OFFICE OF RATEPAYER ADVOCATES
CALIFORNIA PUBLIC UTILITIES COMMISSION

Report on the Results of Operations for San Diego Gas & Electric Company Southern California Gas Company Test Year 2019 General Rate Case

Depreciation

San Francisco, California
April 13, 2018

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1 **DEPRECIATION**

2 **I.   INTRODUCTION**

3   This exhibit presents the analyses and recommendations of the Office of

4 Ratepayer Advocates (ORA) regarding the Depreciation Expense and Reserve

5 proposals of San Diego Gas & Electric Company (SDG&E) and Southern California

6 Gas Company (SCG or SoCalGas) for Test Year (TY) 2019.

7   Depreciation is the ratemaking mechanism that allocates the original cost of

8 capital investments for recovery over the useful life of each asset. Depreciation

9 expense is related to the magnitude of the company's plant-in-service. As new plant

10 is placed in service, the level of depreciation concomitantly increases.

11   For purposes of this exhibit, *amortization* refers to the analogous ratemaking

12 mechanism for non-depreciable plant, such as software and land rights. The

13 depreciation and amortization expenses and reserve balances for the test year are

14 calculated in the Results of Operations (RO) model, which incorporates estimated

15 expenses based on net plant addition forecasts and automatically calculates the

16 reserve requirement for the test year.

17 **II.   OVERVIEW OF REQUESTS**

18   **A. SDG&E**

19   SDG&E proposes a TY 2019 depreciation expense of $560 million and a

20 depreciation reserve of $5.718 billion.[1] These proposals include changes to the

21 average service lives and net salvage rates of various plant accounts. SDG&E's

22 proposed net salvage forecast would increase by $1.456 billion (28%) over the life of

23 the assets, excluding additional net salvage associated with plant additions.[2] This

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[1] Ex. SDGE-34-R, p. MCV-2 et seq.

[2] Ex. SDG&E-34-WP-R "Depreciation Model Rates 2," Tab "SDGE-34-WP-3," Cell N154. These
forecasted amounts are based upon SDG&E's reported 2016 year-end recorded gross plant. These
                       (continued on next page)

1   increase is driven by SDG&E's proposals to lower various account-level net salvage

2   rates by 25%, consistent with Commission precedent that limits changes in net

3   salvage rates over a given general rate case (GRC) cycle.[3]

4   **B. SoCalGas**

5   SoCalGas proposes a TY 2019 depreciation expense of $607 million and a

6   depreciation reserve of $8.08 billion.[4] These proposals reflect changes to certain

7   average service lives and net salvage rates. In general, these proposals include

8   partially offsetting requests to extend certain average service lives and to increase

9   certain net salvage rates. SoCalGas's proposed net salvage forecast would

10 increase by $405 million (5%) over the life of the assets, excluding additional net

11 salvage associated with plant additions.[5]

12 **III.   SUMMARY OF RECOMMENDATIONS**

13   **A. SDG&E**

14   Table 27-1, below, provides a comparison of ORA's recommended

15 parameters to SDG&E's proposed parameters for those accounts with different

16 forecasts.

17

(continued from previous page)

amounts are presented for reference, as the actual collection of pre-funded net salvage will vary with plant growth and authorized net salvage rates.

[3] See discussion of gradualism in net salvage changes in D.14-08-032 at p. 598.

[4] Ex. SCG-36-R, page FN-1.

[5] Ex. SCG-36-WP-R, p. 3 et seq. These forecasted amounts are based upon SoCalGas's reported 2016 year-end recorded gross plant. These amounts are presented for reference, as the actual collection of pre-funded net salvage will vary with plant growth and authorized net salvage rates.

	SDG&E Proposed (a)	ORA Recommended (b)	SDG&E > ORA (c) = (a)–(b)
Composite Depreciation Rate			
Desert Star Energy Ctr. (DSEC)	5.5699%	4.2687%	1.3012%
Wind Energy Projects (WEP)	10.3190%	5.9413%	4.3777%
E370.10 (Legacy Meters)	5.3210%	2.0112%	3.3098%
E370.20 (Legacy Meter Installs.)	5.2412%	2.0417%	3.1995%
Net Salvage Rates			
E365 (OH Cond. & Devices)	(70)%	(65)%	(5)%
E366 (UG Conduit)	(75)%	(65)%	(10)%
E367 (UG Cond. & Devices)	(90)%	(80)%	(10)%
E368.2 (Capacitors)	(95)%	(80)%	(15)%
E371 (Inst. On Cust. Premises)	(106.25)%	(65)%	(41.25)%
E373.2 (Street Lt. & Signal Sys.)	(110)%	(85)%	(25)%

1　　　　　　　　　　　　　**Table 27-1**
2　　**Comparison of ORA Recommended to SDG&E Proposed Depreciation Parameters**
3　　　　　　　　　　　　　**Test Year 2019**

4　　　　The following summarizes ORA's recommendations regarding SDG&E's

5　depreciation proposals:

6　　　　• ORA opposes SDG&E's proposed increase of the depreciation rate
7　　　　　of the Desert Star Energy Center (DSEC). ORA recommends the
8　　　　　Commission adopt a composite depreciation rate of 4.2687%;

9　　　　• ORA recommends maintaining the current survivor curve of SQ-20
10　　　　for SDG&E's Wind Energy Project (WEP), in contrast to SDG&E's
11　　　　proposed survivor curve of S5-13;

12　　　　• ORA recommends maintaining the current survivor curve of R0.5-
13　　　　48 for Account 370.10 (Legacy Meters) and Account 370.20
14　　　　(Legacy Meter Installations), in contrast to SDG&E's proposed
15　　　　survivor curve of O2-19 5/12;

1   •   ORA recommends a net salvage rate of negative 65% for Account
2   E365 (Overhead Conductors and Devices), in contrast to SDG&E's
3   proposed net salvage rate of negative 70%;

4   •   ORA recommends a net salvage rate of negative 65% for Account
5   E366 (Underground Conduit), in contrast to SDG&E's proposed net
6   salvage rate of negative 75%;

7   •   ORA recommends a net salvage rate of negative 80% for Account
8   E367 (Underground Conductors and Devices), in contrast to
9   SDG&E's proposed net salvage rate of negative 90%;

10   •   ORA recommends a net salvage rate of negative 80% for Account
11   E368.2 (Capacitors), in contrast to SDG&E's proposed net salvage
12   rate of negative 95%.

13   •   ORA recommends a net salvage rate of negative 65% for Account
14   E371 (Installations on Customers' Premises), in contrast to
15   SDG&E's proposed net salvage rate of negative 106.25%.

16   •   ORA recommends maintaining the current net salvage rate of
17   negative 85% for Account E373.20 (Street Lighting and Signal
18   Systems), in contrast to SDG&E's proposed net salvage rate of
19   negative 110%.

B. SoCalGas

21   ORA has reviewed SoCalGas's proposed depreciation and amortization

22 parameters. At this time, ORA does not take issue with SoCalGas's proposed

23 parameters. Differences in ORA's recommended depreciation and amortization

24 expenses and reserves follow from recommendations made by ORA's capital

25 witnesses.

IV.   TERMINOLOGY

27   In most instances, the cost of removal of plant exceeds its gross salvage

28 value. As a result, most net salvage rates are negative. However, some accounts

29 do exhibit positive net salvage rates. To avoid confusion, this exhibit defines words

30 such as "increased" or "greater" to reflect changes in absolute magnitude – that is,

31 distance from zero, whether positive or negative. When the parameter in question is

32 negative, ORA includes a clarifying parenthetical, such as, "The proposed net

33 salvage rate is higher (more negative)."

