Decision 14-10-046 October 16, 2014

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking Concerning Energy Efficiency Rolling Portfolios, Policies, Programs, Evaluation, and Related Issues.	Rulemaking 13-11-005 (Filed November14, 2013)

DECISION ESTABLISHING ENERGY EFFICIENCY SAVINGS GOALS AND APPROVING 2015 ENERGY EFFICIENCY PROGRAMS AND BUDGETS (CONCLUDES PHASE I OF R.13-11-005)

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Summary

This decision authorizes Pacific Gas and Electric Company (PG&E), San Diego Gas and Electric Company (SDG&E), Southern California Edison Company (SCE) and Southern California Gas Company (SoCal Gas), Marin Clean Energy, Southern California Regional Energy Network and Bay Area Regional Energy Network to collectively spend roughly $1 billion dollars on energy efficiency (EE) activities in 2015. This decision reflects our commitment to EE as the preferred energy resource in California.

To arrive at this result, we first determine what EE potential exists within the service territories of PG&E, SDG&E, SCE, and SoCal Gas. Based on the potential we identify, we establish EE savings goals for each service territory. We then fund Program Administrators' (PAs') portfolios of EE programs to meet these goals.

In return for our billion-dollar-a-year commitment of customer funds, we expect PAs to yield measurable, verifiable, cost-effective energy savings. The spending plans (budgets) we approve here are intended to see that that happens.

This decision concludes Phase I of Rulemaking 13-11-005.

1. Introduction

1.1. A Few Big-Picture Thoughts

Reviewing energy efficiency (EE) goals and potentials and budgets for 2015 has highlighted a number of issues to address more fully in Phases II and III of this proceeding, which we highlight up front.

1. **A prevalent meme in some parties' comments** is that codes and standards have become so stringent that

(a) there are few above-code savings to be had, and (b) some customers are left "stranded," unable or unwilling to come up to code, and ineligible for Commission-funded programs, which generally go only to above-code measures. The corollary is that we should start crediting program savings and basing incentives on existing conditions rather than code requirements and industry standard practice.

As for claims that codes have swallowed all above-code savings potential, the only evidence presented in this proceeding – the 2013 Potentials Study (2013 Study) that Navigant Consulting prepared under contract to us – establishes that there are still significant economic above-code savings to be had, even with more stringent codes and standards taking effect this July. This is the major takeaway from the potentials and goals exercise. At some point, we will exhaust the potential for cost-effective EE measures that are incremental to what code requires. We have not done so yet.

Several parties have asked us to change the "baseline" against which we credit program savings (and, by extension, determine cost-effectiveness), and that we use for setting incentive eligibility. Currently (with limited exceptions) the baseline is code or industry standard practice. The proposed alternative is to use "existing conditions" to set the baseline.

Changing the baseline we use will affect more than just EE programs and shareholder incentive mechanisms. Baseline choice weaves inextricably throughout our program design and our and other agencies' grid planning activities. Whether and/or how to change the baseline is something that we will take up in Phase III. There, we can develop a proper evidentiary foundation, and we can baseline coordinate changes with other aspects of our policies. In the meantime, we are directing Commission Staff to begin coordinating now with other agencies and the California

Independent System Operator Corporation (CAISO) on the issues that a change in baseline will raise, so that we can hit the ground running when Phase III begins. We are also directing IOUs to establish pilot programs to yield additional data on existing versus code baseline issues.

As to customers unable or unwilling to meet codes or conform to standard industry practices, we have no doubt that such customers exist; anecdotes abound. But anecdotes are no basis for a change to baseline, and parties have presented no empirical evidence[1] regarding "stranded" customers. The volume of such deferred upgrades, the ability of program administrators to target and accelerate such upgrades cost-effectively, and whether/how to create appropriate incentives are open questions for Phase III.

2. **Accounting issues** loom large as we move to implementing "Rolling Portfolios" in Phase II of this proceeding. Program Administrators' (PAs') balancing accounts contain tens or hundreds of millions of dollars that are "committed" to projects that extended past the end of prior portfolio cycles. There also appears to be a pattern of spending less money than budgeted, with a corresponding accumulation of unspent funds in balancing accounts. We will need to determine what money is matched up with which programs from which budget cycle, and then determine how much money currently in balancing accounts is available to offset future revenue requirements. We will also need to modify accounting practices to reflect the move to Rolling Portfolios. In the meantime, consumers are protected through use of existing

[1] *See, e.g. City of Santa Barbara v. Superior Court*, 41 Cal. 4th 747 (Cal. 2007) ("…some cases and other authorities assert, albeit without citing any empirical evidence, that upholding agreements releasing liability for future negligence is necessary in order to ensure the continued availability of sports recreation and related programs. . . . But we find no support for such broad predictions in the present setting.")

balancing account mechanisms.

3. **Budget requests for 2015** were to be consistent with the annual funding amounts approved for 2014. Our abbreviated review of these comparatively limited filings did not allow for entertaining program expansions or evaluating in detail program successes or failures.

   That said, Decision (D.) 12-11-015[2] required that we allot additional time and attention to reviewing Regional Energy Network (RENs) performance as part of the 2015 budget review. Since we do not yet have data back from Commission Staff's evaluation, measurement, and verification (EM&V) process, we have used the RENs' self-reported historical data from 2013 for our analysis here. This may be more favorable to the RENs than use of evaluated, measured, and verified data would be, but it is the best available data at hand. We will revisit REN funding as additional data become available.

4. **For "Rolling Portfolios" to work well**, we need a relatively steady-state EE environment. This would mean only modest annual changes in: (a) the potentials model, (b) goals, (c) portfolios, and (d) our policies. When these items are dynamic rather than static, portfolio review is much more difficult.

   For 2015, we saw significant changes in the potentials model versus the model we used to establish goals for 2013-2014, commensurate changes in goals for 2015 versus 2013-2014, and requests from parties for significant changes to our policies (e.g., a change to baseline). We also saw events outside our control that warranted material

[2] "It will be especially important, with the REN activities to emphasize more evaluation to determine if certain piloted activities were successful and should be scaled up in 2015 and beyond, or discontinued altogether. To the extent possible, Commission staff and RENs should consider early evaluation activities prior to the end of 2014, in order to have more information going into the 2015 portfolio design process." D.12-11-015 at 20.

changes to portfolios (i.e., passage of Proposition 39; the ongoing drought; potentially significant changes to codes and standards beginning this July).

The 2015 portfolios are largely a carry-forward of prior portfolios. They have nonetheless proven far more difficult to review than that description would suggest. As a precursor to the rolling portfolio review process the 2015 review process provides a warning to us all that the move to Rolling Portfolios may not be an easy one.

5. **EE is complex**, and many of the issues we wrestle with here (e.g., underperforming residential retrofit programs; disputes among Commission Staff, PAs, and program implementers over how to calculate savings values; marginal portfolio cost-effectiveness[3]) have been with us for some time. Improvement in EE programs will require incremental changes to programs and portfolios over the long haul, a task we expect to take on in Phase III.

With that being said, we turn to establishing savings goals and setting program budgets.

1.2. Background on EE Potential, Goals, and Budgets

1.2.1. EE Potential

Public Utilities Code Sections 454.55 and 454.56[4] require the California Public Utilities Commission (Commission), in consultation with the California Energy Commission (CEC), to identify potentially achievable cost-effective

[3] NRDC takes issue with characterization of portfolio cost-effectiveness as "marginal." NRDC's position here rests on portfolio cost-effectiveness as calculated by the filers that are subject to cost-effectiveness requirements. As noted throughout the decision, and particular in subsection 3.9.1 below, there were material errors in the cost-effectiveness calculations (e.g., omission of shareholder incentive payments from IOU calculations of costs). Corrections to these calculations will materially lower TRCs; to the extent they drop below 1.0 we will require portfolio adjustments to exceed that minimum threshold.

[4] All statutory references are to the Public Utilities Code unless otherwise noted.

electricity and natural gas efficiency savings and establish efficiency targets for electrical or gas corporations to achieve. The current utility-specific energy savings goals, established in D.12-05-015, extend only through 2014. The Commission needs to adopt goals for 2015.

Commission Staff began work on establishing 2015 goals early in 2013. In parallel, the CEC and the CAISO were working on their own planning activities, which incorporate EE forecasts.

On February 25, 2013, Commission President Peevey co-authored a letter along with CEC Commissioner Weisenmiller and CAISO President and CEO Berberich to state Senators Padilla and Fuller regarding how to "to appropriately and consistently consider EE savings in energy forecasting, electricity procurement planning, and transmission planning." The co-authors committed their respective entities to "align the key milestones of the demand forecasting process, including projections for EE, with agencies' planning and policy deliberations." The co-authors reiterated this commitment, and identified their agencies' achievements towards this goal, in another joint letter dated January 31, 2014.

The study and the goals that the Commission adopts in this proceeding should align with the "Additional Achievable Energy Efficiency" (AAEE) forecast that the CEC, in consultation with the Commission and CAISO, selected as the "managed forecast" for procurement and transmission planning in its recently adopted 2013 Integrated Energy Policy Report (IEPR).

What this means is that the CEC, the CAISO, and the Commission will sing from the same songbook when it comes to setting energy savings goals. The CEC and CAISO have already committed to use the 2013 Potential and Goals Study that our staff commissioned and which we adopt in this decision.

Significantly, the 2013 Study takes as its starting point a "code" baseline. We will discuss this much more below. This means that the CEC and CAISO are currently incorporating a code baseline into their planning activities. Departing from a code baseline would put us at odds with the CEC and CAISO.

1.2.2. EE Budgets

Over the past ten-plus years we have greatly increased EE budgets. This ramp-up in spending comports with Public Utilities Code Section 381's mandate that we "allocate funds spent to programs that enhance system reliability and provide in-state benefits including: (1) cost-effective EE and conservation activities . . ."[5]

Section 381 expressly limits us to allocating funds to "cost-effective" activities. We have interpreted this limitation to mean that portfolios of programs, rather than all individual programs, must be cost-effective. In practice this means that many programs within portfolios are not cost effective. Indeed, we assume that all "non-resource" programs (e.g., workforce education and training) are not cost-effective at all. We nonetheless fund them so long as the overall portfolio is cost-effective.

Ultimately, we want to see budgets that yield measurable, verifiable savings. We are overseeing the investment of billions in ratepayer dollars in EE programs. Ratepayers must know that their dollars are well spent.

1.3. Background on the Filings Leading to this Decision

In Rulemaking (R.) 13-11-005, the Commission recognized that "review and analysis of 'Rolling Portfolios' will not be complete in time for the 2015 budget cycle." The Commission accordingly established a process for

[5] Cal. Pub. Util. Code § 381 (b).

ensuring that 2015 funding will be in place while it resolves "Rolling Portfolio" implementation issues.

The Commission divided R.13-11-005 into three phases, with review of 2015 portfolios within the preliminary scope of the first phase. The scoping memorandum issued January 22, 2014, limited the scope of Phase I to issues related to the 2015 portfolios.

As the January 22, 2014 scoping memorandum explains:

> Phase I of R.13-11-005 is on an expedited schedule. Phase I will establish 2015 portfolios and funding, clearing the decks for work on "Rolling Portfolios" and other programmatic issues.
>
> Expedited disposition of Phase I necessitates a ruthless pruning of issues in this phase of the proceeding. It also necessitates a near-complete focus on the issues that are within Phase I's scope. Unfortunately, this means deferring some of the changes to portfolios that we and others might have wished to see begin in 2015.

Here, as in that scoping memorandum, we will limit the issues to those that we must resolve for 2015. This means deferring to subsequent phases many of the larger policy issues that parties have sought to place before us.

This decision sets energy savings goals, then establishes the parameters by which PAs will (a) meet or exceed energy savings goals, (b) demonstrate portfolio cost-effectiveness, (c) implement program modifications or new programs directed herein, (d) sustain other existing programs, (e) align their programs with the Strategic Plan, and (f) comply with all relevant decisions and statutes.

We appreciate the efforts of utility, consumer, environmental, market and other participants in the expedited process leading up to the adoption of 2015 EE portfolios. The 2015 budget filings were complex, and required considerable

effort for PAs to prepare as quickly and thoroughly as they did. We also thank Commission Staff for their work reviewing PA submittals.

2. Savings goals for 2015 portfolios

2.1. Summary of 2015 Goals

A summary of the goals we adopt is below. Data limitations required us to develop the goals by Investor Owned Utility (IOU) service territory, rather than by PA. This means that we have not established separate goals for RENs or Community Choice Aggregation (CCAs). Their expected savings are embedded within the savings for the service territories of the IOUs.

This table differs slightly from the corrected table provided in the April 2, 2014 Ruling Correcting Errors in the March 3, 2014 Guidance on Energy Savings Goals for Program Year 2015 (Goals Ruling). We have folded what had been a separate savings figure for non-IOUs owned street-lighting into the overall program savings goals. On reflection, we concluded there was no reason to single street-lighting out from all other programs in this high-level summary of overall goals. Also, SoCal Gas goals have been adjusted to remove interactive effects, per D.09-05-037.

Figure 1- 2015 IOUs Territory Savings Goals

IOUs Territory	2015 electricity savings (GWh/yr)	2015 peak savings (MW)	2015 natural gas savings MMT/yr)
PG&E			
IOUs program savings goal	696.9	110.2	14.3
IOUs Codes & Standards advocacy savings goal	282.6	44.2	1.1
Total Goals	980.5	154.4	15.4

IOUs Territory	2015 electricity savings (GWh/yr)	2015 peak savings (MW)	2015 natural gas savings MMT/yr)
SCE			
IOUs program savings goal	691.5	114.6	
IOUs Codes & Standards advocacy savings goal	291.5	45.6	
Total Goals	983.0	160.1	
SoCal Gas			
IOUs program savings goal			21.3
IOUs Codes & Standards advocacy savings goal			4.0
Total Goals			25.3
SDG&E			
IOUs program savings goal	173.6	29.2	2.3
IOUs Codes & Standards savings goal	66.1	0.3	0.1
Total Goals	239.7	39.6	2.5
Total Statewide Goals	2,203.2	354.1	40.9

2.2. Procedural Background of the Goals Study

2.2.1. Goals Study Development and Public Comment

R.13-11-005 generally directed continuation through 2015 of the EE portfolios approved for 2013-2014. However, R.13-11-005 also identified aspects of the 2013-2014 portfolios that might need to change for 2015. Of particular import for this portion of this decision, the Commission stated:

> Administrators may need to adjust their portfolios to reflect our adoption of an updated EE goals and potentials study, and resulting EE targets. Commission Staff has been

> developing a revised Potential and Goals Study for use in the CEC's demand forecast and IEPR. We will put that study and associated targets out for comment, and then adopt new goals and potentials and targets for use with 2015 portfolios.[6]

The EE potential and goals study provides the technical analysis assessing the cost-effective energy savings potential available in the state's building stock, commercial sector, industrial sector, and agricultural sector. The Commission's Energy Division contracted with Navigant to conduct an EE potential and goals update study for 2015. Commission Staff vetted the study through the DAWG, a collaborative stakeholder forum established in 2009 by the CEC and the Commission to address technical issues associated with aligning CEC demand forecasting and the Commission's EE goals modeling efforts.

On November 26, 2013, the assigned Administrative Law Judge (ALJ) issued a ruling requesting comments on the 2013 Study. Commission Staff held a public workshop concerning the draft 2013 Study and goals on December 17, 2013. Parties filed comments on the draft 2013 Study and goals on December 20, 2013. On March 3, 2014, the assigned Commissioner issued the Goals Ruling. This ruling provided a revised 2013 Study, and also revised goals for PAs to use to plan their 2015 EE portfolios.[7]

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[6] As was the case with the previous Potential Study, the 2013 Potential and Goals Study was developed with the support of the Demand Analysis Working Group (DAWG). The DAWG is jointly coordinated by the CEC and this Commission. It provides a public forum to discuss demand and EE forecast issues. The DAWG provided ongoing informal comments during development of the Potential and Goals study. These comments are posted on the DAWG website at http://demandanalysisworkinggroup.org/.

[7] The 2013 Study can be viewed as Attachments 1-6 to the March 3, 2014 Ruling at http://docs.cpuc.ca.gov/SearchRes.aspx?DocFormat=ALL&DocID=88661908

2.2.2. Joint Agency Letters re: Common Forecast of Energy Savings

As noted earlier, on February 25, 2013, Commission President Peevey co-authored a letter along with CEC Commissioner Weisenmiller and CAISO President and CEO Berberich to state Senators Padilla and Fuller regarding how to "to appropriately and consistently consider EE savings in energy forecasting, electricity procurement planning, and transmission planning."[8] The co-authors committed their respective entities to "align the key milestones of the demand forecasting process, including projections for EE, with agencies' planning and policy deliberations."[9] The co-authors reiterated this commitment, and identified their agencies' achievements towards this goal, in another joint letter dated January 31, 2014.[10]

The study and the goals that the Commission adopts in this proceeding provide the basis for the AAEE forecast that the CEC, in consultation with the Commission and CAISO, has applied to the "managed forecast" for procurement

[8] A copy of the letter is posted on the Commission's website at: http://www.cpuc.ca.gov/NR/rdonlyres/C0B605DF-20C8-43C4-93FB-530F152D0E3F/0/CECCPUCISOresponsetoSenatorsPadillaandFuller_022513.pdf

[9] The specific forecasts and purposes we identified were:

- By the Commission in its efficiency potential and goals studies which guide program and funding decisions for investor-owned utilities;
- By the Commission and CAISO to make decisions on electricity procurement and transmission planning; and,
- As a basis for Commission- and CEC-recommended portfolios used in the CAISO's transmission planning process.

[10] A copy of the letter is available on the Commission's website at: http://www.cpuc.ca.gov/NR/rdonlyres/2D097AAD-5078-47E9-A635-1995668F34B7/0/Padilla_Fullerletter_13114.pdf

and transmission planning in its recently adopted 2013 IEPR.[11] The CEC based this "managed forecast" on the 2013 Study.

2.3. Overarching Considerations in Setting 2015 Goals

2.3.1. A Single Set of Goals

Several parties have proposed that we adopt more than one set of goals: (1) an aspirational goal that we would encourage administrators to achieve and (2) a floor goal that we would expect IOUs to meet at a minimum. We recognize that this proposal is well-intentioned. However, experience suggests that setting multiple goals, including aspirational goals, is not realistic and may create perverse incentives. It pressures administrators to submit overly optimistic savings estimates and claims. This leads to unnecessary controversy in both the *ex ante* lockdown and *ex post* evaluation phases of program implementation. Moreover, the shareholder incentive mechanism that we adopted last year, the Efficiency Savings and Performance Incentive mechanism (ESPI),[12] incentivizes utilities to exceed goals, as they receive increased profits for doing so. Thus, setting multiple goals potentially collides with the goals of the joint letters to Senators Padilla and Fuller, and risks re-creating problems the Commission has just addressed.

2.3.2. Based on the 2013 Study

Since the 2013 Study's original issuance in July 2013, we have received party comments in this proceeding and also identified new data. It is essential to use the best-available information and data when setting goals for implementation of what will likely be in excess of $500 million in annual

[11] The 2013 IEPR, adopted on January 15, 2014, is available at: http://energy.ca.gov/2013_energypolicy/

[12] D.13-09-023.

spending on EE programs. Therefore, we adopt 2015 goals based on the revised 2013 Study, attached to the Goals Ruling. The 2014 demand forecast has been adjusted to reflect the changes to the final 2013 Study.

2.3.3. Realistic goals

As directed in previous decisions, EE goals should be "aggressive yet achievable."[13] Recent experience suggests that achieving 100% of market potential based on the "mid-case" scenario of the potential forecast is plenty challenging to achieve. Administrators failed to meet the goals we set for the 2006-2009 portfolio period (the last period for which we have completed EM&V of claimed savings).

A major driver for the observed discrepancy between goals and actual savings is a mismatch between the saving numbers used to generate goals (*ex ante* numbers), and the saving numbers found in after-the-fact review (generally, *ex post* numbers). The goals for 2006-2012 rested on *ex ante* numbers drawn from the "Secret Surplus Study," a study prepared in 2002. These *ex ante* numbers were relatively high compared to what *ex post* analysis supported. Controversy over the 2006-2009 IOUs saving claims and related shareholder incentive payments resulted in and prevented the results of the Commission's *ex post* analysis from being included in the 2010-2012 portfolio savings estimates. Consequently, information from the Commission's *ex post* review of the 2006-2009 portfolio is only now feeding into the establishment of IOUs goals. As the Commission said in D.08-07-047, "goals should be based on the best available information."[14] We now have better *ex ante* numbers than we did the last time

[13] *See* D.07-09-043 at 107-08.

[14] D.08-07-047 at 10 and D.09-09-047 at 40.

we set goals. Therefore, we are better prepared to land on a level of savings that *ex post* analysis will support.[15]

2.4. IOU-Specific Issues Regarding the Draft Study and Goals

We received comments on the 2013 Study from all four IOU parties: PG&E, SDG&E, SCE, and SoCal Gas. The majority of the IOU's comments identified technical issues. As with the potentials study that the Commission adopted in 2011, Navigant has incorporated responses to technical comments into a revised study.[16] The Commission will address these comments and the Navigant responses in this decision.

2.4.1. Feasibility of SDG&E Meeting Its 2015 Goal

The Rulemaking contemplates that 2015 portfolios will be largely a continuation of 2014 portfolios. However, the older portfolios are based on a 2011 Goals and Potentials study. The 2013 Study uses new methodologies compared to the 2011 Study, and finds materially more additional achievable savings in some areas (and less in others) than did the 2011 Study. SDG&E's comments suggest it may not be able to adapt its 2014 portfolio to the sometimes much higher goals for 2015 derived from the 2013 Study.

The 2013 Study uses new methodologies to calculate savings for new delivery mechanisms and a wider range of measures, including:

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[15] The cyclical nature of the program authorization, implementation, and evaluation process means that that *ex ante* numbers will always be imperfect. One of the goals of the Rolling Portfolio policy in Phase II of this proceeding is to reduce the lag between when revisions to *ex ante* values are identified and when they are reflected in program savings and portfolio planning estimates.

[16] *See* Attachment 5 to the Goals Ruling.

- A more comprehensive approach to emerging technologies;
- A new methodology for whole building approaches and bundling of measures;
- A new methodology to quantify savings from financing programs; and
- A more refined approach to the agricultural, industrial and street lighting sectors.

The difference in SDG&E's potential between the 2011 and 2013 vintages of the study results mainly from the increase in commercial whole building retrofit potential in 2015. Whole building modeling that integrates cost, savings potential, and technology saturation to the 2013 study identified additional savings potential compared to the 2011 study. For SDG&E, the forecast savings from this class of programs found approximately five times as much savings potential as these programs have delivered in each of the previous six years.

It is going to take some "ramping-up" to achieve such a dramatic increase in savings. Accordingly, we have adjusted SDG&E's 2015 goal to reflect 120% of SDG&E's recent annual savings claims for commercial whole building retrofit programs. This considers (but does not require) a linear, five-year ramp up to the level of savings the draft 2013 Study forecasts for SDG&E.

Allowing SDG&E time to reach the new 2015 goal does not cause any potential to go unrealized. It simply rolls over to subsequent years. We anticipate that this additional potential will be identified and included in the potential and goals adopted in Phase 2 for 2016 and beyond. SDG&E will still be required to realize this potential, just later. Thus, this reduction in goals compared to the goals adopted in the 2013 IEPR should have no material impact on grid planning. Attachment 4 to the Goals Ruling provides annual projections

of additional achievable EE out to 2024, reflecting the 2015 goals modification we propose and subsequent expected uptake of potential in later years.

2.4.2. Agricultural, Industrial, & Mining Sector Potential

In their comments, SCE and Pacific Gas and Electric Company (PG&E) raised concerns that the 2012 Study included agricultural and industrial measures that the Commission considers Industry Standard Practice or Operations and Maintenance, for which the IOUs are not allowed to claim savings.[17] SCE and PG&E recommend removing all measures for which IOUs programs are unable to claim savings. Their request is reasonable, and is granted. In response to this request, we directed Commission Staff to work with the IOUs to identify the measures for which Industry Standard Practice is applied, in order to update the Final Potential and Goals Study, attached to March 3, 2014 ruling.[18] The resulting adjustments had the most significant impact on gas savings, while peak electricity savings felt the smallest impact.

[17] D.11-07-030 Attachment B at 15, states "Industry standard practice baselines establish typically adopted industry-specific efficiency levels that would be expected to be utilized absent the program."

[18] Discussion of this change is included in Attachment 4 to the ruling.

Figure 2 - Impact of Model Updates on Goals Ruling

	GWh			MW			MMT		
	Draft Goals	Goals Ruling	% Change	Draft Goals	Goals Ruling	% Change	Draft Goals	Goals Ruling	% Change
PG&E	1056	981	-7%	163	154.4	-5%	19	15.4	-19%
SCE	1046	983	-6%	166	160.1	-4%			
SoCal Gas							28.3	25.3	-19%
SDG&E	264	240	-9%	43.6	39.6	-9%	2.8	2.5	-12%

2.4.3. CFL Potential

PG&E and SCE raised concerns regarding the presence of Compact Fluorescent Lamps (CFLs) in the potential forecast, stating that the Commission has directed the IOUs not to focus their incentive programs on basic CFL measures, except for specific areas such as hard-to-reach customer segments and advanced products.

D.12-05-015 directed the IOUs to reduce CFLs in the portfolio to reflect the market potential found in the 2011 Study. Consistent with the approach the Commission took in D.12-05-015, in 2015 administrators should continue to capture the remaining market potential for CFLs reflected in the most current potential study, and target hard-to-reach markets.

2.4.4. AB 719 and Street Lighting

Modeling of street lighting efficiency improvements was a subject of discussion at the workshop on the draft 2013 Study. SCE in particular was concerned about whether savings from street lights that IOUs own were accurately captured. IOU owned street lights are ineligible for EE incentives.

SCE was concerned that the draft study failed to account for this, and so overestimated net achievable gains associated with street lights.

Overshadowing that discussion was a recent legislative enactment, Assembly Bill (AB) 719 (2013). AB 719 added Section 384.5 to the Public Utilities Code. Section 384.5 provides in pertinent part that electrical-corporation-owned street light poles, whose electricity use is paid by local governments, be converted to use technology that reduces electricity consumption so that a city, county, or city and county may achieve lower utility bills for the electricity used by these street light poles. The Commission is to order the filing of tariffs by IOUs by July 1, 2015, to allow for IOUs recovery from participating municipalities of street lighting EE upgrades.

The Goals Ruling directed PG&E, SCE, and San Diego Gas &Electric Company (SDG&E) to file Advice Letters (ALs) with tariffs compliant with AB 719 by July 1, 2015. We repeat that directive here. This will mitigate the concerns that SCE expressed about the draft 2013 Study forecasting efficiency improvements in street lighting, by ensuring that funding is available (albeit outside of incentive programs) for these additional achievable savings. More directly to SCE's point, IOU owned street-lighting potential has been removed from the goals, and savings from compliance with AB 719 should not be counted toward goals.

Additionally, the IOUs pointed out that the non-IOU street lighting was separated out in the goals table, and requested that it is consolidated with the IOUs program goals. We agree that there is no need to establish a separate street lighting goal; and the goals tables have been updated in Figure 1, the 2015 IOUs Territory Savings Goals.

2.5. Non-IOU Comments on the Draft Study and Goals

We received responsive comments from the following non-IOU parties (in alphabetical order): Independent Energy Producers (IEP), National Association of Energy Service Companies (NAESCO), Natural Resources Defense Council (NRDC), Office of Ratepayer Advocates (ORA), Opower, Inc. (Opower), and The Utility Reform Network (TURN). These comments were considered in the preparation of the revised 2013 Study. Many of the parties' concerns related to the longer-term modeling and application of goals beyond 2015; these will need to be considered for the next goals update. We will address the concerns related to 2015 goals below.

2.5.1. Independent Energy Producers

2.5.1.1. One Study for Multiple Purposes

IEP draws a distinction between development of "stretch" goals for EE portfolio purposes, and forecasting for procurement purposes. IEP asserts that:

> Relying on a planning model that assesses the technology potential and establishes policy targets as the basis for predicting achievable EE has the distinct potential for overstating future impacts, which would result in understating the need for other resources to meet system needs. In light of this past history, either the Commission needs to adopt goals that are achievable by the utilities or the planning assumptions used by the Commission should reflect past utility performance and not be linked to Commission-adopted EE goals.[19]

[19] IEP Comments at 2.

This proceeding only sets goals for EE portfolio planning purposes. Our commitment, discussed above, to setting realistic goals reflects the Commission's sensitivity to the concern that IEP has raised.

Relatedly, IEP expresses concern about the draft 2013 Study failing "to provide policymakers a historic context for establishing goals." We acknowledge that administrators have not always met the aggressive goals that we have set over the past eight years. For this reason, we find that a "mid" scenario is appropriately aggressive and we do not adopt a "high" scenario.

2.5.1.2. Out of Date Data and *Ex ante* Revisions

IEP points out that the data upon which the draft 2013 Study rests are often out-of-date. IEP suggests that this may bias the study. IEP never exactly says which way the bias may go, up or down. However, IEP strongly suggests, via its choice of an example of how bias can impact planning,[20] that the bias will lead to overly-high savings estimates (and so goals).

Again, we are sensitive to this concern. We recognize that the numbers on which the 2013 Study relies lag behind the Commission's *ex post* review. Nevertheless, the data underlying the 2013 Study are still the best available, and there will always be a mixed vintage of data in these studies. This is also the case in the information underlying the analysis used in the supply-side authorizations in the Long-Term Procurement Plan proceeding and especially in the subsequent applications for generation contracts resulting from those authorizations. This is

[20] "While a 5% overstatement of near-term goals relative to what is actually achievable may not result in grid reliability concerns, over the longer term, such differences can be the difference between maintaining a reliable grid and needing to take emergency actions."
IEP Comments at 4.

a significant improvement from the original goals for IOU portfolios, which we did not adjust to account for updates from 2006-2012.[21]

IEP is also concerned that "outdated assumptions will result in the need for after-the-fact adjustments of goals." This argument appears contingent on *ex ante* numbers being "updated in the near future."[22]

The Scoping Memorandum addresses this concern by excluding *ex ante* updates from the scope of Phase I of this proceeding. Updated *ex ante* values will accordingly play little or no role in 2015 portfolio planning and evaluation, and we do not expect that the Commission will revisit the 2015 goals after adopting them along with administrator portfolios in this decision.

Accordingly we will use the data in the revised 2013 Study (based on adjustments as discussed above) until better data become available. As we noted above, how to update *ex ante* numbers and fold those into portfolio planning on a rolling basis is something we expect to take up in Phase II of this proceeding.

IEP also asks that the draft 2013 Study be modified to include cumulative goals in addition to portfolio cycle goals. Cumulative savings forecasts are already calculated for the AAEE forecast, but setting and enforcing cumulative IOUs program goals have proven problematic, principally because the evaluation methodologies have changed so much over time. It is prohibitively difficult to place savings from one portfolio cycle on an "apples to apples" basis

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[21] The original goals applied in D.04-09-060 remained in effect through 2012. While a potential and goals update had been adopted in 2008, it was only applied to the 2010 IEPR forecast, but not the 2010-2012 IOUs program goals. In D.09-09-047, the original goals were adjusted by a flat 10% reduction to reflect the IOUs new requirements to pursue new approaches in the Strategic Plan, but not to reflect data updates.

[22] IEP Comments at 8.

with savings from a subsequent portfolio. Sorting out this issue is not something to which we need to or should devote resources now.

