Date of Issuance - December 18, 2017

PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

ENERGY DIVISION **RESOLUTION**
E-4897 **December**
14, 2017

R E S O L U T I O N

Resolution E-4897. Approves, with adjustments, the requests of PG&E, SCE, SDG&E, and SoCalGas Efficiency Savings and Performance Incentive (ESPI) awards for program years 2015 and 2016.

PROPOSED OUTCOME:

- Approves $21,915,101 in shareholder incentives for PG&E[1].
- Approves $16,994,117 in shareholder incentives for SCE.
- Approves $5,948,469 in shareholder incentives for SDG&E[2].
- Approves $2,852,892 in shareholder incentives for SoCalGas[3].

Table 1 shows the adjustments made to the requested ESPI incentives for program years 2015 and 2016. Table 2 shows the final payments in 2017.

SAFETY CONSIDERATIONS:

- This Resolution is not expected to have an impact on safety.

ESTIMATED COST:

- This Resolution approves total shareholder incentive payments with adjustments as detailed in Table 2.

By Advice Letters (AL) PG&E 3880-G/5136-E, SCE 3655-E, SDG&E 3109-E/2606-G, SoCalGas 5182, filed on September 1, 2017 and PG&E 3880-G-A/5136-E-A filed on September 28, 2017.

[1,2,3] PG&E, SDG&E, and SoCalGas' ESPI payments were further reduced to offset funds being returned to ratepayers as a result of their Risk/Reward Incentive Mechanism settlement agreements.

SUMMARY

This Resolution addresses Advice Letters submitted by PG&E, SCE, SDG&E, and SoCalGas, collectively referred to as the Investor Owned Utilities (IOUs), seeking approval of program year 2015 and partial 2016 ESPI awards. This resolution modifies the IOUs' Advice Letters and approves the incentives, as detailed in Tables 1 and 2.

IOU	2015-2016 Awards Requested[4]	Adjustment	2015-2016 Awards Approved
PG&E	$24,760,070	($2,844,968)	$21,915,101
SCE	$24,818,921	($7,824,803)	$16,994,117
SDG&E	$6,450,465	($501,996)	$5,948,469
SoCalGas	$3,192,296	($339,404)	$2,852,892

Table 1: ESPI Awards for 2015 and 2016

Component	PG&E	SCE	SDG&E	SoCalGas
2015 Ex-Post Savings	$9,748,290	$8,250,445	$2,774,388	$1,205,571
2016 Ex-Ante Savings	$6,366,816	$6,722,146	$2,257,372	$580,946
2016 Ex-Ante Review Performance	$4,664,457	$2,666,023	$1,360,389	$723,682
2016 Codes & Standards	$1,739,465	$581,031	$62,109	$91,293
2016 Non-Resource	$706,988	$625,148	$179,406	$287,878
2015 Savings True Up	($233,759)	$200,006	($8,975)	($175,075)
2015 EAR Performance True Up	($11,854)	$1,778,317	($17,661)	-
2015 Codes & Standards True Up	-	$0	($19,408)	($5,880)
2015 Non-Resource True Up	-	$55,445	-	$144,476
2013-2014 Savings True Ups	($1,065,302)	($3,884,445)	($639,150)	-
Awards for PY 2015 and 2016	$21,915,101	$16,994,117	$5,948,469	$2,852,892
2006-2008 RRIM Adjustment	($21,915,101)	-	($2,500,000)	($2,000,000)
Total Payment	$0	$16,994,117	$3,448,469	$852,892

Table 2: Final ESPI Awards per component

[4] The values in this table reflect the requested, adjusted, and authorized incentives for 2015-16; RRIM-related offsets are shown in Table 2.

BACKGROUND

This section summarizes the history of the Efficiency Savings and Performance Incentive (ESPI) mechanism and its predecessor, the Risk/Reward Incentive Mechanism (RRIM).

- **2006 - 2008 RRIM Mechanism**

In 2007 the California Public Utilities Commission (hereafter the Commission) adopted the RRIM, to motivate investor owned utilities to pursue energy efficiency as a core business strategy.

Under the RRIM mechanism utilities would be rewarded or penalized based on evaluated energy savings for the 2006-2008 and subsequent program cycles.[5]

Later in September 2015 the Commission re-examined the shareholder incentives awards paid for program years 2006-2009. As a result of settlements among parties in the course of this re-examination, the four IOUs were directed to return portions of the 2006-2009 incentive awards to ratepayers.

Due to the challenges associated with the RRIM mechanism, in 2012 the Commission opened a new proceeding (R.12-01-005) to consider reforms to the mechanism. In September 5, 2013 the Commission adopted The Efficiency Savings and Performance Incentive (ESPI) mechanism via D.13-09-023.

In September 2015, with D.15-09-026 the Commission re-opened R.09-01-019, the Order Instituting Rulemaking to Examine the Commission's Energy Efficiency Risk/Reward Incentive Mechanism, to re-examine three Decisions involving the energy efficiency shareholder incentive awards for the 2006-2008 energy efficiency portfolios of the four IOUs.

In September 2016, the Commission adopted D.16-09-019, which requires PG&E to return $29,115,011 over a five-year period, starting with the ESPI awards granted in the 2016 calendar year.[6]

[5] Rulemaking (R.) 09-01-019

[6] D.16-09-019, Attachment A

On October 13, 2016, the Commission adopted D.16-10-008, which required SCE to return $13.5 million to ratepayers in three installments. SCE was also authorized to accelerate the refund installments by refunding the present value of the three-year stream of refund installments via a one-time payment of the net present value of the total payments. For purposes of present value, the discount rate shall equal 7.9 percent; SCE's authorized weighted average cost of capital.[7]

On Nov 16, 2016 SCE filed a separate Advice Letter (3513-E) for the purposes of their RRIM settlement. SCE used their weighted average cost of capital of 7.9% in calculating the present value of their one time installment.

On March 8, 2017 the Commission adopted Decision 17-03-003, which included settlement agreements for both SDG&E and SoCalGas.[8] The two utilities were both directed to each refund $3.7 million to the California ratepayers. SDG&E was required to return $2.5 million in 2017 and $1.2 million in 2018 by offsetting the respective ESPI earnings in each year. SoCalGas was required to return $2 million in 2017 and $1.7 million in 2018 by offsetting the respective ESPI earnings in each year.

- **2013 - Present ESPI Mechanism**

The Efficiency Savings and Performance Incentive mechanism was adopted on September 5, 2013 in D.13-09-023.[9] Later, D.15-10-028[10] updated the timelines for ESPI review to comply with the new EE planning, budget, and review processes adopted in the same Decision. The framework of the ESPI program was otherwise retained.

The ESPI mechanism is a multi-component incentive structure intended to motivate IOUs to invest not only in energy efficiency Resource programs[11] (i.e.,

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[7] SCE Settlement OP. 2.D

[8] D.17-03-003

[9] D.13-09-023

[10] D.15-10-028

[11] A resource program is defined as an energy efficiency program that is intended to achieve and report quantified energy savings.

programs generating direct savings), but also in all other Non-Resource[12] programs (e.g., workforce, education, and training; marketing, education, and outreach; emerging technology, …) that help support the IOUs achieve their Commission-authorized savings goals as well as administering Codes and Standards advocacy programs.

The ESPI's four components are:

A. **Energy Efficiency Resource Savings:** A performance award net lifecycle resource program energy savings measured in MW, GWh and MMTh. This component is capped at 9% of the resource program budget (excluding funding dedicated to administrative activities, codes and standards programs, Evaluation, Measurement and Verification (EM&V), and Community Choice Aggregators (CCA)/ Regional Energy Networks (RENs).

   Per D.13-09-023, the energy savings performance award is split between ex-ante (i.e., estimated savings pre-implementation) and ex-post (i.e., evaluated savings post implementation) savings values. IOUs may file for incentive payments for ex-ante savings in the year following the program year (i.e., in 2017 for program year 2016) and for ex-post savings two years following the program year (i.e., in 2018 for program year 2016). Ex-post savings values will apply to custom measures and deemed measures on the ESPI Uncertain Measure List for the corresponding year. Ex-ante values will apply to deemed measures not on the ESPI uncertain measure list for the corresponding year.

B. **Ex-Ante Review (EAR) Process Performance**: A performance award for IOUs ex-ante review conformance of up to 3% of authorized resource program expenditures, excluding administrative costs.

[12] A non-resource program is defined as an energy efficiency program where energy savings are not directly attributed but the program supports the energy efficiency portfolio through activities such as marketing or improved access to training and education.

