BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA



Order Instituting Rulemaking to Examine the Commission's Energy Efficiency Risk/Reward Incentive Mechanism

Rulemaking 09-01-019 (Filed January 29, 2009)

SAN DIEGO GAS & ELECTRIC COMPANY (U 902 M) AND SOUTHERN CALIFORNIA GAS COMPANY (U 904 G) PROPOSED ENERGY EFFICIENCY RISK-REWARD INCENTIVE MECHANISM AND EM&V ACTIVITIES

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I. INTRODUCTION

Pursuant to the April 14, 2009 Assigned Commissioner's and Administrative Law Judge's Ruling Providing Schedule and Scoping Memo (referred to as "April 14 ACR and Scoping Memo"), San Diego Gas & Electric Company (SDG&E) and Southern California Gas Company (SoCalGas) (also referred to as the Joint Utilities) hereby submit their proposed Risk/Reward Incentive Mechanism ("RRIM") for use beginning in the 2009-2011 program cycle.

II. OVERVIEW OF JOINT UTILITIES' PROPOSAL

The Joint Utilities agree with the ED statements in the April 1, 2009 White Paper on "Proposed Energy Efficiency Risk-Reward Incentive Mechanism and EM&V Activities" that the intent of the energy efficiency incentive mechanism is to "provide the IOUs with an earnings potential that is directly related to the success of their energy efficiency portfolios in a manner that encourages energy efficiency to be a core business pursuit in the eyes of IOU management, shareholders, and the financial and energy utility industries" (page 6). Joint Utilities also agree with the following general guidelines as set out in the White Paper:

• The incentive mechanism needs to be simplified and streamlined with bonuses available for superior performance (page 3).

• The incentive mechanism must be effective and strategic, feasible, timely and noncontentious. It must also be fair and administratively cost-efficient, simple and transparent, and have technical integrity (page 4).

III. <u>PROPOSED RISK-REWARD INCENTIVE MECHANISM</u>

The Joint Utilities' proposed incentive mechanism builds upon the current mechanism correcting for problems and simplifying the process to be consistent with the general guidelines listed above. As suggested in the ED White Paper, this proposed incentive mechanism consists of two components; a "Base" component which is based on achievement of goal, the current mechanism's Performance Earnings Basis ("PEB"), and an earnings rate; and, a "Bonus" component which focuses on achievements of Market Transformation and Strategic Plan objectives. The Bonus component is independent of the Base earnings.

A. DEFINITION OF PERFORMANCE GOAL FOR THE BASE COMPONENT

The Joint Utilities recommend a change to the performance goal of from the current mechanism, which is dependent on achievement of levels of performance for three separate goals—KWH, KW and Therms, to a common measure - "Tons of Green House Gas Emissions Reduced (reduction in CO2 footprint)". Converting the utility EE goal to CO2 reductions is consistent with the State's goal to reduce greenhouse gases. By using this as the goal, interactions between gas and electricity can also be better managed and the current mechanism complexity is reduced.

The proposed single performance goal would be - "Metric Tons of Greenhouse Gas Emissions Reduced." The reduction of CO2 caused by combustion of fossil fuels is a primary goal of the State, and provides a natural weighting of the three distinct performance goals. Natural gas combustion produces 117 lbs per MMBtu (E3 Report, p. 76), while the CO2 content of electricity varies depending on the marginal generation, from a low of 700 lbs./MWh in offpeak periods to a high of over 1,600 lbs./MWh in on-peak periods (E3 Report, p. 75). The CO2 emissions of electricity during on-peak periods are significantly higher than during off-peak periods, implicitly giving weight to kW reduction. Thus, using CO2 emissions reductions

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provides a natural weighting of kWh, kW, and therms. No new values would have to be adopted by the Commission since all the required CO2 emissions values for electricity by time of use and for gas are currently contained in the E3 calculator.

B. ACHIEVEMENT TOWARD GOAL

1. Measurement of Savings

The measurement of savings of existing programs will be based on ex ante values throughout the program cycle. Use of ex ante would eliminate EM&V from the base earnings mechanism over the program cycle, and the attendant problems with the timeliness of and controversy surrounding ex post program evaluations. EM&V would, however, play an important role in determining ex ante values in the next program cycle (see EM&V discussion below)

2. Application of Net-to-Gross

Consistent with the current goals set for the 2009-2011 goals, the achievement of the goal will be based on gross energy savings. Therefore, the net-to-gross value plays no role in the achievement of the goal, only in the calculation of the PEB as described below.

