PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

**Agenda ID #20769**

**ENERGY DIVISION RESOLUTION G-3587**

**August 4, 2022**

RESOLUTION

Resolution G-3587. San Diego Gas & Electric Company authorization to apply a meter calibration adjustment factor on bills to reduce methane emissions during meter replacement.

PROPOSED OUTCOME:

* Approves San Diego Gas & Electric’s (SDG&E’s) request to deviate from General Order (GO) 58A-13 and SDG&E’s Gas Rule 18 and to update Gas Rule No. 02 in accordance with GO-96B General Rule 5.1 and Energy Industry Rule 5.3(1) and 5.3(5).
* These changes would allow SDG&E to use a 2 percent meter calibration adjustment factor to give credits to customers in meter groups where statistical sampling has shown a significant portion of meters are measuring usage outside threshold limits in order to avoid emissions associated with the early replacement of those meters.

SAFETY CONSIDERATIONS:

* There are no safety considerations.

ESTIMATED COST:

* The cost of the meter calibration adjustment factor should be minimal and will be included in SDG&E’s Natural Gas Leak Abatement Program.

By San Diego Gas & Electric (SDG&E) Advice Letter (AL) 3028-G, Filed on November 3, 2021.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

# Summary

This resolution approves SDG&E’s Advice Letter (AL) 3028-G, which proposes a meter calibration adjustment factor to customer’s bills in statistically tested meter groups in which 10 percent or more of the gas meters are registering fast by 2-3 percent[[1]](#footnote-2). By approving the adjustment factor, the eventual replacement of these meters will be aligned with SDG&E’s next-generation Smart Meter 2.0 (SM2.0) program, to be submitted as part of its 2024 General Rate Case (GRC). The proposed meter calibration adjustment factor will be applied to the whole group whose gas meters have been statistically tested as registering outside allowable limits because SDG&E does not know precisely which meters are outside the limits, based on its statistical sampling. In lieu of replacement of the meter in advance of the smart meter deployment, SDG&E requests that those customers whose gas meters are within a participating meter group that has been statistically tested as running at 2–3 percent fast receive a bill credit of 2 percent until their meter has been replaced. This resolution also approves commensurate tariff changes to SDG&E’s Rule No. 02.

Avoiding the replacement of meters with small measuring errors by giving the customer a temporary bill credit as an alternative to meter replacement will make the customer whole for the overcharge and reduce both methane and CO2 emissions from meter replacement.[[2]](#footnote-3) If the meter calibration adjustment factor proposed in AL 3028-G is not approved by June 30, 2022, SDG&E’s Compliance Plan[[3]](#footnote-4) estimates roughly 21,000 gas meters will need to be replaced by then, along with another approximately 50,000 meters by mid-2023, due to a number of their meter groups statistically testing fast by   
2-3 percent. This would occur prior to the planned rollout of the next-generation Smart Meters. In order to achieve the emissions reductions projected by AL 3028-G as the objective of the meter calibration adjustment mechanism and Senate Bill 1371 (Leno, 2014), this resolution orders SDG&E to not replace those meter groups whose meters have been tested as running 2-3 percent fast until this resolution is final.

The meter calibration adjustment factor will be applicable to each customer’s bill whose meters fall into the statistically tested groups running 2-3 percent fast until the meter requires replacement, or when the next-generation Smart Meter is installed, whichever comes first. SDG&E will report on emissions reductions actually achieved by the use of the meter calibration adjustment factor in its 2024 Leak Abatement Compliance Plan.

# Background

SDG&E’s Meter Performance Program is governed by General Order (GO) 58-A, Standards for Gas Service in the State of California.

GO 58-A, Section 12 states that a meter is considered accurate if it is within -2 percent slow (under) and +1 percent fast (over) the registered flow. To avoid replacing fast meters that are planned to be replaced under its next-generation Smart Meter program, SDG&E proposes that customers whose meters belong to a “meter family” that runs   
2-3 percent fast will get a 2 percent credit, which puts them within the 1 percent threshold for accuracy. Once a meter family is outside this threshold, i.e., the meter sample is above 3 percent fast, that group of meters would need to be replaced. SDG&E’s proposal in this Advice Letter does not change that requirement.