The ex-ante review performance award is the product of the final IOU score and the earnings cap for the component. Each IOU's score is based on an evaluation of their respective ex-ante review activities in accordance with the metric below:[13]

Metric Category	Adopted Weighting
1. Timing and Timeliness of Submittals	10%
2. Content, Completeness, and Quality of Submittals	30%
3. Proactive Initiative of Collaboration	10%
4. Program Administrator's Due Diligence and Quality Assurance/Quality Control Effectiveness	25%
5. Program Administrator's Responsiveness to Needs for Process and Program Improvements	25%

C. **Codes and Standards (C&S):** A management fee for the IOUs advocacy of codes and standards. This award equals 12% of the authorized C&S program expenses, excluding administrative costs, and

D. **Non-Resource Programs:** A management fee for implementing non-resource programs equal to 3% of the authorized non-resource program expenses, excluding administrative costs.

For the purposes of calculating the ESPI awards, program expenditures shall not exceed authorized budgets. Rewards shall also be capped at each component's maximum cap respectively.

Per D.13-09-023, the IOUs must rely on public versions of the CPUC Utility Audit, Finance and Compliance Branch (UAFCB) reports to determine the actual expenditures to calculate their respective incentive awards.

[13] Metrics updated in D.16-08-019

NOTICE

Notice of PG&E AL 3880-G/5136-E, SCE AL 3655-E, SDG&E AL 3109-E/2606-G, SoCalGas AL 5182, and PG&E AL 3880-G-A/5136-E-A were made by publication in the CPUC's Daily Calendar. PG&E, SCE, SDG&E, and SoCalGas state that a copy of the Advice Letter was mailed and distributed in accordance with Section 4 of General Order 96-B.

PROTESTS

No protests were filed in response to PG&E AL 3880-G/5136-E, SCE AL 3655-E, SDG&E AL 3109-E/2606-G, SoCalGas AL 5182, and PG&E AL 3880-G-A/5136-E-A.

DISCUSSION

1) Ex-Ante Review Performance Scores

On August 1, 2016 Commission staff issued a mid-year review where utilities were given the opportunity to provide comments. Final Ex-Ante Review Performance reports were publicly released August 21, 2017.[14] Table 3 shows a comparison of the IOUs' 2014, 2015, and 2016 scores.

IOU	2014 Score (%)	2015 Score (%)	2016 Score (%)
PG&E	53	40.84	59.78
SCE	58	41.91	44.62
SDG&E	68	43.79	50.06
SoCalGas	69.5	41.91	46.63

Table 3: Ex-Ante Review Process Performance Score 2014, 2015, and 2016

2015 and 2016 Earning Coefficients and Incentive Caps

The incentive earnings caps for program year 2015 and 2016 was adopted in D.13-09-023 and updated in 2016[15] and 2017[16]. For all energy savings, the

[14] 2016 ESPI EAR Performance Memos

[15] 2015 ESPI Earning Coefficients and Caps

incentive award is calculated using the statewide earnings rates. The use of statewide earnings rates allows each unit of energy saved to earn an incentive award.

The 2015 and 2016 earnings coefficients and incentives caps are as follows:

	2015	2016
Electricity ($/GWh)	$2,335	$2,411
Peak Demand: ($/MW)	$7,127	$7,670
Natural Gas: ($/MMth)	$22,586	$26,048

Table 4: 2015 and 2016 Statewide Earning Coefficients by Component ($)

	Resource Savings	EAR Performance	Codes & Standards	Non-Resource
PGE	28,473,786	9,491,262	1,752,163	670,476
SCE	21,974,541	7,324,847	581,031	788,930
SDGE	7,308,445	2,436,148	114,457	668,155
SoCalGas	4,904,746	1,634,915	91,293	392,899

Table 5: 2015 Award Caps by Component and IOU ($)

	Resource Savings	EAR Performance	Codes & Standards	Non-Resource
PGE	27,457,245	9,152,415	1,752,163	709,323
SCE	20,966,541	6,988,847	581,031	788,930
SDGE	8,193,593	2,731,198	110,875	288,590
SoCalGas	4,904,746	1,634,915	91,293	392,899

Table 6: 2016 Award Caps by Component and IOU ($)

In this Resolution we have modified the total awards requested by the IOUs. Below is the list and description of the different adjustments, on expenditures and savings, which are the basis for the difference between the final awarded amounts and the requested numbers. Some of the below adjustments have resulted in an increased value while others have decreased the requested values.

[16] 2016 ESPI Earning Coefficients and Caps

We find it troubling that these same errors in IOU savings claims are being submitted year after year.

The details on all the adjustments including the workbooks on reported, reviewed and adjusted program expenditures and energy savings values are available on Commission's ESPI website.[17]

2) Adjustments of Expenditure Data

The IOUs generally conformed to the 2017 ESPI guidelines; and we would like to acknowledge the IOUs efforts in improving data submission consistent across different filings. This year the number of inconsistencies had substantially reduced; however Commission staff still found some inconsistency between data submitted through the Monthly and Quarterly reports, data filed in the 2016 annual filings, data submitted as part of the 2017 and 2018 budget filing Advice Letters, and data submitted in the ESPI Advice Letters. Commission staff was able to reconcile the majority of the data, however, where reconciliation could not be made between the IOU-claimed values in the ESPI Advice Letter and the IOUs' official claims submitted in quarterly reports; the official claims were used for the purpose of award calculations. This is similar to the process followed in prior years.

An additional issue of concern is that numbers and values filed in the Advice Letter supporting documents occasionally did not result in values requested by the IOUs for ESPI awards. While reconciliations were made for the purposes of calculating ESPI incentives the overall IOUs' accounting practices will be addressed in a more comprehensive manner outside this resolution.

This Resolution makes the following adjustments to the IOUs' expenditure values used to calculate the ESPI awards:

A. 2015 True Ups based on the 2015 Audit Reports

On July 31, 2017 the Utility Audit, Finance and Compliance Branch (UAFCB) issued the 2015 Energy Efficiency audit reports. Staff considered the audit

[17] CPUC ESPI website

findings and made adjustments to the IOUs' claims based on the recommendations in the 2015 audit reports. The net present value of these adjustments together with other 2015 true ups were calculated considering each IOU's respective authorized weighted average cost of capital.[18]

One pending issue from the audit reports is IOUs compliance with the 10% administration cost cap. The UAFCB reports find all four investor owned utilities out of compliance with the 10% administrative cost cap. There are different interpretations across the IOUs and the audit branch in calculation methodologies for this cost cap. The Commission has expressed concerns about this issue and will address and clarify this together with other accounting concerns in a more comprehensive manner outside this resolution.

B. 2016 Authorized Expenditures

In D.14-10-046 we raised several significant accounting issues and, while we deferred most of the issues to the next phase of the proceeding, we explicitly clarified that the we consider "Authorized Expenditures" to be the "Budgets" approved in the decision.[19] We clarify that while we have allowed for necessary mid-cycle fund shifts, until we formally adopt a new direction, it is appropriate to continue to apply the last Commission direction on "authorized budgets" for the purposes of ESPI calculations. Therefore the 2016 program budgets authorized in decision D.14-10-046 are considered to be the maximum acceptable expenditures for the purposes of ESPI award calculations.[20] As a result, any expenditure beyond the authorized budgets was not considered eligible for the purposes of ESPI award calculations.
In addition, IOUs shall only make claims on all expenditures accrued in the respective program years they are requesting ESPI awards for.

