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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

ADMINISTRATIVE LAW JUDGE'S RULING SEEKING COMMENT ON UPSTREAM LIGHTING PROGRAM IMPACT EVALUATION FOR PROGRAM YEAR 2017

Summary

This ruling seeks comments from parties on findings from, and Commission actions that should potentially flow from, the "Upstream and Residential Downstream Lighting Impact Evaluation Report: Lighting Sector – Program Year 2017" impact evaluation report, conducted by DNV GL Energy Insights USA, Inc. (DNV GL), and published on April 1, 2019.[1]

As the affected utilities, Southern California Edison Company (SCE) and San Diego Gas & Electric Company (SDG&E) are invited first to propose remedies they would offer. Other parties are then invited to respond to the proposals of SCE and SDG&E by filing and serving comments in this proceeding, by no later than February 14, 2020. Reply comments are invited by no later than February 28, 2020.

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[1] The report is available online at: https://pda.energydataweb.com/api/view/2166/CPUC%20Group%20A%202017%20Upstream%20Lighting%20Impact%20Eval%20Report%20FINAL.pdf.

1. Background

On March 1, 2019, Commission staff served notice on the service list of this proceeding of a draft version of the impact evaluation report, conducted by DNV GL Energy Insights USA, Inc., addressing the 2017 program year of the upstream lighting programs of Pacific Gas and Electric Company (PG&E), SDG&E, and SCE.

The upstream lighting programs addressed by the impact evaluation report provided monetary incentives to manufacturers (and in some cases, retailers) to encourage deployment and stocking of energy-efficiency technologies, mainly for residential customers. DNV GL conducted this evaluation under contract to the Commission for evaluation, measurement, and verification (EM&V).

The draft version of the impact evaluation report was presented at a public Quarterly EM&V meeting hosted by Commission staff on March 12, 2019. SDG&E and SCE both provided a response to recommendations (RTR) in the report on March 15, 2019.

The final version of the upstream lighting impact evaluation report was published on April 1, 2019.

2. Summary of Impact Evaluation Findings

The impact evaluation report covered the 2017 program year for the three large electric utilities. The lighting program made up substantially different proportions of the utilities' respective overall portfolio savings in 2017, at 3 percent of PG&E's portfolio, 15 percent for SCE, and 35 percent for SDG&E.

The 2017 upstream lighting program had changed since the previous evaluation of the 2015 programs, with SCE and SDG&E changing their program strategies by reducing savings targets for the program, but increasing the number of discounted light bulbs planned to be shipped to achieve the targeted energy savings.

In evaluating the impact of the program, the DNV GL team found unusually large volumes of light bulbs shipped to many small stores in SCE and SDG&E territories. The reported number of light bulbs shipped to stores was higher than the number of total California light bulb sales determined from other data sources, according to the evaluators.

Overall, the study found that SCE increased the number of light bulbs it shipped by over 50 percent in 2017 compared to 2015, and SDG&E shipped approximately five times the number of light bulbs in 2017 compared to 2015. Looking only at discount and grocery stores, SCE nearly doubled shipments between 2015 and 2017, with SDG&E increasing its shipments by nearly a factor of ten. This is notable because the utilities could claim a higher net energy savings value for providing lighting to smaller retail channels such as discount and grocery stores, because previous evaluations had shown that customers who buy lamps at these stores tended to buy the cheapest option available, making these stores less likely to stock more efficient lamps without the program incentive.

Combined, SCE and SDG&E shipped more than 10,000 discounted light bulbs each to more than 170 different stores, with a few stores receiving more than 150,000 light bulbs at an individual store. According to DNV GL, "these data reveal that the market could not have supported the volume of sales that the 2017 program data reported as shipped." DNV GL committed to continue to investigate in the 2018 program year evaluation what has been happening to unsold lamp stock in discount and grocery stores in SCE and SDG&E service territories. The problem with unaccounted-for shipments does not appear to affect the PG&E portion of the program.

In the meantime, the 2017 program year impact evaluation adjusted the light bulb quantities credited to the program, and therefore the associated energy savings. In the discount and grocery store channels, DNV GL found that approximately 80 percent of SCE's program bulbs and 95 percent of SDG&E's program bulbs may not have been sold to customers and were likely overstocked or missing entirely. These discrepancies made up roughly 60 percent of SCE's and 80 percent of SDG&E's total upstream lighting program bulbs. Table 1 below summarizes the comparisons between program years 2015 and 2017 for reported net energy savings (in gigawatt hours (GWh)) and quantity of light bulbs.

Table 1. Summary of Program Administrator-Reported Net Annual Energy Savings and Quantity of Discounted Light Bulbs from Upstream and Residential Downstream Lighting Rebates, 2015 and 2017

Utility	2015	2017
Program Administrator-Reported Net Energy Savings (GWh)		
PG&E	44	39
SCE	212	208
SDG&E	33	155
Total	**288**	**401**
Quantity of Light Bulbs		
PG&E	3,440,260	3,951,597
SCE	10,258,827	15,153,891
SDG&E	2,019,998	8,700,049
Total	**15,719,085**	**27,805,537**

Table 2 below shows the adjustments to sales quantities in the DNV GL evaluation report, which in turn affected the utilities' energy savings for this program in 2017. As Table 2 shows, no adjustments were made for PG&E.