2.5.1.3. Specific Changes to Modeling Assumptions

IEP calls for three specific revisions to assumptions used in the Draft Study. (1) Inclusion of Emerging Technologies, (2) Total Resources Cost (TRC) Threshold; and (3) Title 20 and Title 24 future adoption dates.

The issues IEP raises concerning emerging technology and Titles 20 and 24 assumptions do not appear to have a material impact on forecast savings in 2015. For 2015, both sets of assumptions can be modeled with a high degree of confidence, as we are looking only a short distance into the future.

IEP takes issue with the use of a TRC threshold set at .85, since it allows measures that are not cost effective to be included in market potential. However, the TRC threshold is only one of several cost factors by which EE measures are screened to be included in market potential, so only a fraction of the measures with lower cost effectiveness gets included in goals. Furthermore, EE is designed to be cost-effective as a whole portfolio, in which the cost of measures with a low TRC is offset in the portfolio by the higher savings of measures with high TRC.

2.5.1.4. Rate Design Assumptions

IEP takes issue with the draft 2013 Study's use of average rates. As IEP notes, industrial customers generally pay time-of-use rates plus a demand charge, not an average-cost rate. According to IEP, the use of average rates overstates savings potential.

IEP does not provide any indication as to the magnitude of the asserted overstatement. Nor does it provide any explanation as to how the assumption works in the model to overstate demand.

2.5.2. NAESCO

NAESCO, a leading national trade association of the energy services industry devotes the bulk of its comments to challenging the Commission's policy of incenting only savings for "above code" improvements, rather than both "to-code" and "above code" improvements. In NAESCO's view, this policy undercounts savings and makes it "difficult, if not impossible to achieve California's goal of capturing all cost-effective [EE]."[23]

R.13-11-005 includes in the preliminary scope of Phase III of this proceeding, an examination of expanding to-code programs. That issue is, however, outside the scope of Phase I of this proceeding. We will discuss this in more depth below in the context of proposals relating to Proposition 39 and locational programs.

2.5.3. NRDC

NRDC regards the Commission's application of 2013 Study's "Mid Case" scenario to goals as an overly "conservative assessment of EE potential available over the subsequent ten years."[24] Nonetheless, NRDC recommends adopting for 2015 the goals presented in the November 28, 2013 ruling. Since all we are adopting here are 2015 goals (with a possible extension into 2016 for some programs; per the Scoping Memorandum), we will not address here the balance of NRDC's comments, which relate to years beyond 2015, i.e., the "out years" of the 2013 Study.

[23] NAESCO Comments submitted December 20, 2013, at 3.

[24] NRDC Comments submitted December 20, 2013, at 3.

2.5.4. Opower

Opower contends that the draft 2013 Study underestimates the potential of behavior programs. The Study continues to use 2011 penetration estimates and according to Opower, has not incorporated recent third-party evaluation results. Opower asks that the Commission direct Navigant to quantify the technical, economic, and market potential of behavior programs based upon evidence in existing evaluations.[25]

The draft 2013 Study assumes that behavior programs reach 5% of residential households across the IOUs service territories. That is consistent with current Commission minimum requirements for behavior programs. Navigant indicated that the empirical research is not clear about the long term savings from scaling up behavior programs.

We have determined that the behavior assumptions should not be adjusted at this time to reflect a larger percentage of participation. If program implementation was scaled to include all residential customers as participants, IOUs goals for the residential sector would essentially double. Commission Staff and its consultants did not find the current research to be sufficiently reliable to impose such a mandate on all administrators, since the persistence of behavior program savings remains unclear. As we previously indicated, the EE goals are expected to be consistent with the demand forecast.

While we will maintain the 5% minimum participation requirement for IOUs behavior initiatives for 2015, we encourage administrators to ramp up these programs voluntarily. These programs may play a significant role in portfolios in the future.

[25] Opower Comments submitted December 20, 2013, at 3.

2.5.5. ORA

ORA raises a variety of issues with the Draft Study.

First, ORA argues that the draft 2013 Study underestimates the future potential of behavioral programs. We addressed this concern in our discussion of Opower's comments.

Second, ORA argues for greater estimates of savings from financing. The potential model quantifies the savings associated with financing initiatives consistent with the design of the pilot programs that are currently being fielded. In light of the delay in these pilot programs,[26] the draft 2013 Study arguably already over-estimated savings for 2015, and that is the only year with which we are concerned at the moment.

Third, ORA argues that the 2013 Study should provide program savings potential on a net as well as gross basis. According to ORA, net IOUs program savings potential should be included to allow for more accurate assessment of savings potential, and to improvement alignment with CAISO and CEC planning methods.

The 2013 Study provides savings in gross values, as is consistent with the Commission's historic goal-setting practice. For parties that want to see net values, the analytical model that Navigant used offers users the ability to run the model using net values.

Fourth, ORA makes the general criticism that most stakeholders are not able to replicate the 2013 Study's results or manipulate the underlying model because of the model's size and complexity.

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[26] *See* February 4, 2014 letter from Paul Clanon to Rasha Prince in Application (A.) 12-07-001 et al., re: Request for Extension of Time to Comply with Ordering Paragraph 21 in D.13-09-044.

Navigant optimized the model so it will run on less powerful computers. Navigant also provided detailed results in the form of spreadsheets for stakeholders who were unable to run the model and made requests. Ultimately, however, there are limits on what can be done to simplify the modeling at issue here. There is a great deal of irreducible complexity involved in the goal setting exercise. Even the complex model here is subject to criticism for failing to take account of various additional factors – in other words, the critique is that it is not complicated *enough*. See, for instance, ORA's concern (discussed below) regarding an industrial and agricultural modelling issue. We are not unsympathetic to ORA and parties' concerns, but do not see a practical solution to them.

Fifth, ORA reports that the study identify and summarize all study gaps and make recommendations for research initiatives that should be pursued by the Commission. Navigant responded to this request and included a list in Attachment 4 to the Goals Ruling.

Sixth, ORA, together with SCE, takes issue with the use of a "cost curve" for agricultural and industrial measures, in lieu of measure-specific data. They contend that it adds uncertainty to the process for validating the model, which in turn decreases the models usefulness in program planning. They ask that the "Machine Drive" category be disaggregated into: Pumps, Process Fans, Compressed Air, Materials Handling, and Materials Processing.

Navigant responds that its industrial model uses a top-down approach and the current results disaggregate savings to the extent possible for the referenced data. Navigant provided the full list of measures that are used to develop the Industrial potential as well as inform a significant portion of agricultural potential. Navigant will also provide the database containing all

measures and associated savings and costs to stakeholders. This database includes a user-friendly interface so that specific measures (*e.g.*, motors) can be sorted for review. This should resolve ORA and SCE's concerns; to the extent that it does not ORA or SCE should provide Navigant with an alternative data source that has the data they assert the 2013 Study might have used.

2.5.6. TURN

TURN requests that the Commission adopt two-tiered goals for 2015 and beyond, "baseline" goals, and "stretch" goals. Similarly, TURN asks that the Commission clarify that the mid case scenario market potential should not be used as the primary driver of program design. TURN is concerned about relying on business-as usual conditions in assessing EE potential.

For the reasons we set out at the start of this ruling, we adopt a single set of goals which is aggressive, yet achievable.

2.6. Adopted 2015 Goals

Consistent with the general principles outlined above, we adopt the EE savings goals set forth in Figure 1 of this Decision.

3. Budgets and Programs for 2015

As required by D.07-10-032, we have evaluated the proposed EE portfolios by a number of criteria. Here we give an overview of how well the adopted portfolios meet these criteria.

> Cost-effective Programs: The adopted portfolios were marginally cost effective using the TRC and Program Administrator Cost (PAC) tests. By making budget adjustments where needed, we are able to approve cost-effective portfolios for each PA, consistent with Section 454.5(b)(9)(c).
>
> Savings Goals Achievement: The adopted portfolios are designed to meet the *ex ante* goals that we establish in this decision.

Balanced Portfolios: The adopted portfolios are a mix of traditional EE measures with expected near-term energy savings, and measures consistent with the long-term savings goals of the Strategic Plan.

Reductions in Peak Load: The adopted portfolios provide sufficient strategies and funding to address opportunities to reduce critical peak loads and improve system load factors.

Savings Potential: The adopted portfolios reasonably allocate funds among market sectors and applications with respect to the savings potential that has been identified in the potential studies.

Lost Opportunities: The adopted portfolios adequately describe strategies to minimize lost opportunities.

State-wide Coordination: The adopted portfolios carry on the prior cycles' provisions for statewide coordination of similar program offerings.

Strategic Plan: The adopted portfolios will move forward our goals from the 2008 Strategic Plan.

Fund-shifting: We address fund-shifting proposals throughout this decision, to the limited extent PAs proposed shifts.

Funding: We have reviewed the proposed budget levels and determined that we needed to make adjustments to the proposed portfolio budgets. We have found that the adopted funding levels are reasonable.

Program Continuity: We are largely funding continuing programs through 2015.

3.1. Treatment of 2015 as a Third Year in the 2013-2014 Portfolio Cycle

Several PAs have asked that the Commission treat 2015 as the third year of the 2013-2014 portfolios, rather than the first year of the rolling portfolio cycle, in the treatment of carryover funds and reporting performance against goals, cost effectiveness and regulatory caps and targets. Granting this request would allow

PAs to use any remaining funds from the 2013-2014 cycle in 2015. It would also enable them to apply savings towards goals and towards portfolio cost-effectiveness as a three year block, as occurred in previous cycles, rather than each year. The Efficiency Council supports this request.

We had intended to treat 2015 as "year zero" of the "Rolling Portfolio;" that is, as a trial year for new approaches to portfolio approval. However, we realize that holding PAs to strict requirements for funds and savings to be counted in an individual year provides none of the flexibility that the rolling portfolio cycle is intended to provide. Moreover, treating the 2013-2014 portfolio as a stand-alone, two-year cycle ignores the reality of the time required for contracts to be planned and executed, which resulted in 2013 being essentially a ramp up year for some initiatives included in the 2013-2014 portfolio cycle.

Therefore 2015 will be a hybrid of "year three" of a 2013-2015 portfolio, and "year zero" of "Rolling Portfolios." It will be "year three" insofar as we authorize PAs here to use unspent funds from the 2013-2014 cycle in 2015.[27] Likewise, we will allow the counting of savings from the 2013-2014 cycle toward 2015 goals and cost-effectiveness. We also direct Commission Staff to undertake EM&V activities for 2013-2014 and 2015 combined. It would be inefficient to treat 2015 as a stand-alone year for EM&V purposes. These are the "year three" aspects of our approach. It is also "year zero" because we authorize in this decision ongoing funding of programs past the end of 2015.

It will be "year zero" insofar as we are leaving 2015 programs and funding in place until the earlier of when we provide superseding direction, or 2025. For

[27] This leads to some complication for RENs due to their contract terms with IOUs getting certain due dates based on a 2014 end to the 2013-2014 cycle. We address these contract issues later in this decision.

the IOUs, we authorize annualized funding levels at 2015 levels through 2025, until we change funding levels. For the RENs, we authorize use of a "Maximum Contract Amount" for each year after 2015 at 2015 funding levels, through 2025 unless and until we make a change. For MCE, we authorize funding at 2015 funding levels, with an annual offset equal to unspent funds from any prior cycle, through the earlier of 2025, or until we make a change. It will also be "year zero" in that we are calculating cost-effectiveness for the 2015 portfolios in isolation from the 2013-2014 portfolios.

The primary point of the "year zero" approach is to end funding cliffs, not to freeze programs in amber. We expect to take up a variety of procedural and programmatic issues in the next phase of this proceeding. In the meantime, PAs[28] may still move funds around within programs, and across programs, subject to standing rules (e.g., those regarding fund shifting). PAs that want to make bigger programmatic changes than permissible under fund shifting rules can bring advice letters and/or applications to us for our review, again, as per prior practice.

3.2. Accounting Issues

After reviewing all PAs' budget tables, "placemats,"[29] and also IOUs Monthly Accounting Reports, we have several related observations.

1) PAs are (with limited exception) spending less each year than budgeted;

[28] We are speaking here primarily to the IOUs and CCAs. As we discuss in detail below we are disinclined to see material changes in REN budgets and programs until we are satisfied with the performance of existing programs. We do not, however, wish to totally bar the door to RENs.

[29] A "placemat" is a spreadsheet that contains various program data in one comparatively accessible spot. Its name derives from it being roughly the same size as a "placemat" that one might put on a dinner table.

2) IOUs in particular are moving large amounts of money – in the tens of millions of dollars for each, and in the hundreds of millions cumulatively – within their Procurement Energy Efficiency Balancing Account (PEEBAs) and across program cycles in ways that are not transparent;
3) It is unclear what criteria PAs are using when classifying funds as "committed," notwithstanding our guidance in D.12-11-015; relatedly, it is unclear how PAs are accounting for "committed" funds within and across portfolio cycles; and
4) Moving revenues across portfolio cycles and mixing costs and revenues together in establishing budgets makes budgets appear flat from year to year, when in fact spending is going up for the portfolio overall (and up or down for individual programs).

We will address each of these concerns in turn. We will also discuss how we will protect ratepayer interests pending resolution of these accounting concerns.

3.2.1. PA Budgets Exceed Spending

Piecing together information from the appendices to PA filings, we observe significantly less spending than authorized both in 2013 and in prior portfolio cycles. Comparing the 2013-2014 budgets that we approved in D.12-11-015 (annualized) against claimed 2013 spending, we see the following: (with particular attention to the highlighted fields):

Figure 3

	2013-2014 Budget Annualized	2013 Spent (Preliminary)
PG&E PROGRAM TOTAL	**$379,296,250**	**$315,865,704**
EM&V	**$16,953,656**	**$1,664,012**
PG&E TOTAL with EM&V	**$396,249,906**	**$317,529,716**

	2013-2014 Budget Annualized	2013 Spent (Preliminary)
BayREN	$11,371,375	$8,574,475
MCE	$2,007,603	$2,509,503
PG&E EE PORTFOLIO TOTAL	**$409,628,884**	**$328,613,694**
	% of budget	**83.28%**
SCE Program Total	$314,898,401	$189,105,024
EM&V	$14,332,187	$3,492,326
SCE Program Total w/EM&V	$329,230,588	$192,597,351
SoCalREN	$17,874,084	$157,677
SCE Portfolio Total	**$347,104,672**	**$192,755,027**
	% of budget	**60.05%**
SDG&E Program TOTAL	$101,323,967	$72,927,028
EM&V	$4,263,500	$467,669
SDG&E TOTAL w/EM&V	**$105,587,467**	**$73,394,697**
	% of budget	**71.97%**
SoCal Gas PROGRAM TOTAL	$81,188,915	$50,842,491
EM&V	$3,650,812	$407,221
SoCal Gas PROGRAM TOTAL	$84,839,727	$51,249,712
SW-ME&O-ME&O1	$2,002,034	$273,119
SoCalREN2,3	$4,526,081	$1,244,787
SoCal Gas TOTAL PORTFOLIO	**$91,367,841**	**$52,767,618**
	% of budget	**57.75%**

What this comparison shows is that all PAs spent less in 2013 than the *annualized* amount we authorized.

Underspending is not a new phenomenon. Entities in the PA role before the 2013-2014 cycle (*i.e.,* the IOUs) all had money remaining from prior cycles that they carried past prior cycles' ends. Some of these they claim to have spent in 2013. The reported amounts spent in 2013 were:

Figure 4

	Pre 2013-2014 Carryover Spent in 2013
PG&E PROGRAM TOTAL	**$48,699,178**
EM&V	**$13,356,595**
PG&E TOTAL with EM&V	**$62,055,773**
BayREN	$-
MCE	$-
PG&E EE PORTFOLIO TOTAL	**$62,055,773**

SCE Program Total	**$69,136,291**
EM&V	$11,699,300
SCE Program Total w/EM&V	**$80,835,592**
SoCalREN	$-
SCE Portfolio Total	**$80,835,592**
ME&O	
New Finance Offerings (2015)	
SCE Portfolio Total	**$80,835,592**

SDG&E Program TOTAL	**$2,098,607**
EM&V	$1,707,749
SDG&E TOTAL w/EM&V	**$3,806,356**

SoCal Gas PROGRAM TOTAL	**$5,719,273**
EM&V	$1,329,355
SoCal Gas PROGRAM TOTAL	**$7,048,628**
SW-ME&O-ME&O1	$241,864
SoCalREN2,3	$-
SoCal Gas TOTAL PORTFOLIO	**$7,290,492**

When you add the carryover to the "spent" amounts to get the total spend for 2013, and then compare *that* amount to the 2013 annualized budget, you get the following:

Figure 5

	2013-2014 Budget Annualized	2013 Spent (Preliminary) + pre 2013-2014 carryover spent in 2013
PG&E PROGRAM TOTAL	**$379,296,250**	**$364,564,882**
EM&V	**$16,953,656**	$15,020,606
PG&E TOTAL with EM&V	**$396,249,906**	$379,585,489
BayREN	$11,371,375	$8,574,475
MCE	$2,007,603	$2,509,503
PG&E EE PORTFOLIO TOTAL	**$409,628,884**	$390,669,46
	% of budget	96
SCE Program Total	**$314,898,401**	**$258,241,316**
EM&V	$14,332,187	$15,191,627
SCE Program Total w/EM&V	**$329,230,588**	$273,432,942
SoCalREN	$17,874,084	$157,677
SCE Portfolio Total	**$347,104,672**	$273,432,492
ME&O		$
New Finance Offerings (2015)		$
SCE Portfolio Total	**$347,104,672**	$273,432,492
	% of budget	82
SDG&E Program TOTAL	**$101,323,967**	**$75,025,635**
EM&V	$4,263,500	$2,175,418
SDG&E TOTAL w/EM&V	**$105,587,467**	$77,201,053
	% of budget	74
SoCal Gas PROGRAM TOTAL	**$81,188,915**	**$56,561,764**
EM&V	$3,650,812	$1,736,576
SoCal Gas PROGRAM TOTAL	**$84,839,727**	-$58,298,340
SW-ME&O-ME&O1	$2,002,034	$514,983
SoCalREN2,3	$4,526,081	$1,244,787
SoCal Gas TOTAL PORTFOLIO	**$91,367,841**	**$60,058,110**
	% of budget	70

These tallies (see esp. the highlighted rows) are closer to the annualized authorized spends, but still less -- in some cases far less. And even this comparison may be understating the issue. Some or all of the *pre*-2013 money spent in 2013 may be on items from pre-2013 budgets, and may be money from prior budget cycles that had been set aside ("committed") during the earlier cycle. The problem is definitional – what is "carryover"? It is not clear whether

or to what extent pre-2013 "carryover" is properly offset against the annualized 2013 budget.

The conclusions from these tables are multiple. (1) PAs did not need to collect what they budgeted (annualized) to cover spending for 2013; some or all of that money is going to go to spending in 2014, and/or on subsequent portfolios, and/or on refunds back to ratepayers. (2) The IOUs did not need to collect the full amount of what they spent in 2013 because: (a) they had tens of millions of dollars from prior cycles available; (b) even taking these funds into account they still underspent their budgets (annualized), and (c) the underspend may be understated since some portion of the 2013 spend may have been money "committed" in prior cycles.

Absent a significant change in PA spending patterns from 2013 to 2014 (a distinct possibility, as we discuss below), PAs will have tens of millions of dollars in unspent money at the end of 2013-2014.

Figuring out exactly how much money is left from prior cycles turns out to be quite difficult. This stems from several related but distinct factors.

- First, we cannot tell from the accounting information the IOUs have provided us exactly how much money is available – neither spent nor "committed" – from prior cycles for future ones.
- Second, it is unclear what the terms "committed" or "carryover" mean as these terms are used by the various PAs; this definitional problem compounds the first problem.
- Third, it is unclear how PAs have already factored unspent funds from prior cycles into their 2015 budgets.
- Fourth, it is unclear to what extent the underspend in 2013 reflects a "lumpy" spending plan for the 2013-2014 portfolio cycle, where 2013 was largely a ramp-up year and most money for the cycle can be expected to go out the

> door in 2014. This is a concern unique to "unspent" funds for 2013, since 2013-2014 is the only cycle for which we do not yet have spending information for the full cycle.

We examine each of these in turn.

3.2.2. It is Unclear What PAs Categorize as "Committed" in Their Filings

In D.12-11-015, we addressed the accounting of unspent funds as follows:

> Funds required to offset new budgets approved in this decision should be those funds that are both unspent and uncommitted. In fact, funds from one program cycle may be contractually or otherwise committed during that program cycle but actually spent during the next cycle." "[W]e define committed funds as those that are associated with individual customer projects and/or are contained within contracts signed during a previous program cycle and associated with specific activities under the contract. All activities carried out under a contract and/or customer obligation during a specific program cycle need not be completed and funds need not be spent during that particular program cycle so long as there is an expectation that the activities will be completed. However, those funds are considered "committed" and/or "encumbered" and thus are not considered "unspent" funds. Only funds that are both uncommitted and unspent during 2012 and prior are eligible for being rolled into 2013 and 2014 program budgets.[30]

The basic idea was that money neither "spent" nor "committed" would be available to use in following years, and so "offset new budgets" (i.e., reduce the need for transfers into the PEEBA). In retrospect, it appears that we muddied the

[30] D.12-11-015 at 95; see also D.12-11-015 at 140 Ordering Paragraph (OP) 38: "Pacific Gas and Electric Company, San Diego Gas & Electric Company, Southern California Gas Company, and Southern California Edison Company shall use unspent and uncommitted EE balancing account funding, including interest, from years prior to 2010 to offset the 2013 revenue requirements approved in this decision. Actual unspent and uncommitted funds from 2010-2012, plus interest, shall be used to offset the 2014 revenue requirements approved in this decision."

waters by excluding "committed" and/or "encumbered" funds from the definition of "unspent."

In the PA filings, each PA has provided a separate column identifying "unspent" funds, and has also provided a column identifying "committed" funds. It is unclear whether the "committed" funds are or are not included in the tally of "unspent" funds.

We note as well that the money ostensibly "committed" to contracts is not necessarily going to get spent in full or *at all*. Contracts extending past the end of a funding cycle generally have "regulatory out" clauses that allow for termination at a cycle's end if no new funding becomes available. In addition, contracts may be contingent on, for instance, program uptake. If a program ends up undersubscribed, the amount committed to it may never be fully spent, or spent at all.

Whether or how PAs account for these considerations is unclear. For instance, note that Marin Clean Energy (MCE) has classified as "committed" funds that it has in an account to support loans. But no loans have issued that might draw on these ostensibly "committed" funds. It is easy to pull this example from MCE's filing because they have so few programs, but we would not be surprised to learn of similar practices by other PAs. Are such funds reasonably classified as "committed"?

For multi-year contracts, there is also a timing issue associated with commitment. For a contract extending several years, when are PAs counting funds as committed? For some contracts, particularly those associated with custom projects, counting full contract amount as encumbered the year the contract is signed may be appropriate. For others, a pro-rata apportionment

across the term of the contract may make more sense. It is unclear what approach or approaches PAs use.

3.2.3. Mixing Expenses and Revenues Together in the Budgeting Process Conceals the True Size of the Requested Budgets

The budget proposals PAs have filed all conflate budgets and revenue in a way that masks the true expected costs of EE program in 2015. PG&E, for example, has an unspent program (not EM&V or REN/MCE) pre-2013 carryover as of January 1, 2014 of either $17 million or $34 million. PG&E appears to be saying it will spend the ~$17 million, plus another ~$17 million, plus its entire authorized budget in 2014.[31] PG&E's requested 2015 budget excludes these dollars[32] presumably because PG&E is spending them on the projects for which PG&E previously encumbered the funds. MCE, for another example, has a proposed nominal budget for 2015 for its residential loan loss reserve financing program of $100,000. However the forecast *expenditures* for 2015 for this program are $750,000, not $100,000. MCE proposes to cover the additional amount with unspent money remaining from the funds PG&E transferred to MCE to cover MCE's 2013-2014 budget. The effect of offsetting carry-forward against forecast spending to yield a lower apparent budget is more apparent with the RENs and MCE, because they have fewer programs.

[31] This difference was documented in footnote 2 to appendix B.1: "PG&E's 2015 request shown on this table excludes the $17.8 M carry over funds from 2010-2012 as previously authorized in AL 3356-G-A/4176-E-A."

[32] This value is entered in cell T50 on the budget scenario tab so as to be excluded from the EM&V calculation (since EM&V was previously collected on these dollars).

3.2.4. The Accounting Reports We Receive Have Not Enabled Us to Untangle this Knot

The IOUs provide us with reports pursuant to a string of decisions dating back at least as far as D.01-11-066. That decision directed that the:

> IOUs shall report to the Assigned ALJ and the Energy Division on a monthly basis, no later than the 21st day of each month for the previous month, beginning January 21, 2001, the accounting information set forth in the body of this decision. The IOUs shall work with the Energy Division to devise a standard format for reporting of this information no later than January 1, 2002. [33]

The "body of the decision" details the information the IOUs are to include in the reports.

The report formats have evolved over time. We now receive *quarterly* reports showing *monthly* figures for past and present portfolio cycles. Commission Staff also receives monthly reports with monthly figures for the current portfolio cycle. As detailed as our past direction appears, and as fine-grained as the resultant reports are, we find the information on hand inadequate. The reports do not explain why dollars move when and the way they do.

To illustrate some of the particular issues the reports raise, we have attached Tables E-1 and E-3 from SDG&E's most recent quarterly report for discussion purposes as Appendix A to this decision. This is for illustrative purposes only.

[33] D.01-11-066 at OP 10.

Note first that the pre-2010 balances are large,[34] and some continue to grow even when directed to be refunded in 2013 by D.12-11-015. There is a negative balance for the 2010-2012 cycle, [35] but this is deceptive for (at least) three reasons:

> 1) There is no cumulative balance forward listed for prior years, so all we have is the beginning balance of $-9,754,568 million. But since "commitments" are entered as a negative charge against the balance (as if spent) until they go positive (as possibly seen in Feb/Mar) we do not know how much "actual" money is in these accounts;
>
> 2) There are "payments and commitments" for various items but the reports give us no ability to balance all the adjustments, without other information, such as all the past and currently referenced ALs; and
>
> 3) The 2013-2014 collections flow via procurement accounts and then are transferred into each IOU's PEEBA.[36] We do not see collections, but rather a large negative balance with large positive transfers from the procurement balancing account, as well as transfers from pre-2013 cycles. Sources cannot be decomposed from these tables, and collections in Table E-3 do not seem to match collections in Table E-1.[37]

These are some of the reasons analysis and sorting out the "real" state of the PEEBAs is difficult.

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[34] As of June 2014: -$15,312,026 for 2010-2012; $67,575 for 2006-2008; $7,143,227 for 2004-2005; $35,168,420 for 1998-2003; $1,196,313 for pre-1998.

[35] D.01-11-066 at 28. There is a complication here because the PGC expired during the 2010-2012 cycle.

[36] With the expiration of the Public Goods Charge (PGC), the IOUs have consolidated the tracking of the electric portion of energy efficiency expenditures into the PEEBA from 2010 forward. *See* D.11-12-038 OP 3.

[37] Note that 2013-2014 commitments are treated the same as "spent." Thus examination of the similar 2014 accounting will be difficult to understand, just like the pre-2013 reports.

3.2.5. Next Steps for Accounting

Most immediately, we will clarify some definitions for purposes of this decision. The "budgets" we approve here reflect each PA's authorized *expenditures* for 2015 programs (including funds PAs may "commit" in 2015, to be paid out in subsequent years). Since we are generally treating 2015 as a third year 2013-2015 cycle, it is as if 2015 amounts were added to the budgets we authorized in D.12-11-015. The exception to this is MCE. MCE does not have a balancing account, and so we will offset 2015 authorized spending by amounts remaining unspent (i.e., neither spent nor committed) at the end of 2014.

The other accounting issues called out above do not lend themselves to fast resolution, and so we have to defer them to Phase II. Preparatory to that, we direct Commission Staff to retain an accounting consultant (using EM&V funds to cover the cost) both to review prior cycle reporting and to develop a proposal to rationalize accounting practices for EE going forward.

As we move into Phase II and "Rolling Portfolios" we will examine whether/how to move to alternative accounting for EE spending. The primary, perhaps sole, reason we allow for "committed and/or encumbered" funds is so that consumers (and contractors) can be assured of payment even after the end of a program cycle. "Rolling Portfolios" should largely if not entirely eliminate the need for large pre-commitments of funds, since we will no longer halt funding at the end of each program cycle.

3.2.6. Ongoing Ratepayer Protections

Ratepayers are protected for now. The particulars of how we protect them, depends on whether we are talking about IOUs, RENs, or CCAs. For IOUs and

RENs, unspent funds, are IOU-maintained balancing accounts.[38] Ratepayers can recoup unspent funds in balancing accounts if and when appropriate.

MCE received a lump-sum payment from PG&E for its 2013-2014 budget. Unspent MCE funds will offset the payment that PG&E will make to MCE for MCE's 2015 programs, as we discuss in more detail later.

We recognize the risk of creating a "use it or lose it" mindset on the part of PAs when we sort out what to do with unspent funds. How to avoid that is something we will address in Phase II.

3.3. Proposition 39 (Schools)

Proposition 39 is the California Clean Energy Jobs Act. Approved by the electorate on the November 6, 2012 ballot, it provides some $550 million annually from the General Fund to the Clean Energy Job Creation Fund, (Job Creation Fund) for five fiscal years, 2013–2014 through 2017–2018.

The Budget Act of 2013 (Senate Bill 73) directs the allocation of funds to California's K-12 schools and community colleges. Public Resources Code Section 26235(a) requires the CEC to establish guidelines to ensure Proposition 39 funds deliver the expected EE and cost savings. On December 19, 2013, the CEC adopted the *Proposition 39: California Clean Energy Jobs Act – 2013 Program Implementation Guidelines* (Proposition 39 Guidelines).

K-12 schools receive the bulk of Proposition 39's proceeds - $381 million/year of an expected $465 million annual collection in 2013. The

[38] Why this is so for RENs is a somewhat longer story. They key point to understand is that RENs only get money after they actually spend it. Pursuant to REN contracts with IOUs, RENs only receive amounts that: (a) we have authorized them to spend; and, (b) they have invoiced to an IOU. REN spending during a portfolio cycle is limited to the "Maximum Contract Sum" essentially the amount of the REN "budget" we approve in our decisions. IOUs treat their obligations to fund RENs up to the Maximum Contract Sum as "committed" amounts, meaning they sit in the PEEBAs until invoiced by and disbursed to the RENs.

Proposition 39 guidelines allocate 85% of K-12 funds based on prior year Average Daily Attendance (~$324 million/year) and 15% of K-12 funds based on prior year eligibility for free and reduced-priced meals (~$57 million/year). This "peanut butter" funding approach does not prioritize particular districts, schools, or projects over one another.

California Community Colleges Districts (CCCs) representing 112 colleges will receive an estimated $47 million/year. The Chancellor of the CCCs has discretion over the allocation of these funds.

As for the balance of Proposition 39's proceeds: $28 million/year will go to the CEC's Energy Conservation Assistance Account Program for financing and technical assistance; $5 million/year will go to the California Conservation Corps to perform energy surveys and other energy conservation-related activities; and $3 million/year will go to the California Workforce Investment Board for competitive grants for community based organizations and other workforce training organizations preparing veterans or disadvantaged youth for employment.