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[18] PG&E 8.06%, SCE 7.90%, SDG&E 7.79%, SoCalGas 8.02%

[19] "Most immediately, we will clarify some definitions for purposes of this decision. The "budgets" we approve here reflect each IOU's authorized expenditures for 2015 programs (including funds IOUs may "commit" in 2015, to be paid out in subsequent years). D.14-10-046, at 43

[20] D.14-10-046 at 107-109

C. Expenditures over the Commission Established Hard and Soft Caps

The Commission has set a 10% hard cap for administrative costs, a 6% soft cap for Marketing, Education and Outreach activities (ME&O), and a 20% target for the Direct Implementation Non Incentive (DINI)[21] Costs. The 10% hard cap on administrative cost is dealt with during the annual UAFCB audits. The IOUs are directed to refund any excess expenditure (beyond 10%) to the California ratepayers. A similar mechanism is not currently available for the excess expenditures in the other two categories (ME&O and DINI). Throughout the years (since the RRIM mechanism and throughout the 2010-2015 budget cycles) the Commission has repeatedly addressed the overspending on the ME&O and DINI expenditures and has required the utilities to minimize their non-incentive expenditures to achieve the 20% DINI cost target.[22] While the Commission has tolerated over-expenditures in these two categories (due to these thresholds being titled a soft cap and a target[23]) and has not yet required the IOUs to refund the excess expenditures to the ratepayers, it also does not intend to reward the IOUs based on these excess expenditures. Therefore the we remove any excess

[21] The term has also been referred to as "Implementation – Customer Services" or "Non-Incentive and Rebates Budget for program delivery"

[22] D.09-09-047 and again in D.12-11-015 at 98
Despite a hard cap of 10% on administrative costs, as well as a soft cap of 6% on marketing and outreach expenses, the proportion of other non-incentive costs (the category called "Implementation – Customer Services" in the budget templates) as a percent of the total budgets has been rising steadily, approaching close to 45% in some cases in the budgets as proposed by the utilities. In several cases, the total non-incentive budgets approach 70%. We recognize that some of this increase in non-incentive costs is likely due to Commission directives that result in higher non-incentive costs. However, given that the "implementation – customer services" category of costs is not capped anywhere in our rules or decisions, it appears to have become a catch-all category of costs that is steadily growing.

[23] The term "Target" which was initially borrowed from stakeholders' comments implies a threshold one attempts to reach, while the 20% DINI target is a threshold for the IOUs to stay under. This natural intuition of the term "target" can cause confusion while dealing with excess cost and hence needs to be addressed in the phase III of the Energy Efficiency proceeding.

ME&O expenditures (over 6%) and non-exempted DINI expenditures (over 20%) from the total program expenditures and, therefore, exclude the excess expenditures from earning shareholder incentive awards.

This year, none of the IOUs exceeded their 6% ME&O soft cap; however, all except SDG&E exceeded the 20% DINI target in their expenditures.

D. Statewide Marketing Education & Outreach:

In December 2013, we selected the California Center for Sustainable Energy (CCSE) (later on CSE) as the sole implementer for the Statewide Marketing, Education and Outreach programs for program year 2014 and 2015.[24] On August 27, 2015 via D.15-08-033 the Commission reaffirmed that CSE should continue to serve as the statewide ME&O program implementer while the IOUs are responsible for delivering local ME&O activities. Since the IOUs are not administering Statewide ME&O programs, funds related to these activities are excluded from ESPI calculations either directly or as part of the ESPI formulas. This is similar to the treatment of funds related to RENs and CCA programs.[25]

3) Correction to the 2015 ESPI Earnings Coefficient for Natural Gas

On July 27, 2017 we issued an Ordering Correcting Error that corrected an error in the coefficient and cap allocation for the gas earnings.[26] On August 29, 2017, the Director of the Energy Division issued a disposition that corrected the coefficient for the 2015 statewide earnings rate for gas and instructed the IOUs to use the corrected value in their Advice Letters.

This Resolution adjusts the 2015 ESPI ex-ante savings award in Resolution E-4807 and the 2015 Ex-Post savings and ex-Ante true ups in the 2015 Ex-Post ESPI Final

[24] D.13-12-038, OP.27 and OP.44

[25] We understand that the policy manual has not been updated since the change in the SW ME&O administrator; however the exclusion of the SW ME&O costs are aligned with the policy manuals language on the exclusion of RENs and CCAs.

[26] D.17-07-014

Performance Statement Reports. The 2015 natural gas earnings coefficient value was corrected from $30,454/MMTherm to $22,586/MMTherm.

4) Summary of Adjustments to Ex-Ante Energy Savings Data

This Resolution makes the following adjustments to energy savings values used to calculate the ESPI ex-ante savings awards:

A. Data Discrepancy Adjustments

Where reconciliation could not be made between the data submitted via the ESPI Advice Letter and the official claims in the quarterly data reported by IOUs, the quarterly reported data was used to calculate deemed 2016 ex-ante ESPI savings.

B. Application of Early Retirement (ER) policy

Application of Early Retirement (ER) policy and related effective useful life (EUL) and remaining useful life (RUL) values for ER, retrofit add-on (REA) measures and measures with savings calculated over existing baselines for ER application and RUL value adjustments. Commission staff adjusted RUL values consistent with the Database of Energy Efficiency Resources (DEER) requirements. Some equipment replacement measures claimed savings above an existing baseline but were not identified as ER and so were claiming the first period savings for the entire EUL. We have revised these savings to be ER and applied the correct RUL and second period savings values. We have also revised retrofit add-on measures so that the EUL of the measure is equal to the lower of the RUL of the modified system or equipment, or the EUL of the add-on component. Additionally, misclassified measures such as ER or replace-on-burnout measures identified as retrofit add-on were identified and corrected.

C. Proper application of net-to-gross (NTG) values

For NTG adjustments, Commission staffs' review focused on four areas: hard-to-reach, emerging technology, locational (or constrained area), and unsupported and incorrect reporting of NTG values. For emerging technologies, Commission staff revised the reported NTG values to the standard DEER values where the measure technology had been in program offerings for more than four years, or if any IOUs were claiming the same measure but using the standard DEER value. Locational targeted programs serving transmission, distribution, or generation constrained areas may claim a NTG value of 0.85; however, customer incentives must also be "the higher of 75% of incremental measure cost, or what is available under prior policies."[27] Commission staff observed very little targeting or increase in incentives for measures in constrained areas as compared to identical measures offered across the service area. As an indicator for targeting of constrained areas Commission staff identified measures with incentives at least five percent greater than incentives for identical measures in non-constrained areas, and in those cases accepted the 0.85 NTG value for targeted activities and revised all other claims to the standard DEER NTG values. The IOUs are directed to provide data that allows identification of NTG values that are larger than the standard DEER values, such as for schools, hard-to-reach, or ET measures. A large number of claims were submitted using an NTG value of 0.85 for measures where the standard DEER value was lower, but with no supporting information provided (NTG ID field). IOUs are required to provide supporting documentation for high NTG values. Commission staff revised all of these unsupported NTG values to the standard DEER values. In some cases, it appears that out-of-date NTG values were reported. Commission staff also revised all of these erroneous NTG values to the current DEER values.

D. Application of DEER EUL for screw-in compact fluorescent lamps (CFLs)

Commission staff reviewed and revised, as needed, all screw-in CFL claims to have the Commission authorized DEER EUL values. The DEER EUL for all interior and exterior residential CFLs, in 2016 and beyond, was set to 3.5 years. Some claims were submitted with higher EUL values. We revised these to reflect the Commission authorized value of 3.5 years.

E. Revisions to SCE ER claims for commercial packaged HVAC equipment to reflect available evidence based on review of current and historical claims by all IOUs

Commission staff reviewed the details of the SCE savings claims for its commercial HVAC ER program. Those claims were adjusted to be in

[27] D.14-10-046, OP 9

conformance with the previous Commission direction as well as staff direction to SCE staff regarding the requirements on the claims for that specific program. Commission direction regarding requirements for ER claims clearly places a burden on SCE to only submit such claims after an examination of evidence supporting or refuting such claims is done.[28] Commission staff examined and compared the claims across all IOUs for installations of commercial packaged HVAC equipment from 2010 through the second quarter of 2016. The comparison of statewide trends to the SCE activity claims were used as a way to verify the fraction of ER claims that reasonably represent actual ER installations.[29] Commission staff adjusted the early retirement portion of SCE's packaged HVAC claims by applying a gross savings adjustment of 0.25, to reflect that the majority of SCE early retirement claims are more likely in actuality normal replacement installations. This change reduces early retirement claims and associated savings by 75%.

F. <u>Removal of pre-2016 installed measures in 2016 claims</u>

Previously, we directed the IOUs to only include savings for measures installed in the same year for which they are claiming incentives.[30] The IOUs were also directed to identify the small percentage of projects installed in a separate year

[28] D.12-05-015 at 346

[29] D.13-090023 at 51: "For measures that are not on the "deemed but high uncertainty" measure list, only the measure count will be subject to verification in calculating ESPI earnings (as well as any errors in the ex-ante parameter values and calculations included in the claim, of course). The installation rate represents the actual number of an Energy Efficiency measure (e.g., efficient lighting, advanced heating systems) put in place as compared to the claimed amount. We authorize Commission staff to adjust IOU claimed measure counts with verified installation rates for any Energy Efficiency measures in the portfolio, including those deemed measures not identified as highly uncertain."

