FILED
3-03-14
10:12 AM

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 November 14, 2013)

ASSIGNED COMMISSIONER'S RULING AMENDING SCOPING MEMORANDUM, AND PROVIDING GUIDANCE ON ENERGY SAVINGS GOALS FOR PROGRAM YEAR 2015

1. SUMMARY

As established in the Scoping Memorandum, dated January 22, 2014, in Phase I of this proceeding the California Public Utilities Commission (Commission) will set savings goals, and adopt energy efficiency portfolios and budgets for 2015. Energy efficiency program administrators will file proposed portfolios and budgets for Commission review on the schedule amending the Scoping Memorandum here.

In this ruling, in addition to amending the proceeding schedule, I provide guidance on how to appropriately study statewide energy efficiency potential. I also discuss numerical energy savings goals for electricity and natural gas savings for each investor-owned utility's (IOUs) service territory.[1] The Commission will consider parties' comments on the study and the goals and will adopt final energy savings goals as part of its Phase I decisions.

A summary of the Goals I recommend for Commission consideration is as follows:

Figure 1- 2015 IOU Territory Savings Goals

IOU Territory	2015 electricity savings (GWh/yr)	2015 peak savings (MW)	2015 natural gas savings MMT/yr)
PG&E			
IOU program savings goal	687.0	110.2	14.3
IOU codes & standards advocacy savings goal	282.6	4.2	1.1
IOU owned street lighting savings goal[2]	10.9	-	-
Total Goals	980.5	154.4	15.4
SCE			

[1] This ruling reflects that: (1) we set the goals on an IOU service territory basis due to data limitations, but (2) the goals numbers include, and so inform, savings from Regional Energy Network (REN) and Community Choice Aggregation (CCA) programs, and Marketing, Education, and Outreach (ME&O) programs. IOUs may not necessarily be the administrators of these programs. (*See e.g.*, Decision (D.) 14-01-033 Enables Community Choice Aggregators to Administer Energy Efficiency Programs).

[2] This is the market potential for streetlights not owned by IOUs. IOU funding for streetlights is the subject of general rate cases.

IOU program savings goal	688.0	114.6	-
IOU codes & standards advocacy savings goal	291.5	45.6	-
IOU owned street lighting savings goal	3.5	-	-
Total Goals	983.0	160.1	-
SCG			
IOU program savings goal	-	-	21.3
IOU codes & standards advocacy savings goal	-	-	1.7
IOU owned street lighting savings goal	-	-	
Total Goals	-	-	23.0
SDG&E			
IOU program savings goal	172.7	29.2	2.3
IOU codes & standards savings goal	66.1	10.3	0.1
IOU owned street lighting savings goal1	0.9	-	
Total Goals	239.7	39.6	2.5
Total Statewide Goals	2,203.2	354.1	40.9

2. Background

Rulemaking (R.) 13-11-005 may radically change the structure and budget cycles of energy efficiency programs by moving to "Rolling Portfolios." In R.13-11-005, the Commission recognized that the "review and analysis of

'Rolling Portfolios' will not be completed in time for the 2015 budget cycle." The Commission prioritized putting 2015 funding in place while it resolves "Rolling Portfolio" implementation issues.

R.13-11-005 generally contemplates continuation through 2015 of the energy efficiency portfolios approved for 2013-14. However, R.13-11-005 did identify aspects of the 2013-14 portfolios that might need to change for 2015. Of particular importance for this ruling, the Commission stated:

> Administrators may need to adjust their portfolios to reflect our adoption of an updated energy efficiency goals and potentials study, and resulting energy efficiency targets. Commission staff has been developing a revised Potential and Goals Study for use in the California Energy Commission's (CECs) demand forecast and Integrated Energy Planning Report (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. [3]

On November 26, 2013, the assigned Administrative Law Judge (ALJ) issued a ruling requesting comments on a draft of the Potential and Goals Study released in July 2013 (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.

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[3] 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 California Energy Commission and this Commission. It provides a public forum to discuss demand and energy efficiency 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/.

3. Discussion

3.1. Joint Agency Letters re: Forecasting

On February 25, 2013, I co-authored a letter along with Commissioner Weisenmiller of the California Energy Commission (CEC) and President and CEO Berberich of the California Independent System Operator Corporation (CAISO) to state Senators Padilla and Fuller regarding how to "to appropriately and consistently consider energy efficiency savings in energy forecasting, electricity procurement planning, and transmission planning."[4] My co-authors and I committed our respective entities to "align the key milestones of the demand forecasting process, including projections for energy efficiency, with agencies' planning and policy deliberations."[5] We reiterated this commitment, and our achievements towards this goal, in another joint letter dated January 31, 2014.[6]

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[4] 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

[5] 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.