At the end of 2013, the California Department of Education allowed "Eligible Local Educational Agencies (LEAs) to request a portion of their fiscal year 2013–14 award for energy planning by April 30, 2014, without submitting an expenditure plan to the CEC."[39] The Department of Education made this option available only for the fiscal year 2013–2014 award of the Proposition 39 program, and only for planning activities from fiscal year 2013–2014 through 2017–2018. Specifically, the energy planning funds could only be spent on four activities:

1. Energy audits and energy surveys/assessments;

[39] Energy Planning Funds Guidelines (CA Dept of Education)

2. Proposition 39 program assistance ;
3. Hiring or retaining an energy manager(s); and
4. Energy-related training.

At the same time, the CEC began accepting Energy Expenditure Plans from LEAs. The Energy Expenditure Plans summarize how LEAs intend to spend Proposition 39 funds, identify overall job creation estimates for LEA energy projects, and describe the eligible energy projects proposed at each of an LEA's schools or sites.

In anticipation of Proposition 39 activity, R.13-11-005 directed PAs to include provisions for Proposition 39 implementation in their 2015 funding proposals. The January 22, 2014 Scoping Memorandum echoed this direction. Our goal with respect to Proposition 39 is to set the most savings they can with a combination of PAs to help schools Proposition 39 funds.

3.3.1. PA Proposals

Background

The January 22, 2014 Scoping Memorandum directed PAs to change their portfolios in response to Proposition 39. They assert that they have done so. It is, however, not a simple matter to tease out from the PA filings exactly what has changed versus 2013-2014, for a variety of reasons.

Unfortunately, school projects are not all identified in budgets ("tagged") as such. We recognize that there is no particular reason that they would or should have been. Including school projects/measures in core programs such as commercial programs makes cost sense, as it can reduce processing and review costs by centralization. It also can ensure common *ex ante* estimation and incentive rate approaches. But the lack of "tagging" makes it difficult now to

determine how much of the 2013-2014 portfolios PAs dedicated to schools, and how much has changed for schools in 2015.

In addition, PAs (more specifically, the IOU subset of PAs) have historically varied in how they initially categorize and fund school projects. That variance continues through to today. PG&E, for instance, classifies at least some of its K-12 programs as third-party programs, and the PG&E's CCC program is classified as a local government partnership program (LGP). Third-party programs and LGPs are not reviewable in the budgets at an individual project level at all, (for schools or for anything else).

Also, we can expect many Proposition 39 projects will be custom,[40] or at least will include custom measures. Custom measures and projects *in forecasts*[41] are mostly not reviewable at all, as the forecasts are either in terms of "sites" or normalized per 1 Kilowatt hour (kWh) or 1 therm with the number of kWh or therms forecast. For example the custom lighting retrofits for SCE and PG&E are listed as 1 kWh savings with a number of total kWh as the number of installs for customs. For air-conditioning units or chillers the forecasts are 1 kWh of savings with other number of kWh expected to be installed. SDG&E, by contrast, uses "sites" using the kWh per site for the forecast savings, and the number of expected sites as the number of installs. These methods obscure actual activity

[40] Generally speaking, "programs" are made up of "measures," which are often grouped together at a jobsite into a "project." Measures break down into the following categories: "custom," "deemed," and "work-paper." A "project" may be made up of a combination of types of measures. "Custom measures and projects are EE efforts where the customer financial incentive and the *ex ante* energy savings are determined using a site-specific analysis of the customer's existing and proposed equipment, and an agreement is made with the customer to pay the financial incentive upon the completion and verification of the installation." Policy Manual, v.4, at 72 (Appendix E).

[41] This discussion is limited to review for budgeting purposes. We can and will review actual projects as their paperwork is submitted.

from review unless we request the project documents to get the actual content information, which is impractical for forecasts.[42] As a further complication, the values we have are not directly translatable into comparable values across PAs.

Additionally, for custom projects/measures the specific technology is not reported – instead of saying, for instance, that a measure is a T5 lighting fixture in a specific application (high bay, office space, etc.) using a specific baseline, a PA might report the measure simply as "custom lighting" or just "T5 fixtures." In contrast, with "deemed" measures (i.e., measures with savings estimates in the Database for Energy Efficient Resources (DEER) database or Commission approved non-DEER deemed measure workpapers) we can tell from the measure description exactly what is being claimed and do a complete review if needed. This reviewability is due to our *ex ante* work-paper requirements that ensure all claimed items have supporting documentation on file before a claim can be made. This is not possible for custom.

We will not resolve all of these concerns about the reviewability of the portfolios here, even just for schools. We have preliminarily scoped reporting requirements into Phase III of this proceeding. We raise these points principally to illustrate the difficulties facing us in evaluating the proposals before us.

We will, however, require one change from PAs here. Starting in 2015 PAs shall "tag" all Proposition 39 projects both for purposes of PA internal review, and for purposes of Commission Staff review. As discussed more below, school projects will receive some different treatment from otherwise similarly-situated non-school projects, and so PAs should clearly and continuously identify them.

[42] We do get such data when evaluating project savings when a project is proposed (*ex ante*) and subsequently (*ex post*).

The school projects also need to be "tagged" to enable statewide and PA specific review and evaluation.

Finally, we note one other challenge in reviewing PA Proposition 39 proposals. In the narrative part of their filings, several PAs have asked to depart for purposes of Proposition 39 from several longstanding Commission policies (e.g. the choice of "baseline"). However, *the budgets the IOUs have submitted assume that we do not adopt these requested changes.* This means there is a disconnect between narratives and proposed budgets. We discuss this at length below.

Against that backdrop, we turn now to PAs' Proposition 39 proposals. Our focus is on IOU proposals rather than REN or CCA proposals; of the RENs and CCAs, only Southern California Regional Energy Network (SoCalREN) made a Proposition 39 proposal, and that was only for expansion of governmental coordination efforts (which we approve).

Summary of Proposals

All IOUs proposals include: (1) a budget change to put more money in a bucket from whence the PA can disburse funds to schools, and/or programmatic changes to support Proposition 39; (2) a request for various "adders" to increase and/or ensure benefits for PAs for administering Proposition 39 programs, such as a lower baseline than current policy dictates (which translates e.g., to increased savings claimable by PAs), "locked down" *ex ante* values, a favorable "locked down" default net-to-gross (NTG) ratio, and longer available maximum expected useful life (EUL); and (3) process changes to expedite and/or simplify the movement of funds to schools; principally shortened time for Commission Staff to select for review and review custom projects funded by Proposition 39.

3.3.2. Changes to Commission Processes for Reviewing Custom School Projects

We will address process changes first.

Several IOUs seek modification of our process for reviewing custom projects for projects involving Proposition 39 funding. There are some nuances in terms of what the different IOUs have proposed, but they all propose Commission Staff have less time to review custom projects. IOUs do not want the review process to become a bottleneck in an already-lengthy Proposition 39 project pipeline that will require reviews by a host of state agencies (e.g., the CEC, California Department of Education, California Division of the State Architect, CPUC).

We want to make the review process as fast and efficient as we can for schools, consistent with protecting ratepayer interests. We will review Proposition 39 projects faster than usual[43] to ensure that these projects are executed in compliance with the existing policy framework and Phase I decision.

We will adhere to a consistent policy for *ex ante* review across all PAs, IOUs and others alike. For all PAs, we approve and require the following:

- Expedited Commission Staff review of custom projects. Commission Staff will select custom projects for review within 5 days of receipt of submittal, and will have an additional 10 days thereafter to complete review of a selected project, provided that all project information required for a review is included in the submittal.[44]

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[43] We note that Commission Staff currently review less than 2% of all custom projects. We see no reason why staff should select a higher percentage of Proposition 39 projects for review. Thus, as a practical matter, even the regular review process was unlikely to impact the execution of Proposition 39 projects.

[44] This includes the customer's application to the IOU, the customer's Proposition 39 application, if any (recognizing that customer may not have an application as of the time of the IOU submittal and/or that the customer's application may be subject to change), all project data

- Proposition 39 custom projects may proceed with equipment pre-orders without signed agreement with the PA.

Incomplete or inaccurate utility project submittals may delay Commission Staff's project reviews. We repeat here our admonition from D.12-11-015:

> If reasonable estimates of energy savings are submitted to Commission Staff originally by the utilities, there should be minimal risk to all parties in proceeding with the project. If, on the other hand, customer projects are being held up pending Commission Staff review so that utilities can minimize their own risk and/or shift responsibility onto Commission Staff or consultants, this is the utility's responsibility and not a problem with the review process itself, and may also be an indicator of lack of good faith estimation of energy savings on the part of the utilities. No process changes on the part of Commission staff will remedy that.

We also note that expediting review of Proposition 39 projects may delay review of other projects, but we believe the importance of this effort for schools is worth those possible delays.

3.3.3. Appropriate Baseline, Net-to-Gross Ratios, Expected Useful Life, and Savings Attribution for School Projects

Before we can address particular Proposition 39 budgets and programs, we need to address broader policy issues. PAs have proposed various changes to longstanding Commission polices. We have grouped these proposals together under the rubric of "adders," since they provide additional incentives to customers, PAs, or both for spending on school EE projects. Adders come in

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and calculations methodology to support the savings estimates, and the results of the IOUs internal review of the project's savings estimate based on the project data and calculations methodology.

several flavors, all apparently intended to incent movement of resources to Proposition 39 programs in preference to other similarly-situated programs.

Appropriate Baseline

Several PAs' Proposition 39 proposals include the use of "alternative baselines," at least in their narratives. PG&E for instance has proposed using an "existing conditions" baseline for all Proposition 39 related programs (and some locational programs as well). Some parties have proposed extending "alternative baselines" to *all* EE programs. To understand what PAs and parties are proposing requires familiarization with what a baseline is, and what it means to use an "alternative" baseline.

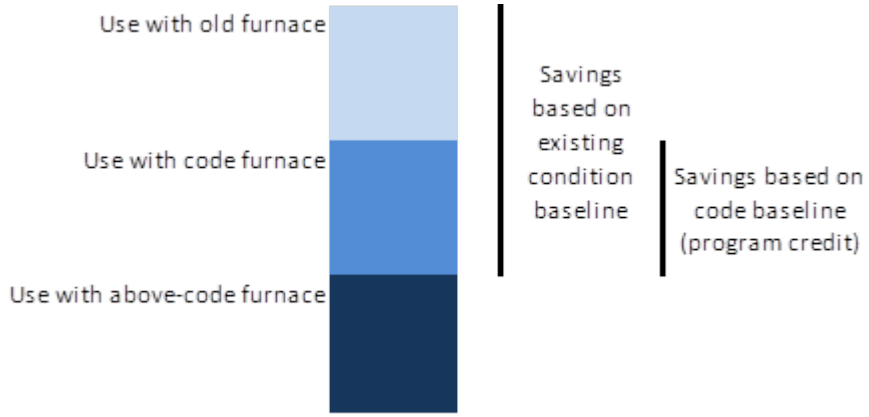
What is a Baseline?

Part of what makes EE so complex is that savings – i.e., the absence of use – is a difficult thing to measure. Figuring out what you saved requires figuring out what *you would have consumed without the efficiency measure*. This hypothetical level of consumption is the "baseline," and it is the point of comparison for determining savings.

The consequences of a baseline choice ramify through all aspects of EE calculations. The baseline choice affects, among other things, the existence or amount of savings, customer eligibility for incentives, amount of incentives, whether a PA meets its Commission-established savings goals, and the award of shareholder incentives.

In general, the lower the baseline – the easier it is to show (or to show more) savings. A higher baseline makes that showing harder. An oversimplified hypothetical illustrates why. Assume for a moment that a customer replaces an old gas furnace with a high-efficiency gas furnace that exceeds code requirements.

- "Existing conditions" baseline savings = (gas used[45] with old furnace) - (gas used with the new furnace).
- "Code" baseline savings = (gas used with a "to-code" furnace)
  – (gas used with the new "above-code" furnace).



The difference in energy use between an old furnace and a new, "above-code" one is essentially guaranteed to exceed the difference between a new "to-code" furnace and a new "above-code" furnace. In EE parlance, the "existing conditions" baseline is a "lower" baseline; it is easier to show savings when comparing new equipment to existing equipment than when comparing new equipment to equally new, albeit less-efficient, "to-code" equipment.

Current Default Baselines – Use Either Code or Industry Standard Practice

What we are concerned with for purposes of our review of 2015 portfolios are "*ex ante*" baseline savings values. "*Ex ante*" values are the estimated values we use *before* (*ante*) a portfolio is actually implemented and evaluated.

[45] More accurately, gas that would have been used had the old furnace remained in place; even using an existing conditions baseline involves a hypothetical. As ORA has noted, "all savings estimates are 'hypothetical' regardless of which baseline assumption is chosen." That being said, the goal is to keep things simple for purposes of this example, hence the oversimplified exposition.

Understanding our approach to *ex ante* baselines (the use of the plural here is deliberate; there are several currently in use) requires wading into deep waters.[46] To simplify matters somewhat, we can extract a general definition of baseline from the Commission EE Policy Manual (Policy Manual) definition of "baseline data."[47] The Policy Manual defines "baseline data" as "The state of performance and/or equipment that what would have happened in the absence of the program induced energy efficiency."[48] The Policy Manual goes on to explain what that means in various cases. For present purposes, the key statement in the Policy Manual is this:

> For new equipment choices that are selected under the [replace on burnout, normal retrofit and new construction] cases and are subject to existing regulations, codes or standards, *the baseline equipment should be determined by the regulation, code, or industry standard.*[49]

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[46] D.11-07-030 Appendix I to Attachment B at B13 states:

"The baseline parameters are selected by establishing the project category from the possible alternatives including New Construction or Major Renovations, program induced Early Retirement, Standard Retrofit or Normal/Natural Replacement/Turnover, and Replace on Burnout. These alternative categories result in the utilization of alternative baseline parameters set by Code or Standard requirements, industry standard practice, CPUC policy, or other considerations. In the review of IOU projects Energy Division will follow the guidelines as presented here in establishing the baseline for all gross savings estimates."

"Pre-existing equipment baselines are only used in cases where there is clear evidence the program has induced the replacement rather than merely caused an increase in efficiency in a replacement that would have occurred in the absence of the program."

[47] "The Policy Manual is a Commission Staff-prepared compendium of our decisions and resolutions relating to energy efficiency, and it also includes some additional staff-prepared gloss on those decisions. Commission Staff has revised the Policy Manual periodically, updating it to incorporate regulatory changes that have come along since the most recent edition. It is a convenient reference for program administrators." D.14-01-033 at 12.

[48] Policy Manual, Version 5 at 47-8.

[49] Policy Manual, Version 5 at 31 (*emphasis added*); paraphrasing D.11-07-030 at 24.

The default baseline, then, is what regulations, codes, and/or industry standard practices (, we will use the shorthand of "code" to refer collectively to regulations, codes, and/or industry standard), dictate - not what existing conditions happen to be.[50]

Why?

The use of a code baseline rather than an existing condition baseline seemingly adds much complexity and controversy to the *ex ante* review process. It also drives down the nominal savings a PA can claim for a program. It also makes California appear to underperform other states that use existing baseline for claimed savings. Judging from the PA filings and from most party comments it is decidedly unpopular with PAs and implementers. It is also counterintuitive; ask someone who just replaced their furnace how much energy they save and they will likely base their claim off of the old furnace's usage, not off of a lesser furnace that they might have bought, but didn't.

So why do we do it?

The short answer is that *we do not want to give tens or hundreds of millions of ratepayer dollars to individual customers to do things that those customers are already going to do, or are already required to do.*[51] Paraphrasing D.11-07-030, the purpose of EE incentives is to lead customers to save energy in ways that they would not

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[50] There are limited exceptions to this general rule. The Policy Manual lists them and provides gloss on each. They basically distill down to:

1. Cases where no regulation, code, or standard exists; and
2. Cases of program-induced early retirement.

In those cases, an alternative baseline might apply, and the alternative baseline might be based on existing conditions. These exceptions are subject to many caveats, which we will address as necessary below.

[51] *E.g.*, as required by state law or by building and equipment regulations such as those adopted by the CEC and endorsed by the State Building Standards Commission.

have absent the incentive. Customers are generally legally obliged to meet code requirements when replacing a burned-out piece of equipment, when engaging in a normal retrofit, and in new construction. If a water heater fails, a homeowner *has* to replace it with a code-compliant (or better) water heater. Even absent a code requirement, standard practice may set the baseline where technological advances, federal standards, and supplier and manufacturer choices about what to produce and sell limit choices. It is often impossible to buy new equipment as inefficient as the equipment being replaced. The upshot of all this is that customers in these cases[52] would meet code requirements (or in the absence of code, their standard practice equivalent) without incentives, so there is no reason to pay them incentives to "get to code."

Using a code baseline is one way to ensure that programs do not pay for, and PAs are not devoting resources to savings *that would have occurred anyway*, even without a program. Turning this around, giving program credit only for savings that would *not* have occurred anyway incentivizes PAs to focus programs on incremental savings, exclusive of savings that are virtually unavoidable when a customer replaces old equipment.

In sum, we want to generate savings above and beyond those that would happen organically, i.e., incremental savings. The point of our programs is to move the needle on savings. If all that programs do is make it cheaper for customers to do what they are going to do anyway, our programs are not accomplishing their primary objective.

We also use a code baseline because it harmonizes with what the CEC and CAISO are doing. As discussed at length in Section 2 of this decision, the

[52] By "these cases," we mean new construction, retrofits, and replace on burn-out, as discussed above.

Commission, the CEC and the CAISO work with stakeholders to adopt a single, unified energy demand forecast. The demand forecast process explicitly takes into consideration compliance with codes and standards, and voluntary efficiency actions caused by utility programs. The CEC assigns a certain amount of energy demand reduction to compliance with codes and standards. Thus, such savings are part and parcel of the demand forecast. The demand forecast assumes (correctly, at least for now) that IOUs programs provide additional, voluntary EE savings, and that funding for IOUs programs will secure the *additional* resources above code needed to meet the demand forecast. Thus utility EE programs (with limited exceptions, which we turn to next) need to produce savings above code; that expectation is baked into CEC and CAISO expectations. While code baseline is not etched in stone, neither is it amenable to rapid or unilateral change.

Alternative Baselines We Currently Allow

There are already instances where we currently allow use of something other than a code baseline. The most common is the case of early replacement. For early replacements of equipment we allow use of a "dual baseline" approach. We allow savings incentives and credit using an alternative baseline (perhaps based on existing equipment) for the remaining EUL (Remaining Useful Life, or RUL) of the retired equipment, and using a code baseline thereafter. The idea behind this policy is to encourage early replacement of less-efficient equipment.

The mechanics of dual baseline for early replacement turn out to be complex. Added to the debate over the appropriate baseline is a debate over the appropriate RUL, as well as how to determine whether the program induced the

retirement.[53] Nonetheless the dual baseline alternative does allow for incentives to replace older but still functional equipment.

Another instance where we permit use of an alternative baseline is in the home upgrade program (for the "advanced path" home upgrade). This is an artifact of the program's origin as a CEC-administered program funded by the American Recovery and Reinvestment Act (ARRA). The CEC used an existing conditions baseline when this program was under its purview, and we have retained that baseline to prevent market disruption. Projects, however, are still expected to exceed code even though they receive incentives that are calculated based on savings starting at pre-existing conditions. In addition, we still require submission of dual baseline savings in order to understand the difference in savings from an existing conditions baseline and a code baseline. [54] Also, for

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[53] D.12-05-015 at 347.

"Once it is established that the program caused the existing equipment to be replaced early, we need to establish the period of accelerated retirement. In our discussion of DEER updates above, we note that DEER contains values for the effective useful life for many technologies and recommend using one-third of the effective useful life as the remaining useful life until further study results are available to establish more accurate values. For the case of program induced early retirement, the remaining useful life of the existing equipment should be used as the starting assumption for the period of accelerated retirement."

"As is the case when evaluating evidence for program induced early retirement, evidence for the remaining life and the period of accelerated replacement of the existing equipment can also be reviewed. The use of a DEER remaining useful life starting point for the acceleration period may be replaced. However, this should be allowed only if credible evidence is available to support an alternative value and that evidence leads Commission Staff to deem it more credible than of the adopted DEER values. Commission Staff should develop guidelines for the evaluation of remaining useful life evidence for the replacement of the DEER default values for specific projects and technologies. We provide this flexibility to utilize alternative remaining useful life values, based upon project or technology specific evidence, in place of the DEER adopted values primarily for use in Commission Staff's review of the utilities' custom project and measure ex ante values."

[54] D.11-07-030, Appendix B, at B12-B13. We note that although we have allowed use of an "existing conditions" baseline for home upgrades, those programs have been chronically

residential Heating Ventilation and Air Conditioning (HVAC), we directed IOUs to pilot "to-code" incentives using existing conditions baseline for code-compliant HVAC replacements in hotter climate zones, as a stand-alone measure.[55]

We Deny Requests to Use an "Existing Conditions" Baseline for Proposition 39 Projects and/or for All Projects

The January 22, 2014 Scoping Memorandum encouraged PAs to consider proposing an alternative baseline for Proposition 39 programs in making their 2015 proposals.[56] It requested that PAs be creative in making use of existing alternative baseline policies such as early retirement. It also, however, specifically excluded from Phase I's scope "expansion of to-code programs."[57]

Several PA and other party proposals far exceed what the January 22, 2014 Scoping Memorandum contemplated with respect to alternative baselines. In place of proposals that, for example, focused on particular equipment, we have received proposals ranging from use of "existing conditions" as the baseline for

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undersubscribed. This experience, limited as it may be, suggests that changes to an existing baseline will not necessarily lead to increased uptake of energy efficiency measures.

[55] D.12-11-015, at 75.

[56] "Administrators might also identify, with Commission Staff input, measures and/or projects in transmission constrained areas that are good candidates for the alternative baseline treatment described in Ordering Paragraph 151 of D.12-05-015. . . . Proposition 39 programs included in the 2015 Funding Proposals might variously: (2) identify school equipment that is a good candidate for the alternative baseline treatment described in Ordering Paragraph 151 of D.12-05-015." January 22, 2014, Scoping Memorandum at 5-6.

[57] January 22, 2014 Scoping Memorandum at 7: "[T]he 2015 portfolio is not the place to expand programs that are currently in the pilot stage. We speak here in particular to possible expansion of "to-code" programs, as several parties have proposed. Where the Commission has already approved pilots, the Commission should have an opportunity to analyze data from the pilots before administrators start additional pilots or expand from a pilot to a full-scale program. The Commission included expansion of to-code programs generally within the preliminary scope of Phase III of this rulemaking, and we do not see an immediate need to address the issues associated with to-code programs, per se, until then."

schools and/or for transmission-constrained locations to the use of "existing conditions" as the baseline for *all* programs. [58]

These varied proposals for a move to "existing conditions" baselines rest on twin premises. First, that code compliance is so onerous, and, second, that levels of code compliance are so low, that failing to extend incentives to to-code programs leaves significant savings uncaptured.

Whether code compliance are onerous as "existing conditions" baseline proponents assert, and whether levels of code compliance are as low as they assert are empirical questions. So, too, is the question of how the costs of extending incentives to the "to code" portion of through code (and potentially only marginally through code) activities compare with the benefits.

Advocates for an "existing conditions" baseline, whether for a limited purpose or generically, have offered no evidence regarding levels of code compliance. They have also offered no evidence on either the costs or benefits of a shift to an existing conditions baseline for schools or more generally. Nor have they provided any evidence that codes and standards have swallowed up all additional achievable above-code savings. In fact, such an argument is untenable in light of the results of the 2013 Study discussed above.

As already noted, we have several pilots in place now that use existing conditions as a baseline (e.g., the home upgrade program advanced path). We have yet to receive, much less analyze, the data from these pilots. "While we encourage the utilities to pursue innovative concepts through pilots, we intend to

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[58] *See* e.g., Comments of the Local Government Sustainable Energy Coalition on Proposed Decision Enabling Community Choice Aggregators to Administer EE Programs (LGSEC Reply Comments) at 5-6.

scrutinize pilot programs to ensure they achieve their objectives before allowing these programs to become more permanent,"[59] much less expanding them.

It is not possible here in Phase I to consider the full implications of a shift to an "existing conditions" baseline. There are many gears that have to mesh if we change our policies regarding baselines, both within this Commission's purview and within the CEC's and the CAISO's. Changing baseline will have ripple effects throughout both the EE and grid planning worlds.[60] It will impact the ESPI, the CEC's IEPR (including the recently adopted Additional Achievable EE component of the forecast), the CAISO's power flow studies, the Long Term Procurement Proceeding (LTPP),[61] and the savings goals we establish in this proceeding, among others.

There is also the "double-counting" concern that ORA raises for us to consider. We have authorized utilities to spend EE dollars advancing more stringent codes and standards, and recently set separate goals and provided shareholder incentives to the utilities for performing this work. The premise for these shareholder incentives was that customers will largely comply with codes and standards. We have attributed savings on that same premise. To now allow credit for savings for to-code programs would appear to "double-count" those savings, and reward shareholders twice for the same savings.[62]

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[59] D.09-09-047 at 47.

[60] *See* prior discussion of the CEC and CAISO demand forecasts.

[61] Ratepayer EE funds come from "procurement" funds because IOUs are "procuring" additional energy resources and products (i.e., EE) needed to meet the demand forecast.

[62] We note that PG&E proposes subtracting to-code savings from Codes and Standards savings to avoid double counting of at least those savings. ORA takes issue with the adequacy of this approach. Conversely, NRDC disputes the existence of double-counting. However, as TURN observes in its reply comments, "However, NRDC appears to confuse the risk that *all* "incremental" savings under an existing conditions baseline framework would be "double

Allowing the revised savings to count towards existing goals and shareholder incentive formulae that we set *using a higher baseline* creates a problematic mismatch. We and other agencies are, as detailed above, making resource planning decisions and setting shareholder incentive levels based on the expectation that PAs will meet goals for above-code savings. To credit PAs with savings for below-code savings risks a resultant failure to get the incremental energy savings needed for reliable service.

A further premise implicit in the narrative proposal for "adders" generally, including a change to baseline, is that since Proposition 39 programs are not as cost-effective as other programs, without adders PAs would not devote much additional effort to schools. The flip side of this argument is that to deny the "adders" while still requiring budget and programmatic changes requires PAs to move resources to schools from programs that are more cost effective or offer greater savings, and so cost PAs ESPI incentives and/or cause PAs to have a harder time meeting the portfolio goals we established for them. The portfolio numbers in the PA filings do not support this argument. The portfolios, including the cost-effectiveness calculators, assume no "adders," and are nonetheless cost-effective.

The IOUs do not attempt to estimate the budget impacts of a change in baseline. We attempt independently to get at least a qualitative sense of how a baseline change for schools would increase savings, incentives, measure costs, and impact TRC. We provide below "back of the envelope" estimates of the impacts of such a move, and discuss their implications for our decision.

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counted" with the already established fact *that at least some* of these savings would be double counted." TURN Reply Comments at 1 (emphasis in original).

A move to an "existing conditions" baseline will increases nominal "savings" but also increases costs (and so, ordinarily, budgets) by:

> (incentive rate) x (added savings) + (increased TRC costs from moving from the incremental measure cost to the full cost).

Thus portfolio TRC will move somewhat toward the school values, which are lower than the overall TRC.[63] These effects, too, decrease cost effectiveness. *All* of these things linearly increase ESPI payments due to added net lifetime energy savings.

The overall impact of any changes in baseline cannot change the portfolio significantly either in terms of goal attainment or TRC *unless we add significantly more dollars into school projects, and/or school activities take over large parts of the standard commercial programs*. Here, we run into a potential budget-buster, as well as into the discontinuity between what IOUs are asking for in their budgets and what they are asking for in the narrative portion of their filings.

Using an "existing conditions" baseline would make all or nearly all school projects cost effective, and so make all or nearly all school projects eligible for incentives. Covering more savings with incentives, and having more projects qualify for incentives with to-code only savings (that do not now qualify for incentives) would cause budgets to balloon. We could reasonably expect all Proposition 39 recipients to apply for incentives for the to-code component of their projects; virtually all would be eligible for an incentive. If we assume that every Proposition 39 project would: (1) receive incentives at the current IOUs rate (2) for the full amount of the CEC or CCC estimated savings, then the incentive plus IOUs overhead would require (very roughly) budgeting

[63] Locking in a high NTG ratio adds benefits (more savings) to the TRC numerator, but it also adds measure costs to the denominator (since less free rider costs are removed).

somewhere around $10-15 million/year for CCCs, and possibly $75-100 million/year for K-12 schools. These numbers are several multiples greater than what it appears that PAs contemplate spending on Proposition 39 in their budgets.[64]

Net-to-Gross Ratio

The next screen we use to separate out savings that would happen organically is to determine the ratio of above-code savings *attributable to the program* (net savings) and *total above-code savings* from measures/projects that received incentives (gross savings). This metric is the "net to gross" ratio. This brings us to "free riders" and "spillover."

We have previously defined "free riders" as:

> Those program participants who would have undertaken the EE activity in the absence of the program. We adjust program savings to remove the effect of free riders because their participation would have happened anyway, and therefore the savings associated with their actions cannot be considered a benefit of the program. [65]

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[64] Because PAs have not proposed additional funds commensurate with the increased eligibility for incentives that a change in baseline would imply, the PA filings beg several questions: 1) Where the needed additional money would come from 2) whether there would be an aggregate limit on incentives for these projects; and 3) how, if a limit was in place, would someone decide which school projects would receive incentives and which would not, if applications for incentives exceeded the limit. We need not reach these questions given our disposition of Proposition 39 issues here.

[65] D.07-09-043 at 13, n. 12, and at 151. Whether this is an appropriate use of the term "free riders" is subject to debate. *See EE and the Spectre of Free-Ridership,* Stephen Heins, Orion Energy System, 2006 ACEEE Summer Study on EE in Buildings at 12-66. *See also The Trouble with Free Riders*, Hossein Haeri and M. Sami Khawaja, Public Utilities Fortnightly, March 12, 2012, at 36 ("In [EE proceedings], freeridership refers to program participants who presumably would have conserved regardless of the program. These consumers are presumed to be predisposed to conservation; they practice efficiency whether or not any incentives are available. As such, they're the opposite of what Samuelson would have considered freeriders: people unwilling to pay for a good while enjoying its benefits."). Nonetheless, "free riders" as

To exclude free riders, we use the NTG ratio:

> Net energy program impacts represent the amount of energy attributable to a program after adjustments for free-ridership. Gross energy program impacts represent the amount of change in energy consumption and/or demand that results directly from measures installed in the program without adjustments for attribution. NTG ratios refer to the ratio or percentage of net program impacts divided by gross or total impacts. NTG ratios are used to estimate and describe the free-riders that may be occurring within EE programs.[66]

The more "free riders, "the lower the NTG ratio. The lower the NTG ratio, the less net savings we attribute to a program, and the less, savings a PA can claim resulted from the program. Conversely, the higher the NTG ratio, the more savings we attribute to a program.

"Spillover" counteracts this effect. Spillover quantifies how programs lead participants or (non-participants) to other EE actions not captured in the reported savings or costs. In D.12-11-015, we adopted a portfolio level "market effects adjustment" of 5% across the board for the entire 2013 2014 portfolio cost effectiveness calculation.

The NTG ratio is driven primarily by *ex post* evaluation NTG investigations (i.e., customer surveys). "Estimates of the NTG ratio rely on surveys in which upstream and downstream program participants are asked to assess the impact of utility programs on their behavior or that of their customers."[67] The NTG surveys, market studies, and econometric methods

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defined here is in common, if technically incorrect, usage in the EE sphere, and we will use it here even at the risk of offending the purists.

[66] D.09-09-047 at 31, n. 18 (citing Energy Efficiency Policy Manual, Version 4).