[30] The annual installation date based claims requirement was introduced in D.04-09-060 (at 33 and Findings of Facts 14), clarified and reiterated in D.05-04-051 (at 55, Findings of Fact 36-42, Conclusion of Law 3, Ordering Paragraph 17), D.05-09-043 (at 84) and again in Resolution G-3510 (at 13) and Resolution 4807 (OP.10).

than the claim year and to provide sufficient documentation supporting the delay in reporting of such projects for the Commission to decide on a case by case basis.

The IOUs generally complied with these directions in their 2017 submissions; however some exceptions were requested by SCE and SoCalGas as discussed below.

Aligned with prior Commission direction, we excluded savings for measures that had installation dates, identified in the official claims in the IOUs' quarterly data submissions, prior to January 1, 2016 with the below exceptions. However; this year we did not exclude pre-2015 installed measures from the 2015 ex-post award calculation. This is to give the IOUs a similar timeline we granted for the ex-ante measures to align with the Commission direction. Beginning next year, we will apply these adjustments to both ex-ante and ex-post measures as directed by the previous resolutions.

Both SCE and SCG requested that staff allow counting pre-2016 installations for some specific justifications. Among the requested exceptions were projects that were jointly paying customer incentives (SCE for electric savings and SCG for gas savings) as the exchange of information on these projects between the two utilities is delaying the claims submissions. The Commission will allow this exception for this year but only for projects installed in 2015 and not those installed earlier than 2015. The utilities should improve their tracking and information exchange procedures between now and when 2017 claims are finalized (in mid-2018) so that these "partnered" projects are correctly reported for 2017 and beyond. None of the other requested exceptions were found to be reasonable and are thus denied.

G. Proper application of Commission direction for schools that allows only above code measures to be claimed

IOUs are allowed to claim K-12 schools and community college measures and projects (schools projects) as accelerated replacement, including any savings from the pre-existing equipment to the minimum code requirements, but only if the project meets the Commission policy requirements including preponderance of evidence that the IOU program caused the acceleration. Staff points out that it is not reasonable to assume that an IOU's program influenced the accelerated replacement if the project received most of its support from Prop 39 funds and the amount of that funding greatly exceeded the IOU's provided incentive. Additionally, schools projects must exceed code requirements to be eligible for IOU incentives.[31] At this time we have not made any adjustment to these claims; however we require that going forward IOUs review any proposed early retirement claims for schools projects to identify projects with predominant Prop 39 funding and remove the to-code savings from those claims and report those projects as normal replacement rather than accelerated.

Additionally, all K-12 schools and community college measures and projects should be specifically identified in the claims. In addition those projects having California Proposition 39 (Prop 39) funding should also be distinctly identified in the claims.

5) <u>Summary of Adjustments to Ex-Post Energy Savings Data</u>

On August 1, 2017 Commission staff issued the 2015 ex-post ESPI statement report while notifying the parties that errors found subsequent to the closure of the comment period would be addressed during the ESPI resolution process.[32] This Resolution makes the following adjustments to the 2015 ex-post savings awards:

A. <u>DEER EUL for Screw-in Compact Fluorescent Lamps</u>

As noted in Resolution E-4807, prior to 2016, DEER required a 0.523 degradation multiplier on the listed EUL of 9.67 years for residential interior CFLs. All, or nearly all, of the 2013, 2014 and 2015 PA's reported claims for residential interior

[31] Decision 14-10-046 OP.9 states "For all projects undertaken by schools" that "The only eligible measures are those that are above code."

[32] "Important Notice Regarding 2015 Ex-Post Efficiency Savings and Performance Incentive (ESPI) Final Performance Statement Report. After the comment period closed, Commission Staff discovered an error in the gas earnings coefficient. The correction is not reflected in this report but this and any other potential adjustments to the Ex-Post/Ex-Ante values will be addressed in the Commission Resolutions to approve the September ESPI advice letters." 2015 Ex-Post Efficiency Savings and Performance Incentive (ESPI) Final Performance Statement Report, p.2

CFLs were submitted with an EUL of 9.67 without consideration of the required degradation multiplier. Commission staff reviewed and revised all EULs for residential interior CFLs to meet the DEER EUL requirements in the same manner as was done in Resolution E-4807 for the 2015 ex-ante deemed measure claims. Multiplying the claimed EUL by the required degradation multiplier results in an EUL of 5.06 consistent with the DEER adopted methodology.[33] Commission staff updated the reported EUL to be equal to the product of the reported EUL year value and the adopted DEER degradation multiplier. As this issue was previously pointed out in Resolution E-4897, it is expected that all future claims will have the correct EUL value with no adjustments being required for future claims.

B. <u>Use of Workpaper Disposition Directed EUL and Unit of Energy Savings (UES) values for LED Lamps and Fixtures</u>

Commission staff issued its first disposition covering integral LED lamps on May 18, 2012.[34] This disposition included direction that the EUL shall be based on either 15,000 or 20,000 lifetime operating hours divided by the DEER annual operating hours for the building type of the installation with an upper limit of on the EUL of 12 years, the latter being the EUL of a typical target fixture type. Strict application of existing policy would limit the life of a replacement component to

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[33] The DEER2008 EUL update included a "switching degradation factor" of 0.523 for indoor residential screw-in CFLs. Explicit calculations of EULs for CFLs are included in the DEER 2008 update documentation showing that the final EUL in years is always multiplied by the degradation factor. The DEER 2008 update documentation is available from www.deeresources.com:
http://deeresources.com/files/deer0911planning/downloads/EUL_Summary_10-1-08.xls. The degradation factor is also included in ex ante database for DEER accessible via the REAI tool. Refer to the EUL table in the Support Tables section of the READI interface.

[34] "Workpaper Disposition for Integral LED Lamp Replacements" California Public Utilities Commission, Energy Division, May 14, 2012 (originally published on the CPUC's Basecamp Ex Ante Review project space; now available at www.deeresources.com/index.php/non-deer-workpapers)

the RUL, or 1/3 of the EUL, of the underlying equipment which in this case is the fixture. However, the use of a standard practice baseline for the replacement allows the use of the EUL rather than RUL of the fixture as a limit. Commission staff emphasizes that, whether the EUL is limited by the operating hours or fixture life, either allows savings for many years and assumes that during that time, the current standard practice which includes a fraction of incandescent and CFL lamps. This is a generous assumption given the rapidly increasing market share of non-program LED lamps as well as code changes that eliminate some choices, especially incandescent lamps which already adopted code would preclude in many situations within the next year. The 2015 nonresidential ESPI lighting report[35] revised EUL values using a weighted average of manufacturers' reported lamp life for the actual lamps included in the PAs' programs during 2015, resulting in a lamp life of about 25,000 and 26,000 hours for A-lamps and reflectors, respectively, or between 25% and 66% higher lamp life than directed by the 2012 disposition. However, no additional analysis or investigation was performed to examine the effects of actual operating conditions on lamp life to establish actual lamp persistence as required by evaluation protocols, nor did the work consider the discussion in the Commission staff disposition or the recent LED lab testing results.[36] Therefore, the values are changed back to those previously directed by the Commission.

Commission staff also found an incorrect update of the delta wattage for residential LED lamps which resulted in inappropriate assumed baseline versus measure wattage that would not support the requirement for equivalent service between the pre-existing and newly installed lamp.

Commission staff review of the assumed baseline wattages indicated much higher lumen output for the assumed baseline than for the measure lamps. For

[35] "2015 Nonresidential ESPI Deemed Lighting Impact Evaluation Final Report" submitted to California Public Utilities Commission, prepared by Itron, March 31, 2017.

[36] "2013-2014 Work Order ED_I_Ltg_1: LED Lab Test Study Draft Final Report", submitted to California Public Utilities Commission, prepared by Itron, September 22, 2017

example, Table 30 of the DNVGL report[37] that is the basis of the ex post revisions lists a baseline incandescent wattage for PG&E of 57 watts and a halogen wattage of 63 watts. Assuming that nearly all installed incandescent lamps are EISA compliant, these assumed baseline wattages correspond to EISA compliant lamps in either the 75 watt or 100 watt EISA bin with minimum output of 1,050 lumens (for the 75 watt bin) or 1,490 lumens (for the 100 watt bin). However, PG&E's average reported A-lamp measure wattage is 8 watts (see Figure 3). The maximum output of 8 watt lamps from the Energy Star qualified product listing (QPL) is 810 lumens. Baseline and measure assumptions for SCE create an even greater disparity of performance. Table 30 of the 2015 Lighting Report shows a baseline incandescent wattage of 58 watts and halogen wattage of 84 watts. However, the reported average measure wattage is 5 watts. The maximum output of 5-watt lamps from the QPL is 500 lumens, or no more than half the output of the assumed baseline halogen or incandescent lamp.