[6] 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

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 ISO, selected as the "managed forecast" for procurement and transmission planning in its recently adopted 2013 Integrated Energy Policy Report (IEPR)[7]. The CEC based this "managed forecast" on the draft 2013 Study.

3.1.1. 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. I recognize that this proposal is well-intentioned. However, experience suggests that setting multiple goals, including aggressive "aspirational" goals is not realistic and may create perverse incentives. It pressures administrators to submit overly optimistic savings estimates and claims. This, in turn, 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 ESPI, [8] was designed to incent utilities to exceed goals, as they receive increased profits for doing so. In sum, setting multiple goals potentially collides with the commitments in the joint letters to Senators Padilla and Fuller. It may also risk re-creating problems the Commission has just addressed.

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[7] The 2013 IEPR, adopted on January 15, 2014, is available at: http://energy.ca.gov/2013publications/CEC-100-2013-001/CEC-100-2013-001-CMF.pdf

[8] D.13-09-023.

3.2. Based on the 2013 Study.

The goals I recommend here are based on the same study that informed the CEC's "managed forecast" in the IEPR (i.e., the 2013 Study). They are not, however, *identical*. The draft 2013 Study is now some seven months old. Since its original issuance last July 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 spending on energy efficiency programs. Even if this means a small (since the Commission and the CEC are, after all, working from the same initial model) difference between the goals the Commission sets in this proceeding and the "managed forecast" that the CEC adopted in the IEPR.

The revisions to the draft 2013 Study to address party comments in this ruling have resulted in what I consider to be a *de minimus* impact of 0.28% in 2024 to the mid-case Additional Achievable Energy Efficiency forecast that underlies the CEC-adopted "managed forecast." To disregard new facts and party comments simply to ensure rigid uniformity of numbers across agencies would elevate form over substance, ultimately to everyone's detriment. Therefore, I recommend basing 2015 goals on the revised 2013 Study, attached to this ruling as Appendix A. Impacts of the study revision on the demand forecast are discussed in revised 2013 Study itself.[9]

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[9] *See* Appendix A, at 96.

3.3. Realistic goals.

As directed in previous decisions, energy efficiency goals should be "aggressive yet achievable."[10] 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 Evaluation, Measurement, and Verification (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 IOU saving claims and related shareholder incentive payments 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 IOU goals. As the Commission said in D. 08-07-047, "goals should be based on the best available information."[11] We now have better *ex ante* numbers than we did the last time we set goals.

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

[11] D.08-07-047, at. 18-19 and D.09-09-047, at. 40.

Therefore, we are better prepared to land on a level of savings that *ex post* analysis will support.[12]

Being guided by the best available data, means adopting modifications to reflect new data, to reflect various party comments, and to correct recently-identified errors. Accordingly, I will propose certain changes to the 2013 Study, and so to the goals that staff proposed.

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

We received comments from the following IOU parties: Pacific Gas and Electric Company (PG&E), San Diego Gas & Electric Company (SDG&E), Southern California Edison (SCE), Southern California Gas Company (SoCal Gas). The majority of the IOU 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. The Commission will address these comments and the Navigant responses in a decision. In the interest of giving administrators as much guidance as possible ahead of filing their portfolios, I will address below comments that raises policy issues. Navigant Consulting (Navigant) has also incorporated these recommendations into the revised study. The Commission will also address these issues in its Phase I decision, but in the interest of maximizing transparency I wanted to make as much of my current thinking on these issues available now.

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[12] The cyclical nature of the program authorization, implementation, 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.

4.2. Feasibility of SDG&E Meeting Its 2015 Goal

The Rulemaking contemplates that 2015 portfolios will be largely a continuation of 2014 portfolios. There is a rub, however, in that 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 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:

- 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. Adding 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 program uptake. Accordingly, I have adjusted SDG&E's 2015 goals to reflect

120% of SDG&E's recent annual savings claims for commercial whole building retrofit programs. This contemplates (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 additional time to reach new goals does not cause any potential to go unrealized. Potential simply rolls over to subsequent years. I 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. Appendix C provides annual projections of additional achievable energy efficiency out to 2024, reflecting the 2015 goals modification I propose and subsequent expected uptake of potential in later years.

4.3. Agricultural, Industrial, & Mining Sector Potential

In their comments, SCE and PG&E raised concerns that the Potential and Goals 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.[13] SCE and PG&E recommend removing all measures for which IOU programs are unable to claim savings. In response to this request, I 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 this ruling.[14] The

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

[14] Discussion of this change is included in Appendix B

resulting adjustments had the most significant impact on gas savings, while effect on peak electricity savings felt the smallest impact.