[67] D. 08-12-059, at 20-21.

capture a wide range of factors that enter into a decision to install the measure for which they were paid an incentive directly or indirectly. Some factors are over-riding–such as whether a customer made the purchase commitment before they knew they could get an incentive, or they were required by a regulatory agency to undertake the project and the only alternative was the installed equipment, and types of influences that would mean the EE program really had no real impact on the decision. Market conditions related to availability of the technology can also be a factor. When the analysis shows that a significant portion of customers undertook measures for singular or multiple reasons other than a PA programs, the relative influence of the program can be calculated and the NTG ratio drops.[68]

For projects claiming early retirement or that use an existing conditions baseline, we shift to an *ex ante* review. The *ex ante* review examines whether a PA program caused a project to happen. Ordinarily, if the evidence does not support that conclusion, then (1) baseline is either code or standard practice, and (2) the NTG scoring compares the code baseline to the installed measure. So free rider scoring is relative to the selected gross savings baseline. If the project was not caused by the program but the pre-existing baseline is used the NTG scoring will be much lower than if the baseline is set at the code or standard practice for the project.

Distilled down, this means that if we applied our usual NTG policies, and surveyed schools regarding why they undertook savings measures, we could expect that with an existing baseline standard we would attribute most savings

[68] *See* page 136 in the Evaluation Framework (and figure 6.4) http://www.cpuc.ca.gov/NR/rdonlyres/F14E59AF-25B9-45CE-8B3C-D010C761BE8D/0/CAEvaluationFramework.pdf

to non-program causes. Specifically, we would expect to attribute most savings for school projects to the nearly *half-a-billion dollars a year* that taxpayers are providing for efficiency projects at schools, and not attribute those savings much or at all to PA programs. The NTG ratio would fall accordingly (though spillover effects might offset some of the drop).

This brings us to another sidebar about IOUs' *ex ante* claims. We have drilled down on the IOUs' NTG ratios for school projects in an effort to get a "back of the envelope" sense of what NTG ratios have historically been for schools. This has turned up a material variation in the historic NTG for school projects across IOUs. This difference seems to flow from three primary variations across IOUs:

1) What NTG values the IOUs chooses to use;
2) The distribution of custom versus deemed and downstream versus direct install delivery; and
3) The measure mix.

The upshot of this is that changing NTG ratios as requested to a "locked in" *ex ante* ratio of .85 for schools can potentially result in significantly higher attribution of savings to PG&E and SDG&E. It has less impact on SCE, but only because SCE already effectively has this value in place for schools.

Significantly, altering NTG does not alter customer eligibility for incentives. In this, it differs materially from baseline, which does determine customer eligibility for incentives. NTG impacts the savings that utilities can claim from a program. This impacts TRC, PAC, and ESPI, not customer incentive eligibility or levels. Even free riders get incentives.

EUL Cap

Several parties here have also proposed extending the maximum EUL to 30 years from the current 20. This would allow more existing equipment to

qualify for alternative baseline treatment upon retirement. It would also increase the life-cycle savings of new equipment. We rejected proposals for generally allowing up to a 30-year maximum useful life in D.09-09-047. However, we will permit up to a 30-year maximum useful life for removed equipment for the limited purposes of schools claiming early retirement (and also for locational projects as discussed more below).

In comments, some parties asked for clarification regarding the change to the maximum useful life.[69] We clarify that the *only* items for which we are expanding the potential maximum useful life are the items being removed, e.g., an old boiler. The maximum useful life for the equipment that is replacing the removed item remains 20 years. E.g., a new boiler remains subject to the current 20-year cap. Our goal with the change in maximum useful life is specifically to encourage removal of old but still-functioning equipment by expanding the universe of projects eligible for early retirement treatment. We do not intend to generically enhance the cost-effectiveness of all school and/or locational projects with this change. Also, it remains incumbent on the proponent of an extended useful life to put forward evidence supporting the longevity claim. We would not expect this showing to be too onerous.

3.3.4. Setting and Locking Down Various Other Savings Parameters for School Projects

PAs proposed several other "adders" that affect savings and/or cost-effectiveness. One, proposed by some IOUs and discussed above, was "locking down" current savings parameters and NTG ratios. This means adopting the *ex ante* estimates and not revisiting the values after the fact (*ex post*).

[69] *See*, e.g., PG&E Comments at 6.

Ex post review serves three purposes: (1) It allows us to understand program impacts, and so to improve programs and reallocate funds to programs that deliver the greatest net benefits at the lowest cost to ratepayers; (2) It allows us to adjust utility savings claims when evaluating whether utilities met our portfolio savings and cost-effectiveness goals; and (3) It allows us to determine shareholder incentives for custom projects and deemed measures on an "uncertainty" list that is developed by the Commission in advance of each program year.

Typically, *ex post* information lags several years behind the program year in which measures were installed. As noted above, we are authorizing portfolios based on *ex ante* estimates.

Possibly the IOUs' concern is that the they will be penalized in some way if *ex post* values turn out lower than *ex ante* values. In seeking to lock in values that impact shareholder incentives, IOUs seek to make Proposition 39 projects less risky to shareholders and so more attractive compared to otherwise similar projects.

We decline to limit *ex post* review of savings parameters here. We addressed IOUs concerns about *ex post* review in D.13-09-023.[70] There, we established "an incentive . . . to encourage [energy efficiency] resource savings, paid as a combination of *ex ante* 'locked down' and ex post verified savings results, according to the level of uncertainty of the measures' parameters."[71] We will not revisit that decision here.

[70] D.13-09-023 at 40-64.

[71] D.13-09-023 at 19.

In any event, the Proposition 39 portion of the PAs' portfolios is passingly small. *Ex post* adjustments of savings parameters will not meaningfully impact the portfolios' cost-effectiveness or overall savings goals.

That said, we do ultimately conclude that a "locked down"" NTG ratio of .85 is reasonable, as we discuss more below. Note that this ratio is *before* inclusion of market and spillover effects, and the effective NTG for Proposition 39 projects will end up higher than .85 in practice when these market and spillover effects are taken into account.

3.3.5. Budget and Program Changes to Address Proposition 39

As discussed above, the PA budgets all *assume that we do not modify our policies regarding choice of baseline, incentive amounts, EUL caps, NTG ratios and savings attribution*. That is, the PA proposals assume that we maintain our current policies. They do not provide any calculations of how the proposed "adders" would impact programs and/or budgets. Since we intend to generally adhere to current policies, this makes budget review simpler than it might have otherwise been.

Overall the SCE and PG&E school projects (K-12 and CCC) are rather small. The PG&E 2015 budget for these program increases from $4.3 million to $5.5 million plus ~$1 million of pre-2014 carryover that may grow (or be used) in 2014. The SCE budget increase is from $5.4 million to $5.9 million with currently ~$1.3 million of pre-2014 carryover. SDG&E has no K-12 schools budget; they routed schools through their commercial programs, which have a $10 million (25%) increase, all in direct install activities (which is not likely useful for schools given they use Proposition 39 funds and their own contractors); their CCC budget is level at a few hundred thousand dollars. It appears the other IOUs

have also embedded some school projects either in their general commercial program budgets and/or in their direct installation budgets.

In the 2015 filings, TRCs for the K-12 schools program and CCC program are much lower than the overall commercial programs (SCE~.9 schools versus 1.5 for general commercial; PG&E ~.9 schools versus 1.6 general commercial). Examining the 2013 actuals, the TRC for the K-12 and CCC program are also lower than the overall commercial offerings (a bit worse for SCE in 2013 actuals; while a bit better for PG&E in 2013 actuals). Savings estimates look to use identical values as in the 2015 estimates. The implication is that PAs are using higher cost measures and incurring other non-incentive costs for schools programs, and seeing less savings return per dollar spent.

In short, we did not find anything in the 2015 SCE filing that looks very different from 2013-2014. The submittals appear to follow current policy, complete with typical mistakes or incorrect savings values, but not with baseline or NTG ratio differences.[72]

Upon closer examination of measure detail, we find that PG&E energy savings values for major lighting measures in their schools program are 1.5-2 times what is in *ex ante* review dispositions for 2013-2014 even using pre-existing baselines. Correcting these will lower their TRC's. The $/kWh

[72] Some increase in incentives may already be "baked in" to SCE and PG&E's filings. As already discussed above, SCE appears to already be using a .85 NTG ratio for school projects. As to PG&E, we note that generally the K-12 and CCC TRC's are lower than the other portfolio components of an equivalent type of measure content (commercial lighting highest, commercial HVAC next, then commercial refrigeration and other miscellaneous measure types). The exception is the PG&E CCC program which has some problems with the *ex ante* measure costs being 1.5-2x too low as discussed in the next body paragraph. Also, the incentive rates ($/kWh and $/therm incentive costs in tables) that PG&E pays to customers are much higher for schools that for other programs. So it seems PG&E has already increased incentives – this appears to hold in the 2013 claims as well.

incentive cost per savings values between PG&E and SCE are very different, a fact that is unexpected and indicates possible issues with consistency across IOUs (some variation would be expected due to measure mix differences, but not on the order observed here).

PAs should double-check for and correct any such errors. We direct (again) PAs to use the latest-available DEER values, and to ensure that their implementers do the same.

3.3.6. ZNE Pilot for Schools

Proposition 39 presents an opportunity to expand California's progress on deep retrofits and Zero Net Energy (ZNE) retrofits. Since the Governor has issued an Executive Order directing a ZNE effort in state buildings, the next years should allow sufficient expansion of our ZNE efforts. We therefore direct the IOUs to develop a deep ZNE focused program for LEAs and community colleges. We do not authorize additional funding but expect, at least through 2015, that the IOUs have sufficient funds to support this effort in light both of historic patterns of underspending in prior budget cycles, and the current trajectory.

We direct the IOUs to describe the Proposition 39 deep EE retrofit and ZNE effort in Tier 2 ALs which they are to file within 120 days of the date of this decision. We direct the IOUs to work with Commission Staff and the Department of General Service (overseeing the state building ZNE effort) to coordinate a Proposition 39 effort. Each AL shall describe a program scalable for the full term of Proposition 39. We want the IOUs to propose a comprehensive plan that can expand to as many LEAs and community colleges as possible over the term of Proposition 39. We encourage the IOUs to look to examples in other states, the community of ZNE experts, and publicly-owned utilities who can

assist in developing this initiative. We further encourage the IOUs to incorporate in their plans for a strategy to gather project data to facilitate evaluation. This is to ensure lessons learned during implementation will inform and benefit subsequent projects.

3.3.7. Proposition 39 Conclusions

We decline to give PAs most of their requested "adders." The question still remains: how can we ensure that PA budgets properly support California's schools in their use of Proposition 39 funds? Approximately $500 million dollars is hitting the streets starting in 2013, and for the following four years, earmarked for EE improvements in schools. PA programs must adjust, and adjust now, to reflect this opportunity.

Sorting through the impacts of a change in baseline, even for a limited set of projects, presents complex issues. As discussed above, California's methodology for developing a demand forecast incorporates price effects and standard market practice, the effects of codes and standards compliance, and the impacts of additional voluntary EE undertaken in response to utility program initiatives. We are concerned by parties' misunderstanding of, or disagreement with, this approach. We understand party claims that there is a high level of non-compliance with codes and standards, and/or that there is a significantly slower pace of replacing equipment than contained in the assumptions in the CEC's Codes and Standards; however these claims are unsubstantiated by any empirical evidence.

In anticipation of taking up the question of appropriate baseline in Phase III of this proceeding, we direct Commission Staff to start consulting now with the CEC and CAISO on what is involved in revisiting these methodologies. Commission Staff should collect data from stakeholders, program evaluation

studies, and market studies relating to, variously, the volume of deferred retrofits; the ability of program administrators to target and accelerate such upgrades cost-effectively; and analyze how to create appropriate incentives so that the program does not substitute for actions users likely would have taken absent support for incentivized EE measures

We also direct each IOU to file with us a PIP for a pilot program to better understand the extent to which there is below-code equipment that is not getting replaced quickly enough[73] through natural turnover or existing programs. The pilots shall be designed to assess whether cost-effective ratepayer-funded programs can be developed to target this equipment when PAs receive savings credit and customer incentives are made available based on to-code, in addition to through-code, savings. As with the ZNE pilots, and for the same reasons, we expect IOUs to fund these programs via fund shifts.

The Pilots shall:

- Be budgeted up to $1m per IOU using program funds authorized in this decision;
- Find similar cohorts within a service territory, then break them into control and treatment groups, with the treatment group eligible for incentives "to and through" code, while the control group receives only incentives based on above-code savings.
- Extend through one full calendar year, so that we see program impacts across seasons.
- Include program implementation and third-party evaluation, with the evaluation to address at minimum program impact on both program uptake (Does the program increase replacement rates? Are customers who did not have a particular device *at all*

[73] We are deliberately being vague here, with the expectation that PIPs will help us flesh out what "quickly enough" means.

participating, as well as customers who are replacing a device?) and customer energy use (aggregate use and load shape).

Ultimately, each component of the demand forecast should be as accurate as possible. If observed code compliance is different than the level assumed in the demand forecast, then the demand forecast presumably should change to reflect observed code compliance levels. Once we have data in hand, we can start to make appropriate changes to ratepayer-funded EE programs.

Millions of ratepayer dollars are at stake over the next five years. Whatever the merits of the concerns that advocates for an existing standards baseline have raised, we will not decide these issues on the expedited time frame required in Phase I. Accordingly we reject proposals *at this time* to expand the use of an existing conditions baseline for 2015 beyond the pilots just discussed. We will consider such proposals in Phase III of this proceeding, and direct Commission Staff to start the preliminary spadework on a possible change in baseline, as detailed above.

Returning to Proposition 39, we recognize that Proposition 39 will require incremental additional administrative and technical work – and likely increased incentives to schools compared to past portfolios. Budgets should, and do, reflect that fact, even without "adders."

Beyond providing just administrative support and standard commercial customer-type options, we see several options. The conceptual framework that we think will get the most "bang for the buck," and that will also generally comport with our current policies, is this:

- Proposition 39 money will be used to bring schools to code.
- IOUs customer money will take schools above code.
- A combination of Proposition 39 and IOU customer money will pilot ZNE schools.

This framework stands up notwithstanding the alleged inadequacy of Proposition 39 funds to bring all the schools receiving funding[74] up to code on some or all of their projects. That same allegation forces us to recognize that if $500 million per year is not going to bring all funding recipients up to code on all their projects, neither is anything that we can realistically contribute. As discussed above, PA budgets for schools appear to be ~1-2% of what Proposition 39 is providing to schools.[75] This observation brings with it a corollary: the entire argument that the need to get to code justifies adoption of "adders" is groundless. "Adders" simply allow PAs to claim credit for savings associated with the Proposition 39 funding, however marginal the PA contribution to those savings.

Conversely, if a school *can* afford a project, whether just one project, or more than one, it will be necessarily be to code even without our intervention. The practical upshot of this is that all LEAs will have some project or set of projects sitting right at the code threshold. While we cannot meaningfully contribute to getting schools to take up to-code projects that they cannot already afford, we can help push schools across the code threshold for the projects that they are already planning to undertake.

For instance, if a school has already planned for a to-code replacement of an HVAC system using Proposition 39 dollars, a PA program can contribute to installation of a higher-efficiency system. The difference in labor and other costs

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[74] The California Department of Education maintains a list of Proposition 39 awards at http://www.cde.ca.gov/fg/fo/r14/prop39cceja13result.asp (visited August 21, 2014).

[75] This is a consolidated version of program/portfolio 2013 actual budgets/spending/ with 2015 requested budgets and funding sources for the IOUs. Source of the information is the 2015 filings Appendix tables B.1, B.3, C 2.1, and C 2.2.

is already covered and should be essentially the same regardless of the particular HVAC system, so the incremental cost to the school should be relatively small.

Furthermore, this represents a prime opportunity to expand progress ZNE retrofits and/or new construction, consistent with the Governor's Executive Order directing efforts in state buildings. As schools will already be making EE upgrades, there is an opportunity to leverage Proposition 39 funding to pursue deep retrofit/ZNE projects while schools are already engaged in other retrofit efforts.

Consistent with that premise, what we will do here is approve the school budgets that PAs have filed, which do not include "adders" other than a "locked down" NTG ratio. We will direct PAs to make an additional *customer* incentive available to schools equal to the greater of 75% of the cost difference between a to-code and above-code measure or the otherwise applicable incentive (e.g., 75% of the incremental cost of installing above-code lighting measures for a school that is already planning to replace lights with a to-code measure, unless a higher percentage of the cost is available as an incentive prior to this decision). We will credit PAs with gross above-code savings, and allow a .85 NTG ratio for those savings (before market and spillover effects).

To summarize what we direct here:

1. For purposes of determining *gross* savings, PAs will be credited with the full *gross* savings of the above-code measure. This is consistent with current practice.
2. For purposes of determining *net* savings, default *ex ante* lockdown rules, apply to schools (see discussion of lockdown rules above), except that an NTG ratio of .85 (before spillover effects) applies to all school projects.
3. The only eligible measures are those that are above code. For example, if a school is replacing lighting with to-code fluorescent lighting, we will put money on the table for up

to the greater of 75% of the additional cost of better ballasts and higher efficiency tubes, or the incentive available under preexisting policies.

4. We will raise the cap on EUL to *30 years* for *removed equipment*. This should increase school project eligibility for early retirement treatment.
5. All K-12 and community college EE projects are eligible for this treatment. As a practical matter, it is unclear how we would distinguish a school's Proposition 39 project from another EE project, and we see no reason to try.
6. IOUs will develop a pilot deep retrofit ZNE program for LEAs. The IOUs are directed to describe the effort in an AL due within 120 days of the effective date of this decision.

Basically, when an LEA can get a project to code without our help, we will help get them take savings to a higher level, up to and including ZNE. The requirement for a customer contribution will avoid our effectively guaranteeing school purchases of the most expensive options, and will limit participation to something approved budgets can handle. If uptake is significant, we can and will adjust budgets quickly as needed. This is essentially what the IOUs are proposing in their budgets, less all of the "adders" except for a "locked down" NTG ratio, a higher maximum useful life cap for removed equipment, and an additional incentive for customers.

We expect PAs to help schools become more energy efficient. We do not need to reverse longstanding policies regarding baseline to ensure that PAs do their part for schools. An increase in incentive levels, and a "locked down" NTG ratio of .85 (before market and spillover effects) will push PAs in the right direction. Leveraging Proposition 39 dollars to push schools above code, and even as high as ZNE, will maximize the savings impact of ratepayers' EE dollars.

3.4. Locational Targeting

3.4.1. Locational Targeting Background

Both R.13-11-005 and the January 22, 2014 Scoping Memorandum invited PAs to propose programs to reduce energy use in transmission or generation-constrained areas. The primary concern underlying this invitation was the decommissioning of San Onofre Nuclear Generating Station (SONGS). We recognized that programs within SCE's and SDG&E's EE portfolio could complement the SONGS-specific EE activities required in D.14-03-004 in the LTPP proceeding. We also recognized the possibility that EE programs could, for all utilities, be useful tools in dealing with transmission constraints or with local shortages of generation.

Targeting particular areas for enhanced EE seems eminently sensible, yet raises a host of thorny issues when put into practice. How do we ensure that incentives reach the targeted area, and only the targeted area? How do we explain why one customer gets access to more or better incentives than another who is to all outward appearances similarly situated, but who happens to be slightly outside the constrained area? How do we value efficiency in constrained areas? How do we motivate PAs to target particular areas when our standard metrics mean investments elsewhere are relatively more attractive?

Before we address the individual PA proposals, there are some common ground rules we will set for all PAs.

- First, we will impose some uniform housekeeping requirements on all PAs undertaking locational EE programs. PAs, at our direction, did not include Program Implementation Plans (PIPs) with their filings. Since locationally targeted EE is new, PAs implementing such programs shall submit PIPs for locational programs prior to implementing them. Locationally targeted programs

shall, like school projects, be "tagged" for internal and external tracking and auditing purposes.

- Second, PAs should work with Commission Staff to provide data that allows for comparison among EE portfolio programs and any other program intended to address a local constraint, whether in the LTPP proceeding, the PRP, or in elsewhere in the EE proceeding. The point of this requirement is to eliminate double counting (e.g., counting savings in a traditional direct install program activity, versus a direct install activity for the constrained area, versus a direct install activity as part of a selected bid from the RFO process, for example).

We turn now to the individual PA proposals.

3.4.2. Locational Targeting PA Proposals

PG&E Locational Targeting Proposal

PG&E proposes to integrate EE programs into an already-approved $2.5 million pilot to explore if demand side capabilities can assist with transmission and distribution planning. PG&E has already selected 4 substations (Lammers, Barton, Martell, and Bogue), which will allow integrated demand side management (IDSM) two years to offset potential overloading conditions. Current activities involve focusing energy savings assistance (ESA) and Middle Income Direct Install (MIDI) and SmartAC to these areas, as well as increasing incentive for peak load reductions. PG&E proposes to use an "existing conditions" baseline, in an effort to reach what it characterizes as "stranded potential."

PG&E's targeting for IDSM measures customers in areas served by the selected substations is unobjectionable.

We do, however, deny the request to use an "existing conditions" baseline. This should come as no surprise in light of our disposition of the similar proposal to use alternate baselines for schools. We are no more inclined to use

"existing conditions" as the baseline for locational programs than we were for school projects. We will, however, allow use of a "locked down" NTG ratio of .85 and a maximum EUL of 30 years for the retired equipment, as with school projects, in order to encourage the IOUs to move dollars towards locational projects.

Where a measure is targeted at avoiding a transmission cost, cost effectiveness should be measured against the cost of the transmission upgrade that targeted program avoids (or defers). The cost effectiveness calculator includes a variable for the value of avoided transmission (and distribution) attributable to a measure.[76] Likewise, where a measure avoids generation costs, there is a variable in the cost calculator that can be adjusted.[77] On a technical note, there will have to be a substation to zip code mapping for projects, and then a zip code to climate zone mapping as well.

Commission Staff is directed to resolve the details of this approach with PAs. They are to determine how much of a departure from default PV[Gen] and PV[TD] values in cost calculators is appropriate to capture the locational value for such projects. We note as well that the cost effectiveness calculation for locational projects should include the most recent Commission-adopted weighted average cost of capital (WACC) rate for the year the project will take effect.

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[76] $PV[TD]_{M,Q}$ =Present value of avoided Transmission & Distribution (T&D) costs for measure *M on a dollar per installed measure basis,* corresponding to the climate zone for measure *M*, installed by quarter *Q.*

[77] $PV[Gen]_{M,Q}$ =Present value of avoided generation costs for measure *M on a dollar per installed measure basis* corresponding to the climate zone for measure *M*, installed by quarter *Q.*

SCE Locational Targeting Proposal

SCE proposes to target the Johanna/Santiago region (J-S region) and ramp up existing programs with a focus on HVAC and lighting. This is unobjectionable.

SCE also proposes allowing more deemed and custom early retirement measures in the J-S region by:

1. Defining "preponderance of evidence;"
2. Posting and freezing Industry Standard Practice studies;
3. Allowing PAs to propose remaining useful life; and
4. Removing the 20 year EUL cap.

All four of these items would presumably lead to lower baselines and/or longer lives and so greater cost effectiveness for particular measures and associated projects within the targeted area.

We decline to adopt the first three of these changes. The Policy Manual disclaims at length on the meaning of "preponderance of the evidence." Putting further gloss on the phrase will not assist parties or Commission Staff in interpreting it. Conversely, posting and freezing industry standard rules risks ossification of the values (as has been alleged to be a problem with DEER; see above). We decline to turn over to PAs authority to set remaining useful life values. All of these determinations are without prejudice to reevaluation of these requests later in this proceeding or in a subsequent proceeding.

As discussed with Proposition 39, we will raise the cap on EUL for locational measures to 30 years.

We direct SCE to work with Commission staff to adapt the cost effectiveness calculator figure for avoided transmission costs on a locational basis, include the current WACC rate, and a "locked down" NTG ratio of .85.

SoCalGas Locational Targeting Proposal

Locationally Targeted Integrated Demand Side Management

SoCalGas proposes to work with electric utilities to advance IDSM programs in order to reduce the energy strain on all fuels and give affected customers a widely available selection of EE measures to pursue. SoCalGas proposes to focus on customers that have equipment below code or industry standard practice that uses both electricity and gas. This raises the same concerns as other PAs' alternative baseline proposals, and yields the same negative response from us.

Bottoming Cycle Combined Heat and Power (CHP) as a Locational EE Program

SoCalGas is also proposing to incorporate bottoming-cycle combined heat and power (bottoming cycle CHP) as an EE measure in constrained areas. The January 22, 2104 Scoping Memorandum encouraged PAs to include some form of bottoming cycle CHP in their 2015 portfolios.

SoCal Gas proposes to investigate incorporation of unfired, bottoming cycle CHP as an EE in its Industrial Calculated Incentives Program. SoCal Gas offers to flesh out a proposed bottoming cycle via the PIP Addendum process, after SoCal Gas develops ways to overcome existing market barriers and business limitations.

Bottoming cycle CHP is also known as "Heat Steam Recovery Generation." It is generation using heat from gas firing to generate steam, where *the gas firing is completely related to the industrial process*. That is, no supplemental firing occurs to increase (or to stabilize) the steam's temperature; the heat is 100% associated with the industrial process. In D.09-06-051, the Commission stated that the GHG emissions associated with bottoming cycle CHP (if there is no supplemental firing) is associated with industrial process and the electricity generated has zero

marginal emissions associated with it. Note that this is different than the main style of CHP (topping cycle) which is when electricity is generated first and then waste heat is captured for an industrial process. Users who employ bottoming cycle CHP include cement manufacturers, food processors, glass manufacturers, and other customers whose processes involve high heat and high waste heat streams.[78]

There is an ongoing debate about whether CHP in any form is properly characterized as "energy efficiency." This is reflected in some party comments, the thrust of which is that CHP of whatever type is really generation, not EE at all. Under that view, CHP of all types is *not* only not entitled to EE incentives, but is subject to various charges associated with customer generation and "departing load."

Whether bottoming cycle is really EE is an open question, and one we need not decide today in reviewing SoCalGas' proposal to submit a pilot. We want to see the details of the pilot as well as how it works on the ground before deciding

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[78] The State and Local Energy Efficiency Action Network (*See* Action), a non-party, provides a fuller definition of bottoming cycle CHP in a publicly-available paper:

There are two types of CHP—topping and bottoming cycle. In a topping cycle CHP system fuel is first used in a prime mover such as a gas turbine or reciprocating engine, generating electricity or mechanical power. Energy normally lost in the prime mover's hot exhaust or cooling systems is recovered to provide process heat, hot water, or space heating/cooling for the site. Optimally efficient topping CHP systems are typically designed and sized to meet a facility's base-load thermal demand.

In a bottoming cycle CHP system, also referred to as waste heat to power, fuel is first used to provide thermal input to a furnace or other high temperature industrial process, an a portion of the heat rejected from the process is then recovered and used for power production, typically in a waste heat boiler/steam turbine system. Waste heat to power systems are a particularly beneficial form of CHP in that they utilize heat that would otherwise be wasted from an existing thermal process to produce electricity without directly consuming additional fuel.

See Action, *Guide to Successful Implementation of State Combined Heat and Power Policies*, March, 2014, at 3. http://www1.eere.energy.gov/seeaction/chp_policies_guide.html

the question. For the limited purpose of the SoCal Gas proposed pilot, if we approve a pilot following SoCal Gas's submittal of details, we will exempt the newly-installed bottoming-cycle generation that is the subject of the pilot from otherwise-applicable nonbypassable surcharge, as though (but without deciding) it was an EE measure, as we do with other heat-recovery measures (e.g., rotary air-to-air enthalpy heat recovery). We do, however, recognize that simply putting an EE label on what might otherwise be classified along with other CHP as generation allows avoidance of otherwise applicable customer charges. In light of the savings from avoidance of otherwise-applicable non-bypassable charges that flow just from characterizing bottoming cycle CHP as EE rather than generation, the pilot will not be eligible for further EE incentives.

There is also a question about whether SoCalGas is the correct entity to run this pilot at all; as defined above bottoming cycle CHP uses waste heat to generate power; i.e., electricity. SoCalGas does not generally operate electric plant, and does not have any savings goals for electricity. How to credit *electricity* savings from bottoming cycle CHP is something we will have to address if projects go forward. Additionally or alternatively, SoCalGas should propose how to determine and attribute any gas savings as part of the pilot.

Relatedly, SoCalGas is proposing its bottoming cycle CHP program under the rubric of addressing constraints in electric transmission and distribution systems. In addition to observing that SoCalGas is a gas corporation and so an odd candidate to run this pilot, we note that many of the candidate industries[79]

[79] According to SoCalGas, "bottoming cycle CHP could achieve success as an eligible EE measure in the following industrial applications.

- Nonmetallic Mineral Product Manufacturing
- Petroleum Refining

for bottoming cycle CHP operate outside of constrained sections of the electric grid as well as within constrained areas. The pilot program is to focus on constrained areas. We will evaluate pilot results before approving any expansion of the program at all, much less outside of constrained areas.

Bottoming cycle CHP offers the attractive prospect of capturing and reusing heat that would otherwise be waste, without any additional fuel input. To conform practice to theory, the pilot should bar supplemental firing; that is, the heat that runs the generator needs to really be waste from the host process. We do not want a situation where nominal bottoming cycle CHP is just gas-fired generation masquerading as EE. We suspect that a pilot will end up revealing some nuance around what is really waste heat, and what constitutes supplemental firing, and we will address this further as needed.

SoCalGas proposes to "incorporate its approach [to bottoming cycle CHP] as part of the Industrial Calculated Incentives Program and document it to the Commission via the PIP Addendum process." We authorize SoCalGas to file a PIP for a bottoming cycle CHP pilot. SoCalGas should bear in mind our preceding discussion in preparing its PIP Addendum.

We agree with PG&E and SCE that there is currently no basis for mandating that they participate in bottoming cycle CHP pilots. We therefore deny EPUC's request that the Commission direct PG&E and SCE to establish such pilots.

- Chemical Industry
- Fabricated Metals
- Natural Gas Compressor Stations
- Landfill Gas Energy Systems
- Oil and Gas Production."

3.4.2.1. SDG&E Locational Targeting Proposal

SDG&E contends that its entire service territory is constrained. Instead of a proposal tied to a specific bus-bar or transmission path, SDG&E seeks two changes to our cost effectiveness metrics to be applicable throughout SDG&E's service territory. The changes SDG&E requests the Commission approve are: (1) update the resource balance year to 2015; and (2) update the WACC discount rate for 2015 to the most recent value.

The "resource balance year" is the year in which new forecasts predict new capacity will be needed; i.e., the year that generation resources are no longer balanced with load. According to SDG&E, "The resource balance year approach to calculating generating capacity cost is based on a short-run market approach for the near term capacity combined with a long-term cost of new capacity beginning at the resource balance year." SDG&E proposes that it be allowed to use a different balance year than the statewide resource balance year where "local capacity is needed in the service area before system capacity is needed." Presumably this will translate to higher capacity prices (or higher capacity prices sooner) in that service area. Capacity cost matters because it feeds into the avoided cost of generation variable in our cost effectiveness test. The higher the capacity cost, the higher the avoided cost, and the higher the avoided cost, the more cost effective EE will appear to be.

SDG&E's proposal is that utilities have a different resource balance year than the statewide resource balance year, lest we undervalue IDSM measures in constrained areas (i.e., SDG&E's entire service territory, as SDG&E would have it). SDG&E had, in another proceeding, made recommendations to update the resource balance year to calculate the generating capacity costs. SDG&E would import this recommendation into the EE cost effectiveness calculation.