This inconsistency between the base and measure lamp output results in a delta watts value that is approximately 1.5 times higher than the value that should be used for LEDs whose values have been adjusted. In addition the lack of an appropriate baseline composition that includes CFLs and/or LEDs, may bring the overall over-estimation of the delta watts to more than 3 times the typical expected value. Therefore, the values are reverted back to those previously directed by the Commission as found in the utility submitted ex-ante values.

C. T12 Early retirement and de-lamping measures with incorrect RUL values

The 2015 uncertain measure list[38] includes "De-lamping of T12 lamps in existing fixtures", where lamps are removed from existing fixtures and the fixtures are modified in a way that they can no longer operate with more than the de-lamped

[37] "Impact Evaluation of 2015 Upstream and Residential Downstream Lighting Programs" prepared for California Public Utilities Commission by DNVGL, April 1, 2017.

[38] "Final 2015 Efficiency Savings and Performance Incentive (ESPI) Uncertain List", 1 December, 2014, Commission staff memo to R.13-11-005 Service List as directed by D.13-09-023.

number of lamps. The 2015 evaluation team inadvertently identified as de-lamping measures the early retirement of T12 lamp and ballast combinations replaced with T8 lamps and ballasts where the post retrofit T8 lamp count is smaller than the pre-existing fixture T12 lamp count. These measures were identified in the claims with the word "de-lamping" in the measure name.

Since these measures are lamp and ballast retrofits, not de-lamping measures, they are not on the uncertain measure list, and hence not subject to ex-post savings determinations. These measures are instead covered by DEER requirements, and thus were revised to be consistent with the DEER direction.

DEER 2011 update revised the RUL for early retirement lighting measures where the pre-existing technology included 4-foot, 8-foot or U-tube T12 lamps. For these measures, DEER requires the RUL be calculated based on the EUL of the pre-existing lamp (instead of the ballast as is the case for all other linear fluorescent measures). For T12 lamps the DEER rated life is 20,000 hours. Therefore the RUL can be no greater than one-third of 20,000 hours divided by the annual operating hours. For most DEER building types, this results in an RUL of between two and two-and-a-half years. Ex post results show that all of these measures were assigned an RUL of approximately five years. Commission staff reviewed and revised as needed the RULs and second period savings for all early retirement lighting measures with T12 pre-existing technologies to be consistent with DEER requirements.

PG&E, SCE, SDG&E, and SoCalGas' requested ESPI awards are modified and approved, as detailed herein:

1. Pacific Gas and Electric (PG&E)

In the area of workpapers and custom projects reviews, Commission staff observed that PG&E increased their efforts to collaborate, clarify, and solicit staff's guidance on projects earlier in their internal review process. However, there are still major concerns on lack of evidence of program influence, inadequate calculation methodology and analysis approaches, and insufficient measurement and verification plans. Commission staff also remains concerned that for several workpaper measure groups with large portfolio contributions, PG&E has not shown sufficient efforts to incorporate previous our direction and sometimes appears to take no action in response to staff input.

PG&E's submitted program expenditures and savings were both modified based on the adjustments listed earlier. While there are some improvements on the expenditure's inconsistencies we did not observe sufficient attention to the Commission direction on the correct submission of reported savings claims as identified in last year resolution.

PG&E requests $1,468,059 in their 2017 ESPI Advice Letter as detailed below:

1.1 Energy Efficiency Resource Savings

- 2015 Ex-Post Energy Savings

ESPI Component	2015 Cap*	Requested	Approved
2015 Ex-Post Savings	$23,904,923	$10,210,061	$9,748,290

*2015 Savings award Cap minus 2015 Ex-Ante Savings Awards Earned in 2016

- 2016 Ex-Ante Energy Savings

ESPI Component	2016 Cap	Requested	Approved
2016 Ex-Ante Savings	$27,457,245	$6,988,256	$6,366,816

1.2 Ex-Ante Review (EAR) Process Performance

ESPI Component	2016 Cap	Requested	Approved
2016 EAR Performance	$9,152,415	$5,360,028	$4,664,457

1.3 Codes and Standards (C&S)

ESPI Component	2016 Cap	Requested	Approved
2016 C&S Management Fee	$1,752,163	$1,739,465	$1,739,465

1.4 Non-Resource Programs

ESPI Component	2016 Cap	Requested	Approved
2016 Non-Resource Management Fee	$709,323	$706,988	$706,988

1.5 True Ups

Component	Requested	Approved
2015 Ex-Ante Savings True Up	($233,759)	($233,759)
2015 EAR Performance True Up	($10,969)	($11,854)
2015 Codes & Standards True Up	-	-
2015 Non-Resource True Up	-	-
2013-2014 Savings True Ups	-	($1,065,302)
2006-2008 RRIM Adjustment	($23,292,011)	($21,915,101)

The 2015 UAFCB report on PG&E recommended true ups for the 2015 C&S and Non-Resource awards were already covered in resolution E-4807; therefore there are no further adjustments on those two components this year.

In their ESPI Advice Letter PG&E seeks to offset the remaining balance of their RRIM settlement amount, $23,292,011 with this year's awards. The 2015-2016 award adjustments exceeds PG&E's proposed offset; therefore at the request of PG&E[39] we will include the maximum available amount of $21,915,101 in this resolution. The remaining balance of $1,376,910 from the overall RRIM settlement amount should be included in the next year ESPI Advice Letter.

PG&E's final 2017 award values including all adjustments are shown below:

[39] PG&E AL 3880-G-A/5136-E-A p.10 and Comments to draft resolution p.7

Component	Requested	Approved
2015 Ex-Post Savings	$10,210,061	$9,748,290
2016 Ex-Ante Savings	$6,988,256	$6,366,816
2016 Ex-Ante Review Performance	$5,360,028	$4,664,457
2016 Codes & Standards	$1,739,465	$1,739,465
2016 Non-Resource	$706,988	$706,988
2015 Ex-Ante Savings True Up	($233,759)	($233,759)
2015 EAR Performance True Up	($10,969)	($11,854)
2015 Codes & Standards True Up	-	-
2015 Non-Resource True Up	-	-
2013-2014 Savings True Ups	-	($1,065,302)
Award for PY 2015 and 2016	**$24,760,070**	**$21,915,101**
2006-2008 RRIM Adjustment	($23,292,011)	($21,915,101)
Total Payment	**$1,468,059**	**$0**

Table 7: PG&E 2017 ESPI Awards

2. Sothern California Edison (SCE)

In the area of ex-ante review for workpapers and custom projects, Commission staff observed that SCE's engineering team continue with its internal quality control and quality assurance project review process along with their technical review of custom projects. Commission staff acknowledges and applauds this effort. However, review indicates SCE has not successfully implemented prior staff directives and guidance across the full range of portfolio activities.

Commission staffs' major concerns in prior years still remain outstanding. Those concerns include lack of evidence of program influence, inadequate calculation methodology and analysis approaches, and insufficient measurement and verification plans.

SCE has shown progress in working with other program administrators to develop statewide workpapers for measures that are similar, if not identical, across all three electric utilities. Overall, SCE appears to have some of the best capabilities for developing new and updating existing workpapers; however, its process for responding to preliminary reviews and dispositions needs improvement. At the end of 2016, nearly all of these workpaper reviews were still awaiting response from SCE. Most discouraging are cases in which SCE continues to resist previous direction and input, such as the direction to support early retirement claims in their package HVAC program.

SCE's submitted program expenditures and savings were both modified based on the adjustments listed earlier. While there are some improvements on the expenditure's inconsistencies we did not observe sufficient attention to the Commission direction on the correct submission of reported savings claims as identified in last year resolution.

