeting Sept 13. Evote in favor from Viglione 9/14.*
* ***PASSED 9/13 NMR budget Add’n****: Approved R1983 NMR budget increase of $55,400 in meeting 9/13*. *McLean & Donatelli in favor during Committee meeting Sept 13. Evote needed from Viglione****.***
* ***PASSED: Approved Roadmap 9/9***: Sent 9/3, in favor McLean 9/4, resent 9/9, in favor Donatelli 9/9; awaiting Viglione, resent 9/26, abstains 9/28.
* 9/8/21 – Request for Evaluation Plan Project Ideas; first responses due 9/17

Aug 2021

* 8/5/21 - PSD 2020 update discussion meeting with EA / Utilities held; Reviewed about a dozen items that ERS review determined were not in redline. Decisions made/ERS re-reviewing for final redline for 2020 updates. To begin: updates from 2021 summer study results.

July 2021

* 7/8/21 - PSD 2020 update discussion meeting with EA / Utilities held; all dispositions for 2020 complete / agreed; forwarded to ERS for redlining and verification.
* 7/1 - Multiple Summer Presentation meetings held for use in PSD / Plan including: R2027 HP/HPWH Reliability & R1965 HP/HPWH Baseline & Potential (7/1); and C2014 C&I Lighting Sat & Remaining Potential (7/1).
* 7/1/21 - PSD 2020 update discussion meeting with EA / Utilities held

June 2021

* 6/25 – C1901 C&I Sector Wide Process Evalion Review Draft out for Review; 1 extra week means due 7/16.
* 6/22 – X1939 Early Retirement Report out for review; 1 extra week for review (due 7/13)
* 6/8-6/30 Multiple Summer Presentation meetings held for use in PSD / Plan including: X1941 MF (final presentation; 6/8 and 6/17); X1939 Early Retirement (6/14); R1959 SF Reno & Addn (6/17); X1931-6 Hours of Use (6/21); X1931-7 Degree Days (6/21); X1931-4 New Measure-Lighting Controls Res/C&I (6/23); C1901 C&I Sector-Wide Process Eval (6/24); X1931-1 ISP Com’l Boiler & Furnaces (6/28); X2001 EUL C&I (6/28); X2022 Educ/Workforce Initiatives (6/29); X1931-2 Coincidence Factor & Loadshape (6/30); New Measure Compressed Air (6/30); New Measure R/C&I Thermostats (6/30).
* 6/3, 6/10, 6/17, 6/24 - PSD update meeting / EA & companies
* ***Passed 6/9 Award Project R2015***: Evote approving recommended contractor (Evergreen) for project R2015. (McLean 6/9, Viglione and Li 6/11). Should be contracted by utilities along with R1968 asap.
* 6/3 PSD update meeting / EA & companies

May 2021

* 5/21 X2022 Phase 1 presentation / methods / best practices
* 5/19 SEM Phase 1 repeat presentation
* 5/6 Kickoff 3 “New Measure” projects (air compressor, advanced thermostats, advanced lighting controls)
* 5/6 - PSD update meeting / EA & companies

April 2021

* 4/15 C1906 SEM Phase 1 Presentation
* ***4/12 PASSED: Augment SERA Budget, add $69K to initial budget of $328,970***, transferring from X1940; All in favor in April Evaluation Committee meeting. Documented in memo dated 4/12.
* 4/7 R1973 Retail Products Final Presentation
* 4/1, 4/8 - PSD update meeting / EA & companies

March 2021

* 3/30 C1902 ECB NTG and Baseline K/O
* 3/22 X1942 NEI Kickoff
* ***PASSED 3/30 Award Projects***: 3/15 Evote Approval of Memo on RFP Project Award Recommendations (Viglione 4/15; Wells 3/30, McLean 3/29)
* 3/12 RFP responses due to EA Team
* 3/12 Repeat Kickoff X2022 Engagement project for those that couldn’t attend 3/3 (added due to storm duties)
* **Possible EVOTE OUTSTANDING/checking**: 3/8 Legislative report sent for evote, resent 4/12; In favor Viglione 3/16.
* 3/8 Kickoff for X1931-6 HOU/Load Shapes Project
* 3/ 4, 3/18 EA Team / utility meeting on PSD update process
* 3/3 Kickoff X2022 Engagement

February 2021

* 2/18 EA Team / utility meeting on PSD update process
* 2/5 R1973 Retail Products Review Draft Report sent to Committee for Review – due 2/19.
* 2/4 EATeam / Utility meeting on PSD update process
* 2/4 Legislative Report sent to committee for Review – due 2/19

January 2021

* ***PASSED: 2021 Eval Plan Update 1/27*** – 2021 Evaluation Plan Update ***Evoted and passed*** (1/27 McLean, 1/27 Wells, 1/28 Viglione)
* 1/25 Eval Committee Discussion on the 2021 Evaluation Plan Update
* 1/25 C1906 SEM Phase 1 (Eval Best Practices) Review Draft Report sent to committee for review - due 2/8
* 1/22 Eval Committee Discussion on the 2021 Evaluation Plan Update
* 1/4 - PSD update meeting / EA & companies