Application No.: 17-06-006
Exhibit No.:
Witness: Monica Chihwaro
Date: October 24, 2017

SAN DIEGO GAS & ELECTRIC COMPANY

PREPARED REBUTTAL TESTIMONY OF

MONICA CHIHWARO

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

October 24, 2017

#317683

TABLE OF CONTENTS

PREPARED REBUTTAL TESTIMONY OF

MONICA CHIHWARO

ON BEHALF OF SDG&E

I. INTRODUCTION

The purpose of my testimony is to explain SDG&E's Weighted Average Cost (WAC) calculation, how SDG&E's methodology for calculating the WAC comports both with well-established accounting standards and Commission Decision (D.) 14-10-033, as corrected by D.15-01-024.[1] SDG&E has reviewed ORA's September 28, 2017 testimony related to the WAC calculation and disagrees with ORA that SDG&E did not follow the applicable requirements.

In separate prepared rebuttal testimony submitted by Ana Garza-Beutz, SDG&E addresses ORA's specific objections, whereas my testimony focuses on SDG&E's accounting obligations which SDG&E views to be consistent with the methodologies dictated by D.15-01-024, Attachment C.

II. ACCOUNTING FOR GHG COMPLIANCE INSTRUMENTS

A. SDG&E's Calculation of Its Weighted Average Costs or "WAC" of Its Compliance Instrument Inventory

SDG&E values the inventory and cost of compliance instruments based on a WAC calculation; each unit of compliance instrument is based upon the average cost of all compliance instruments bought and able to be used to satisfy the emissions expense.

The WAC calculation is a simple formula: the total cost of eligible compliance instruments in inventory divided by the number of eligible compliance instruments in inventory. To provide a simple example, if SDG&E bought 10 allowances at $20/MT and 10 allowances at

[1] In this testimony D.15-01-024 should be understood to correct D.14-10-033 and to include Attachment C.

$30/MT, the weighted average cost of the allowances in the inventory would be $25/MT (i.e., (10 * $20/MT) + (10 * $30/MT) = $500, divided by the 20 allowances total for a WAC of $25/MT).

SDG&E's WAC calculation is an acceptable inventory cost methodology under Generally Accepted Accounting Principles in the United States ("GAAP") and complies with D.14-10-033, as corrected by D.15-01-024. SDG&E applies GAAP requirements to the accounting instructions in these decisions, including Attachment C which details the process by which the Commission provided accounting instructions for the calculation of the WAC.[2]

SDG&E practices accrual based accounting, by which the WAC calculation is an acceptable inventory cost methodology, as supported by PricewaterhouseCooper's (PwC) Guide to Accounting for Utilities and Power Companies.[3]

The accrual concept is the most fundamental principle of accounting which requires recording revenues when they are earned and not when they are received in cash, and recording expenses when they are incurred and not when they are paid. GAAP allows preparation of financial statements on accrual basis only (and not on cash basis). Under the accrual concept, revenues and expenses are recorded in the period to which they relate and not when they are received or paid. Application of the accrual concept results in accurate reporting of net income, assets, liabilities and retained earnings which improves analysis of the company's financial performance and financial position over different periods.

[2] Attachment 1: Attachment C ("Attachment C").
[3] 2016 PwC Guide to Accounting for Utilities and Power Companies, Section 6.6, *Accounting for Compliance with Emission Allowance Programs*.

As it relates to the WAC calculation, the accrual basis of accounting requires that compliance instruments are removed from inventory as the obligation is incurred, which is monthly.

In order to calculate the inventory value, Attachment C requires the utility to utilize **eligible** compliance instruments.[4] Those credits that have been previously committed are no longer **eligible** or available to remain in the pool, as dictated in the accrual concept above.

Attachment C of D.15-01-024 states:

> Each month, a utility records its GHG costs to its respective balancing account. These costs are calculated as the weighted average cost (WAC) of compliance instruments held in inventory at the end of a month multiplied by the quantity of emissions generated in that month for which the utility has the physical compliance obligation. [5]

And further refines the WAC definition on page 4:

> "WAC" is the weighted average cost of all compliance instruments held in inventory that are **eligible** for that cap-and-trade compliance period.[6]

And directs utilities to use Template C:

> Each utility will use Template C to develop a calculation for each applicable compliance period.[7]

SDG&E's use and application of the WAC calculation, including a monthly reduction of compliance instruments from inventory to ensure the WAC pool contains only eligible compliance instruments, is consistent and in compliance with both GAAP and D.15-01-024.

[4] Attachment 1 at 4 defines "WAC" as "the weighted average cost of all compliance instruments held in inventory that are **eligible** for that cap-and-trade compliance period.".
[5] Attachment 1 at 1.
[6] Attachment 1 at 4.
[7] Attachment 1 at 4.