SCE requests $24,818,921 in their 2017 ESPI Advice Letter as detailed below:

1.1 Energy Efficiency Resource Savings

- 2015 Ex-Post Energy Savings

ESPI Component	2015 Cap*	Requested	Approved
2015 Ex-Post Savings	$17,539,465	$10,026,548	$8,250,445

*2015 Savings award Cap minus 2015 Ex-Ante Savings Awards Earned in 2016

- 2016 Ex-Ante Energy Savings

ESPI Component	2016 Cap	Requested	Approved
2016 Ex-Ante Savings	$20,966,541	$8,272,039	$6,722,146

1.2 Ex-Ante Review (EAR) Process Performance

ESPI Component	2016 Cap	Requested	Approved
2016 EAR Performance	$6,988,847	$2,768,349	$2,666,023

1.3 Codes and Standards (C&S)

ESPI Component	2016 Cap	Requested	Approved
2016 C&S Management Fee	$581,031	$581,031	$581,031

1.4 Non-Resource Programs

ESPI Component	2016 Cap	Requested	Approved
2016 Non-Resource Management Fee	$788,930	$625,147	$625,148

1.5 True Ups

Component	Requested	Approved
2015 Ex-Ante Savings True Up	$200,006	$200,006
2015 EAR Performance True Up	$2,301,676	$1,778,317
2015 Codes & Standards True Up	($11,321)	-
2015 Non-Resource True Up	$55,445	$55,445
2013-2014 Savings True Ups	-	($3,884,445)
2006-2008 RRIM Adjustment	-	-

The 2015 UAFCB report on SCE recommended adjustments for the 2015 C&S awards were already covered in resolution E-4807; therefore there are no further adjustments for that component this year.

SCE's final 2017 award values including all adjustments are shown below:

Component	Requested	Approved
2015 Ex-Post Savings	$10,026,548	$8,250,445
2016 Ex-Ante Savings	$8,272,039	$6,722,146
2016 Ex-Ante Review Performance	$2,768,349	$2,666,023
2016 Codes & Standards	$581,031	$581,031
2016 Non-Resource	$625,147	$625,148
2015 Ex-Ante Savings True Up	$200,006	$200,006
2015 EAR Performance True Up	$2,301,676	$1,778,317
2015 Codes & Standards True Up	($11,321)	$0
2015 Non-Resource True Up	$55,445	$55,445
2013-2014 Savings True Ups		($3,884,445)
2006-2008 RRIM Adjustment	-	-
Total Payment	**$24,818,921**	**$16,994,117**

Table 8: SCE 2017 ESPI

3. San Diego Gas & Electric (SDG&E)

In the area of ex-ante review for workpaper custom projects, SDG&E staff continues to be proactive in bringing forth topics for thoughtful discussion, and communicates a sincere desire to improve its portfolio performance as well as ESPI score. However, the significant Commission concerns, remaining from prior years, are lack of proper tracking of projects selected for ex ante review, lack of evidence of program influence, inadequate calculation methodologies and analysis approaches, and insufficient measurement and verification plans.

SDG&E also needs to reduce the large time lag in their workpaper submissions. Additionally, SDG&E staff is under the mistaken impression that they may retire workpapers for which they continue to claim savings. This effort overreaches the staff guidance to adopt values within the ex-ante database by failing to submit workpaper descriptions that justify how the measures are being implemented within programs. Commission staff generally observed that it is difficult to keep track of the current programs and measures in the SDG&E portfolio.

SDG&E's submitted program expenditures and savings were both modified based on the adjustments listed earlier. While there are some improvements on the expenditure's inconsistencies we did not observe sufficient attention to the Commission direction on the correct submission of reported savings claims as identified in last year resolution.

SDG& requests $3,950,465 in their 2017 ESPI Advice Letter as detailed below:

1.1 <u>Energy Efficiency Resource Savings</u>

- 2015 Ex-Post Energy Savings

ESPI Component	2015 Cap*	Requested	Approved
2015 Ex-Post Savings	$6,514,290	$2,851,063	$2,774,388

*2015 Savings award Cap minus 2015 Ex-Ante Savings Awards Earned in 2016

- 2016 Ex-Ante Energy Savings

ESPI Component	2016 Cap	Requested	Approved
2016 Ex-Ante Savings	$8,193,593	$2,303,540	$2,257,372

1.2 Ex-Ante Review (EAR) Process Performance

ESPI Component	2016 Cap	Requested	Approved
2016 EAR Performance	$2,731,198	$1,078,963	$1,360,389

1.3 Codes and Standards (C&S)

ESPI Component	2016 Cap	Requested	Approved
2016 C&S Management Fee	$110,875	$62,109	$62,109

1.4 Non-Resource Programs

ESPI Component	2016 Cap	Requested	Approved
2016 Non-Resource Management Fee	$288,590	$206,361	$179,406

1.5 True Ups

Component	Requested	Approved
2015 Ex-Ante Savings True Up	($8,976)	($8,976)
2015 EAR Performance True Up	($16,384)	($17,661)
2015 Codes & Standards True Up	($18,006)	($19,408)
2015 Non-Resource True Up	($8,205)	$0
2013-2014 Savings True Ups	-	($639,150)
2006-2008 RRIM Adjustment	($2,500,000)	($2,500,000)

SDG&E's final 2017 award values including all adjustments are shown below:

Component	Requested	Approved
2015 Ex-Post Savings	$2,851,063	$2,774,388
2016 Ex-Ante Savings	$2,303,540	$2,257,372
2016 Ex-Ante Review Performance	$1,078,963	$1,360,389
2016 Codes & Standards	$62,109	$62,109
2016 Non-Resource	$206,361	$179,406

2015 Ex-Ante Savings True Up	($8,976)	($8,975)
2015 EAR Performance True Up	($16,384)	($17,661)
2015 Codes & Standards True Up	($18,006)	($19,408)
2015 Non-Resource True Up	($8,205)	$0
2013-2014 Savings True Ups		($639,150)
Award for PY 2015 and 2016	**$6,450,465**	$5,948,469
2006-2008 RRIM Adjustment	($2,500,000)	($2,500,000)
Total Payment	**$3,950,465**	**$3,448,469**

Table 9: SDG&E 2017 ESPI

4. Sothern California Gas (SoCalGas)

In the area of ex-ante review for workpaper and custom projects, SoCalGas collaborated with Commission staff to accelerate projects that have potential to help mitigate the impacts from the closure of the Aliso Canyon natural gas storage facility, and continued to have productive discussions on complex projects. However, areas in need of improvement are those significant concerns that Commission staff highlighted in prior years that still remain. Those concerns include lack of evidence of program influence and low net-to-gross assessments, inadequate calculation methodology and analysis approaches, and insufficient measurement and verification plans.

SoCalGas' submitted program expenditures and savings were both modified based on the adjustments listed earlier. While there are some improvements on the expenditure's inconsistencies we did not observe sufficient attention to the Commission direction on the correct submission of reported savings claims as identified in last year resolution.

The final calculated award for SoCalGas' 2016 codes and standards exceeds the 2016 C&S award cap; therefore the award is equal to the cap. SoCalGas has correctly reduced the request to the cap in their ESPI Advice Letter.

SoCalGas requests $1,192,296 in their 2017 ESPI Advice Letter as detailed below:

1.1 <u>Energy Efficiency Resource Savings</u>

- 2015 Ex-Post Energy Savings

ESPI Component	2015 Cap*	Requested	Approved
2015 Ex-Post Savings	$4,227,100	$1,205,571	$1,205,571

*2015 Savings award Cap minus 2015 Ex-Ante Savings Awards Earned in 2016

- 2016 Ex-Ante Energy Savings

ESPI Component	2016 Cap	Requested	Approved
2016 Ex-Ante Savings	$4,904,746	$853,066	$580,946

1.2 Ex-Ante Review (EAR) Process Performance

ESPI Component	2016 Cap	Requested	Approved
2016 EAR Performance	$1,634,915	$763,893	$723,682

1.3 Codes and Standards (C&S)

ESPI Component	2016 Cap	Requested	Approved
2016 C&S Management Fee	$91,293	$91,293	$91,293

1.4 Non-Resource Programs

ESPI Component	2016 Cap	Requested	Approved
2016 Non-Resource Management Fee	$392,899	$287,878	$287,878

1.5 True Ups

Component	Requested	Approved
2015 Ex-Ante Savings True Up	-	($175,075)
2015 EAR Performance True Up	-	-

2015 Codes & Standards True Up	($5,443)	($5,880)
2015 Non-Resource True Up*	($3,962)	$144,476
2013-2014 Savings True Ups	-	-
2006-2008 RRIM Adjustment	-	-

* includes additional reward owed to SCG due to last year's computational error for N-R awards

SoCalGas' final 2017 award values including all adjustments are shown below:

Component	Requested	Approved
2015 Ex-Post Savings	$1,205,571	$1,205,571
2016 Ex-Ante Savings	$853,066	$580,946
2016 Ex-Ante Review Performance	$763,893	$723,682
2016 Codes & Standards	$91,293	$91,293
2016 Non-Resource	$287,878	$287,878
2015 Ex-Ante Savings True Up		($175,075)
2015 EAR Performance True Up		-
2015 Codes & Standards True Up	($5,443)	($5,880)
2015 Non-Resource True Up	($3,962)	$144,476
2013-2014 Savings True Ups		-
Award for PY 2015 and 2016	**$3,192,296**	$2,852,892
2006-2008 RRIM Adjustment	($2,000,000)	($2,000,000)
Total Payment	**$1,192,296**	**$852,892**

Table 10: SoCalGas' 2017 ESPI

COMMENTS

Public Utilities Code section 311(g)(1) provides that this resolution must be served on all parties and subject to at least 30 days public review and comment prior to a vote of the Commission. Section 311(g)(2) provides that this 30-day period may be reduced or waived upon the stipulation of all parties in the proceeding.