The meter groups and families affected by SDG&E’s proposal have been sampled in accordance with GO 58-A, Section 13 and 14, which state the following:

*13a. No gas meters hereafter installed shall be allowed to remain*

*in service more than ten (10) years from the time when last*

*tested without being retested in the manner herein provided, and*

*if found inaccurate, each such meter shall, at the time of each*

*test, be readjusted to be correct within the prescribed limits*

*before being installed.*

*13c. Under certain conditions utilities may be authorized to*

*deviate from Section 13.a. and use a statistical meter control*

*program based on meter performance as demonstrated by*

*sample testing in lieu of periodic testing of each meter.*

*Applications to deviate shall be based on accepted principles of*

*statistical sampling.*

*14. Each gas utility shall adopt and maintain standard methods*

*of testing gas meters. These methods and the facilities used*

*shall be reported to the Commission for approval.*

SDG&E groups meters into families[[4]](#footnote-5) to measure customer gas consumption. In year 10 of a meter family’s life, a statistical sample set of meters is tested to validate gas consumption accuracy. Condition 1 in Resolution G-2928, a 1990 resolution that updated previous gas meter standards, mandates that meter groups more than 10 years old must be removed when more than 10 percent of the meters in that group register more than 2 percent fast. The removal of meters found to be performing poorly is to begin no later than July 1 of each reporting year, and every reasonable effort must be made to accomplish removal of the entire group within a 12-month period.[[5]](#footnote-6)

In 2020, one Control Group of sampled gas meters tested nearing limits and at limits of greater than 2 percent fast for two consecutive years. This resulted in a filing to the CPUC in January 2021 indicating that approximately 21,000 gas meters needed to be removed by June 30, 2022. As of April 2021, two additional Control Groups tested outside the range of 2 percent fast with a total population of approximately 51,000 meters. These two additional control groups will need to be removed by June 30, 2023, if the requested deviations to SDG&E’s rules are not granted. The total estimated number of meters needing to be replaced is approximately 71,000[[6]](#footnote-7) meters within the next two years.[[7]](#footnote-8)

**ADVICE LETTER 3028-G**

This request is similar to that of Advice Letter 5403-G, which was submitted by Southern California Gas Company in December 2018 and approved by the California Public Utilities Commission (CPUC) in Resolution G-3558.[[8]](#footnote-9) Advice Letter 3028-G proposes to avoid methane emissions during replacement of meter groups that have been statistically tested and found to be running fast, by using a meter calibration adjustment factor on customers’ bills. The meter calibration adjustment factor would be applied to the entire population of affected meter lots where statistical testing has identified 10 percent of the meter group as running 2-3 percent fast. It would correct small meter registration inaccuracies by reducing the recorded meter registration by   
2 percent and applying it to the billing factor. This meter calibration adjustment factor would only be applied to large meter lots of greater than 500 meters, whose gas meters have been sampled and in which statistically significant numbers of meters are found to be 2-3 percent fast.

Because SDG&E statistically sampled customer meters, it does not know precisely which meters are outside the allowable limits and eligible for the bill credit. Thus, SDG&E is proposing to provide the credit to the entire family of meters where   
10 percent or more of the meters statistically tested as running fast, compared to a control group.[[9]](#footnote-10)

The meter families’ participation in the meter calibration program will conclude when the meters reach the end of their life cycle[[10]](#footnote-11) and they are replaced with a new meter or a next-generation Smart Meter, whichever comes first. Additional meter families meeting the participation requirements may be added or removed from the program.

AL 3028-G attests that SDG&E’s use of the meter calibration adjustment factor will minimize methane emissions by an estimated 142,000 standard cubic feet and complies with SDG&E’s Methane Leak Abatement Plans. The replacement program will be aligned with their planned next-generation Smart Meter program which will also reduce trips and an estimated 1.1 thousand metric tons of CO2 emissions. SDG&E intends to request approval of its next-generation Smart Meter program in its 2024 GRC filing.

SDG&E requests to deviate from its Gas Rule 18 (Meter Tests and Adjustments of Bills) by providing a 2 percent credit, going-forward, for each gas meter in the family of failing gas meters registering fast by 2-3 percent.[[11]](#footnote-12) This credit would be applied on a monthly basis until the meter is replaced, which could exceed three years.