C. BASE EARNINGS MECHANISM

1. Definition of Performance Earnings Basis ("PEB")

The PEB represents the net benefits to ratepayers (resource benefits minus costs) from their investment in energy efficiency. More specifically, to calculate the PEB, the energy savings (kW, kWh and therm reductions) are assigned a dollar value that reflects Commission-adopted avoided costs, i.e., the supply-side generation, transmission, distribution and environmental costs avoided by those reductions in demand.¹

The costs of implementing the energy efficiency portfolio are then subtracted from the resource benefits to yield the "net benefits" value for the PEB. Positive net benefits accrue only when the portfolio is cost-effective, that is, when resource benefits are greater than costs.

 $[\]frac{1}{2}$ Currently, the E3 calculator does not assign a dollar value for CO2 resulting from natural gas savings. The Joint Utilities recommend that this be corrected.

Conversely, negative net benefits accrue when the portfolio costs are greater than the resource benefits.

Specifically, the PEB is a weighted combination of the net benefits from the Total Resource Cost ("TRC") test and net benefits from the Program Administrator Cost ("PAC") test. This is consistent with the current RRIM and is represented as follows:

PEB = 2/3 TRC net benefits + 1/3 PAC net benefits

2. Application of Net-to-Gross ("NTG") Ratio to the PEB

Ex-ante values should be used for NTG estimates. There are numerous reasons why ex post NTG values should not be used as criteria to measure the success or failure of EE programs. Most important among them is that eliminating the uncertainty associated with NTG from the mechanism would allow for predictable earnings which increases their value to Wall Street analysts and utility executives. It could also greatly reduce the costs of M&E studies and eliminate a source of argument among the parties that has existed since the early 1990s.

3. Earnings Rate

The Joint Utilities propose to continue to use the full earnings rate of 10 percent, which is between the 9 and 12 percent adopted in Decision ('D.") 07-09-043. The earnings rate would then be prorated based on the percentage achievement of the goal. For example, if the utility only achieves 83 percent of the goal, then the earnings rate would be adjusted downward:

Modified Earnings Rate = $10\% \times 83\% = 8.3\%$

On the other hand, if the utility achieves 110 percent of the goal, then the earnings rate would increase, rewarding superior performance:

Modified Earnings Rate = $10\% \times 110\% = 11.0\%$

Using the modified earnings rate that gradually increases instead of the large changes in earnings rates at Minimum Performance Standard point and at 100 percent of goal will eliminate the "cliffs" that create controversy in the current mechanism.

4. Earnings Calculation

Using the PEB and earnings rate described above, the earnings will be calculated as follows:

Earnings = Modified Earnings Rate x PEB

The following are examples for earnings calculations:

a) If the utility achieved 83 percent of the goal:

Modified Earnings Rate = 8.3%, PEB = \$100,000,000

Earnings = \$100,000,000 x 8.3% = \$8,300,000

b) If the utility achieved 110 percent of the goal:

Modified Earnings Rate = 11%, PEB = \$150,000,000

Earnings = \$150,000,000 x 11% = \$16,500,000

Should the net benefits from the portfolio become negative (PEB < 0), a penalty will occur. This approach is referred to as the "cost-effectiveness guarantee," and would require the utility to pay back any negative net benefits to ratepayers, dollar-for-dollar, up to an amount equivalent to the cap on earnings.

5. Earnings Cap for the Base Component

The Joint Utilities propose to maintain the earnings cap adopted in D.07-09-043. That is, SDG&E-\$50 million and SoCalGas--\$20 million for each program cycle.

D. BONUS MECHANISM

This component of the mechanism is designed to promote market transformation and achievement of selected Strategic Plan goals. The achievement of this Bonus component is separate from the Base component and not contingent on the outcome of the base earnings mechanism. The Joint Utilities expect that the structure of the bonus mechanism would be more fully explored with interested parties in the future, but provide an example below on how the "milestones" for this component of the mechanism could be designed.

Market Transformation-Based Bonus

The Strategic Plan calls for coordination and collaboration with stakeholders to help achieve market transformation. Here is an example of quantifying residential market transformation: Over the past several years a good baseline of market saturation has been established in the California Lighting and Appliance Saturation Study (CLASS). The original study was completed in 2000 and then updated in 2005. One overarching goal for these studies is to provide efficiency levels of appliances in order to understand accomplishments in the residential sector. The values in these studies and the data made available in the on-line "California Residential Efficiency Saturation Tool" be used as the basis for the metric for EE market transformation in the residential sector. It is proposed that a new California Lighting and Appliance Saturation study be conducted in 2010 to re-estimate the efficiency levels for key measures. A comparison could then be made to the previous baseline studies of 2000 and 2005 and national studies to make a determination if the marketplace for energy efficient solutions in residential households in California is being transformed.