V. BACKGROUND

In general, a utility recovers both the original cost of a capital investment and its end-of-life net salvage value by claiming annual depreciation[6] accruals over the useful life of the asset. This conventional ratemaking mechanism allocates the cost of plant to ratepayers over its estimated useful life. Depreciation also provides for the ongoing loss of an asset's service value that cannot be avoided by maintenance. Such loss may be caused by wear and tear, obsolescence, regulatory requirement, or other factors. The FERC defines depreciation in 18 Code of Federal Regulations (CFR), Part 101:

> *Depreciation, as applied to depreciable electric plant, means the loss in service value not restored by current maintenance, incurred in connection with the consumption or prospective retirement of electric plant in the course of service from causes which are known to be in current operation and against which the utility is not protected by insurance. Among the causes to be given consideration are wear and tear, decay, action of the elements, inadequacy, obsolescence, changes in the art, changes in demand and requirements of public authorities.*

The guidelines set forth in the Commission's Standard Practice (SP) U-4, *Determination of Straight-Line Remaining Life Depreciation Accruals*, establish the following depreciation expense formula:

$$Depreciation\ expense = \frac{original\ cost - depreciation\ reserve - net\ salvage}{Remaining\ life\ of\ asset}$$

Where*:*

- *Original cost* refers to the gross dollar value of plant in service;
- *Depreciation reserve* refers to the account within which the annual depreciation expenses accumulate;

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[6] For purposes of this exhibit, *depreciation* includes the amortization of non-depreciable plant, such as land rights and software assets.

1   • *Net salvage* refers to the gross salvage value of plant at the end of its
2   life, less the cost of its removal.

3   The level of depreciation expense is a function of the amount of plant in

4 service (i.e., recorded gross plant). The level of depreciation expense increases to

5 incorporate the depreciation of new plant that has been placed into service, and it

6 declines as plant is retired. The level of depreciation expense is also a function of

7 the depreciation parameters that a utility claims for each mass property account.

8 These parameters include an average service life,[7] a survivor curve type,[8] and a net

9 salvage rate.[9] These parameters inform the calculation of the expected remaining

10 life of plant. The company collects the total depreciable sum of the original cost of

11 plant and its future net salvage over this estimated remaining life.

12   Depreciation expenses do not escalate over time. Rather, depreciation

13 accruals are calculated in nominal terms, based upon depreciation rates adopted by

14 the Commission in each GRC. Depreciation rates remain in effect during the

15 pendency of each GRC cycle and apply to capital additions upon placement into

16 service.

17   The depreciation expense and reserve proposals of SDG&E and SoCalGas

18 incorporate the companies' capital additions forecasts as well as their proposed

19 depreciation parameter changes. This exhibit addresses ORA's analysis and

20 recommendations that pertain to the proposed depreciation parameters of SDG&E

21 and SoCalGas. This exhibit does not address differences in ORA's recommended

22 capital additions from the forecasts of SDG&E and SoCalGas, although these

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[7] The average service life is the expected lifespan of a unit of plant at the time it is placed into service. It estimates the mean useful life achieved by plant, over which time it will become fully depreciated.

[8] The survivor curve type is drawn from the commonly used Iowa curve system, which was developed at the Iowa Engineering Experiment Station of Iowa State University, based on observations of the retirement behavior of industrial property. The Iowa curves categorize plant according to the location of the modal age at retirement relative to the average age at retirement and to the dispersion of retirements around the mode.

[9] Net salvage refers the difference of gross salvage value less cost of removal. A net salvage rate (percentage) is applied to the amount of plant in service to provide for any forecasted net salvage value in the calculation of the depreciation expense.

1   differences are responsible for a large share of differences in ORA's recommended

2   depreciation expense and reserve amounts.

3   The Results of Operations (RO) Model incorporates the recommendations of

4   ORA's capital additions witnesses, as well as the recommendations contained in this

5   exhibit. The RO Model supplies the summarized depreciation expense and reserve

6   amounts presented in this exhibit.

1   **PART I: SAN DIEGO GAS & ELECTRIC**

2   **I.   AVERAGE SERVICE LIVES**

3   **A. Electric Production Plant**

4   **1. Desert Star Energy Center (DSEC)**

5   SDG&E proposes to change the decommissioning date of the DSEC from

6   mid-2029 to mid-2026.[10] This would reduce the remaining life of the DSEC by 3.17

7   years. SDG&E proposes to increase the composite depreciation rate of the DSEC

8   from 4.4094% to 5.5699% in order to re-allocate the original depreciation accruals of

9   those 3.17 years across the reduced remaining life of the DSEC and to incorporate a

10 new net salvage forecast. ORA accepts SDG&E's net salvage forecast and the

11 proposed 3.17-year lifespan reduction of the DSEC but opposes the recovery of the

12 depreciation expenses for those 3.17 years. ORA recommends maintaining the

13 current life rate[11] of the DSEC. Including SDG&E's net salvage forecast, this results

14 in a composite depreciation rate of 4.2687%.

15   SDG&E states that its proposed lifespan reduction of 3.17 years is a

16 consequence of its 2017 "review of the DSEC lease."[12] The terms of the DSEC site

17 lease that SDG&E holds with the City of Boulder City, Nevada, provide for an

18 original lease period of twenty years, with the possibility of two consecutive five-year

19 extensions.[13] The lease became effective as of April 30, 1997, and will expire in

20 April 2027, assuming the invocation of both extensions. The lease also requires the

21 removal of most improvements within 180 days of the expiration of the lease.

22 SDG&E states that it would need to begin decommissioning activities by mid-2026 in

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[10] Ex. SDG&E-34, p. MCV-17, line 6.

[11] "Life rate" refers to the difference of the depreciation rate and its net salvage component.

[12] Ibid., line 4.

[13] SDG&E response to data request ORA-SDGE-052-CL8, Attachment 1.

1 order to meet this deadline.[14] SDG&E has not previously used this timeline to

2 estimate depreciation parameters for the DSEC.

3   In Resolution (Res.) E-4465, issued August 3, 2012, the Commission

4 approved SDG&E's Advice Letter (AL) 2292-E, which provided updated depreciation

5 expenses and other revenue requirements for the purchase of the DSEC. However,

6 SDG&E did not use the site lease duration to estimate the remaining life of the

7 DSEC for purposes of its depreciation calculation. SDG&E confirms that "the

8 revenue requirements approved in Resolution E-4465 did not consider the lease

9 terms" with respect to the correct decommissioning date.[15] In using the incorrect

10 date, SDG&E utilized depreciation rates for the DSEC that were lower than they

11 should have been, relative to the actual remaining life of the DSEC.

12   The depreciation of the DSEC was specifically examined in the review of

13 Advice Letter (AL) 2292-E. Deloitte and Touche conducted an independent audit of

14 the balance sheet of the DSEC, which formed the basis of the Commission's

15 approval of AL 2292-E.[16],[17] The audit report specified that "[d]epreciation is

16 computed using the straight-line method over the assets' estimated original

17 composite useful life *or the remaining term of the site lease, whichever is less*

18 [emphasis added]."[18] Res. E-4465 acknowledged this specific finding in its

19 description of the audit report.[19] The audit report also noted the depreciation

20 practices of the plant's previous owner, El Dorado Energy, LLC, which was then

21 wholly owned by Sempra Energy Power I: "The Company has determined that the

22 useful life of the asset to be [*sic*] the period from which the assets are placed into

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[14] SDG&E response to data request ORA-SDGE-052-CL8, Question 2(h).

[15] Ibid., Question 2(g).

[16] Res. E-4465, p. 19, Findings and Conclusions No. 17.

[17] Ibid., Findings and Conclusions No. 19.

[18] Deloitte & Touche LLP, *El Dorado Energy, LLC (wholly owned subsidiary of Sempra Energy Power I) Balance Sheet as of September 30, 2011 and Independent Auditors' Report*, p. 4.

[19] Res. E-4465, p. 12, citing to ibid.

9

1   service, to the date at which the lease agreement of the land on which the assets

2   are located terminates or cancels, or 27 years."[20] El Dorado Energy, LLC, was

3   depreciating the DSEC according to a 27-year lifespan, not a 30-year lifespan, due

4   to the lease terms. That 27-year lifespan corresponds to the period between mid-

5   2000, when the DSEC began commercial operation, and the correct lease expiration

6   date of mid-2027.