We turn now to SDG&E's proposal for a changed discount rate. We use a discount rate to determine the net present value of each cost and benefit included in the California Standard Practice Manual tests. The discount rate we use is the WACC - the minimum return that the utility must earn on its existing asset base to satisfy its creditors, owners, and other providers of capital.[80] SDG&E recommends that the Commission allow the utilities to update their WACC to the most recent value. For SDG&E, the current 2013-2014 after-tax WACC is 7.38% used in the E3 calculator. Its most recently adopted WACC would be 6.87%.

As already discussed, a change to the avoided costs embedded in the cost-effectiveness calculators is, we think, the best way to value pilot locational programs. Bringing the WACC current for locational projects as part of that exercise makes sense.

We are not persuaded, however, that changing the Resource Balance Year as SDG&E requests is the best way to approximate the avoided cost of a generation project, much less of a transmission project. As discussed above, a more direct approach is to look at the avoided cost of particular projects at a busbar or transmission path affected by a locational program.

Using the most recently adopted cost of capital is consistent with our current practice. We have approved the above use of the most current WACC for calculating 2015 cost effectiveness for locational programs.

This brings us to SDG&E's proposal to extend a locational program throughout SDG&E's service territory. We are unwilling to apply what is supposed to be a locational program to SDG&E's entire service area. While it

[80] D.12-05-015 at 38-39, approved the use of the after-tax WACC adopted in D.10-12-024 for the 2013-2014 EE program cycle.

may be that all of SDG&E's service territory is in some sense "constrained," we find it improbable that there is not one transmission constraint within SDG&E's service territory that could be singled out as particularly susceptible to a load reduction program in lieu of a transmission upgrade (or generation project).

R.13-11-005 merely invited locational proposals, and did not mandate them. Consistent with the original rulemaking, we do not require SDG&E to propose a locational program, but we invite it consistent with the guidance we have given to PG&E and SCE, to submit a proposal targeted at particular substations (e.g., those impacted by the SONGs retirement).

3.4.2.2. SoCalREN Locational Targeting Proposal

SoCalREN proposes more marketing and outreach and direct implementation resources on constrained areas of the West LA Basin. SoCalREN will host homeowner workshops in the West LA Basin, and will undertake outreach through the "community champions" program. SoCalREN also proposes enhanced commercial Property Assessed Clean Energy (PACE) project identification activities in constrained areas.

This proposal is acceptable, with the caveat that the PACE project identification activities should not extend beyond its current geographic scope. SoCalREN should not grow its programs until it has demonstrated that it can satisfactorily implement the programs within its original remit.

The programs at issue here are "non-resource" programs. As such they are not subject to the cost effectiveness calculator and so we do not direct SoCalREN to work with Commission staff to adapt the cost effectiveness calculator for locational purposes.

3.5. Water-Energy Nexus Programs

California is undergoing an extraordinary drought, replete with grim implications for California's economy in general, and for energy supply, food supply and farm-related employment in particular. On January 17, 2014, Governor Brown declared a Drought State of Emergency, in which the Governor observed that "the magnitude of the severe drought conditions presents threats beyond the control of the services, personnel, equipment and facilities of any single local government."

Pumping water out of the ground, moving water around the state, treating water for consumption and for use in agriculture; all of these activities use energy. Energy production, in turn, often requires water, e.g., for cooling thermal generators and washing solar panels. Hence the use of the phrase "water energy nexus."

We have opened a proceeding to specifically address the water energy nexus. In R.13-12-011, the Commission intends to develop a partnership framework between investor owned energy utilities and the water sector – both privately owned water utilities regulated by the Commission and public water and wastewater agencies - to co-fund programs that reduce energy consumption by the water sector in supplying, conveying, treating, and distributing water. R.13-12-011 builds on D.12-05-015, in which the Commission directed staff to develop a comprehensive cost effectiveness framework for water-energy that would allow for the evaluation of joint water-EE projects and programs. In response to the Commission's directive, Staff created a work plan to address the water-energy nexus issues.

In the immediate term we must do all we can to cost-effectively reduce water use and so mitigate the impact of the drought. We have already taken

steps in this direction for water utilities, see, e.g., Resolution W-4976 (adopting drought procedures for water conservation rationing and service connection moratoria).

PAs have undertaken water-energy nexus pilots during the 2013-2014 cycle. Following are some highlights from pilots:

- **SDG&E** has formed partnerships with San Diego County Water Authority (SDCWA) and Metropolitan Water District (MWD) to implement their pilots. These currently include programs for more efficient use of water in landscaping; a leak loss protection program at customer sites; the Water Infrastructure System Efficiency program (WISE) which provides benchmarking reports for water agencies; distribution of low flow showerheads and aerators through the Energy Savings Assistance (ESA) program; and distribution of efficiency spray head valves to restaurants.[81]
- **SoCal Gas** is partnering with MWD and its local government partnerships on the following pilots: Utilization of water agency rebates to co-fund it's ESA water savings program; hosting Agricultural Forums in Tulare County to learn the needs of the agricultural community; partnering with Los Angeles Metropolitan Water District to market water and energy savings measures to over 300 cities; conducting a targeted requisition for the Water Loss Control program through the Innovative Designs for EE
  Approaches 365 solicitation process; holding Energy Smart Landscaping classes at the Energy Resource Center; including aerators and low flow showerheads in their EE kits, which are given away at events, trade shows and workshops; offering direct installs of showerheads and aerators to ESA customer; educational kits to 6th graders to

[81] R.13-12-011, Comments of SDG&E and Southern California Gas Company (SoCalGas) filed on July 16, 2014 at 2.

educate them about energy and water conservation; and rebates on pre-rinse spray valves for commercial facilities.[82]

- **PG&E** partners with local water agencies and local governments to offer the following: rebates for efficient clothes washers; the WISE program (see SDG&E, above, for details); the Low Pressure Irrigation Direct Install program for agricultural customers; an emerging technology program that is researching new ways for auditing and benchmarking water usage at small and medium-sized water agencies; incentives for pump efficiency testing and retrofit projects for agricultural customers; partnering with CSU Fresno to assess emerging water and energy saving measures and market intervention strategies; water conservation trainings at their training centers, including the annual Water Conservation Showcase event; low cost or free upgrades to water and energy efficient products through the ESA program; water heater replacement and leak inspection through the ESA program; an increase in effort in the most drought impacted counties of their service territory; and communicating potential drought impacts through numerous Marketing, Education and Outreach (ME&O) channels.[83]
- **SCE** established the local Water-Energy Program Advisory Groups; is partnering with the Association of California Water Agencies, the California Water-Energy Coalition and the California Association of Sanitation Agencies to build better channels of communication and education for water conservation; has a hydraulic pump test efficiency program for industrial and commercial customers; is promoting auto-demand response with water agencies; offers a leak loss detection pilot with local government

[82] R.13-12-011, Comments of SDG&E and SCG filed on July 16, 2014, at 3.

[83] R 13-12-011, Comments of PG&E filed on July 16, 2014, at 2 – 5.

partners; and is leveraging data from the Pump Efficiency Services Program with the WISE program;[84]

- **Bay Area Regional Energy Network (BayREN)** provides technical assistance to municipal water utilities to help them design and launch an on-bill repayment program called Pay As You Save® ("PAYS"): "A self-sustaining resource efficiency program in which participating customers pay for installed measures and program operation through a regular surcharge attached to their meter." According to BayREN:
- **The BayREN PAYS® Program** enrolls Partner Municipal Water Utilities to design and implement on-water bill financing programs that facilitate the adoption of water and energy efficient measures, approved by the Partner Municipal Water Utility, in residential (single and multi-family), commercial, and municipal properties. The Program is currently working with four Partner Municipal Water Utilities that are expected to facilitate at least 2,000 projects in 2014 serving multi-family and commercial customers.

We will continue funding these ongoing activities. These programs appear[85] to have resulted in significant savings of both water and energy. PG&E, for instance, contends that in "2010-2012, PG&E helped customers save approximately 95 GWh/year and approximately 14 MM therms/year for water-related EE measures. PG&E estimates that these water-energy initiatives saved 1.3 billion gallons of water in 2012 alone." We want to see energy utilities build on their reported successes here.

This brings us to PG&E's proposal for a 10% "adder" to energy savings for water-energy measures. According to PG&E, the 10% adder would serve as a

[84] R 13-12-011, Comments of SCE filed on July 16, 2014 at 3–5.

[85] Evaluation by Commission Staff is ongoing.

placeholder for the upstream embedded energy savings associated with measures that save water. PG&E would only use this "adder" until R.13-12-011 resolves how to determine the cost effectiveness of water-energy measures.

We will deny PG&E's request for a 10% "adder" to savings from water energy measures. There is no empirical basis for the 10% figure. We are working on an evidence-based calculation for embedded energy in water in R.13-12-011. Until we have an evidentiary foundation for adopting a figure, we will not do so.

With respect to workpaper preparation associated with water energy measures or projects, some parties have requested that we involve an outside group, such as a project advisory group, in the workpaper process. This we also decline to do. The involvement of such groups in EE going forward is something we will take up in Phase II of this proceeding.

More generally, NRDC has asked for establishment of an advisory group relating to water-energy programs. We decline to do so. There has been a Project Coordination Group in place for water-energy nexus issues for some time; a public process may supersede that group. NRDC counters that they are concerned with water energy issues as distinct from water energy *nexus* issues. While there may be imperfect overlap in those categorizations, they cleave too fine a distinction for any practical purpose. Water energy, or water energy nexus issues, can be picked up variously in subsequent phases of this proceeding, in R.13-12-011, or in subsequent proceedings. We do not see any benefit to creating another advisory group now.

NRDC also proposes in comments to have us count water bill reductions against the incremental measure cost of a water-savings measure (e.g., a clothes washer) when calculating the cost effectiveness of the measure. An example may

clarify how we understand this would work. If a hypothetical clothes washer has an incremental measure cost of $200, and in addition to saving energy reduces a customer's water bill by a net present value of, say, $100, then the measure cost for purposes of determining cost-effectiveness would be $100 rather than $200. This is an interesting idea, but one that we have not had an opportunity to fully consider. It is more properly taken up in Phase III as part of a broader look at cost-effectiveness calculations, and what they should and should not include.

3.6. Home Upgrade Programs (Home Upgrade and Advanced Home Upgrade)

3.6.1. Current Program Offerings and Claimed Results

There are two residential retrofit programs: the Home Upgrade Program and the Advanced Home Upgrade Program. Both are struggling.

The state has set the ambitious goal of reducing energy consumption in existing homes by 40% by 2020. The Home Upgrade programs are not producing anywhere near the electricity savings needed to hit that target. We are spending millions of dollars to get a relative handful of customers to undertake upgrades. The upgrades actually undertaken yield far lower savings than forecast.[86] Despite the best intentions all around, what we have been doing in the residential sector has not worked well. This is something we have wrestled with for some time.

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[86] *See e.g.*, SoCalREN's filing at 6: "[changes to] energy savings forecasts based on actuals through December 2013, and other relevant program changes . . . have resulted in dramatically lower TRC for Home Upgrade. Essentially, project cost increased while, at the same time, energy savings per project decreased." Commission Staff analysis of IOU programs has identified similar issues. *See* "Whole House Retrofit Market Effects Study, CPUC EM&V WO54 – Market Assessment & Market Effects." Available here: http://www.energydataweb.com/cpuc/ (visited August 14, 2014).

3.6.2. Recent Program Changes

There has been considerable activity of late to improve the Home Upgrade program offerings. We only just completed a revamping of Home Upgrade residential programs in 2013, and the revised programs rolled out in late 2013. The PAs recently brought Navigant on board as the Energy Upgrade California (EUC) "Market Transformation" consultant; we and stakeholders are working with Navigant on further improvements to the programs. There are also efforts afoot to make building simulation software more user-friendly and better at predicting savings. PAs are also working on expanding eligible measures, and reducing paperwork requirements.

In short, this is not the time for another redesign of residential Home Upgrade programs. We do not have data yet on how the current iterations of Home Upgrade programs are working. Additionally, too-frequent changes of program direction may be a part of the problem in the residential sector.

Consistent with the idea of a "light touch" for 2015, the January 22, 2014 Scoping Memorandum directed PAs to consider proposing a variety of "no regrets" changes to their residential offerings that would continue to improve those programs. Specific suggestions were:

1. New strategies for savings from plug loads such as appliances and lighting;
2. Use and distribution to contractors of additional software modeling tools;
3. Streamlining of reporting requirements;
4. Targeting and outreach to specialty contractors; and
5. Reconfiguration of how the point/rebate structure works.

PAs have offered to adopt several of these suggested revisions, or state that they are already implementing some of these revisions. They have proposed some additional changes as well, which we turn to next.

3.6.3. Proposed Programmatic Changes for 2015

SoCalREN's Request to Change the Minimum Number of Base Measures We Require

SoCalREN requests that the Commission explicitly remove a Commission Staff requirement that each Home Upgrade Program must require one of the three following measures: attic insulation, duct sealing and whole house air sealing.

SDG&E, SoCal Gas, PG&E and SCE provided comments on the SoCalREN proposal on April 4, 2014 and the Energy First California (EFCA), SDG&E, SoCal Gas and SoCalREN provided reply comments on April 17, 2014. In both opening and reply comments EFCA, SDG&E, SoCalGas, PG&E, and SCE claimed the proposal to remove the requirement that each Home Upgrade Program must include at least one of the three base measures runs contrary to encouraging deep energy savings and is inconsistent with building science.

SoCalREN replies that the removal of the "one of three base measurements" requirement will not lead to a large number of projects without a base measure. According to SoCalREN, duct sealing and attic insulation are among the most popular measures in the program. SoCalREN argues further that its proposal will streamline the program and allow the program to better integrate with its PACE. SoCalREN adds further that the Home Upgrade Program requirement from OP 5 of D.12-11-015 that each project includes three measures makes it impossible to do a retrofit that does not touch the building shell.

We are sensitive to the possibility of Home Upgrade Programs devolving into single-measure programs, but do not see that endorsing this change takes us materially in that direction. The programs are designed to promote base measures even if they are not mandated; homeowners receive additional points when they do more than one of the base measures. We accordingly agree with SoCalREN that one of three base measures need not be required of customers, though such measures should continue to be encouraged. In response to comments, we clarify that we are relieving *all* PAs of the one base measure requirement.

PG&E's Request to Decrease Incremental Measure Costs

In its filing, PG&E recommends estimating a downward adjustment to the project cost assumptions for home upgrade programs. PG&E asks that we decrease the incremental measure cost by 25%. This will improve program performance on our cost-effectiveness tests.

PG&E's request implicates several types of costs/benefits:

- Project costs entirely unrelated to EE (e.g., paint);
- Project costs solely related to EE (e.g., insulation);
- Project costs that comingle EE and non-EE costs (e.g., windows with custom finishes or trim where there is a less expensive equally high-efficiency, but less elaborate, option available); and
- Non-energy benefits from the preceding two types of costs (e.g., a more comfortable space).

Our understanding is that PG&E's adjustment is to remove from the calculation of cost effectiveness costs from the third bullet (*i.e.*, costs that comingle EE and non-EE costs) that are *not energy efficiency-related*. The proposal essentially takes the costs from the third bullet (comingled EE/non-EE costs) and allocates them across the first (no EE) and second bullets ("pure" EE) at a ratio of

one in four. The effect of this proposed change is to move the TRC for Home Upgrade projects upwards, even absent any change in what is actually happening on the ground.

According to PG&E, a preliminary EUC Process Evaluation from December 2013 suggests that customers incur as much as 50% of the cost of erstwhile EE projects for non-energy related benefits. As a result, PG&E proposes to reduce the incremental measure costs for Home Upgrade projects by 25% as an interim solution to the apparent problem of overstated measure costs. PG&E proposes to continue to refine ongoing analyses and to propose an alternate approach to improve the program's cost effectiveness as part of Phase III of the Rulemaking.

In comments filed on April 4, 2014 and reply comments on April 17, 2014 BPI, EFCA and TURN all support the PG&E proposal to remove 25% of the projects costs for Home Upgrade. They contend that customers participate in Home Upgrade retrofits for benefits beyond just those derived from EE gains, such as comfort and enhanced air quality. NRDC and SDG&E also support the proposal and recommend the Commission direct the stakeholder Comprehensiveness Working Group to reconvene to readdress this at a later date, likely during Phase III of this proceeding.

ORA opposes the PG&E proposal to reduce project costs by 25%, but concurs in the recommendation that the Commission direct the Comprehensiveness Working Group to reconvene. In reply to comments by NRDC and TURN in support of the PG&E proposal, ORA claimed that NRDC and TURN do not understand that the PG&E proposal to remove 25% of the costs for Home Upgrade projects are not based on the inclusion of "granite

countertops" or other non-energy related costs in Home Upgrade projects, but instead PG&E's attempt to account for non-energy benefits.

PG&E clarified that it is not seeking to include non-energy benefits in calculating cost effectiveness. Rather, PG&E is seeking only to address a current alleged bias in the cost-effectiveness calculation by removing from the incremental measure cost costs that participants willingly pay to procure the non-energy benefits. PG&E has proposed 25% cost reduction is, then, a proxy for the cost of product features of an energy efficient product that are not related to efficiency (such as aesthetics).

We conclude that the *concept* of removing project-related, non-efficiency related costs (i.e., the costs in the third bullet, above) from the total cost calculation has merit. Including the cost of non-EE "bells and whistles" because they are hard to tease out of a measure's total costs undoubtedly inflates project costs. This creates a misleading picture of a measure's and project's cost-effectiveness.

However, the *specific proposal* before us lacks merit. Its proponents offer no empirical support for the value they have landed on. We are dealing with ratepayer dollars, so we will err on the side of being conservative in determining cost effectiveness. It is also unclear whether the proposal is taking account of non-energy benefits in any way. We understand that it is not intended to do so, but the proposal has left some parties confused and we want greater clarity on this point before endorsing any specific proposal. We encourage the relevant working group to reconvene and come up with an empirically-supported proposal for Phase III of this proceeding.

3.6.4. Home Upgrade Program Budgets Generally

We will generally maintain flat budgets for Home Upgrade programs through 2015. This reflects that it was late in 2013 before PAs were ready to go with the program changes that we directed in late 2012 for the 2013-2014 cycle. It took time to flow the ordered changes through to program implementers. This means that 2015 rather than 2014 is effectively the second year of the cycle as far as Home Upgrade programs are concerned, and we are scaling funding to match. We will discuss this more on a PA-specific level later in this decision.

3.7. Integrated Demand Side Management

3.7.1. Integrated Demand Side Management Generally

D.14-01-004 states in pertinent part that: "beyond 2012 all IDSM activities would be proposed and approved through the EE proceeding." D.14-01-004 approved a two-year funding extension for 2015-2016. In light of that fact, we make only a few adjustments to IDSM programs here.

3.7.2. IDSM Definition

IOUs have identified programs as IDSM programs if they support two out of the three demand side technology types (EE, demand response, and distributed generation). In most cases, the two technologies that are identified as part of an "IDSM" program are demand response and EE. We do not take issue with these choices now. We note, however, the distributed generation should not always be the "odd man out." We elect not to provide guidance on this now, but may revisit whether to do so if we learn that distributed generation is being left by the wayside.

3.7.3. Workforce, Education, and Training (WT&E)

The IOUs[87] provide little information as how they will incorporate the recommendations resulting from the expert entity they hired to "help design a comprehensive approach to the WE&T issues inherent in the EE portfolios" as directed by D.12-11-015. We direct the IOUs to file a Tier 3 AL to Energy Division within 120 days of the date this Decision mails. The AL should include a copy of the WE&T recommendations as an attachment, describe which recommendations the IOUs will initiate in 2015, and provide a program implementation plan.

3.7.4. Continuous Energy Improvement

D.07-10-032 directed the IOUs to initiate IDSM pilot programs to help inform program and policy guidance. As referenced in D.12-05-015, Commission Staff oversaw an IDSM program evaluation to help inform IDSM related policy guidance.[88] The IDSM program evaluation findings note that "what were identified as integrated pilots…were in fact not designed with integration as a primary resource."[89]

Subsequently, we directed[90] the IOUs to use their existing Continuous Energy Improvement (CEI) pilot programs as IDSM pilot efforts. CEI programs provide technical assistance to non-residential customers developing comprehensive energy plans. We directed the IOUs to expand their CEI pilot

[87] IOUs are the only PAs to include IDSM in their proposed budgets.

[88] D.12-05-015 referenced early findings from this evaluation at 314.

[89] Completed IDSM Omnibus Process Evaluation.

[90] D.12-05-015 at 319.

efforts to include cohort efforts aimed at medium-sized non-residential customers.[91]

Despite the fact that 2015 is to largely continue 2013–2014 programs, SDG&E has, without explanation, reduced its CEI Commercial Program budget by 35%. We direct SDG&E to maintain both its CEI Industrial and Commercial Programs in 2015 at budget levels commensurate with 2013-2014 annualized budgets.

3.7.5. MASH and SASH

CSE recommends that the Commission transition the Multifamily Affordable Solar Housing (MASH) and Single-Family Affordable Solar Homes (SASH) programs into IDSM programs by requiring participating customers to enroll in EE or demand response programs. PG&E asserts that "the request should be disregarded because these two solar programs are not part of the EE portfolio. The Commission is considering MASH and SASH program changes in a rulemaking proceeding for solar programs, R. 12-11-005."

Wherever the issue is being decided, we lack sufficient record to evaluate CSE's request here. Accordingly we deny it without prejudice.

3.8. IOU Financing Programs

In D.13-09-044, we largely addressed IOUs funding for financing programs through 2015. There are, however, some financing programs not covered by D.13-09-004 that we must address here.

First are the continuing IOU on-bill finance programs. The budget proposals do not materially differ from those we approved for 2013-2014, and we reapprove them here.

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[91] *Id.*

Second are continued pilots previously funded by the American Recovery and Reinvestment Act. Again, the budget proposals do not materially differ from those we approved for 2013-2014, with one exception. PG&E proposes more loan loss reserve funds in 2015 for its California Home Finance (CHF) program. We conclude that there is good cause for this change, as the CHF program is tied to the Energy Financing Line Item Charge (EFLIC) pre-development pilot, and the expansion of the latter warrants additional funding for the former.

3.9. Total PA Budgets, Plus Additional Issues Not Previously Discussed

3.9.1. Summary of Budgets

We approve the following budgets for each PA:

Figure 6. Total Approved Budgets for 2015 ($000)

Category	Electric Demand Response Funds	Electric Energy Efficiency Funds	Natural Gas Public Purpose Funds	Total Energy Efficiency Funds
Pacific Gas and Electric				
Program Funds - Utility*	$3,264	$330,087	$72,026	$402,113
Program Funds – BayREN	N/A	$10,538	$2,299	$12,837
Program Funds - MCE	N/A	$1,002	$219	$1,220
EM&V	N/A	$13,558	$2,958	$16,516
Total PG&E	**$3,264**	**$355,185**	**$77,502**	**$432,687**
Southern California Edison				
Program Funds – Utility	$11,746	$326,358	N/A	$338,104
Program Funds–SoCalREN	N/A	$17,314	N/A	$17,314
EM&V	N/A	$13,747	N/A	$13,747
Total SCE	**$11,746**	**$357,419**	**N/A**	**$369,165**
San Diego Gas & Electric				
Program Funds – Utility	$4,640	$100,618	$11,180	$116,438
EM&V	N/A	$4,025	$447	$4,472
Total SDG&E	**$4,640**	**$104,643**	**$11,627**	**$120,910**

Figure 6. Total Approved Budgets for 2015 ($000)

Category	Electric Demand Response Funds	Electric Energy Efficiency Funds	Natural Gas Public Purpose Funds	Total Energy Efficiency Funds
Southern California Gas				
Program Funds – Utility	N/A	N/A	$76,018	$76,018
Program Funds- SoCalREN	N/A	N/A	$4,337	$4,337
EM&V	N/A	N/A	$3,214	$3,214
Total SoCalGas	**N/A**	**N/A**	**$83,569**	**$83,569**
Total – All Utilities				
Program Funds	$19,650	$785,917	$166,078	$951,996
EM&V		$31,329	$6,620	$37,949
Total All Utilities	**$19,650**	**$817,247**	**$172,698**	**$989,945**

Figure 7. Total Approved Utility Energy Efficiency Budgets for 2015 By Program Area ($000).

Program Area	PG&E	SCE	SDG&E	SoCalGas	Total Energy Efficiency Funds
Statewide Resource Programs					
Residential	$ 61,794	$ 50,528	$ 19,562	$ 19,579	$ 151,463
Commercial	$ 79,041	$ 93,357	$ 21,675	$ 10,737	$ 204,810
Industrial	$ 18,689	$ 8,449	$ 2,519	$ 11,173	$ 40,830
Agricultural	$ 18,823	$ 5,483	$ 994	$ 4,239	$ 29,539
Lighting[92]	$ 13,552	$ 35,254	$ 6,447	N/A	$ 55,253
Codes and Standards	$ 8,585	$ 5,978	$ 1,051	$ 843	$ 16,457
Financing**	$ 15,569	$ 16,295	$ 284	$ 2,264	$ 34,412
Subtotal Statewide Resource Programs	**$ 216,053**	**$ 215,344**	**$ 52,532**	**$ 48,835**	**$ 532,764**
Non-Utility Programs					
Third Party Programs (competitively bid)	$ 90,906	$ 42,824	$ 40,123	$ 16,376	$ 190,229
State and Local Government Partnerships	$ 72,322	$ 23,685	$ 8,725	$ 4,846	$ 109,578
Non-Utility Programs	**$ 163,228**	**$ 66,509**	**$ 48,848**	**$ 21,222**	**$ 299,807**

[92] In comments TURN takes issue with the failure of most IOUs to fund statewide lighting programs. TURN argues that the "N/A" here contravenes instruction in D.12-11-015, at COL 50, which lists categories of statewide programs. PG&E notes that it is the only IOU to segregate out its lighting programs, and asks to roll its lighting program into its residential program ($10.7 million) and Emerging Technology (2.1 million) budgets. We decline PG&E's request, and will direct that in their compliance filings, SDG&E and SCE also separately account for statewide lighting programs.

Figure 7. Total Approved Utility Energy Efficiency Budgets for 2015 By Program Area ($000).

Program Area	PG&E	SCE	SDG&E	SoCalGas	Total Energy Efficiency Funds
Statewide Non-Resource Programs					
Emerging Technologies	$ 6,292	$ 10,768	$ 1,356	$ 1,272	$ 19,688
Workforce, Education, and Training	$ 12,561	$ 9,165	$ 5,494	$ 3,129	$ 30,349
Marketing, Education, and Outreach*	N/A	N/A	N/A	N/A	$ -
Integrated Demand Side Management	$ 715	$ 887	$ 2,510	$ 582	$ 4,694
Other	N/A	N/A	$ 1,058	$ 978	$ 2,036
Subtotal Statewide Non-Resource Programs	**$ 19,568**	**$ 20,820**	**$ 10,418**	**$ 5,961**	**$ 56,767**
Subtotal Utility Programs	**$ 398,849**	**$ 302,673**	**$ 111,798**	**$ 76,018**	**$ 889,338**
Non-Utility Programs					
RENs	$ 12,837	$ 17,314	N/A	$ 4,337	$ 34,488
MCE	$ 1,220	N/A	N/A	N/A	$ 1,220
Subtotal Non-Utility Programs	**$ 14,057**	**$ 17,314**	**$ -**	**$ 4,337**	**$ 35,708**

Figure 7. Total Approved Utility Energy Efficiency Budgets for 2015 By Program Area ($000).

Program Area	PG&E	SCE	SDG&E	SoCalGas	Total Energy Efficiency Funds
TOTAL ALL PROGRAMS	**$ 412,906**	**$ 319,987**	**$ 111,798**	**$ 80,355**	**$ 925,046**
Evaluation, Measurement, and Verification	$ 16,516	$ 12,799	$ 4,472	$ 3,214	$ 37,002
GRAND TOTAL	**$ 429,422**	**$ 332,786**	**$ 116,270**	**$ 83,569**	**$ 962,048**

Notes: *Approved utility program funds do not include funding for statewide marketing, education, and outreach being requested in A.12-08-007 et al. **For SDG&E and SoCalGas, the totals also do not include funding for revolving loan funds for financing programs.

How we arrive at these numbers requires some additional explanation of PA-specific adjustments we have made versus what PAs requested, and these adjustments are discussed below.

The IOUs and MCE shall submit Tier 2 Advice Letter compliance filings within 60 days of this decision that reflect these budget adjustments and provide estimated TRC and PAC results for the combined 2013-2015 portfolios, as follows:

- The IOUs and MCE shall submit updated cost calculators. The updated cost calculators shall include updates to the contents of all files contained appendices A, B, C, and D of the IOUs' and MCE's respective 2015 funding proposals reflecting the budget and programmatic direction in this Decision. Those changes include, but are not limited to:
  - Reductions and/or increases in program or sector budgets;
  - Changes to measure input values where Unit Energy Savings values are higher than ex ante review and DEER support.[93]
  - The cost calculations for the IOUs[94] must include estimated ESPI payments;[95]
- The TRC and PAC estimates are to exceed a *1.0* cost-effectiveness threshold for 2015; rather than the 1.25 we usually require, and will require for subsequent years. We modify this requirement, because, for the IOUs, we are uncertain to what extent the above-directed changes will impact TRC and in keeping with the

[93] Commission staff shall provide a list of all such required measure input corrections via a notice to the service list within five days of the mailing date of this Decision.

[94] MCE does not receive incentive payments and so is exempt from this requirement.

[95] *See* D.07-09-043, at 153: "In D.04-10-059, we determined that shareholder incentives represent a true economic cost in the production of utility programs and should be included as a direct cost in the various Standard Practice Manual tests of cost-effectiveness, including the TRC test and the predecessor of the PAC test, the "Utility Cost" test. This policy rule is remains relevant today."

> "light touch" approach to 2015 want to minimize the fund shifting that may result to make portfolios cost-effective. Certainly we would prefer to see values of 1.25 or greater, but in view of the calculation errors we have identified and are requiring the IOUs to fix we see less need for the "hedge" than we previously did, and are more concerned about unanticipated consequences of fund-shifting to meet a higher TRC/PAC in response to corrections to calculations. TRC As for MCE, MCE's performance to date indicates that they are unlikely to hit a 1.25 cost-effectiveness target that we set in D.14-01-033 for 2015, and we are willing to give them another year at 1.0 to find their footing.[96]

- The authorized budgets are maximums – program overhead costs may be reduces, resulting in overall reductions in budgets, to achieve the required cost-effectiveness thresholds; however, for the purpose of this compliance filing, budgets may not be increased to do so.

3.9.2. PG&E

PG&E requests $396.2 million to carry forward their 2013-2014 programs into 2015. PG&E indicates that they will be able to meet their 2015 goals and cost-effectiveness requirements while maintaining the same level budget as 2013-2014 (annualized). PG&E's funding request includes an additional $3.3 million in funding for both DR and EE IDSM activities, pursuant to D.14-01-004, approving a two-year funding extension for 2015-2016, as well as funding for Statewide ME&O for 2015, pursuant to D.13-12-038.

Though PG&E's overall request is asserted to be unchanged from its annualized 2013-2014 portfolio, PG&E proposes to shift funds among programs as follows: (1) $2.3 million increase to Residential programs to support new

[96] We expect the TRC and PAC values to be at or above 1.25 in subsequent years, but recognize there is a tension between that expectation and this decision setting spending levels until 2025 or we change them. We do not resolve that tension, which is a 2016 and beyond issue, here.

construction and expected LED lighting uptake; (2) a $14.7 million increase in the Commercial program budget to support Proposition 39 and Title 24 changes; (3) a $2 million increase in the Codes and Standards (C&S) budget to support additional ZNE goals and activities; and (4) a decrease in the Financing program budget request by $21.5 million, primarily due to projected repayments to the revolving loan pool meeting the projected loan volume. PG&E also asks for a fifth change: "that its budget be increased to include $19.9 million approved in PG&E's 2014 General Rate Case (GRC) decision (D.14-08-032) for the employee burden benefit associated with PG&E's energy efficiency program delivery."[97] We conclude these changes are reasonable, and approve them.

