March 9, 2015

Interested parties in R.13-11-005

D.13-09-023 adopted the Efficiency Savings and Performance Incentive Mechanism (ESPI) and ordered Energy Division to submit 2013 ex-post results by 12/31/2014. On December 24, 2014, Interim Executive Director Timothy Sullivan granted Energy Division’s extension request to submit draft evaluation results by 3/31/2015.

Energy Division hereby submits the following 2013 ex-post updates for review. The 2013 ESPI measure groups that fall under the heading “Applied results from field work” represent about 36% of the first year kWh savings[[1]](#footnote-1). These measure groups received some ex-post update based on actual field measurement. The 2013 ESPI measure groups under the heading “Used best available information” represent about 13% of the first year kWh savings. These measure groups mostly relied on recent evaluation results or other recent findings, but not actual field work. Finally, the 2013 ESPI measure groups under the heading “No updates” represent about 1% of the first year kWh savings.

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| --- | --- | --- |
| **Applied results from field work** | **Used best available information** | **No updates** |
| Behavior | HVAC quality maintenance | Finance |
| Custom projects | HVAC mini-split | LEDs (residential) |
| Non-res new construction | Residential lighting (CFLs) | LED night lights |
| Sprinklers (Net-to-Gross only) | Home upgrade program | Computer network and workstation power management |
| Pipe insulation Sprinklers (Net-to-Gross only) | Water kits |  |
| Non-res downstream lighting | Pool pump |  |

Table 1 provides a high level look at the 2013 ESPI measures and a short description of the findings. The table is meant to help stakeholders know which memos in Attachment 1 they should focus on for their review.

The embedded spreadsheet in attachment 2, titled, “2013 ESPI Measure Group Updates.xlsx” includes a tab for each ESPI measure grouping and provides each ESPI measure along with the ex-ante values as well as the updated ex-post parameters. Each tab has different column headings, so please review the spreadsheet carefully to make sure you are looking at the correct ex-post values for comparison.

Energy Division will host a public stakeholder workshop to go over the memos on Wednesday, **March 25, 2015** from 9:30 AM – 4:30PM at the Golden Gate Room at 505 Van Ness Avenue, San Francisco, CA.

Comments on these 2013 ESPI memos are due to the Public Document Area by April 6, 2015.

To comment please go to: <http://www.energydataweb.com/cpuc/search.aspx> and enter **2013** **ESPI** in the search text box.

Once the memos are final, Energy Division will begin the process of determining the 2013 Ex-Post performance award based on the updates from these memos. We will notify the service list once this report is ready for stakeholder review.

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If you have any questions please contact Jeorge Tagnipes at [Jeorge.tagnipes@cpuc.ca.gov](mailto:Jeorge.tagnipes@cpuc.ca.gov).