7   SDG&E currently utilizes depreciation rates for the DSEC that are based

8   upon the later date of mid-2029. It has used these depreciation rates ever since

9   assuming ownership of the DSEC in October 2011, for a total of six and one-half

10   years. During this time, SDG&E did not bring its mistaken depreciation parameters

11   to the attention of the Commission for rectification, despite opportunities to do so.[21]

12   In its 2016 GRC, SDG&E submitted testimony arguing that "the end-life is forecasted

13   at 29 years of operation (i.e. 30 years less the final year needed for

14   decommissioning) and is currently set for the year 2029 using the SQ Iowa curve.

15   Because it is still early in its life cycle, not enough historical information is available

16   to deviate from this proposed end-life."[22] This position is inconsistent with the

17   various sources of historical information described in the previous paragraph,

18   including the terms of the DSEC site lease, the report of the independent auditor that

19   examined the balance sheet of the DSEC at the time of its sale to SDG&E, and the

20   depreciation practices of El Dorado Energy, LLC.

21   SDG&E failed to conduct basic due diligence in its purchase of a major asset,

22   the DSEC. During the subsequent six years, SDG&E failed to rectify its mistaken

23   depreciation rates. In this GRC, SDG&E offers the justification that it did not

24   correctly read the terms of the DSEC site lease until 2017.[23]

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[20] Ibid., p. 4.

[21] SDG&E response to data request ORA-SDGE-052-CL8, Question 2(e).

[22] A.14-11-003, Ex. SDG&E-28-R, p. BJW-25, lines 18-21.

[23] Ibid., Question 2(f).

1   ORA recommends that the Commission deny SDG&E the recovery of the

2   final 3.17 years of currently scheduled depreciation accruals. Ratepayers should not

3   bear the costs of SDG&E's failure. Because ORA accepts the lifespan reduction of

4   3.17 years, ORA's recommendation is to maintain the current composite life rate for

5   the DSEC and to adopt SDG&E's proposed mid-2026 decommissioning date. As a

6   result, ratepayers will not fund the depreciation accruals that are currently scheduled

7   for the final 3.17 years of the (incorrect) DSEC lifespan. ORA estimates that this

8   amount comprises approximately $41.069 million in total, exclusive of net salvage.[24]

9   For net salvage, ORA does not take issue with the net salvage allocations

10   presented in the decommissioning study conducted by Sargent & Lundy, LLC.

11   However, the study does not contemplate the reduction in remaining life by 3.17

12   years. To account for this, ORA recommends that the Commission reduce the

13   composite future net salvage rate for the DSEC from 2.8979% to 2.6714%. This will

14   recognize 3.17 years of escalation, based on an average annual rate of 2.6%. This

15   average annual rate is the average percentage change in the Labor O&M Index

16   proposed by SDG&E.[25] It is also the average change in nominal construction

17   wages during the period from 1983 to 2017.[26] For a discussion of the

18   appropriateness of using labor escalation factors or nominal wage growth to proxy

19   net salvage, please see Part I: San Diego Gas & Electric, Section II (Net Salvage

20   Rates).

21   The currently authorized depreciation rate for the DSEC is 4.4094%. This

22   includes a life rate of 4.1587% and a composite net salvage rate of 6.0295%. ORA

23   recommends a composite depreciation rate for the DSEC of 4.2697%, which

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[24] $(\$311,533,882) \left(\frac{\$311,533,882}{\$311,533,882+18,783,975}\right) \left(\frac{4.4094\%}{year}\right) (3.17\ years) = \$41,069,298$

[25] Ex. SDGE-39, p. SRW-5, Table SRW-2.

[26] Economic Research Division, Federal Reserve Bank of St. Louis, Series CES2000000008_PC1, "Average Hourly Earnings of Production and Nonsupervisory Employees: Construction, Percent Change from Year Ago, Annual, Seasonally Adjusted," available at https://fred.stlouisfed.org.

1   incorporates the current composite life rate of 4.1587% and the updated composite

2   net salvage rate of 2.6714%.

3   **2. Wind Energy Project (WEP)**

4   SDG&E proposes to change the survivor curve for its Wind Energy Project

5   (WEP) from SQ-20 to S5-13. ORA recommends maintaining the current S5-13

6   survivor curve. SDG&E states that this will "align more closely with equipment-

7   failure curves suggestive of inherent risk potential," and that the new curve "is

8   representative of a theoretical maximum life similar to that of the SQ-20," the current

9   curve.[27] SDG&E's proposal would result in a composite depreciation rate of

10   10.3190% compared to the currently authorized rate of 5.0322%. ORA recommends

11   5.9413%, which reflects the incorporation of SDG&E's proposed net salvage rate

12   and the current life rate.

13   The current SQ-20 curve ascribes a minimum, average, and maximum life of

14   20 years to all units of plant. The "theoretical maximum life" is also the minimum

15   and average, as all units are ascribed the same lifespan. Square curves are

16   generally appropriate curves for assets that depreciate as one entire unit. By

17   proposing to switch to the S5 survivor curve type, SDG&E indicates that it does not

18   expect a 100% survival rate up to the average life and a 0% survival rate after this

19   age is reached. SDG&E clarifies that it adduces "equipment-failure curves" not to

20   invoke a specific survivor curve but rather to address the possibility of "life dispersion

21   (i.e. variance) around the mean (i.e. average service life)."[28] If life dispersion is a

22   concern, interim retirement activity should be present for this account. However,

23   SDG&E has not demonstrated that there has been retirement activity for this

24   account.[29] The possibility of life dispersion is speculative at this time. SDG&E has

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[27] Ex. SDG&E-34-R, page MCV-20.

[28] SDG&E response to data request ORA-SDG&E-005-CL8, Question 7.

[29] Ex. SDG&E-34-WP, p. 44.

12

1 not provided evidence that its wind generation assets will be subject to significant life

2 dispersion, rather than retire as one discrete unit.

3   SDG&E also has not provided evidence that only the longest-lived wind

4 generation asset will reach 20 years, as suggested by SDG&E's proposed S5-13

5 curve. SDG&E's proposal would reduce the average lifespan of its wind facilities by

6 35%, from 20 years to 13 years. This would be a significant reduction. ORA

7 recommends that the current SQ-20 curve be retained. ORA does not oppose

8 SDG&E's proposed net salvage rate of (15)%. Incorporating this net salvage rate,

9 ORA recommends a depreciation rate of 5.94% for the WEP.

10 **B. Electric Distribution Plant**

11   **1. Accounts E370.10 and E370.20 – Legacy Meters and**
12   **Installations**

13   SDG&E proposes to reduce the average service life for these two

14 subaccounts by nearly 29 years.[30] The average annual accrual rates for these

15 accounts would more than double. The depreciation rate for Account E370.10 would

16 increase from 2.0112% to 5.3210%. The depreciation rate for Account E370.20

17 would increase from 2.0417% to 5.2412%. ORA recommends maintaining the

18 respective currently authorized depreciation rates for these two accounts.

19   SDG&E justifies its proposal with recourse to the observed life characteristics

20 of legacy meters that remain in service. After Smart Meter implementation, SDG&E

21 has a much smaller population of legacy meters. These assets serve customers

22 who elected to opt out of Smart Metering, as well as customers in rural areas where

23 Smart Meter deployment is not possible. SDG&E argues that this smaller asset

24 population will "hav[e] an expected decrease in necessary service life,"[31] even

25 though the technology of legacy meters has not changed over the course of Smart

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[30] Ex. SDG&E-34-R, p. MCV-24, at lines 18-27.

[31] Ibid., line 25.

1 Meter implementation.[32] SDG&E proposes to reduce the currently authorized 48-

2 year average service life by 60%.

3   In this case, the change proposed by SDG&E is premature and too large in

4 magnitude. It is possible that spillovers from Smart Meter implementation affected

5 the observed life characteristics of legacy meters. During Smart Meter

6 implementation, SDG&E provided a high level of attention to customer metering,

7 including for customers who ultimately retained service by legacy meters. SDG&E

8 states, "[a]s the roll-out [of Smart Meters] moved forward, it was discovered that

9 there were some areas in SDG&E's more remote and rural service territory that

10 could not support the Smart Meter technology."[33]

11   If SDG&E's attention uncovered an unusually high number of legacy meters

12 for proactive replacement, the result would appear in the depreciation study as a

13 drop in average lifespan. It would also appear in SDG&E's plant records as a high

14 ratio of the dollar-weighted expectancy (remaining life) to the average service life.