PG&E requests that that the Commission authorize the extension of 2015 funding levels into 2016 in the event that the next funding authorization has not been adopted before the start of 2016. In D.09-09-047, the Commission approved an automatic month-to-month extension of funding if a decision on the next portfolio application is delayed, which allowed the utilities to collect the average monthly level of expenditure for the final year of the budget cycle to continue on a month-to month basis until the next portfolio budget is approved. PG&E requests that the method for budget extensions be amended to state that the IOUs are authorized to continue to collect in rates the currently approved funding level for the EE portfolios until a subsequent funding decision is issued. We approve this request, and extend this authorization to all PAs. As discussed in subsection 3.1, above, PAs are authorized to continue the programs we approve here through the earlier of 2025 or when we issue a decision changing programs and/or funding.

[97] PG&E Opening Comments at 3.

3.9.3. SCE

Proposed SCE Budget

SCE asserts in its application that achieving its 2015 energy savings goals will be more costly and challenging to achieve due to (a) more stringent building code requirements; (b) potential implementation of revisions in appliances standards; (c) implementation of more stringent federal standards; (d) customer's EE upgrades becoming standard practice, i.e. required by various building and appliances standards and no longer eligible for utility rebates. SCE has generally complied with the directives in the January 22, 2014 Scoping Memorandum. SCE is within the cost caps we have imposed, apart from direct implementation non-incentive spending (DINI). As to DINI, the cap on DINI expenses is a "soft cap" and SCE is tolerably close to the limit.

SCE proposes several programmatic changes to cost effectively achieve the 2015 savings goals in addition to areas called out in the Phase I Scoping Memorandum. SCE proposed a new Federal Government & Military Integrated Demand Side Management (IDSM) Partnership in SCE's Institutional Partnership portfolio, although funding in Figure 7 of the PD appears to approve this request. SCE notes this program was incorrectly labelled the "IGREEN Energy Efficiency Partnership" in SCE's "Placemat" table (Appendix B of the 2015 Funding Request) under the Institutional Partnership section. This line item may have caused confusion and will be corrected in SCE's compliance filing to read "Federal Government & Military IDSM Partnership." SCE asks that we explicitly approve this new program. We have not had an opportunity to evaluate this program, and so will defer a decision on this to a review of the PIP.

In addition, SCE requests to discontinue two existing programs: Refinery EE Program (REEP) and EE for Entertainment Centers due to the implementation

of the 2013 Building Code (Title 24) and changes in the Standard Practice Manual resulting in the offerings being no longer cost-effective. SCE explains that customers from both programs can be served by alternative existing offerings in the portfolio. No parties disagreed with SCE's requested proposals apart from the areas called out in the Phase I Scoping Memo. We approve them.

Discussion of Changes to SCE Budget Not Previously Addressed

Streetlights

As discussed above, we have rolled the goal for streetlights into the overall portfolio goal.

That having been done, we still note that SCE is not on track to achieve the goals for street lighting that the study supported. SCE contends that the delay in realizing the potential is due to non-IOUs owned street lights upgrades relying heavily on procurement and engineering actions by the local governments that own the affected street lights. Additionally, these local governments are bound by their own bidding and procurement rules which may prove time-consuming, especially during this ramp up period.

SCE should accelerate its efforts to upgrade non-IOUs owned streetlights. We do not understand why SCE is having trouble contracting with municipalities within its service territory. If we do not see material progress towards the identified street-lighting goals come 2016 we may have to initiate an investigation into this area.

Transitioning Away from CFL Programs for Commercial and Residential Lighting

SCE requests an increase of 137% for its lighting budget; from $11.8 million to $28.1 million. In D.09-09-047 we required "that [] utilities reduce funding levels for the Basic CFL Program, and in PG&E's require greater funding for the Advanced Lighting Program." In D.12-05-015 we reiterated the Commission's

vision for lighting with regard to support for basic CFLs: "Utilities will begin to phase traditional mass market Compact Fluorescent Lamps bulb promotions and giveaways out of program portfolios and shift focus toward new lighting technologies and other innovative programs that focus on lasting energy savings and improved consumer uptake."

The 2013 Study identified economic CFL potential in 2015 in SCE's service territory. We want SCE to capture that potential, while also recognizing that CFL potential will decline markedly over time, and that SCE needs to transition away from CFL programs. From 2015 forward, we direct that SCE shift its allocation from CFL programs to non-CFL programs by 5 percentage points each year, until its CFL/non-CFL ratio is within 5 percentage points (plus or minus) the average of that of PG&E and SDG&E.

In comments, SCE and others identify ambiguity in this direction, raising the question "5% of what?" SCE correctly reads the prior paragraph to tie the percentage to percent of lighting budget (as was the limitation in D.09-09-047 referenced above). In the alternative, SCE proposes it instead be 5% of SCE installations. TURN, meanwhile, proposes to set a cap on CFL savings of 5% of total savings.

SCE's proposal fails to reflect that the goal here is to bring them in line generally with their cohort on moving away from CFL incentives and towards other lighting programs. Comparing themselves to themselves will not do much to advance this goal. Neither will a 5% reduction, rather than a 5 *percentage point* reduction. The idea is that the percent of CFLs as a percentage of lighting budget should drop annually from X% to (X-5)% until in line with the ratios of SCE's cohort. The calculation is not such that the annual drop is from $X to ($X-(.05*$X)), to the extent that was unclear.

TURN's proposal is inconsistent with our allowing SCE to capture the economic potential savings from CFLs that the 2013 Study identifies. This amount, when backed out of the 2013 Study, is more than 5% of total savings.

LGP and LGP "Strategic Plan Pilots" Budgets

In D.09-09-047, we authorized $32 million for an SCE Local Government Strategic Plan Pilot (Strategic Plan Pilot). The Strategic Plan Pilot would fund up to $1 million/applicant for activities prioritized for local governments in the Strategic Plan.

SCE for 2013-2014 undertook a year-long RFP and award process. For 2015, SCE had insufficient time to issue another RFP. The SCE 2015 budget shows that the $3,764,197 annual amount previously budgeted for a Strategic Plan Pilots RFP has been reduced significantly with some of the remainder being a reduced request amount and the rest distributed among its various partnerships for 2015. SCE states that "In 2015, SCE proposes to use previously authorized 2013-2014 funds to complete outstanding tasks, and seeks limited funding for administrative costs to oversee completion of the existing pilots. SCE does not request additional funds for new solicitations in 2015."

SCE has not introduced supporting information into the record by which to judge the merits of its proposal for using uncommitted unspent funds in 2015 for 2013-2014 programs. Nor has it supported its proposal to reallocate funds from Strategic Plan Pilot programs to existing LGP programs.

Accordingly, SCE's approved 2015 budget amount for its local government partnership is reduced to $10,765,398. We expect SCE to fulfill its 2013-2014 commitments with 2013-2014 funds.

EUC Home Energy Advisor Survey Program

SCE requests approval of $8,964,120 for its Home Energy Advisor Survey (HEES) program for 2015. This is inconsistent with an annualized approved 2013-2014 budget of $3,409,699. In addition, SCE states that it intends to file an AL requesting reduction of program objectives -by an order of magnitude, to .1%[98]

There are, then, two metrics we can look at in gauging this program. First, there is the number of survey takers. In 2013, 14,439 (.39%) customers engaged with the Energy Advisor/Universal Audit Tool (EA/UAT), of whom approximately 9,700 (.22%) completed the new online survey. The majority of participants still complete a paper-based survey. Through Q1 2014, 4,307 customers engaged with the EA/UAT, with 1,360 completed online surveys. These numbers project out to .40% engagement and 5,440 (.13%) completed surveys. The numbers show that even though engagement is projected to be higher in 2014, the percentage of completed online surveys is lower.

Next, we can look at the number of survey takers who went on to participate in programs. In 2012, .12% of survey takers went on to participate in EUC. For 2013, that figure was .05%.

SCE's request creates a quandary. EUC is underperforming, and might benefit from additional marketing efforts, of which this website is arguably one. On the other hand, EUC home upgrade programs are the subject of a statewide marketing program that SCE does not oversee. With that in mind, and looking at recent program performance, we do not see any likely return to justify a nearly three-fold increase in the budget for this program. The added expense appears

[98] The current program objective is that 1% those who completed a survey either (1) finish an EUC project, or (2) participate in another resource program.

unsupportable in light of SCE's request to reduce targets and the lack of specific supporting information about how SCE plans to use the increased funds. Accordingly, we deny SCE's requested budget for the HEES program. We instead approve a 20% increase from the annualized amount for 2013-2014, $4,090,800, reflecting the claimed annualized spend on HEES in 2013-2014, which was higher than budgeted.

Other Programmatic Issues

We approve the expansion of the Nonresidential Energy Advisor Program to include a behavior component; streamlining of multi-family programs; increases to incentives in the Plug Load Appliance Program; modifications of direct install programs.

We also approve the requests for discontinuing the REEP and EE for Entertainment Center programs. We approve SCE's proposals for ongoing monitoring of the programs' ramp downs and transition of program customers into continuing programs.

3.9.4. SoCalGas

SoCalGas requests authorization to spend $79,699,385 on year-2015 programs. This compares to an annualized budget from the 2013-2014 cycle of $79,306,259. Forecast TRC for the 2015 portfolio is 1.32.

SoCalGas's proposed portfolio generally conforms with the directives of the January 22, 2014 Scoping Memorandum. The annual budget remains relatively flat, with slight funding/savings adjustments across specific categories. The most significant adjustments are in the industrial segment (which decreased by approximately $3.4M) and the agricultural segment (which nearly doubled from $2.4M to $4.8M). The projected annual 2015 savings is 28.4 Therms compared to 29.9 Therms for 2013-2014.

While generally in conformance with our directives, there are some issues with SoCalGas's proposed budget that we must address. Commenters noted an error in our calculation of SoCal Gas's DINI cost. We have corrected that calculation and made corresponding corrections in Figures 6 and 7 to restore funds that the proposed decision would have disallowed.

Also, the budget figure the Proposed Decision contemplated approving included an offset for carry-forward of unused funds from prior budget cycles. These carry-forward funds may not be available in future years; if they are, we require them to offset future revenue requirements which, absent our making changes in budgets, will be the nominal amount we approve here. That is, an amount that is already reduced for carry-forward. This concern is not unique to SoCal Gas.[99] For now, as with other IOUs, we will simply approve the 2015 budget request, which includes the carry-forward. If this becomes an issue in subsequent years and we have not yet revised budget amounts, we expect any impacted IOU to seek revisions to their funding.

3.9.5. SDG&E

SDG&E proposes a budget of $119,419,591 for EE programs, with an additional $4,640,247 to fund the DR component of its 2015 IDSM programs.[100] As noted earlier, we direct SDG&E to maintain its CEI budget at the same level we approved for 2013-2014. The CEI budget should be increased to $382,000. SDG&E's statewide lighting budget should be broken out separately. It is ~$2.1M of the residential total of $26M. $68K for SW Emerging Technology

[99] *See* Figures 4 and 5 above.

[100] SDG&E filing at 4.

Deployment Support should be transferred from Commercial to Emerging Technology.

We approve SDG&E's proposed shareholder-funded energy marketplace IDSM pilot. It is reasonable for shareholders rather than ratepayers to engage in this potentially risky new venture.

3.9.6. MCE

Gas Program Funding

D.14-01-033 governs how CCAs will administer EE programs. We stated there that "[w]e do not address here whether a CCA might be eligible to receive Section 890 funds, as we have no record on this issue. That issue may be an appropriate subject for the new EE rulemaking, R.13-11-005."[101]

MCE proposes to run a multi-family residential program that results in gas savings. We do not wish to preclude MCE from running this program. Accordingly, we direct PG&E to enter into a contract with MCE to provide gas funding, modeled after the contract PG&E has with BayREN. This will enable MCE to pursue projects that involve gas savings, as if it were a REN. The contract shall provide for MCE to receiving funding in part from public purpose surcharges on gas purchases. We do not want to be overly prescriptive here regarding how to split MCE's revenue requirement between gas and electric funds. We direct PG&E to provide a high level of deference to MCE on the terms of this contract. PG&E shall execute this contract no later than December 12, 2014; PG&E shall make an AL filing no later than January 21, 2015, confirming compliance with this requirement.[102] Through this contracting process, MCE will

[101] D.14-01-033 at 18-19, n. 26.

[102] This is the same timeline that we require of IOUs entering contracts with RENs, as discussed in the following section of this decision.

receive adequate funding from PG&E to achieve the gas and electric savings forecast in MCE's program implementation plan. We decline without prejudice to address here whether MCE may otherwise obtain Section 890 funds.

We also reject without prejudice SoCal Gas's request that we apply to CCAs the restrictions we imposed on RENs regarding the types of programs they may offer.[103] We do not read Section 381.1, which empowers CCAs to implement *electrical* EE and conservation programs, to require us to limit CCAs in the way we have limited RENS. Insofar as the gas programs at issue here simply complement MCE's authorized electrical programs, we see no reason to impose REN-like limits here or now.

2015 MCE Multi-Family Program

According to the tables that MCE submitted to us (reproduced below), through 2013 MCE has spent $192,127 on multi-family program activities. Additionally, MCE has paid out $33,999 worth of incentives to customers for the multi-family program.

Administrative Costs	
Overhead and G&A	$24,646
Other Administrative Costs	$0
Marketing/Outreach	**$9,123**
Direct Implementation	
d.i. User Input Incentive (No rebates)	$0
d.ii. to d.v Rebates & Incentives	$33,999
Activity	$135,801
Installation	$0
Hardware & Materials	$15,535
Rebate Processing & Inspection	$7,022

[103] We list these criteria at subsection 3.9.7 below.

EM&V Costs		**$0**
Budget	**$**	**226,126**
Costs recovered from other sources		**$0**
Budget (plus other costs)	**$**	**226,126**

Going forward MCE is anticipating much smaller participation rates than they estimated for 2013–2014. Despite this, MCE seeks to increase the Multi-Family Program budget to "combat attrition between energy assessments and closing projects." MCE suggests that increasing ratepayer funded incentives and bonuses for program participation will address participation challenges.

MCE spent only 7% of it's total 2013–2014 outreach budget as of the date of its filing. MCE's own description of the program reflects low uptake, and we see no evidence that the program will grow beyond forecast 2013-2014 levels. We therefore decline MCE's request to increase its Multi-Family Program budget. Instead, we approve a one year budget based on MCE's previous annualized 2013-2014 budget. We also direct MCE to use a portion of its 2015 ME&O budget to find ways to improve program participation in 2016 and beyond.

2015 MCE Small Business Program

Based on MCE's table below, through 2013 MCE has spent $241,116 on its small business program and issued $17,750 worth of incentives to customers.

Administrative Costs	
Overhead and G&A	$34,611
Other Administrative Costs	$0
Marketing/Outreach	**$308**
Direct Implementation	
d.i. User Input Incentive (No rebates)	$0
d.ii. to d.v Rebates & Incentives	$17,750
Activity	$202,348
Installation	$3,849
Hardware & Materials	$0

Rebate Processing & Inspection	$0
EM&V Costs	**$0**
Budget	**$ 258,867**
Costs recovered from other sources	**$0**
Budget (plus other costs)	**$ 258,867**

MCE requests funding for its 2015 Small Business Program that represents a 30% decrease from 2013–2014 annualized budget.[104] In its filing, MCE describes its Small Commercial Program as "being challenged by low uptake and limited interest…" MCE states that it plans to introduce new incentives and strategies to increase participation.

We accept MCE's reduced 2015 funding request for its Small Business Program and direct MCE to use its 2015 ME&O budget to evaluate any new or existing strategies for improving program participation.

2015 MCE Single Family Program

Based on MCE's table below, through 2013 MCE has spent $215,963 on its Single Family Program and issued $4,367 worth of incentives to customers.

Administrative Costs	
Overhead and G&A	$15,937
Other Administrative Costs	$0
Marketing/Outreach	**$11,154**
Direct Implementation	
d.i. User Input Incentive (No rebates)	$0
d.ii. to d.v Rebates & Incentives	$4,367
Activity	$187,525
Installation	$0
Hardware & Materials	$1,347
Rebate Processing & Inspection	$0
EM&V Costs	**$0**

[104] *Id.*

Budget	**$**	**220,330**
Costs recovered from other sources		**$0**
Budget (plus other costs)	**$**	**220,330**

MCE requests a 2015 budget for its Single Family Program close to its previously approved 2013 – 2014 annualized budget,[105] despite much lower than anticipated participation. In its filing MCE describes this lower participation as a result of program launch delays and the fact that many residents in Marin already receive Home Utility Reports from PG&E's program offered in the same territory.

Despite lower than anticipated participation rates, and because of a lack of information on how much of this lower participation resulted from launch delays or other factors, we approve MCE's keeping its current level of funding for 2015. MCE is to pursue program evaluations in 2015 to improve MCE's program planning, outreach, and participation.

2015 MCE Financing Program

MCE requests $100,000 for its Financing Program in 2015 to pay for outreach efforts. MCE explained that the rest of its financing program budgets "have been removed as they are encumbered but not technically spent until a loan secured by these funds defaults." As of late April MCE had not entered into any financing commitments with its customers though MCE's entire financing budget has been bank encumbered for future use. Only a small amount of MCE's finance budget (11% of the annualized budget) has been spent for administration of the program.

Based on MCE's comments, MCE needed its comparatively large ($1,300,000) 2013-14 budget mostly as a one-time lump sum for credit support for

[105] *Ibid*, footnote 1.

financing programs. With that money in hand, MCE does not need additional funds going forward to provide credit support for its financing programs. We will allow MCE to use up to $100,000 annually for marketing. We observe that MCE's program is a local program, not a regional or statewide program. It is therefore appropriate for MCE, rather than the statewide marketing entity California Center for Sustainable Energy, to administer the marketing effort for this particular program.

MCE Budget Award

Figure 10, below, shows the percent of MCE's annualized budget that was spent and committed in 2013 for the remainder of 2014 (Column D). Column H indicates the budget remaining from the overall two year 2013-2014 program cycle that is still uncommitted, unspent, and not planned for use by MCE. This amount is equivalent to MCE's annualized budget for 2013-2014.

Figure 11

	A	B	C	D	E	F	G	H	I	J
	2013-2014 Annualized	2013 Spent	2013 Committed	Total 2013 Committed and Spent	% of Annual. Committed and Spent	2013 Unspent / Uncommitted Planned for Use in 2014	2013 - 2014 2-Year Budget	Remaining 2013-2014 Two-Year Budget Uncommitted/ Unspent	% of Remaining 2013-2014 Two-Year Budgets Uncommitted or Unspent	50% of Remaining 2013-2014 Budgets
Multi-Family Program	**$ 430,486**	$ 226,778	$ 106,000	**$ 332,778**	**77%**	**$ 97,708**	$ 860,971	$ 430,486	50%	***$ 215,243***
Small Commercial Program	**$ 690,409**	$ 259,207	$ 200,000	**$ 459,207**	**67%**	**$ 231,202**	$ 1,380,817	$ 690,409	50%	***$ 345,204***
Single-Family Utility Demand Reduction Program	**$ 236,709**	$ 220,413	$ -	**$ 220,413**	**93%**	**$ 16,295**	$ 473,417	$ 236,709	50%	***$ 118,354***
Financing Pilots Program[6]	**$ 650,000**	$ 70,327	$ -	**$ 70,327**	**11%**	**$ 579,673**	$ 1,300,000	$ 650,000	50%	***$ 325,000***
Totals:	**$ 2,007,603**	$ 776,725	$ 306,000	$ 1,082,725	**54%**	$ 924,878	$ 4,015,205	$ 2,007,603		***$ 1,003,801***

A common issue throughout MCE's filing is low program uptake. For all of MCE's programs addressed in this filing, MCE should take a hard look at its ME&O activities, and revamp them where appropriate. If the ME&O budgets approved here are not adequate (we note MCE's 2015 ME&O budget has

shrunken significantly compared to its 2013 – 2014 ME&O budget), MCE should shift funds to cover these efforts according to approved fund shifting rules.[106] We deny MCE's request in comments for *additional* ME&O funds. Figure 12, below, shows MCE's approved 2015 program budgets.

Figure 12: Comparison of MCE 2013-2014 Annualized vs. Requested vs. Approved Budgets

MCE Programs	2013 - 2014 Annualized Budget	2015 Requested Budget	2015 Approved Budget	% of Requested Amount
Single Family	$236,709	$227,470	$227,470	100%
Multi-Family	$430,486	$509,284	$430,486	85%
Small Com	$690,409	$462,311	$462,311	100%
Financing	$650,000	$100,000	$100,000	100%
	$2,007,603	**$1,299,065**	**$1,220,267**	**94%**

MCE may have a significant amount of "unspent" funds (i.e., funds neither spent nor "committed") to carry forward to 2015, see figure 12 above. We will deduct this carry forward amount from MCE's 2015 budgeted expenditures on a portfolio basis when establishing the amount that PG&E should transfer to MCE for 2015. Since we will not know the carry forward amount until near the end of 2014, MCE shall file a Tier 2 AL with us on December 1, 2014, identifying unspent funds from 2013-2014 available for 2015. Energy Division will then direct PG&E to transfer the budgeted amount less unspent funds to MCE.[107]

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[106] Appendix C of the Policy Manual Version 5. http://www.cpuc.ca.gov/NR/rdonlyres/7E3A4773-6D35-4D21-A7A2-9895C1E04A01/0/EEPolicyManualV5forPDF.pdf (visited August 26, 2014).

[107] PG&E, notes in its comments that, in compliance with D.14-01-033, it pays MCE only with electric PPP funds. (D.14-01-033, pp. 2, 26; D.13-09-046, Table 12.) We therefore need to adjust the reduction of 2015 payments due to unspent funds from 2013-2014 to impact both the electric PPP funds and gas PPP contract payments. The relevant ordering paragraphs below reflect this wrinkle.

MCE has requested in its comments that it be provided a 5% contingency with respect to its unspent funds amount, in recognition that MCE will not have all 2015 data on hand in December. We decline to put a contingency in place. MCE should use its best estimates for the months for which it does not yet have actual spending data.

3.9.7. RENs

Background on RENs

In D.12-05-015, the Commission invited proposals from local governments to form RENs. The Commission originally found the "concept of local government regional pilots to be reasonable"[108] and asked that the proposals be submitted directly to the Commission, in part, "to determine if local governments are in a position to plan and administer EE programs absent utility support and intervention."[109]

In D.12-11-015 we established the criteria by which we would evaluate REN proposals. We directed REN's to limit proposals to the following:

1. Activities that utilities cannot or do not intend to undertake;
2. Pilot activities where there is no current utility program offering, and where there is potential for scalability to a broader geographic reach, if successful; and
3. Pilot activities in hard to reach markets, whether or not there is a current utility program that may overlap.[110]

We declined to establish cost-effectiveness thresholds for RENs.

[108] D.12-05-015 at 148.

[109] *Ibid*. at 149.

[110] D.12-11-015 at 17

REN programs are all pilots.[111] As such they are subject to the general admonition from D.09-09-047, already noted above, that "we intend to scrutinize pilot programs to ensure they achieve their objectives before allowing these programs to become more permanent,"[112] much less expanding them.

In D.12-11-015, we approved the SoCalREN and BayREN budgets. Looking ahead there to 2015, we called for additional, and possibly expedited evaluation of REN programs:

> It will be especially important, with the REN activities, to emphasize more evaluation to determine if certain piloted activities were successful and should be scaled up in 2015 and beyond, or discontinued altogether. To the extent possible, Commission staff and RENs themselves should consider early evaluation activities prior to the end of 2014, in order to have more information going into the 2015 portfolio design process.[113]

As it turned out, we do not have Commission-evaluated data from RENs' 2013-2014 performance, so we are working from the RENs' own as-submitted numbers. This may overstate REN achievements, as as-submitted numbers tend to be more favorable to the submitter than numbers that we have ourselves evaluated.

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[111] *See* D.12-05-015 at, e.g., 145 ("We find the concept of local government regional pilots to be reasonable. Authorizing pilots in the 2013-2014 transition portfolio would provide local governments the opportunity to develop a track record.").

[112] D.09-09-047 at 47.

[113] D.12-11-015 at 20.

Issues of General Concern re RENs

Contract Extension and Modification

With respect to RENs, the Commission acts "as a regulatory body, overseeing utility expenditures of ratepayer funds."[114] We "rely on the utilities as fiscal managers to disperse funds to RENs and conduct general management and monitoring activities in compliance with Commission directives. Thus, the RENs will, by necessity, have a contractual relationship with a utility or, in some cases, several utilities."[115]

SoCalREN and BayREN contracted with SCE and PG&E respectively for funding for the 2013-2014 portfolio cycle. Those contracts expire at the end of this year, and so both SoCalREN and BayREN have asked us to direct the IOUs regarding extension of REN contracts. As Local Government Sustainable Energy Coalition (LGSEC) puts it "It is imperative that the Commission provide strict directions and deadlines on the IOUs for amending the 2013-2014 REN and CCA agreements to include 2015 funding with no program interruptions." In a similar vein, SoCalREN requests we provide various directions to IOUs to "eliminate unnecessary delays in the 2013-2015 programs."

We adopt the following directions for IOUs and RENs: (1) IOUs and RENs shall execute all agreements for 2015 and beyond no later than December 12, 2014; (2) IOUs shall make a Tier 1 AL filing[116] no later than January 21, 2015,

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[114] D.12-11-015 at 10.

[115] *Id.*

[116] Several commenters requested that the IOUs be permitted to send a notification letter to the Commission's Executive Director rather than file an advice letter. We prefer to have this handled at the division level, and to have copies of the agreements formally on file. We see no material additional administrative burden associated with filing a Tier 1 advice letter versus a letter to the Executive Director.

confirming compliance with the number (1) above and including copies of the agreements; (3) RENs and IOUs should agree to waive any requirements in the 2013-2014 agreements calling for "ramping down" of programs carrying on thru 2015. New "ramp down" arrangements should be included in the revised IOU/REN agreements. However the "ramp down" activities should be for fiscal purposes only. There should be no program interruption between 2013-2014 and 2015; and (4) The RENs should be eligible to receive a Maximum Contract Amount equal to the 2015 annualized budget we approve here for years after 2015, until the earlier of 2025 or when the Commission issues a superseding decision..

BayREN's Budget Overview

In D.12-11-015, we approved a portfolio of BayREN programs. Single Family programs, Multi-family programs, financing programs, a Commercial PACE program, the PAYS Water Efficiency Pilot, and a codes and standards program.

BayREN's Single Family Programs

We approved the following BayREN single-family programs in D.12-11-015: Single-Family Flex Path incentives (superseded by the Single-Family Home Upgrade Programs), Audit Incentives, Home Upgrade Advisor Service, and Marketing, Outreach and Professional Engagement. BayREN requests $4,840,886 for 2015 single-family programs. This compares with an annualized authorized spend of $3,535,634 for the 2013-2014 cycle.

A review of past performance, as we contemplated in D.12-11-015, will inform our approval of a 2015 budget for BayREN. Looking at BayREN's self-reported numbers for just the Single-Family Home Upgrade program for

2013 (the only year for which we have claims based on actual data), we see the following:

Program Budget ($)	
a. Administrative Costs	2013
a.i. Overhead and G&A	
a.ii. Other Admin costs	$181,550
b. Marketing/Outreach	$800,276
c. Direct Implementation (non-incentive)	
c.i. Activity	$668,274
c.ii. Installation	
c.iii. Hardware & Materials	
c.iv. Rebate Processing and Inspection	$286,403
d. Total Incentives and Rebates	$51,450
e. EM&V	
Total	**$1,987,953**

In sum, BayREN claims to have spent approximately $2 million, while issuing $51,450 in incentives under the program. Claimed savings are as follows:

	Annual Wtd Avg Net kWh	Lifecycle Net kWh	**Annual Wtd Avg Net Therms**	Lifecycle Net Therms
2013	2,052	37,748	1,283	23,600

The self-reported benefit to cost ratio for this program, for the TRC, PAC, and ratepayer impact measure (RIM), is 0.01. This is two orders of magnitude below cost effective.

There are a variety of reasons why these numbers may not represent expected future performance. The EUC Home Upgrade Program did not start until late in 2013, and this was BayREN's first year running the program. Start-up costs may have been significant (though there were similar programs under ARRA), and it would be understandable if the project pipeline did not fill rapidly.

Nonetheless, nothing in BayREN's claimed performance warrants increasing BayREN's budget. BayRen has yet to spend the lesser amounts we have already authorized. And the savings results from what BayRen has spent have thus far are negligible. We will maintain current annualized funding levels and continue to closely monitor program development.

BayREN's Multi-Family Program

In D.12-11-015, we approved BayREN's multi-family program, "aimed at medium-sized trigger events, such as the need to replace one or more pieces of equipment upon failure." We were concerned about "high incentive levels for this program," but approved it nonetheless since it "addresses a hard to reach market in a unique manner." We authorized $6,013,875 for this program.

For 2015, BayREN requests $6,476,600.

Looking at BayREN's self-reported numbers for the Multi-Family Home Upgrade program for 2013, we see the following:

Program Budget ($)	
a. Administrative Costs	2013
a.i. Overhead and G&A	
a.ii. Other Admin costs	$155,400
b. Marketing/Outreach	$94,400
c. Direct Implementation (non-incentive)	
c.i. Activity	$1,333,900
c.ii. Installation	
c.iii. Hardware & Materials	
c.iv. Rebate Processing and Inspection	
d. Total Incentives and Rebates	$43,500
e. EM&V	
Total	**$1,627,200**

In sum, BayREN claims to have spent some $1.6 million, while issuing $43,500 in incentives and rebates for the program. Claimed savings are as follows:

	Wtd Annual Net kWh	Lifecycle Net kWh	Wtd Annual Net Therms	Lifecycle Net Therms
2013	20,347	366,237	2,572	46,291

The self-reported benefit to cost ratio, whether using the TRC, PAC, or RIM, is 0.06.

As with BayREN's single family residential programs, we note that this is BayREN's first year running this program, and it may take time for BayREN to fill its pipeline. We take administrative notice of the fact that PG&E has submitted an AL to increase BayREN's 2014 funding for the multi-family program based on BayREN's subscription rate having absorbed all budgeted funds. This distinguishes BayREN's multi-family program from its single family program, and gives us an acceptable level of confidence in BayREN's projected 2015 participation rates such that we will approve BayREN's modestly increased 2015 budget.

BayREN's Financing Programs

We allowed in D.12-11-015 for a single-family loan loss reserve program and a multi-family capital advance program, subject to various contingencies that have not occurred. We approved continued administrative and marketing funds for the California FIRST PACE program, but did not authorize funds for new loans.

We authorized an annualized $1,649,800 for BayREN financing programs for 2013-2014. For 2015, BayREN requests $612,651 for financing programs.

Looking at BayREN's self-reported numbers for its financing programs for 2013, we see:

Program Budget ($)	
a. Administrative Costs	2013
a.i. Overhead and G&A	
a.ii. Other Admin costs	$65,134
b. Marketing/Outreach	$72,258
c. Direct Implementation (non-incentive)	
c.i. Activity	$367,529
c.ii. Installation	
c.iii. Hardware & Materials	
c.iv. Rebate Processing and Inspection	
d. Total Incentives and Rebates	$
e. EM&V	
Total	**$504,921**

BayREN reported no savings for this expenditure. We approve BayREN's request to reduce its authorized spending on this program in 2015.