Table 1 - Summary of 2013 ESPI Updates

|  | **2013 ESPI Measure** | **Applicable IOU(s)** | **Roadmap** | **Study Name/WO** | **ED Staff lead** | **Type of Update** | **Summary of Updates from Memos** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| A | Quality Maintenance | PG&E, SCE, SDG&E | HVAC | Impact Evaluation of QM Program | Lola Odunlami | Best available information | Where applicable, data from the 2010-12 impact evaluation and 2013-14 M&V pilot sites were applied—in the form of a savings installation rate—to adjust the 2013 ex ante savings claims in order to produce the ex post values reported in this memo. ***Ex-post kWh statewide from 32 GWh to 19.7 GWh.*** |
| B | Mini-splits | SCE | HVAC | Upstream HVAC Program Impact Evaluation | Lola Odunlami | Best available information | Review WP of ductless mini-split heat pump units under 65 kBtuh and verify if tracking data are consistent with WP values. Also compare tracking data with mini-split survey results. ***Ex-Post kWh savings higher by 47%.*** |
| C | Screw-in CFLs | PG&E, SCE, SDG&E | Lighting | Lighting Impact Evaluation and Market Research | Jeorge Tagnipes | Best available information | Apply 2010-2012 evaluation results to 2013 tracking data to determine the ex-post results for Lighting Indoor CFL Basic, Lighting Indoor CFL A-Lamp, Lighting Indoor CFL Reflector, and Lighting Indoor CFL Globe. ***Ex-Post kWh savings higher by 25% of ex-ante kWh savings.*** |
| C | LED Lamps |  | Lighting | Lighting Impact Evaluation and Market Research | Jeorge Tagnipes | No update for residential |  |
| C | LED Night Lights | SCE | Lighting | Lighting Impact Evaluation and Market Research | Jeorge Tagnipes | No update |  |
| D | Home Upgrade Program | PG&E, SCE, SDG&E | Residential | Residential Contract Group | Syreeta Gibbs | Best available information | Applied results from 2010-2012 study, although the results from this study was not used for ex-ante values for 13-14. ***Ex-post realization rates of 36% (kWh), 40% (kW), and 54% (therms).*** |
| E | Water Savings Kits | SDG&E and SCG | Residential | Residential Contract Group | Peter Franzese | Best available information | Focused on water savings kits, DI faucet aerators, and DI low-flow showerheads in MF buildings for one SCG program and two SDGE programs. Reviewed WP for UES, IR and NTG and applied these values to get ex-post results. ***Ex-post therm savings decreased for aerators, increased for showerheads, and decreased for water saving kits.*** |
| F | MF variable drive Pool Pumps | SDG&E | Residential | Residential Contract Group | Peter Franzese | Best available information | Independent review of utility work paper values |
| G | Behavior Programs | PG&E, SCE | Residential | Residential Contract Group | Peter Franzese | Field work | Full ex-post verification/validation of HER claims. There are no ex-ante claims for this program. ***Ex-post net savings of 93 GWh statewide (80GWh from PGE alone).*** |
| H | Custom | PG&E, SCE, SDG&E and SCG | IALC | IALC | Kay Hardy | Field work | Based on a sample of 189 M&V projects and 146 NTG surveys. ***MMBtu gross realization rates of 75% (PGE), 54% (SCE), 75% (SDGE), and 69% (SCG).*** |
| I | Non-res New Construction |  | IALC | IALC | Kay Hardy | Field work | Based on M&V of 25 Savings by Design sites: ***Ex-post kWh realization rate of 86%; Ex-post therm realization rate of 51%*** |
| J | Sprinklers | PG&E | Commercial | Non-Residential Downstream Deemed Impact Evaluation | Amy Reardon | Field work | Only NTG results based on a sample of 35 phone surveys (out of a population of 69) with a relative precision of 12%. ***Ex-post NTGR = 38%.*** |
| J | Pipe insulation | SCG | Commercial | Non-Residential Downstream Deemed Impact Evaluation | Amy Reardon | Field work | Only NTG results based on a sample of 18 phone surveys (out of a population of 103) with a relative precision of 16%. ***Ex-post NTGR = 56%*** |
| K | (Non-Res)Screw-in CFL | PG&E, SCE, SDG&E | Commercial | Non-Residential Downstream Deemed Impact Evaluation | Mona Dzvova | Field work | Updated NTG ratio, gross realization rate, UES, and net realization rates. ***Average ex-post kWh NTGR = 60%. First year gross kWh realization rate = 72% (PGE), 65% (SCE), and 90% (SDGE).*** |
| K | (Non-Res)LED | PG&E | Commercial | Non-Residential Downstream Deemed Impact Evaluation | Mona Dzvova | Field work | Updated NTG ratio, gross realization rate, UES, and net realization rates. ***Average ex-post kWh NTGR = 59%. First year gross kWh realization rate = 150% (PGE)*** |
| K | T5 fluorescent lamps and fixtures replacing metal halides | PG&E, SCE | Commercial | Non-Residential Downstream Deemed Impact Evaluation | Mona Dzvova | Field work | Updated NTG ratio, gross realization rate, UES, and net realization rates.  ***Average ex-post kWh NTGR = 65%. First year gross kWh realization rate = 36% (PGE), 57% (SCE)*** |
| K | Occupancy sensor lighting control | PG&E, SCE, SDG&E | Commercial | Non-Residential Downstream Deemed Impact Evaluation | Mona Dzvova | Field work | Updated NTG ratio, gross realization rate, UES, and net realization rates. ***Average ex-post kWh NTGR = 61%. First year gross kWh realization rate = 64% (PGE), 59% (SCE), and 72% (SDGE).*** |
| K | De-lamping of T12 lamps in existing fixtures | PG&E, SCE, SDG&E | Commercial | Non-Residential Downstream Deemed Impact Evaluation | Mona Dzvova |  | Updated NTG ratio, gross realization rate, UES, and net realization rates. ***Average ex-post kWh NTGR = 65%. First year gross kWh realization rate = 94% (PGE), 91% (SCE), and 86% (SDGE).*** |
| L | Custom | PG&E, SCE, SDG&E | Commercial | Non-Residential Downstream Deemed Impact Evaluation | Mona Dzvova | Field work | Calculated realization rates based on a sample of 44 projects statewide. Calculated NTG ratios based on a sample of 77 surveys. ***Statewide gross kWh realization rate = 78%; statewide kWh NTG ratio = 53%.*** |
| N/A | Computer network and workstation power management software | PG&E, SCE | Commercial | Non-Residential Downstream Deemed Impact Evaluation | Amy Reardon | No update |  |
| N/A | Finance | PG&E, SCE, SDG&E, SCG | Residential and Commercial |  |  | No update |  |

ATTACHMENT 1

1. **HVAC Quality Maintenance**

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1. **HVAC Mini-split**

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1. **Residential Upstream Lighting**

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1. **Home Upgrade Program (formerly Energy Upgrade California program)**

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1. **Water Kits**

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1. **Pools Pumps**

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1. **Behavior**

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1. **Custom Projects**

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ATTACHMENT 1 (CONTINUED)

1. **Non-res New Construction**

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1. **Net-To-Gross Memo for Sprinklers and Pipe Insulation**

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1. **Non-res downstream lighting**

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1. **Custom lighting**



ATTACHMENT 2

This spreadsheet includes a tab for each ESPI measure grouping and provides each ESPI measure along with the ex-ante values as well as the updated ex-post parameters. Each tab has different column headings, so please review the spreadsheet carefully to make sure you are looking at the correct ex-post values for comparison.



1. This does not necessarily mean that the actual updates (or records touched) represent 36% of the 2013 first year kWh savings. [↑](#footnote-ref-1)