15 For Account 370.10, SDG&E reports an expectancy of approximately 44 years,

16 compared to the currently authorized average service life of 48 years.[34] For

17 Account 370.20, SDG&E reports an expectancy of 46 years, compared to the

18 currently authorized average service life of 48 years.[35] This indicates that a large

19 proportion of plant in these two accounts was only recently placed into service. As

20 such, it is unlikely that the retirement activity reported for these accounts is

21 representative. It is unclear if the depreciation study's conclusions reflect the long-

22 term conditions that extant legacy meters will face, or if the study reflects the short-

23 term spillover effects of Smart Meter implementation.

24   There is currently insufficient data to determine if the life characteristics of

25 legacy meters have changed at all, let alone so significantly as to warrant a lifespan

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[32] SDG&E response to data request ORA-SDGE-005-CL8, Question 8(b).

[33] Ibid., Question 8(a).

[34] Ex. SDG&E-34-WP-R, p. 8.

[35] Ibid.

1 reduction of 60%. Given the relatively small amount of plant in these accounts, ORA

2 does not recommend any change to the currently authorized parameters of these

3 accounts. ORA recommends that the issue be re-evaluated in a future GRC, when

4 more comprehensive data will be available, to determine if any change is

5 reasonable.

6 **II.   NET SALVAGE RATES**

7   At its proposed net salvage rates, SDG&E's total forecast of net salvage for

8 its 2016 recorded year-end plant would increase to $6.625 billion.[36] This is an

9 increase of $1.456 billion, or 28%, from the current forecast of $5.169 billion.

10 Additional net salvage would accrue for new investments in plant. Of this amount,

11 SDG&E has already collected an accumulated balance of $1.205 billion.[37] The

12 remainder of $5.420 billion would be recovered from ratepayers through future

13 depreciation accruals.

14   At the Federal Energy Regulatory Commission (FERC) account level,

15 SDG&E's proposed future net salvage rates include some that are greater (more

16 negative) than the 15-year historical average. For those accounts, ORA

17 recommends that the Commission adopt lower (less negative) future net salvage

18 rates than those proposed by SDG&E. ORA's recommendations are based upon a

19 rounding of the 15-year average net salvage rate of the given account. These

20 accounts are listed and described in more detail below.

21   Commission precedent endorses the 15-year historical net salvage rate as a

22 reasonable basis for the calculation of net salvage rates, unless clear evidence

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[36] Ex. SDG&E-34-WP-R "Depreciation Model Rates 2," Tab "SDGE-34-WP-3," Cell N154. These forecasted amounts are based upon SDG&E's reported 2016 year-end recorded gross plant. These amounts are presented for reference, as the actual collection of pre-funded net salvage will vary with plant growth and authorized net salvage rates.

[37] SDG&E response to data request ORA-SDGE-052-CL8, Question 1 (b).

1 compels a deviation.[38] The Commission's reasoning is described in D.06-05-016:

2 averages that are calculated across a band of fewer years may be less reliable, as

3 the smaller amount of data may result in the overstatement of temporary trends.[39]

4 Using the 15-year average rate permits the Commission to avoid unnecessary

5 ratepayer impacts by adopting conservative parameters, in recognition of the high

6 uncertainty that attends the forecasting of actual salvage values and costs of

7 removal that will not be realized until many years after these amounts are recovered

8 in rates.

9   SDG&E generally justifies its net salvage proposals in part with recourse to

10 the role of inflation.[40] Inflation does not justify net salvage rates that may be

11 unreasonable. SP U-4 elaborates upon the issue by noting labor costs as the

12 primary determinant of cost of removal, rather than changes in the price level.[41]

13 SDG&E confirms that "removal cost is direct charged at today's labor values."[42]

14 Cost of removal typically predominates in the calculation of net salvage, so *inflation*

15 in this context is better understood as shorthand for nominal wage growth rather

16 than changes in the general price level. This distinction between inflation and

17 nominal wage growth is important because the two are not perfectly correlated.

18 Nominal wage growth has historically been lower than inflation during periods of high

19 inflation.[43] As a result, adducing inflation rather than nominal wage growth can

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[38] As of 2006, the Commission has considered and accepted the 15-year average net salvage rate for each of SDG&E, SoCalGas, Pacific Gas & Electric Company (PG&E), and Southern California Edison Company (SCE). See D.06-05-016 at 209.

[39] D.06-05-016, p. 186 et seq.

[40] Ex. SDG&E-34-R, p. MCV-6.

[41] SP U-4, Chapter 4, Paragraph 7, and Chapter 7, Paragraph 4.

[42] SDG&E response to data request ORA-SDG&E-005-CL8, Question 1.

[43] See Economic Research Division, Federal Reserve Bank of St. Louis, Series CES2000000008_PC1, "Average Hourly Earnings of Production and Nonsupervisory Employees: Construction, Percent Change from Year Ago, Annual, Seasonally Adjusted," for exemplary nominal wage growth variable, and U.S. Bureau of Labor Statistics, Consumer Price Index for All Urban Consumers: All Items [CPIAUCSL], retrieved from FRED, Federal Reserve Bank of St. Louis;

1 provide an inappropriate narrative justification for unreasonably high net salvage

2 rates.

3   For certain accounts, the 15-year average includes data that SDG&E

4 adjusted in order to "normalize" the observations, primarily by reducing or

5 redistributing removal costs.[44] In response to a data request, SDG&E included the

6 following bases for its adjustments:

7   • "Recast of net salvage between concurrent years.

8   • Adjustment to forecast rate based on linear regression analysis.

9
10   • Adjustment to forecast net salvage rate as linear trend between two
       years.

11
12   • Adjustment of net salvage rate to historical, 15-year, ten-year, or
       five-year average as calculated at the prior year.

13
14   • Adjustment of net salvage rate to a previous or subsequent year's
       rate.

15   • Adjustment of net salvage rate down to next highest year's rate.

16   • Removal of negative net salvage and retirement data from study."[45]

17   When an adjustment extrapolates data for the most recent years, the

18 adjustment itself can cause the salvage study to depict worsening net salvage,

19 regardless of actual patterns of gross salvage and cost of removal. SDG&E's

20 adjustments cast doubt on the quality of the salvage study's conclusions regarding

21 these accounts. Where ORA's account-level analyses identify an affected account

22 (below), ORA removes the adjusted data and provides alternative bases for its

23 recommendations.

---

1   **A. Electric Distribution Plant**

2   **1. Account E365 – Overhead Conductors and Devices**

3   As shown below, the currently authorized net salvage rate is negative 70%,

4   and SDG&E proposes to maintain that rate for this GRC. The 15-year average net

5   salvage rate is negative 65.98%.[46] ORA recommends negative 65%, which is

6   consistent with the 15-year average.

15-year average	Current	SDG&E proposal	ORA recommendation	Amount SDG&E>ORA
-65.98%	-70%	-70%	-65%	5%

7   **2. Account E366 – Underground Conduit**

8   As shown below, the currently authorized net salvage rate is negative 50%,

9   and SDG&E proposes a rate of negative 75% for this GRC. The 15-year average

10   net salvage rate is negative 63.09%.[47] ORA recommends negative 65%, which is

11   consistent with the 15-year average.

15-year average	Current	SDG&E proposal	ORA recommendation	Amount SDG&E>ORA
-63.09%	-50%	-75%	-65%	10%

12   **3. Account E367 – Underground Conductors and**
13   **Devices**

14   As shown below, the currently authorized net salvage rate is negative 65%,

15   and SDG&E proposes a rate of negative 90% for this GRC. The 15-year average

16   net salvage rate is negative 78.71%.[48] ORA recommends negative 80%, which is

17   consistent with the 15-year average.