				%
Appliance	2000	2005	Change	Change
Freezer UEC	728.00	626.50	101.50	13.9%
Heating AFUE	77.91	79.32	1.41	1.8%
Refrigerator UEC	931.55	721.18	210.37	22.6%
Dishwasher EF	0.48	0.50	0.01	2.5%
Washing Machine EF	1.32	1.77	0.45	34.5%
Water Heating EF	0.58	0.59	0.01	1.4%
Cooling SEER	9.50	10.31	0.81	8.5%
CFLs per Home*	0.32	3.51	3.19	996.9%

*In the 2005 CLASS report, Page 51 Table 30 shows that CFLs per home jumped from 0.32 lamps/home in 2000 to 3.51 lamps/home in 2005

E. DETERMINATION OF EARNINGS AMOUNT FOR BONUS MECHANISM

The Joint Utilities propose that the earnings for the Bonus component would be set as a percentage of expenditures. This percentage can be discussed at the workshops. The Bonus component will be capped at 10% of the maximum earnings potential for each utility.

IV. ROLE OF EVALUATION, MEASUREMENT & VERIFICAITON

As recommended in the ED White Paper, the above proposed shareholder incentive mechanism "decouples" EM&V activities from shareholder incentive earnings. In this mechanism, shareholder incentives are based on agreed upon ex-ante values and net-to-gross

values before the programs are implemented and these values remain constant throughout the entire program cycle. However, this in no way eliminates or mitigates the need or value of EM&V within the development process of energy efficiency programs within the state. In this proposed mechanism the EM&V activities take on an important and critical role, that of establishing and verifying ex-ante values that will be used in the valuation of program design at the *beginning* of each program cycle. The cost effectiveness of all measures, programs and portfolios are based upon ex-ante estimates. It is essential that these values be as accurate and reliable as possible for efficient and accurate program planning. These values also have to be agreed to up front, before goals are established and any program development or activities, if the above incentive mechanism is to work effectively and in a non-contentious manner. For these reasons, the Joint Utilities recommend that a procedure be developed that would establish exante values prior to the implementation of the program cycle. This procedure would include an open and transparent process where the latest EM&V measurement studies would be evaluated and discussed and agreement would be reached as to which ex-ante values need to be changed, and which can remain the same as in the previous cycle. Disputes (which should be minimal) could be arbitrated prior to program implementation so that a consistent and final set of values could be used at the beginning of each program cycle. Energy Division would continue to be the administrator of all impact evaluation activities and the utilities would continue to manage all process evaluations. This method would allow for a much less contentious incentive mechanism while at the same time increasing the overall efficiency and effectiveness of program design and planning.

V. EARNINGS RECOVERY SCHEDULE

The Joint Utilities propose a sequence of three earnings claims to be submitted for the Base component of the mechanism and a one time claim for the Bonus component. If the Commission adopts a simplified RRIM that does not require an application process to resolve, future earnings claims would be submitted to the Commission, via Advice Letter, after the completion of each annual Verification Report, which should only be based on verification of "actual" installations and program costs, to be completed by the Energy Division staff. The Bonus component would be combined with the third claim of the Base component. The Joint

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Utilities' proposal significantly simplifies the verification requirements and allows minimal controversies or disputes to be addressed through the Advice Letter process. The following illustrates the proposed earnings recovery schedule:

Goal-Year 1	Goal-Year 2	Goal-Year 3	
А	В	С	

Earnings Claim-Year 1 = PEB-Year 1 x 9.0% x % Goal-Year 1 Achievement

Earnings Claim-Year 2 = PEB-(Year 1+ Year 2) x 9.0% x % Goal-(Year 1+Year 2)

Achievement – [Earnings Claim Year 1]

Earnings Claim-Year 3 = PEB-(Year 1+ Year 2+Year 3) x 9.0% x % Goal-(Year 1+Year

2 + Year 3) Achievement – [Earnings Claim Year 1 + Earnings Claim Year 2] + BONUS

The Joint Utilities look forward to continuing dialogue with other interested parties as the Commission develops the next generation of an Incentive Mechanism that will exhort the utilities to deliver cost effective energy efficiency programs that will meet the State's energy efficiency goals and greenhouse gas reductions.

Respectfully submitted,

By: <u>/s/ Steven D. Patrick</u> Steven D. Patrick

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May 22, 2009

CERTIFICATE OF SERVICE

Pursuant to Rule 3.2 of the Commission's Rules, I hereby certify that I have this day served a copy of the foregoing SAN DIEGO GAS & ELECTRIC COMPANY (U 902 M) AND SOUTHERN CALIFORNIA GAS COMPANY (U 904 G) PROPOSED ENERGY EFFICIENCY RISK-REWARD INCENTIVE MECHANISM AND EM&V ACTIVITIES on all parties of record in R.09-01-019, along with all parties listed in the consolidated proceedings A.08-07-021, et al., by electronic mail and by U.S. mail to those parties who have not provided an electronic address to the Commission.

Dated at Los Angeles, California, this 22nd day of May, 2009.

<u>/s/ Rose Mary Ruiz</u> Rose Mary Ruiz

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