The 30-day comment period for the draft of this resolution was neither waived nor reduced. Accordingly, this draft resolution was mailed to parties for comments, and will be placed on the Commission's agenda no earlier than 30 days from today.

The four Investor Owned Utilities, Office of Ratepayer Advocates (ORA), and Natural Resources Defense Council (NRDC) submitted comments to the draft resolution. Below are the issues raised and discussed in comments.

Error in the 2016 earning coefficient application

Subsequent to the November 13, 2017 issuance of the draft resolution, Commission staff noticed a calculation error in the application of the earnings coefficients to the 2016 ex-ante savings. On November 16, 2017 Commission staff notified the IOUs in an email, and noted that the error will be corrected in the revised resolution. The final resolution corrects the error and applies the 2016 earning coefficients to the 2016 ex-ante savings. The correction increases the 2016 ex-ante savings award component of the ESPI for all four utilities.

2015 Ex-post adjustments

PG&E in their comments state that by correcting the ex-post evaluated values the Commission is deviating from the established ESPI process and timeline.[40] PG&E finds it inappropriate to discard evaluation results that have been publically vetted and are considered final, especially when it is long after stakeholders are permitted to initiate the dispute resolution process or allowed to initiate a discussion on the merits of evaluated results.

PG&E further states that by rejecting the LED and T-12 evaluation results the draft resolution is reverting back to the ex-ante values instead of ex-post results while not offering any evidence that these ex-ante values are more certain than the ex-post evaluated results.[41] SCE also states that the LED adjustments made to the ex-post values are based on a technical difference of opinion.[42]

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[40] PG&E Comments to the draft resolution , p.1-6

[41] ibid

[42] SCE comments to the draft resolution, p.6

NRDC agrees that the EUL values within the ex-post statement report do seem unreasonably long but states that this issue should have been identified and vetted with stakeholders at the evaluation study's process and timeline. NRDC states that making a decision without conducting due process is not appropriate for this complex issue.

In at least one proceeding the Commission has previously determined that "there shall be no time limit on Energy Division's ability to find and correct errors."[43] Furthermore, the Commission has historically corrected errors identified by Commission staff, and at least in one proceeding particularly errors subsequent to the release of staffs' report.[44] Similar to our stance in D.11-12-036, while we recognize that these adjustments to the savings and ESPI incentives were not anticipated by the utilities at the time of the ESPI AL nor upon the release of the 2015 ex-post statement report, we approve these adjustments because preventing an overstatement of the savings is in the ratepayers' interest.[45]

2013-2014 Adjustments

PG&E states that it is not clear whether the adjusted CFL values for 2013-2014 are intended to represent independently reviewed and evaluated data, and verification of measures actually installed, as required by the ESPI Decision. PG&E further states that any adjustments to 2013 and 2014 ex-post verified savings – for ESPI award purposes or otherwise – should undergo thorough stakeholder review before they are adopted.[46]

PG&E and SCE argue that adjustments for program years 2013 and 2014 are out of scope of the current resolution and that the corrections should be implemented for future claims and not applied to awards finalized in previous resolutions.[47] We would like to first clarify that the CFL adjustments applied to

[43] D. 04-11-015.

[44] D. 11-12-036

[45] ibid, p.27

[46] PG&E Comments to the draft resolution , p.7

[47] PG&E Comments to the draft resolution p.7-8 , SCE Comments p.4

2013-2014 claims are not changing any evaluated values. These measures were initially on the uncertain measure list and subject to ex-post evaluations and while the Commission's intention has been to evaluate all custom and deemed uncertain measures, the reality is that with limited resources we have not been able to evaluate all parameters for every single measure on the list. For those measures or parameters that the Commission has not been able to evaluate we have passed through the ex-ante values as reported by the IOUs, based on the presumption, that the utilities have used the correct Commission adopted values in their submissions. This is why, as noticed by SCE[48] and SDG&E[49], the error was not detected and hence not corrected in the ex-post evaluation statements.

Furthermore, although we agree that it is not preferable to correct erroneous reported claims from 2013-2014, as discussed previously, staff may correct erroneous utility submissions therefore we do not find it out of scope of the current resolution. We do not find it an appropriate use of ratepayers' funds to reward utilities based on incorrect reported savings values.

SDG&E does not object the adjustments made but requests that the CFL EUL adjustments be delineated by year (2015 and 2013-2014) to allow more transparency and understanding of the adjustment performed. We agree with SDG&E and have separated 13-14 adjustments from 2015 adjustment in the final resolution.

ORA in their comments agree with the adjustments to the ex-post energy savings values to conform to previous Commission direction. ORA state that the IOUs' failure to heed Commission direction regarding the appropriate parameters to use in calculating energy savings is troubling. ORA also notes that if the IOUs continue to submit ESPI claims based on incorrect energy savings parameters after repeated adjustment by the Commission, the Commission should consider taking additional remedial actions to bring the IOUs into compliance.[50]

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48 SCE Comments to the draft resolution , p.3

49 SDG&E Comments to the draft resolution, p.1

50 ORA Comments to the draft resolution, p.5

Calculation of Excess DINI expenditures

SCE has recalculated their 2015 and 2016 DINI expenditure using IOU authorized budgets instead of expenditures.

While we agree that it is appropriate to use the authorized budgets in the forward looking processes, (for example the calculation of hard and soft caps or cost effectiveness in the budget advice letter or during the program year), the Commission uses actual expenditures when verifying and evaluating IOUs performance.

SCE has also included EM&V, Statewide ME&O and the On Bill Financing (OBF) Loan Pool amounts in their calculation. The Commission acknowledges that as we have started having more budgets and expenditures outside the IOUs' programmatic budgets (such as EM&V, SW ME&O and the OBF Loan Pool) we should have made a more clear distinction between the EE program budget and the EE portfolio budget. That distinction has been made in the IOUs' official data submissions however not yet carried over to other venues including the policy manual. We intend to update the EE policy manual in the coming months to include this issue together with other identified subjects in various Commission documents.

SoCalGas states that the excess expenditures above the ME&O and DINI thresholds should be included in the calculations of the ESPI rewards. SoCalGas states that nowhere in the ESPI decision, or subsequent decisions, has the Commission indicated that it will not reward the IOUs based on excess expenditures.[51] SoCalGas urges the Commission to adopt a final resolution that denies the exclusion of excess expenditures above the Commission authorized set points.

Under Public Utilities Act Sections 701 and 728, the Commission has the authority to determine what is just and reasonable, and to disallow costs not found to be just and reasonable. In particular, the Commission "has the power to prevent a utility from passing on to the ratepayers unreasonable costs for

[51] SoCalGas Comments to draft resolution, p.6

materials and services by disallowing expenditures that the commission finds unreasonable.[52]

We deny this request and reiterate that while the Commission has tolerated over-expenditures in these two categories and has not yet required the IOUs to refund the excess expenditures to the ratepayers, we do not intend to reward the IOUs based on these excess expenditures either.

Pre-2016 Installations

Resolution E-4807 along with the 2016 guidance document directed the IOUs to only include savings for measures installed in the same year for which they are claiming incentives. The IOUs were also directed to identify the small percentage of projects installed in a separate year than the claim year and to provide sufficient documentation supporting the delay in reporting of such projects for the Commission to decide on a case by case basis.

SCE and SoCalGas submitted requests for exemption among which we granted an exemption for joint projects between SCE and SoCalGas. SoCalGas in their comments state that the Commission's rationale for approving the category of jointly paid incentives regarding delayed information exchange also applies to the other requested exceptions and thus should be allowed.[53]

We would like to clarify that we did not exempt this category because of the assumed delay in timelines but because the IOUs have more control over their own processes and the processes between themselves and their implementers (and other entities they are in contracts with) than they do for processes in-between utilities. So this year instead of penalizing both utilities for the delayed process we give them another opportunity for improvement. We would like to emphasize that this exemption was only granted for the current resolution and

[52] See also *Pacific Telephone and Telegraph Company v. Public Utilities Commission* (1950) 34 Cal.2d 822, 826; *Pacific Telephone and Telegraph Company v. Public Utilities Commission* (1965) 62 Cal.2d 634, 647; *City and County of San Francisco v. Public Utilities Commission* (1971) 6 Cal.3d 119.