Figure 2 - Impact of Model Updates on Goals

	GWh			MW			MMT		
	Draft Goals	Final goals	% Change	Draft Goals	Final goals	% Change	Draft Goals	Final goals	% Change
PG&E	056	81	- 7%	63	54.4	- 5%	9	5.4	- 19%
SCE	046	83	- 6%	66	60.1	- 4%			
SCG							8.3	3.0	- 19%
SDG&E	64	40	- 9%	3.6	9.6	- 9%	.8	.5	- 12%

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 CFL lamps 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, in the revised 2013 study and target hard-to-reach markets, as this continues to represent cost effective savings in the portfolio.

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 streetlights that IOUs own were accurately captured. IOU owned streetlights are ineligible for energy efficiency incentives. SCE was concerned that the draft study failed to account for this, and so overestimated net achievable gains associated with streetlights.

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 IOU recovery from participating municipalities of street lighting energy efficiency upgrades.

I am directing here that PG&E, SCE, and SDG&E file Advice Letters with tariffs compliant with AB 719 by July 1, 2015. 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.

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), Opower, Inc. (Opower), and The Utility Reform

Network (TURN). Nonetheless, I do provide some discussion here of points of general concern, the extent I have not already addressed them.

This proceeding only sets goals for 2015 energy efficiency portfolio planning purposes. My commitment, discussed above, to setting *realistic* goals reflects my sensitivity to concerns about the stale data and administrators failing to meet past goals. I have accounted for this in adopting goals that rest on a "mid" scenario rather than a "high" scenario.

Relatedly, IEP expresses concern about the draft 2013 Study failing "to provide policymakers a historic context for establishing goals." I recognize that administrators have not met the aggressive goals that we have set over the past ten years. I have accounted for this in adopting goals that rest on a "mid" scenario rather than a "high" scenario.

How to update *ex ante* numbers and fold those into portfolio planning on a rolling basis is something I expect to take up in Phase II of this proceeding.

The issues parties raised concerning emerging technology and Title 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.

The Scoping Memorandum excludes new ex ante updates pertaining to the database for Energy Efficient Resources (DEER) 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 I do not expect that the Commission will revisit the 2015 goals after adopting them along with administrator portfolios in a Phase I decision in this proceeding.

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.

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

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,[15] the draft 2013 Study is arguably over-estimating savings for 2015, and that is the only year with which we are concerned at the moment. I do not, therefore, recommend increasing savings estimates for such programs for 2015 goals.

I will close with a discussion of the model's complexity. Navigant is working on an optimized version of the model that can rum on less powerful computers to be released with the final mode. Navigant 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,

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

ORA's complaint that industrial and agricultural modelling should be more granular. I am not unsympathetic to parties' concerns about model complexity, but do not see practical solution to it.

5. Recommended Goals

Consistent with the general principles outlined in section 3, above, I recommend adoption of the energy efficiency saving goals set forth in the Summary section of this Ruling.

6. Amendment to Schedule in Scoping Memo

The issuance of this ruling has slipped some weeks from the date contemplated in the scoping memo. This means that we cannot reasonably expect to conclude Phase I by the Commission's May 9, 2014 business meeting. The next regularly-scheduled Commission meeting is June 12, 2014. Accordingly, I find it reasonable to amend the schedule set forth in the Scoping Memo to read as follows:

Date	Event
2/28/14	ACR issues on goals and potentials
Week of 3/17/14	Workshop re administrator filings
3/26/14	Administrators file for 2015 funding
4/4/14	Comments on administrator filings
4/17/14	Reply comments on administrator filings
5/13/14	Anticipated PD issues on 2015 portfolio funding
6/12/14	Anticipated Commission decision on 2015 portfolio funding

IT IS RULED that:

1. Pacific Gas and Electric Company, Southern California Edison, and San Diego Gas & Electric Company, Southern California Gas Company SoCalRen, and BayREN shall file 2015 Energy Efficiency Portfolios consistent with the guidance provided in this ruling and in the Scoping Memorandum.

Marin Clean Energy may also file a 2015 Energy Efficiency Portfolio consistent with this ruling, the Scoping Memorandum, and Decision 14-01-033 if it wishes to be a program administrator.

2. Pacific Gas and Electric Company, Southern California Edison, and San Diego Gas & Electric Company shall file tariffs compliant with Assembly Bill 719 by July 1, 2015.

3. The schedule for Phase I of this proceeding is amended as set forth in the body of this ruling.

Dated March 3, 2014, at San Francisco, California.

/s/ MICHAEL R. PEEVEY
Michael R. Peevey
Assigned Commissioner