Table 2. Light Bulb Quantity Adjustments by Program Administrator, 2017

Program Administrator and Channel	Light Bulbs Shipped	Sales Quantity Credit Percentage	Light Bulbs Credited
PG&E			
Discount	512,621	100%	512,621
Grocery	378,196	100%	378,196
Remaining Channels	1,476,566	100%	1,476,566
Total	**2,367,383**	**100%**	**2,367,383**
SCE			
Discount	4,093,491	33%	1,366,154
Grocery	6,854,708	13%	858,678
Remaining Channels	3,516,685	100%	3,516,685
Total	**14,464,883**	**40%**	**5,741,517**
SDG&E			
Discount	3,312,676	6%	211,837
Grocery	3,491,374	5%	157,771
Remaining Channels	1,097,727	100%	1,097,727
Total	**7,901,777**	**19%**	**1,467,336**

According to DNV GL, SCE's and SDG&E's reported shipments of lamps combined were about three times the number of statewide sales of lamps in 2017. To further investigate where the lamps, particularly those shipped to discount and grocery stores, may have ended up, the evaluators called 83 retail stores (a statistically significant sample) from the utility claims database to understand sales volumes and inventory stocking practices. Twenty of the 83 stores reported that they had not sold light bulbs at all for the past three years. Meanwhile, SCE and SDG&E programs shipped unusually high amounts of bulbs to these stores and claimed savings for them. The survey was not designed or able to determine what happened to the shipments that the manufacturer allegedly shipped to these stores.

In all, approximately 15 million lamps could not be tracked by the DNV GL evaluators. Therefore, the evaluation report adjusted the savings claims by SCE and SDG&E to reflect the unaccounted-for lamp shipments.

The bulbs shipped were a mixture of compact fluorescent lamps (CFLs) and light emitting diode (LED) bulbs. If the discount for CFLs is estimated at $1 per lamp and for LEDs at $3-4 per lamp, the incentive amounts associated with the lamps that could not be tracked would be approximately $55 million for SCE and SDG&E combined.

It is possible that the incentive amounts could have been higher. The evaluators found a lack of transparency about incentive amounts paid to manufacturers, as well as a lack of knowledge about manufacturer production costs.

In response to the draft evaluation report, the SCE RTR committed to making the following improvements to the program:

- Limiting the shipments of bulbs to discount retailers and grocery stores and focus on the remaining delivery channels for its shipments, including hardware, home improvement, and other “big box” retailers that can handle greater volumes, as well as working with retailers to provide sales data to more closely monitor stock levels and adjust future shipments.
- Adding additional internal controls to prevent shipments to the same store from multiple manufacturers and increase the visibility to inspections.

- Incorporating ongoing and planned market studies into lighting program efforts.
- SCE also generally accepted the recommendations of the evaluators to:
  - Improve tracking and verification of program activity.
  - Conduct more verification of program tracking data to verify that program shipments are being fully sold or will reasonably be sold in the near future.
  - Include invoice verification to confirm that the information provided in tracking data is correct.
  - Update baseline assumptions to reflect the evaluation results.
  - Allocate more resources to verifying program activity.

Since the evaluation, SDG&E engaged its own evaluator to conduct further assessment of what occurred in this program in 2017.

Both SCE and SDG&E, in the RTRs, also questioned the evaluators' source of lighting market data, stating there are alternative sources of market sales data that may make the program results seem less questionable.

Meanwhile, this program has been discontinued.

Though the utility program administrators' savings claims were heavily discounted due to the number of lamps unaccounted for, utility ratepayers still ultimately paid for the costs of the program.

3. Questions for Parties

This ruling seeks comments, first from the impacted utilities, and then from parties, for how the Commission should address the findings of the upstream lighting program impact evaluation for program year 2017.

SCE and SDG&E are required to respond to this ruling and the questions below by filing and serving responses no later than January 31, 2020. Parties may then comment on the responses of SCE and SDG&E by filing and serving comments no later than February 14, 2020. Reply comments may be filed and served by no later than February 28, 2020. Thereafter, next steps will be determined in this proceeding.

1. What remedies do you propose to address the findings of the "Upstream and Residential Downstream Lighting Impact Evaluation Report: Lighting Sector – Program Year 2017," published April 1, 2019, by DNV GL, with respect to unaccounted-for lamps?
2. Should the Commission order refunds or other compensation to the ratepayers of SCE and SDG&E for the upstream lighting lamps that were unaccounted for in the 2017 program year? Explain your reasoning.
3. If refunds or compensation are warranted, how should the amounts be calculated? What are your proposed amounts? Provide and explain your calculations.
4. If refunds or compensation are warranted, what method or vehicle should be used to credit the appropriate amounts to ratepayers? Explain your approach.
5. Make any other comments or proposals related to the topic of the 2017 upstream lighting impact evaluation and its findings with respect to unaccounted-for shipments of lamps.

IT IS RULED that:

1. Southern California Edison Company and San Diego Gas & Electric Company shall file and serve responses to this ruling and its questions by no later than January 31, 2020.
2. Interested parties may file and serve comments on this ruling, its questions, and the responses filed and served by Southern California Edison Company and San Diego Gas & Electric Company by no later than February 14, 2020.

3. Interested parties may file and serve reply comments in response to this ruling and its questions by no later than February 28, 2020.

Dated January 9, 2020, at San Francisco, California.

/s/ JULIE A. FITCH

Julie A. Fitch
Administrative Law Judge