To accommodate this deviation, Rule No. 2, Description of Service, would be revised to add new sections describing the meter calibration adjustment factor and how the metered volume is adjusted by a billing factor, as follows:

P. Meter Calibration Adjustment Factor

*In the cases where meters have failed the Meter Performance Control Program as fast*

*meters, a Meter Calibration Factor of 2 percent (2%) will be applied in lieu of removal. This factor shall be applied to all impacted meters within the lot/family and remain in place as long as the meter is left in service without removal.*

Q. Conversion of Metered Volumes to Billable Volumes for Billing

*The metered volume shall be adjusted by a billing factor equal to the product of the*

*applicable adjustment factors listed in I, J to calculate the billable volume in Ccf*.

# Notice

Notice of SDG&E AL 3028-G was made by publication in the CPUC’s Daily Calendar. SDG&E states that copies of its Advice Letter were mailed and distributed in accordance with Section IV of General Order 96-B. The AL was suspended on November 30, 2021, and again on March 30, 2022.

# Protests

No protests were filed on SDG&E AL 3028-G.

# Discussion

SDG&E proposes a billing credit program designed to minimize methane emissions by not replacing groups of meters in which 10 percent or more have been statistically tested as running 2-3 percent fast because they may be replaced in the near future with next-generation Smart Meters, if the CPUC approves that program in SDG&E’s 2024 GRC. To mitigate the effect of such fast-running meters on customers’ bills, SDG&E will:

1) Use a meter calibration adjustment factor on customers’ bills rather than replacing the meters, modifying Condition 1 in Resolution. G-2928; and

2) Revise its tariffs.

Meter Calibration Adjustment—Modifying Condition 1 in Resolution G-2928

SDG&E has been sampling meters for accuracy and has found that roughly   
71,000 meters will need to be replaced by June 30, 2023, because this sampling showed that 10 percent or more of the meters tested in these groups were running between   
2 and 3 percent fast. In this proposed meter calibration adjustment program, SDG&E is proposing to provide the meter calibration credit to the entire family of meters that tested fast. Participation in the meter calibration credit program will conclude at the end of the life cycle of the meter families, which is when the unit’s battery and the unit needs to be replaced, or upon replacement with a next-generation Smart Meter, whichever comes first, which will require a visit to every meter. Aligning the replacement of the 71,000 fast meters with SDG&E’s planned next-generation Smart Meter deployment will save both methane emissions that occur when a meter is replaced and CO2 emissions from the vehicle miles travelled to replace the meters. This resolution does not in any way prejudge the outcome of SDG&E’s next-generation Smart Meter replacement program that will be proposed in its 2024 GRC.

The use of a Meter Calibration Adjustment Factor to adjust for minor meter errors instead of replacing such meters that may be replaced by more advanced meters in the foreseeable future is a reasonable solution. Customers in meter groups whose meters may be running 2- 3 percent fast will receive a billing credit of 2 percent, while meters that are running more than 3 percent fast will be replaced to comply with GO 58-A, which does not allow meters to run more than 1 percent fast. SDG&E and ratepayers will save the cost of replacing 71,000 meters with earlier-generation technology that are planned to be replaced with next-generation smart meters, as well as avoiding   
142,000 cubic feet[[12]](#footnote-13) of methane emissions and an estimated 1,134 metric tons of CO2 emissions from 1.1 million vehicle miles travelled to replace the meters. Such reductions are consistent with the intent of the legislature in adopting Senate Bill (SB) 1371 (Leno, 2014), directing the CPUC to reduce methane emissions attributable to California’s natural gas pipelines and infrastructure, and the CPUC’s objectives in approving   
D.17-06-015 which created the Natural Gas Leak Abatement Program consistent with   
SB 1371, as well as with the state’s broader GHG emissions reduction goals.

Tariff Deviations and Revisions

Under Gas Rule 18 (Meter Tests and Adjustments of Bills), if a gas meter is tested and found to be registering fast by more than 2 percent, SDG&E is required to provide a refund to the customer for the known period of gas meter error up to three years.

Not every meter in a meter group is tested under the statistical sampling methods governed by GO 58-A[[13]](#footnote-14). GO 58-A also does not retroactively provide for refunds if the meter is not tested. The deviation SDG&E requests under the proposed meter calibration program is to provide a credit, on a go-forward basis, for each gas meter in the lot/family of failing gas meters registering 2-3 percent fast. This credit would be applied monthly until the meter is replaced, which could exceed three years.[[14]](#footnote-15) To accommodate this deviation, Rule No. 2, Description of Service, would be revised to add new sections describing the meter calibration adjustment factor and how the metered volume is adjusted by a billing factor, as described above.