B. SDG&E's Inventory Accounting for Its Compliance Instrument Inventory

SDG&E values the compliance instrument as inventory, measuring each compliance instrument using a WAC calculation. The WAC per unit is the division of the total cost of compliance instruments in inventory at the end of a reporting period divided by the number of compliance instruments available for use. As SDG&E procures compliance instruments, this increases the total inventory quantity and the inventory balance, resulting in a recalculation of WAC. If SDG&E sells compliance instruments, the total inventory quantity and inventory balance is decreased. Similarly, because SDG&E charges ratepayers for its monthly emissions, the total inventory quantity and inventory balance is decreased. The WAC calculation is further described and supported in Section A above.

GAAP requires matching between recognizing the monthly emissions and costs in SDG&E's Energy Resource Recovery Account (ERRA) and the monthly reduction of inventory. Not properly matching the emissions and costs with the reduction of inventory monthly would distort the true value of the compliance instruments. In fact, because of the compounding effect of repeatedly accounting for the same instruments, the true value of the compliance instruments would be further distorted, rendering the objective of the calculation meaningless.

GAAP defines a liability as a "probable future sacrifice of economic benefits arising from present obligations."[8] In other words, the utility must have incurred some minimum obligation and no longer has discretion, such as flexible compliance, to avoid a payment of cash or other asset. GAAP defines an asset as, "probable future economic benefits obtained or controlled by a particular entity as a result of past transactions or events."[9] Once the utility expenses the cost of

[8] Statement of Financial Accounting Concepts No. 6, Financial Accounting Standards Board, *available at*: http://www.fasb.org/resources/ccurl/792/293/CON6.pdf.
[9] *Id.*

the compliance instruments, on a monthly basis, as required by GAAP and Attachment C, those compliance instruments are no longer considered an asset and are not **eligible** to be included in inventory. Therefore, the compliance instruments should be removed from the WAC calculation.

SDG&E followed the preceding GAAP requirements, as well as D.15-01-024, which instructs SDG&E to record "[w]hen a utility sells, transfers, surrenders, or otherwise removes compliance instruments from its inventory.…"[10]

C. SDG&E's Recording of Its GHG Compliance Instrument Costs Complies Fully with D.15-01-024 and GAAP

SDG&E's recording of GHG compliance instrument costs into ERRA has been and continues to be in accordance with GAAP, whereby the costs are recorded and accrued in the period in which they are incurred. At the end of the month, SDG&E records costs on an accrual basis and records that amount in the ERRA balancing account in accordance to D.15-01-024. Costs are recorded as the quantity of GHG emissions, multiplied by the WAC of SDG&E's compliance instrument inventory. The compliance instrument inventory is reduced monthly by the emissions obligation incurred during the month. This is consistent with GAAP's accrual principle for recognizing expense as the obligation arises, and also compliant with D.15-01-024.

This concludes my prepared rebuttal testimony.

[10] Attachment 1 at 2 (emphasis added).

III. WITNESS QUALIFICATIONS

My name is Monica V. Chihwaro. My business address is 488 8th Avenue, San Diego, California, 92101. I am employed by SDG&E as a Financial Accounting Manager in their Utility Accounting Department. My responsibilities include reviewing journal entries recorded to prepare financial statements, which include GHG-related accounts. I joined SDG&E in July 1996, and since that time, I have held various positions within Sempra Energy companies, including Corporate Development Manager, Audit Services Manager, and Financial Reporting Manager at Sempra Energy. I rejoined SDG&E in November 2013. I received a Bachelor of Science degree in Business Administration with an emphasis in Accounting from San Diego State University. I am also a Certified Public Accountant licensed in the state of California.

Attachment 1:

Attachment C of D.15-01-024

ATTACHMENT C

Calculation of Weighted Average Cost of Compliance Instruments

A utility's recorded direct costs include two variables: emissions and costs of compliance instruments. Recorded year direct greenhouse gas (GHG) costs represent the actual costs for utility owned generation, imports, tolls and other contracts for which the utility has responsibility for Cap-and-Trade costs.

Each month, a utility records its GHG costs to its respective balancing account. These costs are calculated as the weighted average cost (WAC) of compliance instruments held in inventory at the end of a month multiplied by the quantity of emissions generated in that month for which the utility has a physical compliance obligation. For financially settled tolling agreements that a utility records as a direct cost, these direct GHG costs should be based on actual contract settlement, not on the WAC. The recorded direct costs for the year are the sum of the monthly GHG expense entries for the year.

Under California's Cap-and-Trade Program, a covered entity must surrender one compliance instrument (an allowance or an offset) for each metric ton of GHG emissions. Allowances are designated with a vintage year. An entity may bank allowances from previous vintage years, but not borrow from future vintage years, to meet a compliance obligation. For example, if a utility holds a vintage year 2013 allowance in its inventory, it can surrender the allowance to meet its 2013 obligation, or bank the allowance to surrender in future years.