BayREN's PAYS Water Efficiency Pilot

We have already stated in our discussion of ongoing water-energy nexus programs that we will continue funding the PAYS program.

BayREN Codes and Standards Program

For the C&S program, the BayREN requests $1,826,373, 9% over the annualized $1.67 million approved in 2013-2014. It proposes to continue the core activities outlined in the 2013-2014 PIPs of compliance baseline and tracking, code enforcement education and training and support for reach codes, but with some modifications: (a) a pilot to target unpermitted activities in coordination with the Contractor's State Licensing Board (CSLB) with a proposed budget of $151,873; (b) a pilot for innovative methods for capturing verifiable and

reportable energy savings through enhanced compliance rates planned at $400,000.[117,118] ORA and LGSEC support BayREN's proposed activities.[119]

BayREN is still a pilot yet to demonstrate results for the activities that it proposed to deliver for 2013-2014 and undergo an evaluation as directed in D.12-11-015 at 20. We believe it would be unwise to approve a budget increase including activities that would expand the scope of the 2013-2014 PIP prior to obtaining evaluation results. Therefore, the Commission rejects the BayREN's request for the two proposed pilots and approves a total budget of $1,274,500 to be spent in support of activities approved 2013-2014 PIP. With regards to exploring methods for capturing verifiable savings from compliance improvement activities, the BayREN should develop ex-ante assumptions to inform a workpaper during Phase III if we determine that the BayREN programs should continue beyond 2015. We similarly reject BayREN's request for a "Non-permitted activity" pilot. This proposed pilot is also an expansion of the scope of activities approved in D.12-11-015. The following table summarizes what we decide with respect to BayREN's codes and standards budget.

[117] BayREN response to Commission staff for further information 04/11, 04/24.

[118] BayREN 2015 Funding Application at 14-16.

[119] ORA Opening Comments 04/04/2015 pp. ; LGSCE Opening Comments 04/04/2014 at 6; LGSCE Reply Comments 04/17/2014 at 4.

Figure 13: BayREN 2015 Codes and Standards Related Budget Request			
Activity	**2014 Projected Budget (includes 2013 carry over)***	**Requested Budget 2015****	**2015 Approved Budget**
Compliance Improvement	$865,150.00	$1,214,500.00	$814,500.00
Code enforcement and education	$666,125.00	$375,000.00	$375,000.00
Reach codes	$79,935.00	$50,000.00	$50,000.00
SW Advocacy	$53,290.00	$35,000.00	$35,000.00
Non-permitted activity		$151,873.00	0.00
Total	**$1,664,500.00**	**$1,826,373.00**	**$1,274,500**

Summary of Approved BayREN Budget

BayREN's reports show millions in claimed expenditures that, through 2013, yielded little in the way of either program participation or claimed savings. We recognize that it is "early days" yet for BayREN, and that the data on hand are limited. *However*, nothing that we have seen in BayREN's self-reported 2013 performance warrants an increase in authorized expenditures for 2015 beyond the annualized amounts for 2013-2014, save for on the multi-family program. This program showed a significant uptick in subscriptions in 2014. This gives us reason to expect that 2015 will see spending beyond that seen during 2013-2014, and so we have scaled up BayREN's budget for the multi-family program. We have scaled down BayREN's finance program budget, as BayREN requests. Otherwise, we limit BayREN to the same budget amounts (annualized) that we approved in D.12-11-015.

SoCalREN's 2015 Budget Overview

SoCalREN's proposal consists of three programs that will be offered to participating cities and counties: Residential programs, Financing programs, and a Southern California Regional Energy Center (SoCal REC). We discuss each

proposal in more detail below. As contemplated in D.12-11-015, and as with our review of BayREN's proposals, we look to SoCalREN's self-reported 2013 data to inform our decision-making.

SoCal REC

The SoCal REC is both a resource and non-resource program that provides local governments with technical expertise, engineering and project management, uniform applications and bundled procurement, to name a few of the offerings. For 2013-2014, we approved a funding amount of $16,586,725 for the SoCal REC.

A review of past performance, as we contemplated in D.12-11-015, will inform our approval of a 2015 budget for SoCalREN. Looking at SoCalREN's self-reported numbers for SoCal REC for 2013 (the only year for which we have claims based on actual data), we see the following:

Program Budget ($)	
a. Administrative Costs	**2013**
a.i. Overhead and G&A	$212,625.81
a.ii. Other Admin costs	$212,625.81
b. Marketing/Outreach	$226,939.00
c. Direct Implementation (non incentive)	
c.i. Activity	$5,199,930
c.ii. Installation	
c.iii. Hardware & Materials	
c.iv. Rebate Processing and Inspection	
d. Total Incentives and Rebates	$ -
e. EM&V	
Total	$5,852,121

In sum, SoCalREN claims to have spent approximately $5.9 million. Savings are not measurable; for a mixed resource and non-resource program such as this we would expect to see at least some savings.

SoCalREN's request for 2015 funding is an amount of about $8.3 million, or consistent with the annual funding amount for 2013-2014. Recognizing that it is still "early days," we will approve that spending level for 2015, and continue to closely monitor program development.

SoCalREN's Residential Programs

SoCalREN's EUC Home Upgrade Programs

For its home upgrade programs, SoCal REN provides the following table in its narrative filing, showing its requested budgets, and how it proposes to allocate funds among cost categories:

Program Year	**Admin**	**Incentives**	**DI**	**M&O**	**Total**
2013-2014 Budget	$479,446	$3,049,659	$949,831	$135,372	$4,614,309
2015 Proposed Total	$239,723	$3,270,000	$461,429	$67,086	$4,038,238

For 2013, the one year for which we have self-reported actual data, we see the following claimed expenditures:

Program Budget ($)	
a. Administrative Costs	**2013**
a.i. Overhead and G&A	
a.ii. Other Admin costs	$801,854
b. Marketing/Outreach	$749,046
c. Direct Implementation (non incentive)	
c.i. Activity	$1,224,429
c.ii. Installation	
c.iii. Hardware & Materials	
c.iv. Rebate Processing and Inspection	$486,688
d. Total Incentives and Rebates	$4,500
e. EM&V	
Total	**$3,266,518**

We find these numbers on observed spending difficult to square with SoCalREN's forecasts. The actual numbers reflect only $4,500 in incentives for

2013, against ~$3.25 million in non-incentive costs. This is nearly an order of magnitude more in administrative expenses than forecast, and three orders of magnitude lower incentives than forecast. Moreover, SoCalREN self-reports spending nearly half-a-million dollars to process and inspect only $4,500 in rebates. This may reflect initial spending on setting up a processing system, but is remarkable nonetheless considering that SoCalREN had previously processed rebates in connection with its ARRA funded upgrade program and so presumably had a processing system in place before 2013.

Again, it is "early days," so we are not prepared to terminate SoCalREN funding now. We expect to see improved performance in our next review.

SoCalREN's Low Income Single Family Program

In D.12-11-015, we approved $700,000 for SoCalREN's low-income single-family program for the 2013-2014 cycle ($490,000 in 2013, 210,000 in 2014). For 2015, SoCalREN requests $350,000, an amount level with per-year funding levels for the 2013-2014 cycle, though higher than we contemplated for 2014. The following is the summary table SoCalREN provided in its narrative filing:

Program Year	Admin	Incentives	DI	M&O	Total
2013-2014 Budget	$25,502	$0	$674,498	$0	$700,000
2015 Proposed Total	$12,751	$0	$337,118	$0	$349,869

This below table reflects that most of the program costs will be for direct installation (DI) of EE measures. Looking at 2013 self-reported numbers, we see the following expenditures on the electric side:

Program Budget ($)	
a. Administrative Costs	2013
a.i. Overhead and G&A	
a.ii. Other Admin costs	$92,848
b. Marketing/Outreach	$3,113
c. Direct Implementation (non incentive)	
c.i. Activity	$169,559
c.ii. Installation	
c.iii. Hardware & Materials	
c.iv. Rebate Processing and Inspection	$72,668
d. Total Incentives and Rebates	$3,105
e. EM&V	
Total	**$341,293**

For gas, we see this:

Program Budget ($)	
a. Administrative Costs	2013
a.i. Overhead and G&A	
a.ii. Other Admin costs	$41,714
b. Marketing/Outreach	$1,399
c. Direct Implementation (non incentive)	
c.i. Activity	$76,179
c.ii. Installation	
c.iii. Hardware & Materials	
c.iv. Rebate Processing and Inspection	$32,648
d. Total Incentives and Rebates	$1,395
e. EM&V	
Total	**$153,334**

In sum, SoCal REN claims to have spent approximately half-a-million dollars mostly on overhead and non-incentive "activity." Of that, SoCal REN devoted approximately $100,000 to processing approximately $4,500 in incentives and rebates. Claimed savings are effectively zero. The self-reported

benefit to cost ratios for this program, for the TRC, PAC, and RIM are all likewise effectively zero.

It may be possible to explain these numbers away as startup or teething costs, as SoCalREN asserts, though such an argument is difficult to credit full in light of SoCalREN having spent several years administering ARRA programs. Time will tell.

There are a variety of reasons why these numbers may not represent expected future performance. The REC program did not start until late in 2013, and this was SoCalREN's first year running the program. Startup costs may have been significant (though there were similar programs under ARRA), and it would be understandable if the project pipeline did not fill rapidly. Nonetheless, we will continue to closely monitor program performance.

SoCalREN Financing Programs

SoCalREN's 2015 budget contains three financing programs: single-family financing, commercial PACE promotion, and public agency financing and assistance.[120] SoCalREN requests funding as follows:

Figure 14 - Corrected[121] SoCalREN Request

Finance Subprogram	Budget Request
Single-Family Loan Loss Reserve Program	$460,000
Non-residential PACE Promotion	$1,634,000
Public Agency Promotion	$629,000
Total Finance Budget	$2,723,000

[120] Public agency financing assistance melds two previously separate government-oriented subprograms from the 2013-2014 cycle.

[121] SoCalREN's original filing erroneously requested $1,639,47 for the single family loan program instead of the correct amount of $460,000. Correction of the error reduces their overall budget from their originally filed request of $3,902,476.

SoCalREN proposes several programmatic changes with respect to its financing programs.

SoCal REN Single Family Loan Loss Reserve Program

In D.12-11-015, we approved SoCalREN "continuing to pilot" a single-family loan loss reserve program that had "already been tested on a limited basis utilizing ARRA funding."[122] According to SoCalREN, "approximately $1.179 million of the loan loss reserve funding is expected to carry over into 2015." SoCalREN requests for "additional labor [of $460,000] only to continue administering the program."

For the 2015 year, SoCalREN proposes to "increase the number of new EE loans by continuing to offer low interest loans through this Loan Loss Reserve program to residential homeowners participating in Home Upgrade or Advanced Home Upgrade programs." SoCalREN links the likelihood of success of the Loan Loss Reserve program to our adopting its proposes changes to the Home Upgrade Program: "The success of the Residential LLR program depends on a higher volume of projects being completed with the REN and IOUs programs, as these programs are designed to complement each other."[123]

If residential loan volume depends on in whole or in part[124] on increased uptake of SoCalREN's home upgrade programs, our earlier examination of

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[122] D.12-11-015 at 31.

[123] We would take that linkage further, and say that the success of residential funding and Home Upgrade is a two-way rather than one-way street. That is, the success of Home Upgrade seems likely to turn on the success of financing programs, as much as the reverse. Moreover, the success of home upgrade will turn not just on whether we adopt SoCalREN's changes as on whether all the program changes approved since 2012 bear fruit.

[124] SoCalREN's financing is available for projects under both its Home Upgrade Program and IOUs Home Upgrade Programs.

performance to date indicates SoCalREN's forecasts for the loan program are not reasonable. Nothing in the numbers SoCalREN has provided on program uptake and savings achieved to date support SoCalREN's claims that its gas and electric home upgrade programs will grow over the next year to the point that they justify nearly a half-million dollars in administrative costs (including marketing and contractor training) for loans to implement them by.[125] That would require an unprecedented increase in uptake of, variously, SoCalREN's home upgrade programs, and/or SCE's home upgrade programs, as well as unprecedented homeowner use of subsidized loans.

We can and should expect some growth in SoCalREN's home upgrade programs by 2015, and so in uptake of the loan-loss reserve program. We will accept SoCalREN's assertions that the delay in finalizing home upgrade program design until late in 2013 delayed program implementation by nearly a year, and that this in part explains SoCalREN's inability to generate much in the way of projects, savings, or loans. Accordingly, we will maintain a flat budget for the loan loss reserve program through 2015, essentially pushing forward funding one year to match the delay in program start-up.

SoCal REN Non-residential PACE promotion

SoCalREN proposes doubling its Non-residential PACE expenditures for 2015. SoCalREN's non-residential PACE program provides technical assistance to non-residential building owners, as detailed in the 2013-2014 PIP. The PACE development team helps property owners decide on the best financing option (e.g., PACE, an equipment lease program, or On Bill Finance), apply for the loan,

[125] We are also troubled by the fact that SoCalREN apparently spent $32,648 to process and inspect a $1,299 rebate, and a total of $76,179 on a program that awarded only $1,299 in rebates. Again, this may reflect a spreading of startup costs across programs over a single year, but nonetheless the disproportion is striking.

complete an audit if needed, arrange for third party engineering review, obtain mortgage lender approval for PACE, and apply for IOU rebates/incentives

The focus of SoCalREN's efforts in 2013-2014 is in Los Angeles County. The proposed budget growth would allow SoCalREN to expand outside Los Angeles County, to Orange and Ventura counties.

As with other elements of SoCalREN's budget, we will maintain the PACE promotion program authorized expenditures for 2015 at its 2013-2014 annualized amounts ($705,750). We decline to fund an expansion of the program beyond the regions encompassed in its original program (i.e., Los Angeles County and City of Huntington Beach).

Public Agency Promotion

SoCalREN proposes to nearly double its annualized expenditures for what had been two similar subprograms supporting government agencies – the Public Building Loan Loss Reserve, and the Public Agency Revolving Loan programs. It is rolling these programs together under the rubric of Public Agency Promotion. One subprogram helps local governments finance retrofits using private finance through a master lease loan product whose design might make it especially attractive to public agencies. The other subprogram promoted financing and helped local governments decide which finance product most suited them (e.g., master lease, on bill financing, CEC loan program), and helped local governments set up their own internal revolving loan funds to pay for EE retrofits.

SoCalREN proposes four areas of expansion for this now single program.

1. Helping any public agency finance a retrofit using the master lease product - not just those using the SoCalREC's turnkey project delivery program;

2. Helping public agencies identify and analyze the mix of available funding sources that are most suited to their needs;
3. Supporting agencies in their utility incentive submissions, such as for on-bill financing; and
4. Closing cost co-pay offered for a limited time.

Items 1 and 4 appear new. We decline to fund them; again, until we have evidence that SoCal REN has achieved what we originally set them to do, we are unwilling to expand programs and funding. Items 2 and 3 appear to already be within the original program's remit and so we reauthorize them.

Accordingly, we will approve continuation of the 2013-2014 annualized budgets for the two existing programs, now rolled into the Public Agency promotion program. The Public Building Loan Loss Reserve's annualized 2013-2014 budget was $100,000. The Public Agency Revolving Loan Fund's annualized budget was $336,000. Together, they provide a $436,000 budget for the combined and newly-named Public Agency Promotion subprogram.

SoCalREN Concerns about Workpapers

SoCalREN attributes missing its targets for its home upgrade programs to having to use IOU workpapers: "[SoCalREN missing its goals] is a direct result of SoCalREN's workpapers not being approved, and the REN being forced to accept the IOUs workpapers." SoCalREN raises its concerns with workpapers again, later in its filing.

> SoCalREN would be happy to work with the statewide team to identify additional measures that could be offered by both [Home Upgrade] Programs. The REN had originally proposed more measures than the IOUs, including; Buried Ducts and HVAC Right Sizing measures. Unfortunately, the REN workpapers were not approved.
>
> This recommendation will require the cooperation of the Energy Division *Ex-ante* team in the development of

> workpapers that result in reasonable energy savings. SoCalREN continues to work with the *ex-ante* team to develop a simple approach to developing workpapers that would reduce the time to market for new measures.

We have no record before us on which to conclude that our staff has done anything other than set "reasonable energy savings" for SoCalREN (and others') measures. Commission Staff rejected SoCalREN's workpapers in a lengthy[126] disposition letter. SoCalREN never sought to elevate its concerns with that disposition until doing so (obliquely) here, almost a year later. We are not in a position to say anything about Commission Staff's workpaper disposition on the record here. Should SoCalREN wish to take issue with that disposition, we authorize SoCalREN to use the process for appealing Commission Staff disposition of workpapers and custom projects that we established in D.12-05-015.

Finally, much as we would like to see a "simple approach to developing workpapers," there is a tension between simplicity and accuracy. We are not going to reconcile that tension here.

Summary of SoCalREN Budget Discussion

SoCalREN's filing shows that it spent less than 10% of its annualized budget in 2013, and that it has no material savings to show for those expenditures through the date of its filing. As with BayREN, it is "early days" for SoCalREN, and the relatively little data we have on hand may not be a good reflection of SoCalREN's ultimate performance. That is why we are not "discontinuing altogether"[127] SoCalREN's funding. Still, nothing we have seen to

[126] We take official notice of the fact that Commission Staff's rejection of SoCalREN's workpapers filled 22 pages, single-spaced, not including the attached references.

[127] D.12-11-015.

date warrants essentially doubling SoCalREN's authorized spending levels from 2013-2014 levels, as SoCalREN requests. As with BayREN, we will maintain SoCalREN's programs and budgets at the levels (annualized) we approved in D.12-11-015, except as otherwise noted herein.

3.10. Updates to ESPI inputs

The January 22, 2014 Scoping Memorandum determined that "Recalibration of the 2013-2014 Energy Savings Performance Incentive ("ESPI") mechanism approved in D.13-09-023 in R.12-01-005 to account for changes in goals and in 2015 budgets is within the scope of this proceeding." Accordingly, we revise the ESPI mechanism as follows:

Figure 15: 2015 Lifecycle EE Savings Goals

	Statewide Goals	x	NTG Goal	x	EUL Goal	=	Lifecycle Goals
Electricity Savings (GWh/yr)	1,562		0.8		12		14,995.2
Peak Savings (MW)	254		0.8		12		2,438.4
Gas Savings (w/ IE) (MMT/yr)	37.9		0.8		15		454.8

Figure 16: 2015 Earnings Rates for EE Savings

	Allocated Budget[128]	÷	Lifecycle Goals	=	Statewide Earnings Coefficients
Electricity Savings (GWh/yr)	$37,696,900		14,995.2		$2,514
Peak Savings (MW)	$18,709,933		2,438.4		$7,673
Gas Savings (w/ IE) (MMT/yr)	$11,480,510		454.8		$25,243

[128] Budgets are allocated by savings type according to estimated relative contribution to portfolio net benefits within each IOUs' budget, then summed. PG&E and SDG&E budgets are allocated 56.7%, 28.3%, and 25% for electric, demand, and gas, respectively. SCE budget is allocated 67% electric, 33% demand. SoCalGas' budget is allocated 100% to gas.

In response to comments, we have deleted Figure 17 from the Proposed Decision, which calculated inventive earnings caps. IOUs should identify which programs are resource and non-resource in their advice letter filings. And re-calibrate the statewide earnings rates. The IOUs each categorize resource and non-resource programs differently, so the statewide resource budget was not what was calculated in Figure 17.

3.11. EM&V

Evaluation, Measurement, and Verification

As with past portfolios, the utilities have proposed to reserve 4% of the total budget for EM&V, consistent with the guidance in D.12-05-015. No party objects to this funding level. Since it is in line with budgets from prior portfolios, we adopt it. We also maintain the same division of funding between evaluation activities overseen by Commission staff and those handled by utility personnel.

This decision, once adopted, identifies all of the EE programs that will be funded in 2015. That should enable the evaluation staff and consultants for both the utilities and the Commission to finalize incremental plans for EM&V.

Commission staff is engaged in on-going prioritization and evaluation planning with their IOUs, REN and CCA counterparts. The addition of the 2015 funds will enable already identified (but unfunded) and new evaluation and research needs documented in the joint evaluation plan.[129] We require a continuation of activity by existing contractors, for continuity and timeliness of executing evaluations for the 2015 period. As in 2010-2012, as outlined in

[129] The Joint EM&V plan is a living document maintained by Commission Staff and IOU Evaluation Staff. The plan is organized by sector, is developed with public input and provides a summary of planned research which is underway or is needed in the future. The plan is updated on a bi-annual basis and is available on the Energy Division – EE – EM&V web page: http://www.cpuc.ca.gov/NR/rdonlyres/64110971-52C4-4DAD-8F84-559D09E727E4/0/20132014_EMV_EvaluationPlanv3.pdf

D.10-04-029, we continue the existing process of collaboration and dispute resolution between Commission staff and the utilities.

We also require that the Joint CPUC-IOUs Evaluation Plan be updated with the next bi-annual update after the adoption of this decision. The Evaluation Plan updates and served on the service list. We delegate to the assigned Commissioner and/or ALJ if it is necessary to take further action on the Evaluation Plan at that point, though we anticipate that will not be necessary.

Finally, we note that Commission Staff continues to work to improve our public tracking and comment systems to provide more transparent access to status on EM&V projects, spending, and results. This work is ongoing. We also intend to improve access to archived evaluation data and results, within some confidentiality constraints.

4. Comments on Proposed Decision

The proposed decision of the ALJ in this matter was mailed to the parties in accordance with Section 311 of the Public Utilities Code and comments were allowed under Rule 14.3 of the Commission's Rules of Practice and Procedure. Comments were filed on October 6, 2014 by BayREN, Bidgley, CSE, Efficiency Council, Energy Producers and Users Coalition (EPUC), LGSEC, MCE, NAESCO, NRDC, ORA, PG&E, SCE, SDG&E, Simple Energy, SoCal Gas, SoCal REN, and TURN, and reply comments were filed by October 13, 2014 by BayREN, Cal Ucons, Efficiency Council, EPUC, LGSEC, MCE, NRDC, ORA, PG&E, SCE, SoCalGas, SoCalREN, and TURN.

5. Assignment of Proceeding

Michael R. Peevey is the assigned Commissioner and Todd O. Edmister is the assigned ALJ in this proceeding.

Findings of Fact

1. The current utility-specific energy savings goals, established in D.12-05-015, extend only through 2014. The Commission needs to adopt energy savings goals for 2015.

2. The study and the goals that the Commission adopts in this proceeding should align with the "Additional Achievable Energy Efficiency" (AAEE) forecast that the CEC, in consultation with the Commission and CAISO, selected as the "managed forecast" for procurement and transmission planning in its recently adopted 2013 Integrated Energy Policy Report (IEPR). The CEC based this "managed forecast" on the 2013 Study.

3. The 2013 Study takes as its starting point a "code" baseline.

4. Data limitations required us to develop the goals by Investor-owned Utility (IOU) service territory, rather than by PA.

5. We adopt 2015 goals based on the revised 2013 Study, attached to the previously filed Goals Ruling.

6. EE goals should be "aggressive yet achievable."

7. The 2013 Study uses new methodologies compared to the 2011 Study, and finds materially more additional achievable savings in some areas (and less in others) than did the 2011 Study.

8. SDG&E has materially higher goals for 2015 than for 2013-2014.

9. SCE and PG&E recommend removing from goals all measures for which IOUs programs are unable to claim savings. Their request is reasonable, and is granted.

10. Consistent with the approach the Commission took in D.12-05-015, in 2015 administrators should continue to capture the remaining market potential for

CFLs reflected in the most current potential study, and target hard-to-reach markets.

11. There is no need to establish a separate street lighting goal.

12. Administrators have not always met the aggressive goals that we have set over the past eight years. For this reason, a "mid" scenario is appropriately aggressive.

13. Cumulative savings forecasts are already calculated for the AAEE forecast, but setting and enforcing cumulative IOUs program goals have proven problematic, principally because the evaluation methodologies have changed so much over time. It is prohibitively difficult to place savings from one portfolio cycle on an "apples to apples" basis with savings from a subsequent portfolio.

14. The draft 2013 Study assumes that behavior programs reach 5% of residential households across the IOUs service territories. That is consistent with current Commission minimum requirements for behavior programs. Empirical research is not clear about the long term savings from scaling up behavior programs.

15. The adopted portfolios were marginally cost effective using the Total Resource Cost (TRC) and Program Administrator Cost (PAC) tests. The adopted portfolios are designed to meet the *ex ante* goals that we establish in this decision.

16. The adopted portfolios are a mix of traditional EE measures with expected near-term energy savings, and measures consistent with the long-term savings goals of the Strategic Plan.

17. The adopted portfolios provide sufficient strategies and funding to address opportunities to reduce critical peak loads and improve system load factors.

18. The adopted portfolios reasonably allocate funds among market sectors and applications with respect to the savings potential that has been identified in the potential studies.

19. The adopted portfolios adequately describe strategies to minimize lost opportunities.

20. The adopted portfolios carry on the prior cycles' provisions for statewide coordination of similar program offerings.

21. The adopted portfolios will move forward our goals from the 2008 Strategic Plan.

22. We have reviewed the proposed budget levels and determined that we needed to make adjustments to the proposed portfolio budgets. We find the adopted funding levels are reasonable.

23. PAs are (with limited exceptions) spending less each year than budgeted.

24. IOUs are moving large amounts of money – in the tens of millions of dollars for each, and in the hundreds of millions cumulatively – within their authorized balancing accounts (e.g., the Procurement Energy Efficiency Balancing Account (PEEBAs)) and across program cycles in ways that are not transparent.

25. It is unclear what criteria PAs are using when classifying funds as "committed," notwithstanding our guidance in D.12-11-015. It is also unclear how PAs are accounting for "committed" funds within and across portfolio cycles.

26. Moving revenues across portfolio cycles and mixing costs and revenues together in establishing budgets makes budgets appear flat from the 2013-2014 portfolio cycle to 2015, when in fact spending is going up for a portfolio overall (and up or down for individual programs).

27. PAs did not need to collect what they budgeted (annualized) to cover spending for 2013; some or all of that money is going to go to spending in 2014, and/or on subsequent portfolios, and/or on refunds back to ratepayers.

28. The IOUs did not need to collect the full amount of what they spent in 2013 because: (a) they had tens of millions of dollars from prior cycles available; (b) even taking these funds into account they still underspent their budgets (annualized); and (c) the underspend may be understated since some portion of the 2013 spend may have been money "committed" in prior cycles.

29. The "budgets" we approve here reflect each PA's authorized expenditures for 2015 programs (including funds PAs may "commit" in 2015, to be paid out in subsequent years). Since we are generally treating 2015 as a third year 2013-2015 cycle, it is as if 2015 amounts were added to the budgets we authorized in D.12-11-015.

30. School projects are not all identified in budgets ("tagged") as such. Including school projects/measures in core programs such as commercial programs makes cost sense, as it can reduce processing and review costs by centralization. It also can ensure common *ex ante* estimation and incentive rate approaches. But the lack of "tagging" makes it difficult now to determine how much of the 2013-2014 portfolios PAs dedicated to schools, and how much has changed for schools in 2015.

31. For several PAs there is a disconnect between narratives and proposed budgets regarding Proposition 39 finds.

32. EE savings are difficult to measure. Figuring out energy saved requires figuring out what consumption would have been absent the EE activity. This hypothetical level of consumption is the "baseline," and it is the point of comparison for determining savings.

33. The consequences of a baseline choice ramify through all aspects of EE calculations. The baseline choice affects, among other things, the existence or amount of savings, customer eligibility for incentives, amount of incentives, whether a PA meets its Commission-established savings goals, and the award of shareholder incentives.

34. In general, the lower the baseline the easier it is to show (or to show more) savings.

35. Our default baseline currently is what regulations, codes, and/or industry standard practices (collectively, "code"), dictate, not what existing conditions happen to be.

36. We use a code baseline because we do not want to give tens or hundreds of millions of ratepayer dollars to individual customers to do things that those customers are already going to do, or are already required to do. The purpose of EE incentives is to lead customers to save energy in ways that they would not have absent the incentive.

37. We also use a code baseline because it harmonizes with what the CEC and CAISO are doing. Utility EE programs (with limited exceptions), need to produce savings above code; that expectation is built into CEC and CAISO expectations. Code baseline is not amenable to rapid or unilateral change.

38. There are already limited instances where we currently allow use of something other than a code baseline, such as the Advanced Path Home Upgrade Program, and in cases of early retirement of equipment.

39. Advocates for an "existing conditions" baseline, whether for a limited purpose or generically, have offered no evidence regarding levels of code compliance. They have also offered no evidence on either the costs or benefits of a shift to an existing conditions baseline for schools or more generally. Nor have

they provided any evidence that codes and standards have made material additional achievable above-code savings uneconomic.

40. It is not possible here in Phase I to consider the full implications of a shift to an "existing conditions" baseline.

41. Allowing the revised incentives to count towards existing goals and shareholder incentive formulae that we set using a higher baseline creates a problematic mismatch. To credit PAs with savings for below-code savings risks a resultant failure to get the incremental energy savings needed for reliable service.

42. The IOUs do not attempt to estimate the budget impacts of a change in baseline.

43. The overall impact of any changes in baseline cannot change the portfolio significantly either in terms of goal attainment or TRC unless we add significantly more dollars into school projects, and/or school activities take over large parts of the standard commercial programs.

44. Using an "existing conditions" baseline would make all or nearly all school projects cost effective, and so make all or nearly all school projects eligible for incentives. Covering more savings with incentives, and having more projects qualify for incentives with to-code only savings (that do not now qualify for incentives) would cause budgets to expand to an unknown degree.

45. Party claims that there is a high level of non-compliance with codes and standards, and/or that there is a significantly slower pace of replacing equipment than contained in the assumptions in the CEC's Codes and Standards, are unsubstantiated by any empirical evidence. Pilots will generate additional data to aid in building an evidentiary record on this issue.

46. A next screen to separate out above-code savings that would happen organically is to determine the ratio of savings attributable to the program (net savings) and total savings from measures/projects that received incentives (gross savings). This metric is the NTG ratio.

47. "Spillover" counteracts the NTG effect. Spillover quantifies how programs lead participants or (non-participants) to other EE actions not captured in the reported savings or costs. In D.12-11-015, we adopted a portfolio level "market effects adjustment" of 5% across the board for the entire 2013 2014 portfolio cost effectiveness calculation.

48. If we applied our usual NTG policies, and surveyed schools regarding why they undertook savings measures, we could expect that with an existing baseline standard we would attribute most savings to non-program causes. The NTG ratio would fall accordingly (though spillover effects might offset some of the drop).

49. Ex post review serves three purposes: (1) It allows us to understand program impacts, and so to improve programs and reallocate funds to programs that deliver the greatest net benefits at the lowest cost to ratepayers; (2) It allows us to adjust utility savings claims when evaluating whether utilities met our portfolio savings and cost-effectiveness goals; and (3) It allows us to determine shareholder incentives for custom projects and deemed measures on an "uncertainty" list that is developed by the Commission in advance of each program year.

50. The Proposition 39 portion of the PAs' portfolios is passingly small. Ex post adjustments of savings parameters will not meaningfully impact the portfolios' cost-effectiveness or overall savings goals. It appears some IOUs have

embedded some school projects either in their general commercial program budgets and/or in their direct installation budgets.

51. Proposition 39 presents an opportunity to expand California's progress on deep retrofits and Zero Net Energy (ZNE) retrofits. We expect, at least through 2015, that the IOUs have sufficient funds to support this effort.