18

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[46] Ex. SDG&E-34-WP-R "WP-281 Depreciation FNS 3," Tab "E365.00."

[47] Ex. SDG&E-34-WP-R "WP-281 Depreciation FNS 3," Tab "E366.00."

[48] SDG&E revised response to data request ORA-SDG&E-011-CL8, Question 1.

15-year average	Current	SDG&E proposal	ORA recommendation	Amount SDG&E>ORA
-78.71%	-65%	-90%	-80%	10%

2   **4. Account E368.2 – Capacitors**

3   As shown below, the currently authorized net salvage rate is negative 70%,

4 and SDG&E proposes a rate of negative 95% for this GRC. ORA recommends

5 negative 80%, as described below.

6   This account includes adjustments that were extrapolated from previous

7 years' data. SDG&E adjusts the observed 2015 and 2016 net salvage rates to

8 match the 2014 net salvage rate. The 2014 net salvage rate was an outlier; it was

9 44 percentage points higher (more negative) than the next-highest net salvage rate

10 in the 2002-2014 range. In response to discovery, SDG&E has explained that some

11 adjustments are necessary to address the timing differences of retirements and

12 costs of removal,[49] but SDG&E has not demonstrated the reasonableness of this

13 particular adjustment. ORA recommends that the net salvage rates for 2015 and

14 2016 be adjusted to match the average of the prior years (2002-2014). This 13-year

15 average (2002-2014) was negative 78.89%.[50] ORA recommends negative 80%,

16 which is consistent with both the 13-year average (2002-2014) and the unadjusted

17 15-year average.

15-year average	13-year average	Current	SDG&E proposal	ORA recommendation	Amount SDG&E>ORA
-80.63%	-78.89%	-70%	-95%	-80%	15%

18

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[49] SDG&E response to data request ORA-SDG&E-005-CL8, Question 3(a).

[50] Ex. SDG&E-34-WP-R "WP-281 Depreciation FNS 3," Tab "E368.20."

1   **5. Account E371 – Installations on Customers'**
2   **Premises**

3   As shown below, the currently authorized net salvage rate is negative 90%,

4 and SDG&E proposes a rate of negative 106.25% for this GRC. ORA recommends

5 negative 65%, as described below.

6   This account includes adjustments that were extrapolated from previous

7 years' data. SDG&E adjusts the observed rates for years 2012-2016 to match the

8 previous linear regression beta (trend) for years 2002-2011 of 7.51 percentage

9 points (decreased) per year. Some adjustments are necessary to address the timing

10 differences of retirements and costs of removal, but SDG&E has not demonstrated

11 the reasonableness of this particular adjustment. The data do not evince a clear

12 trend that would support extrapolation by linear regression. ORA recommends that

13 the net salvage rates for the affected years (2012-2016) be adjusted to match the

14 average of the prior years (2002-2011). This 10-year average (2002-2011) was

15 negative 62.56%.[51] ORA recommends negative 65%, which is consistent with the

16 10-year average (2002-2011). Negative 65% is also a reasonable approximation of

17 the unadjusted 15-year average.

15-year average	10-year average (2002-2011)	Current	SDG&E proposal	ORA recommendation	Amount SDG&E>ORA
-72.08%	-62.56%	-90%	-106.25%	-65%	41.25%

18   **6. Account E373.2 – Street Lighting and Signal Systems**

19   As shown below, the currently authorized net salvage rate is negative 85%,

20 and SDG&E proposes a rate of negative 110% for this GRC. ORA recommends

21 negative 85%, as described below.

22   This account includes adjustments that were extrapolated from previous

23 years' data. SDG&E adjusts the rates for years 2012-2016 to match the previous

24 linear regression beta (trend) for years 2002-2011 of 11.57 percentage points

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[51] Ex. SDG&E-34-WP-R "WP-281 Depreciation FNS 3," Tab "E371.00."

1   (decreased) per year. Some adjustments are necessary to address the timing

2   differences of retirements and costs of removal, but SDG&E has not demonstrated

3   the reasonableness of this particular adjustment. The data do not evince a clear

4   trend that would support extrapolation by linear regression. ORA recommends that

5   the net salvage rates for the affected years (2012-2016) by adjusted to match the

6   average of the prior years (2002-2011). This 10-year average (2002-2011) was

7   negative 84.54%.[52] ORA recommends no change to the current parameter of

8   negative 85%, which is consistent with the 10-year average (2002-2011).

15-year average	10-year average (2002-2011)	Current	SDG&E proposal	ORA recommendation	Amount SDG&E>ORA
-97.59%	-84.54%	-85%	-110%	-85%	25%

9

10

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[52] Ex. SDG&E-34-WP-R "WP-281 Depreciation FNS 3," Tab "E373.20."

1 # PART II: SOUTHERN CALIFORNIA GAS

2   At its proposed net salvage rates, SoCalGas's total forecast of net salvage for

3 its 2016 recorded year-end plant would increase to $8.545 billion.[53] This is an

4 increase of $0.405 billion, or 5%, from the current forecast of $8.140 billion.

5 Additional net salvage would accrue for new investments in plant. Of this amount,

6 SoCalGas has already collected an accumulated balance of $2.130 billion.[54] The

7 remainder of $6.415 billion would be recovered from ratepayers by means of future

8 depreciation accruals.

9   SoCalGas proposes changes to a number of average service lives and net

10 salvage rates. In total, these proposals account for approximately 5% of the overall

11 proposed increase in SoCalGas's depreciation expense. Most of the proposed

12 increase is due to plant growth. ORA has reviewed the proposed parameter

13 changes and has no proposed adjustments.

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[53] Ex. SCG-36-WP-R, p. 3 et seq. These forecasted amounts are based upon SoCalGas's reported 2016 year-end recorded gross plant. These amounts are presented for reference, as the actual collection of pre-funded net salvage will vary with plant growth and authorized net salvage rates.

[54] SoCalGas response to data request ORA-SCG-061-CL8, Question 2.

WITNESS QUALIFICATIONS

1

2   My name is Christian F. Lambert. My business address is 505 Van Ness

3   Avenue, San Francisco, California. I am employed by the Office of Ratepayer

4   Advocates (ORA) as a Public Utilities Regulatory Analyst in the Energy Cost of

5   Service and Natural Gas Branch.

6   I received a Master of Public Policy degree from the University of California-

7   Berkeley and a Bachelor of Science in Foreign Service degree from Georgetown

8   University.

9   Since joining ORA in 2017, I have worked on: Application (A.) 17-05-004, the

10 Bear Valley Electric Service 2018 General Rate Case, where I was responsible for

11 analyzing depreciation; and A.17-05-008, SDG&E's Mobilehome Park Utility

12 Upgrade Program application, where I was responsible for analyzing SDG&E's

13 proposed program modifications. Prior to joining ORA, I worked on energy and

14 environmental policy issues for local governments and policy think tanks while

15 earning a graduate degree. I was a graduate student assistant with the California