[53] SoGalGas Comments to the draft resolution, p.3

will not carry over to future resolutions. The utilities should improve their data tracking and information exchange procedures between now and mid-2018 when 2017 claims are finalized so that all "partnered" projects are correctly reported for 2017 and beyond.

SoCalGas savings measures

SoCalGas in their comments note that there are two measures that should have been included in the ex-ante energy savings calculations for 2016. Commission staff reviewed the data and agrees that the two measures are not on the 2016 uncertain measure list and hence are appropriate for ex-ante payments. However due to the inconsistency between the ex-ante names and data values in the workpaper referenced for these measures and the claims database names and values for the measures, the claimed measures values cannot be verified. In order to prevent the withholding of these measures Commission staff accepted the claims as submitted but this may be subject to additional review going forward.

SCE computational error

SCE in their comments notes a computational error in the ex-ante workbook. We agree with the errors as a result of several cells not being populated. The revised resolution and workbooks correct the error and reflect the updated values as a result of the correction.

Non-Cost Effective Portfolios

ORA in their comments state that the draft resolution must be revised to deny proposed ESPI payments for the 2015-2016 program years as a means of ameliorating the deficient cost-effectiveness of the energy efficiency portfolios from 2013-2016.

ORA states that the criteria the Commission used in designing the ESPI highlight the importance of achieving cost-effective portfolios and the Commission's goal of using shareholder incentives to spur the IOUs to achieve cost-effective energy savings.[54]

We want to note that cost effectiveness is an overarching requirement in Commission policy. Recently we emphasized on the importance of cost effective EE portfolios going forward.[55]

Although we agree with ORA that ESPI mechanism was designed with the assumption of cost effective portfolios we also understand the utilities' challenges in maintaining or exceeding cost effectiveness thresholds in the current portfolios. Therefore although we reject ORA's request to deny 2015-2016 ESPI payments to the utilities at this time, we may look into this issue further in the future, and going forward we may not guarantee ESPI awards for non-cost effective portfolios.

SoCalGas Codes and Standards Management Award

ORA in their comments request that SoCalGas be denied C&S incentive management fees for 2016 and be directed to also refund such awards received in 2014 and 2015.

In final comments on Application 17-01-013[56] ORA has argued that since 2014 SoCalGas has used ratepayer funds for codes and standards advocacy to undermine gas efficiency standards, rather than working to further the Commission's goal of "advancing more stringent codes and standards."[57] In its business plan comments, ORA presented evidence showing that:

- SoCalGas has actively coordinated with gas-industry lobby groups to undermine stricter efficiency standards for residential gas furnaces proposed by the U.S. Department of Energy.

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[54] D.13-09-023, p. 19.

[55] Energy Division Energy Efficiency Branch Manager's Letter to the IOUs dated October 30, 2017

[56] Final Comments of the Office of Ratepayer Advocates on Energy Efficiency Business Program Administrators' Business Plan Applications (Public Version), p. 6-16

[57] D.14-10-046, p. 61

- SoCalGas has obstructed the efforts of other California IOUs to implement the state's energy efficiency goals.
- SoCalGas failed to fulfill basic functions expected of the lead utility, such as proactively gathering data to address the CEC's concerns.

We find these allegations very troubling and while we are not denying C&S management award payments to SoCalGas at this time, if in the future the Commission finds SoCalGas at fault for improper use of ratepayers funds hindering C&S advocacy work, we reserve the right to revisit this issue and may disallow C&S award payments from prior years.

ESPI Process

SoCalGas shows concern in regard to the adjustments made to ex-ante savings data and the difficulties noted by Commission Staff "where reconciliation could not be made between the data submitted via the ESPI Advice Letter" given the same source data of IOU claims utilized.[58]

We share that concern with SoCalGas and expect that the data be accurate and consistent regardless of what process it is filed in or used for.

SoCalGas also states that they believed the meeting held by Commission staff to address IOUs' questions and requests for clarifications was beneficial to the ESPI process and recommends that the Commission include in next year's ESPI process the release of the ex-ante savings and expenditure workbooks as well as a meeting with utility staff prior to the release of the draft resolution to discuss potential disputes with the advice letter data provided.

The Commission welcomes the suggestion and will consider it in the improvements it foresees for the next year ESPI process.

FINDINGS

1. Commission Decision D.13-09-023 directs the IOUs to file an annual Tier 3 Advice Letter to claim energy efficiency shareholder incentive awards.

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[58] SoCalGas Comments to the draft resolution p.7

2. No protests were filed for PG&E AL 3880-G/5136-E, SCE AL 3655-E, SDG&E AL 3109-E/2606-G, SoCalGas AL 5182, filed on September 1, 2017 and PG&E AL 3880-G-A/5136-E-A filed on September 28, 2017.
3. The IOUs' 2015 Ex-Post (PY+2) and 2016 Ex-Ante (PY+1) incentive awards should be approved with modifications.
4. The 2016 awards (PY+1 component of the payments) are based on the IOUs' reported expenditures. The second installation of the 2016 incentive awards will reconcile any differences between utility-reported and Commission-audited data.
5. It is appropriate to rely on publicly available, utility-filed quarterly and monthly reports, as the official data reported to the Commission.
6. It is appropriate to modify IOUs' requested awards based on the adjustments detailed in this resolution.
7. The Commission finds it troubling that we seem to be making identical adjustments to the reported claims every year.
8. Commission staff issues the ESPI guidelines annually.

<u>THEREFORE IT IS ORDERED THAT:</u>

1. The request of Pacific Gas and Electric Company (PG&E) for Efficiency Savings and Performance Incentive (ESPI) awards as made in Advice Letter 3880-G/5136-E and modified in supplemental Advice Letter 3880-G-A/5136-E-A is approved with modifications to the original request. At the request to satisfy the remaining balance of PG&E's RRIM settlement, PG&E is awarded no ESPI incentives in 2017. The remaining balance of $1,376,910 from the overall RRIM settlement amount shall be included in PG&E's next year ESPI Advice Letter.
2. The request of Southern California Edison Company (SCE) for ESPI awards as made in Advice Letter 3655-E is approved with modifications to the original request. SCE is awarded $16,994,117 ESPI incentives in 2017.
3. The request of San Diego Gas & Electric Company (SDG&E) for ESPI awards as made in Advice Letter 3109-E/2606-G is approved with modifications to the original request. SDG&E is awarded $3,448,469 ESPI incentives in 2017.

4. The request of Southern California Gas Company (SoCalGas) for ESPI awards as made in Advice Letter 5182 approved with modifications to the original request. SoCalGas is awarded $852,892 ESPI incentives in 2017.
5. Pacific Gas and Electric Company, Southern California Edison Company, San Diego Gas & Electric Company, and Southern California Gas Company shall only make claims on funds spent in the respective program year. Claims must exclude all funds reported as spent in previous years and all committed expenditures for activities in future years.
6. Reiterating previous Commission direction, Pacific Gas and Electric Company, Southern California Edison Company, San Diego Gas & Electric Company, and Southern California Gas Company shall note the adjustments made in this resolution and ensure that their future claims submissions do not require the same repeated adjustments previously applied to the claims by the Commission.
7. Pacific Gas and Electric Company, Southern California Edison Company, San Diego Gas & Electric Company, and Southern California Gas Company must use the guidelines for 2018 ESPI Advice Letters as a template for their 2018 ESPI Advice Letter submissions.
8. Within 30 days of the issuance of the 2018 ESPI guidelines, Pacific Gas and Electric Company, Southern California Edison Company, San Diego Gas & Electric Company, and Southern California Gas Company shall file a Tier 1 Advice Letter calculating the earning rates and award caps for program year 2017. The submission must include a comprehensive list of the utilities' energy efficiency programs and budget placements in accordance to the 2018 ESPI guidelines.

This Resolution is effective today.

I certify that the foregoing resolution was duly introduced, passed and adopted at a conference of the Public Utilities Commission of the State of California held on December 14, 2017; the following Commissioners voting favorably thereon:

/s/*TIMOTHY J. SULLIVAN*
TIMOTHY J. SULLIVAN
Executive Director

MICHAEL PICKER
President
CARLA J. PETERMAN
LIANE M. RANDOLPH
MARTHA GUZMAN ACEVES
CLIFFORD RECHTSCHAFFEN
Commissioners