We note that the new Rule No. 02, Section P language proposed by SDG&E does not include reference to the upper limit of how fast the meter can run, which the utility refers to on page 3 of Advice Letter 3028-G. There it says that the meter calibration adjustment factor would be applied to meters “registering between more than 2% fast and no greater than 3% fast.” To correct this oversight, we add that language (in bold below) to SDG&E’s Gas Rule 18 (Meter Tests and Adjustments of Bills), Rule No. 02, Section P:

P. Meter Calibration Adjustment Factor

*In the cases where meters have failed the Meter Performance Control Program as*

*meters* ***that are running between 2 and 3 percent fast****, a Meter Calibration Factor of 2 percent (2%) will be applied in lieu of removal. This factor shall be applied to all impacted meters within the lot/family and remain in place as long as the meter is left in service without removal.*

To achieve this change, SDG&E shall file a Tier 1 Advice Letter within 30 days of the adoption of this resolution including this change in Gas Rule No. 2.0 Section P.

We also direct SDG&E to not proceed with its replacement by June 30, 2022, of 21,000 gas meters whose meter groups were statistically tested and shown to be running   
2-3 percent fast. This would not be in accord with the objectives of Advice Letter 3028-G to reduce emissions nor the emissions reductions goals of the CPUC and SB 1371 (Leno, 2014).[[15]](#footnote-16) This resolution orders SDG&E to not replace those meter groups whose meters have been statistically tested as running 2-3 percent fast until this resolution is final and to cease removing them if such replacements are already occurring.

**Conclusion**

For the foregoing reasons, we find that these proposed changes are reasonable and in the public interest and further the goals of SB 1371 to reduce emissions from natural gas infrastructure and the State of California’s broader GHG emission reduction goals. A description of the program, the emissions reductions it achieved, and whether it should be expanded, adjusted, or terminated should be included as part of SDG&E’s 2024 Leak Abatement Compliance Plan pursuant to Senate Bill   
(SB) 1371.

# Comments

Public Utilities Code section 311(g)(1) provides that this Resolution must be served on all parties and subject to at least 30 days public review. Any comments are due within 20 days of the date of its mailing and publication on the Commission’s website and in accordance with any instructions accompanying the notice. Section 311(g)(2) provides that this 30-day review period and 20-day comment period may be reduced or waived upon the stipulation of all parties in the proceeding.

The 30-day review and 20-day comment period for the draft of this resolution was neither waived nor reduced. Accordingly, this draft resolution was mailed to parties for comments, and will be placed on the Commission's agenda no earlier than 30 days from today.

# Findings

1. SB 1371 directed the CPUC to reduce methane emissions attributable to California’s natural gas pipelines and infrastructure, and the CPUC adopted D.17-06-015 creating the Natural Gas Leak Abatement Program consistent with SB 1371.
2. D.17-06-015 identified and adopted 26 best practices for the Natural Gas Leak Abatement Program.
3. Resolution G-3538 approved Utility Natural Gas Leak Abatement Program Memorandum and Balancing Accounts. Resolution G-2928 contains Condition 1, which sets requirements for meter replacement.
4. San Diego Gas & Electric’s (SDG&E’s) requested approval to deviate from General Order (GO) 58A-13, SDG&E’s Gas Rule 18, and update Gas Rule 18’s Rule No. 02 in accordance with GO-96B General Rule 5.1 and Energy Industry Rule 5.3(1) and 5.3(5), should be approved, with the clarification noted above, to allow SDG&E to implement a program to allow a 2 percent meter calibration adjustment factor credit to customers rather than requiring meter group changeouts of groups shown to be running 2-3 percent fast, to avoid emissions associated with such changeouts and align with planned deployments of next-generation smart meters.
5. Approval of this request is consistent with the intent of the legislature in enacting   
   SB 1371 and of the objectives of the CPUC in adopting D.17-07-015, as well as with the state’s broader GHG emissions reduction goals.
6. The 2 percent meter calibration adjustment factor shall be applicable until a new factor is derived or the meter is changed.
7. The tariff changes to implement SDG&E’s proposed billing credits for minor meter anomalies in affected groups of meters are consistent with D.17-06-015 and with Resolution G-3538 and should reduce unnecessary methane emissions, in accordance with Senate Bill 1371.
8. This resolution does not in any way prejudge the outcome of SDG&E’s anticipated Smart Meter replacement program that will be filed in its 2024 GRC. If the CPUC does not approve the proposed Smart Meter replacement program in SDG&E’s 2024 GRC, the Meter Calibration Adjustment Factor will continue for meter groups who have been statistically sampled and found to be running 2-3 percent fast, until such time as the meter is replaced.
9. SDG&E should not proceed with its replacement by June 30, 2022, of 21,000 gas meters whose meter groups were statistically tested and shown to be running   
   2-3 percent fast until this resolution is final, and should cease removing them if such replacements are already occurring.