16 Public Utilities Commission's Energy Division in 2015.

17   This completes my prepared testimony.

APPENDIX A - SDG&E AND SOCALGAS DEPRECIATION PARAMETERS

SDG&E Depreciation Parameters

25

Depreciation Account	Current Depreciation Parameters				Proposed Depreciation Parameters				Proposed Change			
	Curve-ASL	FNS%	Expectancy	Rate	Curve-ASL	FNS%	Expectancy	Rate	ASL	FNS%	Expectancy	Rate
(A)	(B)	(C)	(D)	(E)	(D)	(E)	(H)	(I)	(D) - (B)	(E) - (C)	(H) - (D)	(I) - (E)
C391.20-Offc Furn & Eq-Cmptr	S6-5	-	1 7/12	24.4661%	SQ-5	-	1 1/2	25.8254%	-	-	(1/12)	1.35935%
Common IT Hardware		-	1 7/12	24.4661%		-	1 1/2	25.8254%		-	(1/12)	1.35935%
C390.10-Struct & Imprv-Other	S1-30	(15.00%)	21 3/4	3.3232%	R0.5-41 11/12	(10.00%)	36 5/12	1.8476%	11 11/12	5.00%	14 2/3	(1.4756%)
C391.10-Offc Furn & Eq-Other	S6-18	-	9 1/6	5.8299%	SQ-18	3.73%	9 1/12	5.4727%	-	3.73%	(1/12)	(0.3572%)
C392.10 - Trans Eq – Autos	SQ-10	-	8 7/12	20.0368%	S3-3 1/2	-	2 7/12	66.5738%	(6 1/2)	-	(6)	46.5370%
C392.20-Transprtn Eq-Trailer	L0-20	-	10 1/4	5.7002%	SQ-23	-	-	-	3	-	(10 1/4)	(5.7002%)
C392.30-Transprtn Eq-Aviation	-	-	-	-	SQ-6	71.00%	-	-	6	71.00%	-	-
C393.10-Stores Equip-Other	L0-19	-	11 1/6	2.0267%	SQ-23	-	4 1/4	5.3250%	4	-	(6 11/12)	3.2983%
C394.11-Portable Tools-Other	R2.5-23	-	16 1/3	4.2967%	SQ-23	-	15 7/12	4.5035%	-	-	(3/4)	0.2068%
C394.21-Shop Equip - Other	L1.5-35	-	19 1/3	1.8838%	SQ-29	-	7 1/12	5.1416%	(6)	-	(12 1/4)	3.2578%
C394.31-Garage Equip-Other	R3-19	-	12 1/3	6.9718%	SQ-21	-	13 1/2	6.3693%	2	-	11/6	(0.6025%)
C395.10-Laboratory Eq -Other	R5-25	-	12 1/6	4.3637%	SQ-26	-	12 3/4	4.1640%	1	-	7/12	(0.1997%)
C397.10-Commun Equip -Other	S6-13	-	7 11/12	7.5626%	SQ-13	-	7 11/12	7.5626%	-	-	-	-
C398.10-Misc Equip - Other	R0.5-13	10.00%	10 1/6	6.9948%	SQ-14	1.00%	9 1/12	8.8198%	1	(9.00%)	(1 1/12)	1.8250%
Common Non-IT		(9.02%)	16 5/12	4.8887%		(5.83%)	25 1/4	4.0174%		3.19%	8 5/6	(0.8713%)
COMMON TANGIBLE PLANT		(8.30%)	15 1/4	6.4470%		(5.37%)	23 1/3	5.7532%		2.94%	8 1/12	(0.6938%)
E341.00-Struct and Improv -CPEP	mid-2027	(1.00%)	10 1/2	7.4406%	mid-2027	(20.08%)	10 1/2	9.2582%	-	(19.08%)	-	1.8176%
E342.00-Fuel Holders P&A -CPEP	mid-2027	(2.00%)	10 1/2	7.0544%	mid-2027	(5.78%)	10 1/2	7.4141%	-	(3.78%)	-	0.3597%
E343.00-Prime Movers-CPEP	mid-2027	-	10 1/2	6.7659%	mid-2027	-	10 1/2	6.7659%	-	-	-	-
E344.00-Generators-CPEP	mid-2027	(0.50%)	10 1/2	7.1688%	mid-2027	(10.45%)	10 1/2	8.1159%	-	(9.95%)	-	0.9471%
E345.00-Access Elect Eq -CPEP	mid-2027	(2.00%)	10 1/2	7.0794%	mid-2027	(16.65%)	10 1/2	8.4751%	-	(14.65%)	-	1.3957%
E346.00-Misc Power Plnt Eq -CPEP	mid-2027	-	10 1/2	6.9770%	mid-2027	-	10 1/2	6.9770%	-	-	-	-
Cuyamaca Peak Energy Plant		(0.36%)	10 1/2	6.9310%		(4.72%)	10 1/2	7.3466%		(4.36%)	-	0.4156%
E311.00-Struct and Improv-DSEC	mid-2029	(6.00%)	12 1/2	4.0980%	mid-2026	(12.70%)	9 1/3	6.2066%	(3 1/6)	(6.70%)	(3 1/6)	2.1086%
E312.00-Boiler Plant Equip-DSEC	mid-2029	(6.00%)	12 1/2	4.4993%	mid-2026	(5.12%)	9 1/3	5.9317%	(3 1/6)	0.88%	(3 1/6)	1.4324%
E314.00-Turbogenerator Unit-DSEC	mid-2029	(6.00%)	12 1/2	5.2878%	mid-2026	(12.60%)	9 1/3	7.7886%	(3 1/6)	(6.60%)	(3 1/6)	2.5008%
E315.00-Access Elect Eq -DSEC	mid-2029	(6.00%)	12 1/2	4.8451%	mid-2026	(0.10%)	9 1/3	5.8566%	(3 1/6)	5.90%	(3 1/6)	1.0115%
E316.00-Misc Power Plnt Eq -DSEC	mid-2029	(6.00%)	12 1/2	5.5571%	mid-2026	(0.84%)	9 1/3	6.8898%	(3 1/6)	5.16%	(3 1/6)	1.3327%
E341.00-Struct and Improv -DSEC	mid-2029	(6.00%)	12 1/2	5.2092%	mid-2026	(36.89%)	9 1/3	10.2865%	(3 1/6)	(30.89%)	(3 1/6)	5.0773%
E342.00-Fuel Holders P&A -DSEC	mid-2029	(6.00%)	12 1/2	4.1976%	mid-2026	(29.00%)	9 1/3	8.0861%	(3 1/6)	(23.00%)	(3 1/6)	3.8885%
E343.00-Prime Movers-DSEC	mid-2029	(6.00%)	12 1/2	4.6703%	mid-2026	-	9 1/3	5.6120%	(3 1/6)	6.00%	(3 1/6)	0.9417%
E344.00-Generators-DSEC	mid-2029	(6.00%)	12 1/2	4.1053%	mid-2026	(0.50%)	9 1/3	4.9088%	(3 1/6)	5.50%	(3 1/6)	0.8035%
E345.00-Access Elect Eq -DSEC	mid-2029	(7.00%)	12 1/2	4.4554%	mid-2026	5.65%	9 1/3	4.6118%	(3 1/6)	12.65%	(3 1/6)	0.1564%
E346.00-Misc Power Plnt Eq -DSEC	mid-2029	(6.00%)	12 1/2	4.0128%	mid-2026	-	9 1/3	4.7315%	(3 1/6)	6.00%	(3 1/6)	0.7187%
Desert Star Energy Center		(6.03%)	12 1/2	4.4094%		(2.90%)	9 1/3	5.5699%		3.13%	(3 1/6)	1.1605%
E341.00-Struct and Improv -Miramar	mid-2032	(1.00%)	15 1/2	4.4304%	mid-2032	(7.80%)	15 1/2	4.8691%	-	(6.80%)	-	0.4387%
E342.00-Fuel Holders P&A -Miramar	mid-2032	(2.00%)	15 1/2	4.4620%	mid-2032	(3.36%)	15 1/2	4.5500%	-	(1.36%)	-	0.0880%