52. Proposition 39 will require incremental additional administrative and technical work – and likely increased incentives to schools compared to past portfolios.

53. Proposition 39 money will be used to bring schools to code.

54. IOU customer money will take schools above code.

55. A combination of Proposition 39 and IOU customer money will pilot ZNE schools, notwithstanding any possible inadequacy.

56. If a school can afford a project, it will be necessarily be to code even without our intervention.

57. It is unclear how we would distinguish a school's Proposition 39 project from another school's possible EE project.

58. We will, also allow use of a "locked down" NTG ratio of.85, as with school projects, in order to encourage IOUs to move dollars towards locational projects.

59. Where a measure is targeted at avoiding a transmission cost, cost effectiveness should be measured against the cost of the transmission upgrade that targeted program avoids (or defers). The cost effectiveness calculator includes a variable for the value of avoided transmission (and distribution) attributable to a measure. Likewise, where a measure avoids generation costs, there is a variable in the cost calculator that can be adjusted.

60. Changing the Resource Balance is not the best way to approximate the avoided cost of a generation project, or a transmission project. A more direct

approach is to look at the avoided cost of particular projects within a transmission, generation, or distribution-constrained area targeted by a PA EE program.

61. While it may be that all of SDG&E's service territory is in some sense "constrained," we find it is improbable that there is no transmission constraint within SDG&E's service territory that could be singled out as particularly susceptible to a load reduction program in lieu of a transmission upgrade (or generation project).

62. Bottoming cycle CHP is also known as "Heat Steam Recovery Generation." It is generation using heat from gas firing to generate steam, where the gas firing is completely related to the industrial process. That is, no supplemental firing occurs to increase (or to stabilize) the steam's temperature; the heat is 100% associated with the industrial process.

63. Whether bottoming cycle is really EE is an open question, and one we need not decide today in reviewing SoCal Gas' proposed pilot.

64. Simply putting an EE label on what might otherwise be classified along with other CHP as generation allows avoidance of otherwise applicable customer charges. For the limited purpose of the SoCal Gas proposed pilot, we will exempt newly-installed bottoming-cycle generation that is the subject of the pilot from otherwise-applicable nonbypassable surcharge, as though (but without deciding more generally) it was an energy efficiency measure, as with other heat-recovery measures (e.g., rotary air-to-air enthalpy heat recovery). In light of the savings to customer-generators that flow just from characterizing bottoming cycle CHP as EE rather than generation, it would be unreasonable to allow payment of additional incentives to CHP customers installing bottoming cycle CHP under the SoCal Gas bottoming cycle pilot.

65. Bottoming cycle CHP offers the attractive prospect of capturing and reusing heat that would otherwise be waste, without any additional fuel input.

66. There is currently no basis for mandating that all program administrators participate in bottoming cycle CHP pilots.

67. California is undergoing an extraordinary drought.

68. Pumping water out of the ground, moving water around the state, treating water for consumption and for use in agriculture; all of these activities use energy. Energy production, in turn, often requires water, e.g., for cooling thermal generators and washing solar panels.

69. PAs have undertaken water-energy nexus pilots during the 2013-2014 cycle.

70. There is no empirical basis for any "adder" to savings from water energy measures.

71. The state has set the ambitious goal of reducing energy consumption in existing homes by 40% by 2020. We do not have data yet on how the current iterations of Home Upgrade programs are working.

72. Program Administrators' removal of the "one of three base measurements" requirement for home upgrade program participants will not lead to a large number of projects without a base measure. The programs are designed to promote base measures even if they are not mandated; homeowners receive additional points when they do more than one of the base measures.

73. The concept of removing project-related, non-efficiency related costs from the total cost calculation has merit.

74. Investor owned utility budget proposals for on-bill finance programs and finance pilots previously funded by the American Recovery and Reinvestment

Act do not materially differ from those we approved for 2013-2014, and it is reasonable to approve on-bill finance programs here.

75. PG&E proposes more loan loss reserve funds in 2015 for its California Home Finance program.

76. SCE has not introduced supporting information into the record by which to judge the merits of its proposal for using uncommitted unspent funds in 2015 for 2013-2014 Strategic Plan Pilot programs. Nor has it supported its proposal to reallocate funds from Strategic Plan Pilot programs to existing LGP programs. SCE request to use unspent 2013-2014 funds for 2015 spending Strategic Plan Pilots programs should be denied.

77. Improvements to SCE's Home Energy Advisory Survey program are not likely to justify a nearly three-fold increase in budget. The added expense is unsupportable, in light of SCE's request to reduce targets and the lack of specific supporting information about how SCE plans to use the increased funds.

Conclusions of Law

1. Public Utilities Code Sections 454.55 and 454.56 require the Commission, in consultation with the CEC, to identify potentially achievable cost-effective electricity and natural gas efficiency savings and establish efficiency targets for electrical or gas corporations to achieve.

2. By making budget adjustments where needed, there are cost-effective portfolios for each IOU consistent with Section 454.5(b)(9)(c).

3. Marin Clean Energy's proposed programs, as modified herein, satisfy the criteria of Section 381.1.

4. The 2014 demand forecast should be adjusted to reflect the changes to the final 2013 Study.

5. Behavior assumptions should not be adjusted at this time to reflect a larger percentage of participation.

6. It is reasonable to adjust SDG&E's 2015 goal to reflect 120% of SDG&E's recent annual savings claims for commercial whole building retrofit programs. This considers (but does not require) a linear, five-year ramp up to the level of savings the draft 2013 Study forecasts for SDG&E.

7. For the IOUs, it is reasonable to authorize annualized funding levels at 2015 levels through 2025, until we change funding levels. For the RENs, it is reasonable to authorize use of a "Maximum Contract Amount" for each year through 2025 at 2015 funding levels, unless and until we change. For MCE, it is reasonable to authorize funding at 2015 funding levels, with an annual offset equal to unspent funds from any prior cycle.

8. MCE does not have a balancing account, therefore it is reasonable to offset 2015 authorized spending by amounts remaining unspent (i.e., neither spent nor committed) at the end of 2014.

9. Locking down an NTG ratio of .85 for schools and locational EE programs, whether the projects are "deemed" or "custom" for *ex ante* review purposes, is reasonable.

10. PG&E's targeting for IDSM measures customers in areas served by the selected substations is reasonable.

11. The pilot should bar supplemental firing; that is, the heat that runs the generator needs to really be waste from the host process so that there is not a situation where nominal bottoming cycle CHP is just gas-fired generation masquerading as EE.

12. It is reasonable to continue funding ongoing water-saving activities, which are cost-justified on the basis of direct energy savings. These programs appear to have resulted in significant savings of both water and energy.

13. This is not the time for another redesign of residential Home Upgrade programs.

14. We conclude that there is good cause for additional funding for PG&E's CHF Program, as the CHF program is tied to the EFLIC pre-development pilot.

15. REN requests to expand programs and to increase spending above annualized 2013-2014 should be denied.

16. SCE's requested budget increase should be denied, and the HEES program budget increased only to reflect the claimed annualized spend on HEES in 2013-2014, which was higher than budgeted.

O R D E R

IT IS ORDERED that:

1. The energy efficiency portfolios filings of Pacific Gas and Electric Company, San Diego Gas & Electric Company, Southern California Gas Company, and Southern California Edison Company, Bay Area Regional Energy Network, Southern California Regional Energy Network, and Marin Clean Energy are approved subject to the requirements in this decision, with the approved portfolio budgets set forth in Figures 6 and 7 of this decision. The alternative portfolio proposals filed in these applications, unless specifically adopted or deferred in this decision, are denied.

2. The San Francisco Bay Area Regional Energy Network, the Southern California Regional Energy Network, and the Marin Energy Authority shall remain individually responsible to the Commission for delivering the results of

the programs approved in this decision.

3. Southern California Edison Company, Southern California Gas Company, and Pacific Gas and Electric Company shall remain the fiscal managers for their contracts with Regional Energy Networks without exercising control over program design or program changes. Those programmatic approvals are the purview of the Commission.

4. Commission Staff shall retain an accounting consultant using evaluation, measurement, and verification funds to cover the cost both to review prior cycle reporting and to develop a proposal to rationalize accounting practices for energy efficiency going forward.

5. Commission Staff shall select custom school projects for review within 5 days of receipt of submittal, and shall complete review of a selected school project within 10 working days thereafter to, provided that all school project information required for a review is included in the submittal.

6. Program Administrators may provide incentives for school even when there are custom projects with equipment pre-orders without signed agreement with a Program Administrator.

7. Pacific Gas and Electric Company, San Diego Gas and Electric Company, Southern California Edison Company and Southern California Gas Company (IOUs) shall develop a deep Zero Net Energy (ZNE) focused program for Eligible Local Educational Agencies and community colleges. IOUs shall file Tier 2 Advice Letters (ALs) within 120 days of the date of this decision describing the Proposition 39 ZNE effort. The IOUs shall work with Commission Staff and the Department of General Service (overseeing the state building ZNE effort) to coordinate a Proposition 39 effort. Each AL shall describe a program scalable for the full term of Proposition 39.

8. We also direct Pacific Gas and Electric Company, San Diego Gas and Electric Company, Southern California Edison Company and Southern California Gas Company (IOUs) each to file with us a Program Implementation Plan for a pilot program to better understand the extent to which there is below-code equipment that is not getting replaced quickly enough through natural turnover or existing programs. The pilots shall be designed to assess whether cost-effective ratepayer-funded programs can be developed to target this equipment when PAs receive savings credit and customer incentives are made available based on to-code, in addition to through-code, savings. As with the Zero Net Energy pilots, and for the same reasons, we expect investor-owned utilities to fund these programs via fund shifts. The Pilots shall:

a) Be budgeted up to $1m per IOU using program funds authorized in this decision;

b) Find similar cohorts within a service territory, then break them into control and treatment groups, with the treatment group eligible for incentives "to and through" code, while the control group receives only incentives based on above-code savings.

c) Extend through one full calendar year, so that we see program impacts across seasons.

d) Include program implementation and third-party evaluation, with the evaluation to address at minimum program impact on both program uptake (Does the program increase replacement rates? Are customers who did not have a particular device at all participating, as well as customers who are replacing a device?) and customer energy use (aggregate use and load shape).

9. For all projects undertaken by schools, and for programs targeting specific transmission, distribution, or generation constrained areas (other than bottoming-cycle combined heat and power projects), the following rules shall apply:

a) For purposes of determining net savings, default *ex ante* lockdown rules apply, except that a Net-to-Gross ratio of .85 (before spillover effects) is "locked down" for all projects.

b) The only eligible measures are those that are above code.

c) The cap on expected useful life shall be 30 years for removed equipment only (not the equipment replacing the removed equipment).

d) Customer incentives shall be the higher of 75% of incremental measure cost, or what is available under prior policies.

e) All K-12 and community college energy efficiency projects, not just those funded by Proposition 39, are eligible for the treatment specified in subsections (a)-(d) above.

10. Commission Staff shall consult with the California Energy Commission and California Independent System Operator Corporation on what is involved in revisiting the choice of baseline. Commission Staff shall collect data from stakeholders, program evaluation studies, and market studies relating to, variously, the volume of deferred retrofits; the ability of program administrators to target and accelerate such upgrades cost-effectively; and, whether/how to address the moral hazard aspects of subsidizing inefficient market actors.

11. Starting in 2015 Program Administrators (PA) shall "tag" all Proposition 39 projects for purposes of PA internal review, Commission Staff review, and to enable statewide and PA specific review and evaluation.

12. For locational energy efficiency programs, all Program Administrators (PA) shall do the following:

a. For changes to existing programs to target them towards specific locations, PAs shall provide updates to relevant Program Implementation Plans (PIPs) through the

addendum process to identify new activities in targeted locations.

b. For new programs targeted towards specific locations, PAs shall file PIPs as Tier 2 Advice Letters prior to implementing them.

c. "Tag" measures/projects for internal and external tracking and auditing purposes.

13. For locational energy efficiency (EE) programs that Pacific Gas and Electric Company, Southern California Edison Company, San Diego Gas & Electric Company, and/or Southern California Gas Administer, they shall:

a. Work with Commission Staff to provide data that allows for comparison among EE portfolio programs and any other program intended to address a local constraint, whether in the Long Term Procurement Plan proceeding, the Preferred Resources Pilot, or in elsewhere in the EE proceeding.

b. Work with Commission Staff to determine how much of a departure from default PV[Gen] and PV[TD] values in cost calculators is appropriate to capture the locational value for such projects, and to include in cost calculators the most recent Commission-adopted weighted average cost of capital rate for the year the project will take effect.

14. For all Program Administrators' locational energy efficiency measures/projects, the cap on useful life shall be 30 years for removed equipment.

15. Southern California Gas Company (SCG&E) may file a Program Implementation Plan for a bottoming cycle Combined Heat and Power pilot as a Tier 2 Advice Letter. If we approve a bottoming cycle Combined Heat and Power pilot for Southern California Gas Company, the electrical corporation in which the pilot is located shall exempt any associated reduction in load from otherwise-applicable nonbypassable surcharges.

16. Pacific Gas and Electric Company, San Diego Gas and Electric Company, Southern California Edison Company and Marin Clean Energy shall file a Tier 2 Advice Letter within 60 days of this Decision reflecting the budget adjustments adopted herein, including recalculated Total Resource Cost and Program Administrator Cost tests that exceed a 1.0 threshold for 2015. This filing shall include updates to the contents of all files contained appendices A, B, C, and D of their respective 2015 funding proposals that reflect the budget and programmatic changes adopted herein as well as corrections to measure level inputs identified by Commission staff review as discussed herein. Commission staff shall provide a list of all such required measure input corrections via a notice to the service list within five days of the mailing date of this Decision.

17. Pacific Gas and Electric Company, San Diego Gas and Electric Company, Southern California Edison Company and Southern California Gas Company (IOUs) shall file a Tier 2 Advice Letter (AL) to Energy Division within 120 days of the mailing date of this decision that includes a copy of the workforce education and training recommendations prepared by the workforce education and training consultant hired as directed by D.12-11-015. In that AL, the filers shall describe which of this consultant's recommendations to the IOUs will initiate in 2015, and provide a program implementation plan.

18. San Diego Gas & Electric Company shall maintain both its Continuous Energy Improvement Industrial and Commercial Programs in 2015 at budget levels commensurate with 2013-2014 annualized budgets.

19. Southern California Edison Company shall shift its allocation from Compact Florescent Lamps (CFL) programs to non-CFL programs by 5 percentage points each year, until the ratio of its budgeted spend on CFLs versus non-CFL is within 5 percentage points (plus or minus) the average of that

of Pacific Gas and Electric Company and San Diego Gas & Electric Company.

20. Pacific Gas and Electric Company, San Diego Gas and Electric Company, Southern California Edison Company and Southern California Gas Company shall, within 120 days of the mailing date of this decision, file a Tier 1 Advice Letter to recalibrate Efficiency Savings and Performance Incentive Mechanism inputs.

21. Program Administrators' existing energy efficiency program funding shall be extended annually through 2015, at the 2015 annually spending levels by program administrators as approved in this Decision until the earlier of 2025 or when the Commission issues a superseding decision on funding levels. IOUs are to collect in rates the annual authorized budget levels for the program administrators in their service territory at the 2015 level, less carry-forward of unspent funds from prior portfolio cycles, until the earlier of 2025 or when the Commission issues a superseding decision on funding.

22. Pacific Gas and Electric Company, San Diego Gas and Electric Company, Southern California Edison Company and Southern California Gas Company (IOUs) are authorize to collect in 2015 revenue requirements an amount equivalent to the total incremental budget approved in this decision for the Regional Energy Networks and Community Choice Aggregators within their respective service territories.

23. Pacific Gas and Electric Company shall, no later than December 12, 2014, enter into an amendment to its contract with the Association of Bay Area Governments on behalf of the San Francisco Bay Area Regional Energy Network to extend their contract.

24. Pacific Gas and Electric Company shall transfer $1.002 million in electric public purpose funds, less amounts that Marin Clean Energy (MCE) identifies as

unspent in its advice letter filed pursuant to the subsequent paragraph, divided into quarterly payments beginning January 1, 2015, to MCE to fund its energy efficiency programs approved in this decision.

25. Marin Clean Energy shall file a Tier 2 Advice Letter on December 1, 2014, identifying unspent funds from 2013-2014 available for 2015, and on December 1 of each successive year until 2024, identifying carry-forward amounts for the next year.

26. Pacific Gas and Electric Company (PG&E) shall, no later than December 12, 2014, enter into a contract with Marin Clean Energy (MCE) for $219,000 per year until 2025 or until modified or superseded by further Commission direction, to use funds from gas public purposes charges to pay in whole or in part for MCE energy efficiency programs that have a gas savings component. The contract shall be based on the contract that PG&E has with the BayREN Regional Energy Network.

27. Southern California Edison Company shall, no later December 12, 2014, enter into an amendment to its contract with the County of Los Angeles on behalf of the Southern California Regional Energy Network to extend their contract.

28. Southern California Gas Company shall no later December 12, 2014, enter into an amendment to its contract with the County of Los Angeles on behalf of the Southern California Regional Energy Network to extend their contract consistent with this decision.

29. Pacific Gas and Electric Company, Southern California Edison Company, and Southern California Gas Company shall each make a Tier 1 Advice Letter filing no later than January 21, 2015, confirming that they have entered into contracts or amended contracts with regional energy networks and/or

community choice aggregators in their respective service territories. Each advice letter shall include a copy of the respective utility's contract(s).

30. San Diego Gas and Electric Company may proceed with its proposed shareholder-funded energy marketplace Integrated Demand Side Management pilot.

31. Pacific Gas and Electric Company, San Diego Gas and Electric Company, Southern California Edison Company and Southern California Gas Company shall reimburse the Commission's evaluation activities at the amount set forth above.

32. Commission Staff and program administrator staff will oversee evaluation activities per guidelines established in D.10-04-029.

33. Commission staff shall amend existing EM&V contracts to enable 2015 research. The research activities will be detailed in the joint plan and subsequent work orders.

34. The assigned Commissioner and assigned Administrative Law Judge are authorized to take all procedural steps promote the objectives in this decision and to provide clarification and direction as required to assure the effective, fair and efficient implementation of this decision in this proceeding.

35. Rulemaking 13-11-005 remains open.

This order is effective today.

Dated October 16, 2014, at San Francisco, California.

MICHAEL R. PEEVEY
President
MICHEL PETER FLORIO
CATHERINE J.K. SANDOVAL
CARLA J. PETERMAN
Commissioners

I will file a dissent.

/s/ MICHAEL PICKER
Commissioner

APPENDIX A

Table E-1
SDG&E Electric PGC Funds Monthly Collections for Energy Efficiency by Rate Schedule
Calendar Year 2014

Customer Class	January	February	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec	TOTAL
Residential	1,967,519	2,367,134	2,269,875	2,122,898	2,220,848	2,465,926	2,582,797	0	0	0	0	0	15,996,997
CARE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Sm Comm	865,942	1,077,326	1,065,824	989,944	1,089,430	1,162,335	1,202,330	0	0	0	0	0	7,453,130
Other C&I	2,614,555	3,690,812	3,229,672	3,531,053	3,632,141	3,477,264	3,964,772	0	0	0	0	0	24,140,269
Agriculture	110,427	161,519	122,365	153,632	170,844	189,771	190,573	0	0	0	0	0	1,099,130
Lighting	17,047	51,881	23,438	33,243	24,840	43,038	23,299	0	0	0	0	0	216,786
Total	5,575,490	7,348,671	6,711,174	6,830,769	7,138,103	7,338,334	7,963,770	0	0	0	0	0	48,906,311

Table E-3
SDG&E Status of Electric PGC Funds
Calendar Year 2014

	January	February	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec	TOTAL
2013 - 2014 Electric PGC Funds													
Beginning Balance	(22,010,539)	(55,138,307)	(51,832,102)	(53,717,413)	(50,074,976)	(46,908,777)	(46,646,246)	0	0	0	0	0	NA
Collection[2]	5,508,402	7,260,248	6,630,422	6,748,578	7,052,215	7,250,036	7,867,945	0	0	0	0	0	48,317,846
Interest Accrued	(1,374)	(964)	(1,002)	(973)	(827)	(914)	(980)	0	0	0	0	0	(7,034)
Period Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0
On Bill Financing Return	(6,512)	(5,317)	(16,009)	(76,509)	0	289	0	0	0	0	0	0	(104,058)
Payments	1,865,373	(3,666,730)	(8,529,882)	(4,079,581)	(6,149,976)	(10,222,080)	(6,479,057)	0	0	0	0	0	(37,261,933)
Commitments	(40,493,657)	(281,032)	31,160	1,050,922	2,264,788	3,235,200	4,902,702	0	0	0	0	0	(29,289,918)
Month Ending Balance	(55,138,307)	(51,832,102)	(53,717,413)	(50,074,976)	(46,908,777)	(46,646,246)	(40,355,636)	0	0	0	0	0	NA
2010 - 2012 Electric PGC Funds													
Beginning Balance	(9,754,568)	(14,623,308)	(17,070,944)	(16,316,263)	(15,447,700)	(15,733,517)	(15,878,142)	0	0	0	0	0	NA
Collection	0	0	0	0	0	0	0	0	0	0	0	0	0
Interest Accrued	(778)	(820)	(888)	(854)	(859)	(887)	(898)	0	0	0	0	0	(5,983)
Period Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0
On Bill Financing Return	0	0	0	0	0	0	0	0	0	0	0	0	0
Payments	(1,243,110)	126,043	444,211	369,300	(488,377)	(179,522)	(81,013)	0	0	0	0	0	(1,052,468)
Commitments	(3,624,851)	(2,572,859)	311,357	500,117	203,418	35,784	648,026	0	0	0	0	0	(4,499,007)
Month Ending Balance	(14,623,308)	(17,070,944)	(16,316,263)	(15,447,700)	(15,733,517)	(15,878,142)	(15,312,026)	0	0	0	0	0	NA
2006 - 2008 and Bridge Electric PGC Funds													
Beginning Balance	107,513	75,935	75,941	75,947	67,559	67,565	67,571	0	0	0	0	0	NA
Collection	0	0	0	0	0	0	0	0	0	0	0	0	0
Interest Accrued	7	6	6	6	6	6	6	0	0	0	0	0	43
Period Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0
On Bill Financing Return	0	0	0	0	0	0	0	0	0	0	0	0	0
Payments	(31,585)	0	0	(8,394)	0	0	(2)	0	0	0	0	0	(39,981)

Commitments	0	0	0	0	0	0	0	0	0	0	0	0	0
Month Ending Balance	75,935	75,941	75,948	67,559	67,565	67,571	67,575	0	0	0	0	0	NA
2004 - 2005 Electric PGC Funds													
Beginning Balance	7,238,370	7,238,913	7,239,456	7,240,059	7,240,662	7,142,037	7,142,632	0	0	0	0	0	NA
Collection	0	0	0	0	0	0	0	0	0	0	0	0	0
Interest Accrued	543	543	603	603	599	595	595	0	0	0	0	0	4,081
Payments	0	0	0	0	(99,224)	0	0	0	0	0	0	0	(99,224)
Commitments	0	0	0	0	0	0	0	0	0	0	0	0	0
Month Ending Balance	7,238,913	7,239,456	7,240,059	7,240,662	7,142,037	7,142,632	7,143,227	0	0	0	0	0	NA
1998-2003 Electric PGC Funds													
Beginning Balance	35,148,500	35,151,136	35,153,772	35,156,701	35,159,630	35,162,560	35,165,490	0	0	0	0	0	NA
Interest Accrued	2,636	2,636	2,929	2,929	2,930	2,930	2,930	0	0	0	0	0	19,920
Payments & Transfers	0	0	0	0	0	0	0	0	0	0	0	0	0
Commitments	0	0	0	0	0	0	0	0	0	0	0	0	0
Ending Balance	35,151,136	35,153,772	35,156,701	35,159,630	35,162,560	35,165,490	35,168,420	0	0	0	0	0	NA
Pre-1998 Electric DSM Funds													
Beginning Balance	5,316,466	1,193,699	1,194,098	1,194,541	1,194,984	1,195,427	1,195,870	0	0	0	0	0	NA
Interest Accrued	399	399	443	443	443	443	443	0	0	0	0	0	3,013
Period Adjustment	0	0	0	0	0	0	(1)	0	0	0	0	0	(1)
Payments	0	0	0	0	0	0	0	0	0	0	0	0	0
Commitments	(4,123,166)	0	0	0	0	0	0	0	0	0	0	0	(4,123,166)
Ending Balance	1,193,699	1,194,098	1,194,541	1,194,984	1,195,427	1,195,870	1,196,313	0	0	0	0	0	NA

(1) Incremental commitments are reflected on a monthly basis.

(2) Collection is net of Franchise Fee's and Uncollectibles from the Electric Procurement Balancing Account.

(END OF APPENDIX)

Dissenting Statement of Commissioner Michael Picker

Decision Establishing Energy Efficiency Savings Goals and Approving 2015 Energy Efficiency Programs and Budgets

R.13-11-005

October 23, 2014

I dissent from the majority opinion because I believe that, while energy efficiency has delivered tremendous benefit to California for 40 years, the energy efficiency expenditures put forth in this Decision do not yet deliver the benefits that we should expect from over $1 billion dollars in ratepayer funds.

I acknowledge that this Decision seeks to extend existing programs for one year while structural reforms to energy efficiency program design are considered, and in so doing does not seek to address critical policy questions that are teed up for Phase 2 and Phase 3 of this proceeding. I nonetheless believe it is critical to address the effectiveness of specific energy efficiency programs and policies that are approved in this Decision.

Energy Efficiency and Schools

The passage of Proposition 39 created a unique opportunity to invest in energy efficiency in California schools. Proposition 39 dollars are of particular import to California's many low-income school districts, where old, leaky portable classrooms that are too hot in the summer and too cold in the winter continue to provide an unacceptable learning environment. This Decision rejects the Program Administrators' (PAs') proposals to adopt a 'to-code' baseline for the purpose of calculating savings associated with school energy efficiency projects. If adopted, projects using the 'to-code' baseline would have allowed the PAs to use energy efficiency incentives that support incremental improvements to energy efficiency performance. However, the 'to-code' baseline does not provide for equity considerations where otherwise unpursued attempts to achieve minimum building code standards can be promoted.

For instance, the justifications for rejecting the 'to-code' baseline for schools are well-reasoned and make sense for many school projects, but not adopting a 'to-code' baseline for low-income districts misses a fundamental reality of the decision making process in chronically underfunded school districts. In school districts where the annual trade-off is funding the capital budget or keeping teachers in classrooms, trying to make sure the building performance achieves above code energy savings is not typically on the list of priorities. Instead, these schools keep their existing buildings and equipment running by any means possible, which often results in having HVAC systems or portable classrooms operating well beyond their expected and useful life. By not enacting a 'to-code' baseline for the most economically challenged schools, this Decision is depriving them of potentially critical energy efficiency incentives that could be used to retire old, inefficient equipment that has been held together by industrious facilities managers. This all said, I am heartened by the fact that this Decision does allow the PAs to suggest 'to-code' pilots, and I will encourage them to target pilots towards low-income schools.

Actual v. Estimated Energy Savings

The current approach to evaluation, measurement and verification (EM&V) that serves as the basis for the programs and budgets in this Decision often result in not knowing what individual programs have saved until after the next phase of programs have been designed and funded. This temporal disconnect calls into question the reliability of forecast savings and the cost-effectiveness of the $1 billion budget approved in this Decision. While this Decision does recognize that EM&V reform will be part of the scope in Phase 2 and Phase 3, I feel that it is critical to prioritize aligning EM&V with program design sooner rather than later. Of particular importance is to ensure that for the 2016 funding year, we are able to consider actual program performance when considering budget allocation.

Estimated Energy Savings and Long Term Planning

Forecast energy efficiency savings play a critical role in shaping long term electricity supply and planning and infrastructure investments. While this aspect of energy efficiency is not central to this Decision, the fact that this Decision effectively approves a minimum energy efficiency budget level for the next ten years, inextricably ties this Decision to long term planning. My concern is that while this Decision creates a modicum of funding certainty, it does not address the more fundamental question of the reliability of long-term energy efficiency savings estimates. Over the last number of years, I have observed a troubling trend where stakeholders to both energy efficiency and long-term planning proceedings assume widely divergent positions with regards to savings estimates. On the one hand, certain energy efficiency proponents take highly uncertain ten-year savings forecasts and assume they should be the planning baseline. On the other hand, the entities responsible for studying system reliability needs take the position that a significant portion of these same forecast savings will not occur with the level of certainty to imbed them in their planning assumptions. Efforts like the Energy Division's ex-ante review of PA savings assumptions and the Demand Analysis Working Group have helped to bridge this gap, but given the problems that exist in regards to tying energy efficiency program design and funding to actual savings, I remain very concerned that long-term energy efficiency forecasts are missing the mark. This is all the more troubling given the important role the energy efficiency must play in supporting the achievement of California's long-term climate goals. I strongly suggest that Phase 2 of this proceeding prioritize reforms to energy efficiency program design that increase both near and long-term forecast savings certainty, even if that means accepting lower savings estimates.

Alignment with 2030 and 2050 GHG Goals

Significant growth in energy efficiency is critical for California to meet its 2030 and 2050 climate targets - along the lines of 1.5% growth per year - and these savings are increasingly needed in the shape of deep retrofits to existing buildings. Yet these types of programs - particularly as manifested through Home Upgrade programs - have simply not delivered, yet they still benefit from large amounts of funding in this Decision. While questions related to program effectiveness and design will be addressed in Phase 2 and Phase 3, it is critical that there is explicit focus on how to enable deep retrofits of the existing building stock. This may mean a greater focus on issues like early-retirement of appliances in existing residential, the tenant-owner split incentive in commercial, and the relative value of GHG emissions reductions as compared to energy savings.

Program v. Portfolio Cost Effectiveness

The Decision makes a finding that programs that have been demonstrated to have close to zero cost-effectiveness should be funded for the 2015 program cycle. I do not necessarily disagree with the Decisions justifications for doing so – namely that these programs have had insufficient time to ramp up and thus that available EM&V data does not do them justice. The Decision rightly states that the problems with the SoCal REN and BayREN portfolios are not unique to them, but instead are simply more visible than those in the the Investor Owned Utility portfolios because they are much smaller. The fundamental problem is that the portfolios approved in this Decision have grown so large and unwieldy that they lack adequate accountability, which allows underperforming programs to be propped up by high-performance, high-savings programs. I point this out to highlight the fact that Phase 2 and Phase 3 of this proceeding need to focus on how to do a much better job parsing through portfolios to be able to understand how to best allocate rate payer funds to those programs that deliver verifiable, persistent energy savings.

Conclusion

I decided to vote against this Decision because I believe that our energy efficiency programs must become more effective before the Commission, other California agencies, stakeholders and our citizens can count meeting our energy and climate mitigation goals. With that in mind, I would like to congratulate Administrative Law Judge Edmister and the Energy Division staff who worked with him for producing a well written and well-reasoned Decision. I understand that much work has and continues to be done to improve the effectiveness of our energy efficiency programs, and I laud those pushing these

efforts both inside and outside state government. That said, much work remains to ensure that the billions of dollars in ratepayer funds that California plans to expend on energy efficiency will fulfill the promise of delivering cost-effective and reliable energy savings in an equitable manner. I plan to engage directly in this effort and invite interested stakeholders to share their ideas for improving the design of our energy efficiency programs.

For these reasons, I dissent from the majority decision.

Dated 10/23/2014 at San Francisco, California.

/s/ MICHAEL PICKER
Michael Picker
Commissioner