# Therefore it is ordered that:

1. SDG&E’s Advice Letter 3028-G is approved, with the language added in underline to SDG&E’s Gas Rule 18 (Meter Tests and Adjustments of Bills), Rule No. 02, Section P as follows:

*In the cases where meters have failed the Meter Performance Control Program as meters that are running between 2 and 3 percent fast, a Meter Calibration Factor of 2 percent (2%) will be applied in lieu of removal. This factor shall be applied to all impacted meters within the lot/family and remain in place as long as the meter is left in service without removal.*

To implement this change, SDG&E shall file a Tier 1 Advice Letter within 30 days of the adoption of this resolution including this ordered change in its Gas Rule 18,   
No. 02 and any further details of its implementation.

1. In order to achieve the emissions reductions projected by AL 3028-G as the objective of the meter calibration adjustment mechanism and Senate Bill 1371 (Leno, 2014), this resolution orders SDG&E to not replace those meter groups whose meters have been statistically tested as running 2-3 percent fast until this resolution is final, and to cease removing them if such replacements are already occurring.
2. SDG&E shall include an evaluation of the methane and CO2 emissions reductions that were actually achieved from the use of the meter calibration adjustment factor in lieu of meter replacements in its 2024 Leak Abatement Compliance Plan pursuant to Senate Bill (SB) 1371.

This Resolution is effective today.

I certify that the foregoing resolution was duly introduced, passed, and adopted at a conference of the Public Utilities Commission of the State of California held on   
August 4, 2022; the following Commissioners voting favorably thereon:

Rachel Peterson

Executive Director

1. A “fast” gas meter is recording more gas being consumed than was actually consumed. [↑](#footnote-ref-2)
2. Each gas meter is estimated to emit two cubic feet of methane during replacement, and CO2 for vehicle miles travelled to replace the meters will also be avoided. [↑](#footnote-ref-3)
3. 2020 SDGE Meter Performance Report & Expected 2021 SDG&E MPR filed in accordance with GO 58-A. [↑](#footnote-ref-4)
4. A meter family or lot is created when a set of new like-kind meters are installed in any given year. [↑](#footnote-ref-5)
5. SDGE Annual Meter Performance Report Pg. 5 Section 3 Performance Standards

   and Probability Decision Curves. [↑](#footnote-ref-6)
6. Actual number of meters subject to removal is 70,999. [↑](#footnote-ref-7)
7. 2020 SDGE Meter Performance Report & Expected 2021 SDGE MPR. [↑](#footnote-ref-8)
8. SoCalGas Resolution G-3558, December 23, 2019. [↑](#footnote-ref-9)
9. SDG&E, 2020 Gas Meter Performance Control Results, February 26, 2021. [↑](#footnote-ref-10)
10. Gas meters are replaced for a variety of reasons, including battery failure, leakage, running more than   
    3 percent fast, etc. [↑](#footnote-ref-11)
11. Meters that are running more than 3 percent fast will be replaced, in accordance with GO 58-A,   
    Section 12. [↑](#footnote-ref-12)
12. Based on SDG&E’s estimate of 2 cf released per meter replacement. [↑](#footnote-ref-13)
13. GO 58-A, Standards for Gas Service in the State of California, Section 14. [↑](#footnote-ref-14)
14. In a May 24, 2022 email response to Energy Division staff’s questions, SDG&E confirmed that meters that were tested and found to be running fast were replaced and a refund was issued to customers in accordance with Rule 18, Section 1B. The Meter Calibration Adjustment would apply only to meters that were *not* directly tested but are assumed to be statistically likely to be running 2-3 percent fast based on the sample from the same meter family that was directly tested. [↑](#footnote-ref-15)
15. The CPUC implemented the directives of SB 1371 through D. 17-06-015, which established best practices and reporting requirements for the gas utilities’ Natural Gas Leak Abatement program and D.19-02-020, the Second Phase Decision Approving Natural Gas Leak Abatement Programs Consistent with Senate Bills SB 1371 and 1383. [↑](#footnote-ref-16)