Depreciation Account	Current Depreciation Parameters				Proposed Depreciation Parameters				Proposed Change			
(A)	Curve-ASL (B)	FNS% (C)	Expectancy (D)	Rate (E)	Curve-ASL (D)	FNS% (E)	Expectancy (H)	Rate (I)	ASL (D)-(B)	FNS% (E)-(C)	Expectancy (H)-(D)	Rate (I)-(E)
E343.00-Prime Movers-Miramar	mid-2032	-	15 1/2	4.0630%	mid-2032	-	15 1/2	4.0630%	-	-	-	-
E344.00-Generators-Miramar	mid-2032	(0.50%)	15 1/2	4.8311%	mid-2032	(3.01%)	15 1/2	4.9929%	-	(2.51%)	-	0.1618%
E345.00-Access Elect Eq -Miramar	mid-2032	(2.00%)	15 1/2	4.3305%	mid-2032	(1.24%)	15 1/2	4.2817%	-	0.76%	-	(0.0488%)
E346.00-Misc Power Plnt Eq -Miramar	mid-2032	-	15 1/2	5.3078%	mid-2032	-	15 1/2	5.3078%	-	-	-	-
Miramar Energy Facility		(0.52%)	15 1/2	4.3290%		(1.33%)	15 1/2	4.3812%		(0.81%)	-	0.0522%
E311.00-Struct and Improv -Palomar	mid-2036	(18.00%)	19 1/2	4.3696%	mid-2036	(3.23%)	19 1/2	3.6120%	-	14.77%	-	(0.7576%)
E312.00-Boiler Plant Equip -Palomar	mid-2036	(10.00%)	19 1/2	3.6746%	mid-2036	(3.24%)	19 1/2	3.3277%	-	6.76%	-	(0.3469%)
E314.00-Turbogenerator Unit-Palomar	mid-2036	(2.00%)	19 1/2	3.6288%	mid-2036	(1.98%)	19 1/2	3.6276%	-	0.02%	-	(0.0012%)
E315.00-Access Elect Eq -Palomar	mid-2036	(2.00%)	19 1/2	3.4860%	mid-2036	(0.45%)	19 1/2	3.4064%	-	1.55%	-	(0.0796%)
E316.00-Misc Power Plnt Eq-Palomar	mid-2036	(3.00%)	19 1/2	4.1754%	mid-2036	(0.36%)	19 1/2	4.0398%	-	2.64%	-	(0.1356%)
E341.00-Struct and Improv -Palomar	mid-2036	(1.00%)	19 1/2	3.5627%	mid-2036	(4.62%)	19 1/2	3.7482%	-	(3.62%)	-	0.1855%
E342.00-Fuel Holders P & A-Palomar	mid-2036	(2.00%)	19 1/2	3.7245%	mid-2036	(2.04%)	19 1/2	3.7263%	-	(0.04%)	-	0.0018%
E343.00-Prime Movers-Palomar	mid-2036	-	-	-	mid-2036	-	-	-	-	-	-	-
E344.00-Generators-Palomar	mid-2036	(0.50%)	19	3.4680%	mid-2036	(0.85%)	19 1/2	3.3970%	-	(0.35%)	1/2	(0.0710%)
E345.00-Access Elect Eq-Palomar	mid-2036	(2.00%)	19 1/2	3.5804%	mid-2036	4.30%	19 1/2	3.2571%	-	6.30%	-	(0.3233%)
E346.00-Misc Power Plnt Eq -Palomar	mid-2036	-	19 1/2	4.5159%	mid-2036	-	19 1/2	4.5159%	-	-	-	-
Palomar Energy Center		(4.75%)	19 1/3	3.6968%		(1.77%)	19 1/2	3.5173%		2.98%	1/6	(0.1795%)
E341.10 - Struct & Imprv - Solar	SQ-25	-	-	-	L3-25	(15.00%)	-	-	-	(15.00%)	-	-
E342.10 - Fuel Holders - Solar	SQ-25	-	-	-	L3-25	(15.00%)	-	-	-	(15.00%)	-	-
E343.10 - Prime Movers Solar	SQ-25	-	-	-	L3-25	(15.00%)	-	-	-	(15.00%)	-	-
E344.10-Generators - Solar	SQ-25	-	19 1/4	3.9747%	L3-25	(15.00%)	19 1/3	4.7334%	-	(15.00%)	1/12	0.7587%
E345.10-Access Elect Eq -Solar	SQ-25	-	16 7/12	3.9556%	L3-25	(15.00%)	16 3/4	4.8117%	-	(15.00%)	1/6	0.8561%
E346.10 - Miscl Eq - Solar	SQ-25	-	-	-	L3-25	(15.00%)	-	-	-	(15.00%)	-	-
Solar Energy Projects		-	19 1/12	3.9737%		(15.00%)	19 1/6	4.7375%		(15.00%)	1/12	0.7638%
E341.20 - Struct & Imprv - Wind	SQ-20	-	-	-	S5-13	(15.00%)	-	-	(7)	(15.00%)	-	-
E342.20 - Fuel Holders - Wind	SQ-20	-	-	-	S5-13	(15.00%)	-	-	(7)	(15.00%)	-	-
E343.20 - Prime Movers Wind	SQ-20	-	-	-	S5-13	(15.00%)	-	-	(7)	(15.00%)	-	-
E344.20 - Generators - Wind	SQ-20	-	16 1/2	5.0322%	S5-13	(15.00%)	9 1/2	10.3190%	(7)	(15.00%)	(7)	5.2868%
E345.20-Access Elect Eq -Wind	SQ-20	-	-	-	S5-13	(15.00%)	-	-	(7)	(15.00%)	-	-
E346.20 - Miscl Eq - Wind	SQ-20	-	-	-	S5-13	(15.00%)	-	-	(7)	(15.00%)	-	-
Wind Energy Projects		-	16 1/2	5.0322%		(15.00%)	9 1/2	10.3190%		(15.00%)	(7)	5.2868%
Steam Production		(6.77%)	17 1/2	4.0495%		(3.19%)	16 7/12	4.3120%		3.58%	(11/12)	0.2625%
Other Production		(2.26%)	16 1/12	4.0170%		(2.19%)	15 1/4	4.3426%		0.07%	(5/6)	0.3256%
Electric Production		(4.46%)	16 3/4	4.0328%		(2.68%)	15 11/12	4.3277%		1.78%	(5/6)	0.2949%
E361.00-Struct. and Improv.	R2.5-63	(125.00%)	48 1/4	3.8610%	S0-62 5/12	(145.00%)	49 11/12	4.1327%	(7/12)	(20.00%)	1 2/3	0.2717%
E362.10-Station Equip.-Other	R1.5-51	(125.00%)	40 1/3	4.7504%	R1.5-53 1/2	(145.00%)	42 3/4	4.9498%	2 1/2	(20.00%)	2 5/12	0.1994%
E363.00-Batteries - Storage	SQ-10	-	8	10.3117%	SQ-10	(15.00%)	8	12.1867%	-	(15.00%)	-	1.8750%
E364.00-Poles, Towers & Fxtr	R0.5-47	(100.00%)	39	4.1127%	R0.5-48 2/3	(100.00%)	40 2/3	3.9441%	1 2/3	-	1 2/3	(0.1686%)
E365.00-Overhead Cond & Dev	R0.5-55	(70.00%)	47 1/2	2.8836%	R1.5-59 1/12	(70.00%)	50 1/3	2.7212%	4 1/12	-	2 5/6	(0.1624%)
E366.00-Underground Conduit	R3-57	(50.00%)	42 1/6	2.6253%	R3-59 2/3	(75.00%)	44 3/4	3.0324%	2 2/3	(25.00%)	2 7/12	0.4071%