There are no restrictions on which vintage year of offsets a utility can use to meet a compliance obligation.[7]

When a utility purchases or otherwise receives compliance instruments, it records:

- Transaction Date;
- Transaction Type (purchase, sale, etc.);
- Vintage (if applicable);
- Quantity of compliance instruments for transaction;
- Cost per compliance instrument for transaction;
- Total Cost of compliance instruments for this transaction calculated as the quantity multiplied by the cost;
- Inventory Balance in dollars;
- Total Quantity of compliance instruments in inventory; and
- WAC of all compliance instruments to date.

When a utility sells, transfers, surrenders, or otherwise removes compliance instruments from its inventory, it records:

- Transaction Date;
- Transaction Type (purchase, sale, etc.);
- Vintage (if applicable);
- Quantity of compliance instruments for transaction;
- Sales price for transaction;

[7] ARB. Regulatory Guidance Document, Chapter 3. April 2013. http://www.arb.ca.gov/cc/capandtrade/guidance/20130419%20Guidance%20Document%20Ch%203%20posting.pdf.

- Total Cost calculated as quantity of compliance instruments for transaction multiplied by the current WAC;
- Inventory Balance in dollars; and
- Total Quantity of compliance instruments in inventory; and
- WAC of all eligible compliance instruments to date.

When a utility calculates the WAC of compliance instruments in inventory, it should consider all compliance instruments in its inventory that are valid for the current compliance period. Specifically, the calculation shall include all ARB Offsets, and allowances with a vintage year equal to or prior to the recorded year. For example, in recording 2014 costs, a utility shall calculate its WAC based on its inventory of all ARB Offsets and allowances with vintage years 2013 and 2014.

When a utility purchases compliance instruments, it holds these environmental assets in inventory at the purchase price. When a utility procures additional compliance instruments, its inventory increases and its WAC might change. At any period of time, the WAC is calculated as the total cost of all compliance instruments held in inventory, divided by the total quantity of compliance instruments.

For purposes of the WAC calculation, when compliance instruments are sold, transferred, or surrendered, they are taken out of inventory at the WAC; these transactions do not change the WAC of the remaining compliance instruments held in inventory. If the compliance instruments are sold at a higher (lower) price than the WAC, the utility will record a gain (loss) on the sale. For WAC calculation purposes, allowances remain on the balance sheets as inventory (current or noncurrent) until surrendered to ARB. When allowances are

surrendered to ARB, the balance sheet will be reduced by the number of allowances surrendered to ARB.

When the WAC is calculated at the end of the month, a utility will calculate recorded direct costs for the month as follows:

$$D\quad G\quad C\quad {}_{m}\quad {}_{h} = W\quad \times D\quad E\quad Q\quad {}_{m}\quad {}_{h}$$

Where:

"WAC" is the weighted average cost of all compliance instruments held in inventory that are eligible for that cap-and-trade compliance period.

"Direct Emissions Quantity" is the direct emissions for the entire month calculated in accordance with ARB standards, regardless of whether compliance instruments have been surrendered for these emissions. The emissions quantity is updated on at least a quarterly basis based on best available information. Emissions from financially settled tolling agreements should not be included in Direct Emissions Quantity for purposes of this calculation.

For example, when recording 2014 costs a utility shall calculate its WAC based on its inventory of all ARB Offsets and allowances with vintage years 2013 and 2014. Any allowances with vintage year 2015 will not be calculated in the WAC used for recording 2014 costs since the second compliance year begins in 2015. When recording 2015 costs, a utility shall calculate its WAC based on its inventory of all offsets and allowances with vintage years 2015, 2016 and 2017, plus any 2013 or 2014 allowances or offsets not used to meet its obligation in the first compliance period.

When a utility files its GHG Forecast Revenue and Reconciliation Application, it shall use Template C to show its WAC calculations. Each utility will use Template C to develop a calculation worksheet for each applicable compliance period. The application should also show a calculation of direct costs

based on the WAC formula above. This calculation of recorded direct costs should match the emissions expenses in the utility's balancing accounts. GHG emissions from financially settled tolling agreements should NOT be included in this calculation.

If the Total Quantity in Inventory at the end of a month is equal to zero, the utility shall use the most recent ARB allowance auction clearing price instead of the WAC to calculate that month's emissions cost. The utility will record this number in place of the "End of Month WAC" to calculate that month's costs.

Template C: Reporting Template to Calculate Weighted Average Cost of Compliance Instruments

Month	Transaction Date	Transaction Type	Quantity	Cost ($/MT)	Sales Price ($)	Total Cost ($)	Inventory Balance ($)	Total Qty in Inventory	WAC ($)

For tolling agreements with financial settlements, the following alternative calculation may be used:

Direct Cost = Settlement Price x Emissions Quantity

Where:

"Settlement Price" is the unit price at which the utility will financially compensate its tolling counterparty for GHG (usually the ARB Auction Clearing Price); and

"Emissions Quantity" is the emissions obligation for the entire month calculated in accordance with the tolling agreement.

The WAC inventory table and the resulting WAC calculation are confidential.

(END OF ATTACHMENT C)