Depreciation Account	Current Depreciation Parameters				Proposed Depreciation Parameters				Proposed Change			
	Curve-ASL	FNS%	Expectancy	Rate	Curve-ASL	FNS%	Expectancy	Rate	ASL	FNS%	Expectancy	Rate
(A)	(B)	(C)	(D)	(E)	(D)	(E)	(H)	(I)	(D)-(B)	(E)-(C)	(H)-(D)	(I)-(E)
E367.00-Undergrnd Cond & Dev	R3-45	(65.00%)	31 1/12	3.3841%	R3-49	(90.00%)	34 11/12	3.7285%	4	(25.00%)	3 5/6	0.3444%
E368.10-Line Transformers	L0.5-34	(70.00%)	26 7/12	5.5189%	L0.5-34 1/3	(95.00%)	26 11/12	6.3793%	1/3	(25.00%)	1/3	0.8604%
E368.20-Capacitors	L0-12	(70.00%)	9 1/6	17.5764%	O2-12 1/4	(95.00%)	9 5/6	18.9271%	1/4	(25.00%)	2/3	1.3507%
E369.10-Services Overhead	R0.5-55	(110.00%)	45 1/3	2.8235%	S-.5-58 7/12	(137.50%)	48 7/12	3.2006%	3 7/12	(27.50%)	3 1/4	0.3771%
E369.20-Services Underground	L4-53	(75.00%)	35 1/4	2.9630%	L4-55 1/6	(100.00%)	37 5/12	3.4596%	2 1/6	(25.00%)	2 1/6	0.4966%
E370.10-Meters	R0.5-48	-	44 1/12	2.0117%	O2-19 5/12	-	16 2/3	5.3210%	(28 7/12)	-	(27 5/12)	3.3093%
E370.11-Meters - Electronic	SQ-15	-	8 5/6	6.7139%	R5-15	-	8 5/6	6.7139%	-	-	-	-
E370.20-Meter Installations	R0.5-48	-	46	2.0414%	O2-19 5/12	-	17 11/12	5.2412%	(28 7/12)	-	(28 1/12)	3.1998%
E370.21-Meter Instllns-Elctr	SQ-15	-	9 1/12	6.6564%	R0.5-50 1/6	-	46 1/2	1.3003%	35 1/6	-	37 5/12	(5.3561%)
E371.00-Installns -Cust Prem	R0.5-34	(90.00%)	22 11/12	3.0483%	O1-40	(106.25%)	30 5/12	2.8309%	6	(16.25%)	7 1/2	(0.2174%)
E373.20-St. Lghtg & Sgnl Sys	L0-36	(85.00%)	26 5/12	4.6181%	O1-40	(110.00%)	29 2/3	4.9549%	4	(25.00%)	3 1/4	0.3368%
Electric Distribution		(70.83%)	35 2/3	3.8255%		(88.88%)	38 1/3	4.0803%		(18.05%)	2 2/3	0.2548%
E390.00-Struct. and Improv.	S4-34	(10.00%)	17	2.2197%	R2.5-51	(10.00%)	35 5/12	1.0654%	17	-	18 5/12	(1.1543%)
E392.20-Transprtn Eq-Trailer	L5-27	-	17 1/3	4.4254%	SQ-27	-	17 1/3	4.4254%	-	-	-	-
E393.10-Stores Equip.-Other	S5-25	-	2 1/6	1.1701%	SQ-26	-	1/2	5.0707%	1	-	(1 2/3)	3.9006%
E394.11-Portable Tools-Other	S6-27	-	17 3/4	3.7345%	SQ-27	-	17 3/4	3.7345%	-	-	-	-
E394.20-Shop Equipment	L4-26	-	8 7/12	2.9783%	SQ-24	-	5 1/6	4.9478%	(2)	-	(3 5/12)	1.9695%
E395.10-Laboratory Eq.-Other	L3-22	-	19 7/12	4.6409%	SQ-20	-	17 7/12	5.1687%	(2)	-	(2)	0.5278%
E397.10-Commun. Equip.-Other	R2-30	(50.00%)	22 7/12	4.9534%	R2.5-34 11/12	(75.00%)	26 11/12	5.0847%	4 11/12	(25.00%)	4 1/3	0.1313%
E397.20-Commun. Equip.-SWPL	R2-30	(50.00%)	14 5/12	4.7958%	R2.5-34 11/12	(75.00%)	17 3/4	5.3037%	4 11/12	(25.00%)	3 1/3	0.5079%
E397.60-Commun. Equip.-SRPL	R2-30	-	26	3.1619%	R2.5-34 11/12	(75.00%)	30 3/4	5.1125%	4 11/12	(75.00%)	4 3/4	1.9506%
E397.70-Commun Dev - Telecom	R2-30	(50.00%)	29 1/4	4.9812%	R2.5-34 11/12	(75.00%)	34 1/12	5.0084%	4 11/12	(25.00%)	4 5/6	0.0272%
E398.10-Misc. Equip. - Other	L4-16	-	13 1/4	6.2429%	SQ-14 7/12	-	11 5/6	6.9903%	(1 5/12)	-	(1 5/12)	0.7474%
E398.20-Misc. Equip. - EVSE	-	-	-	-	SQ-5	(10.00%)	-	-	5	(10.00%)	-	-
Electric General		(38.61%)	21 5/12	4.5322%		(60.51%)	26 7/12	4.6284%		(21.90%)	5 1/6	0.0962%
ELECTRIC TANGIBLE PLANT		(59.82%)	32 1/4	3.8884%		(75.22%)	34 7/12	4.1414%		(15.40%)	2 1/3	0.2530%
G363.60-LNG Distrib Storg Eq	S4-20	-	11 7/12	4.6383%	S4-20	-	11 7/12	4.6383%	-	-	-	-
Gas Storage		-	11 7/12	4.6383%		-	11 7/12	4.6383%	-	-	-	-
G366.00-Struct and Land Imp.	S3-34	-	19 1/12	2.2339%	R2-53	(25.00%)	38 5/6	1.7416%	19	(25.00%)	19 3/4	(0.4923%)
G367.00-Mains	S4-45	(25.00%)	32 1/12	2.8877%	R3-64	(50.00%)	51 1/4	2.2956%	19	(25.00%)	19 1/6	(0.5921%)
G368.00-Compressor Statn Eq	S3-35	(10.00%)	19 1/4	1.7625%	R3-55	(15.00%)	38 5/6	1.0025%	20	(5.00%)	19 7/12	(0.7600%)
G369.00-Meas & Reg Statn Eq	S3-31	(5.00%)	17 1/12	1.9161%	R2.5-51	(10.00%)	37 1/6	1.0153%	20	(5.00%)	20 1/12	(0.9008%)
G371.00-Other Equipment	SQ-27	-	26 1/2	3.6479%	L0.5-23	(10.00%)	22 7/12	4.7233%	(4)	(10.00%)	(3 11/12)	1.0754%
Gas Transmission		(18.80%)	27 1/3	2.5159%		(37.57%)	46 2/3	1.8679%		(18.77%)	19 1/3	(0.6480%)
G375.00-Struct & Imp	S3-44	-	7 1/2	-	SO-44	(15.00%)	15 1/3	-	-	(15.00%)	7 5/6	-
G376.00-Mains	R3-69	(55.00%)	54 1/6	2.0922%	R3-69	(80.00%)	54 1/6	2.5538%	-	(25.00%)	-	0.4616%
G378.00-Meas & Reg Statn Eq	R2-47	(25.00%)	35 3/4	2.2509%	R2-52	(50.00%)	40 2/3	2.5935%	5	(25.00%)	4 11/12	0.3426%
G380.00-Services	R2.5-65	(70.00%)	42 11/12	1.3753%	R2-67	(95.00%)	46	1.8266%	2	(25.00%)	3 1/12	0.4513%
G381.00-Meters & Regulators	L1.5-41	-	28 11/12	2.1935%	L1-40 2/3	-	29 7/12	2.1441%	(1/3)	-	2/3	(0.0494%)
G381.01-Meters-Regs-Modules	SQ-15	-	9 1/2	7.0942%	R3-15	-	9 5/6	6.8537%	-	-	1/3	(0.2405%)
G382.00-Meter & Reg Instllns	L2-35	(30.00%)	23 5/12	3.8293%	L2-35 1/12	(22.50%)	23 1/2	3.4966%	1/12	7.50%	1/12	(0.3327%)

Depreciation Account	Current Depreciation Parameters				Proposed Depreciation Parameters				Proposed Change			
	Curve-ASL[†]	FNS%	Expectancy[‡]	Rate[‡]	Curve-ASL[†]	FNS%	Expectancy[‡]	Rate[‡]	ASL[†]	FNS%	Expectancy[‡]	Rate[‡]
(A)	(B)	(C)	(D)	(E)	(D)	(E)	(H)	(I)	(D) - (B)	(E) - (C)	(H) - (D)	(I) - (E)
G382.01-Mtr-Reg-Mod Install	SQ-15	-	8 7/12	6.6363%	R3-15	-	9	6.3290%	-	-	5/12	(0.3073%)
G385.00-Ind Meas & Reg St Eq	S6-28	-	10 1/6	2.0534%	S6-35	-	16 5/6	1.2402%	7	-	6 2/3	(0.8132%)
G387.11-Other Equipment	L0-16	-	11	1.7829%	O1-33 11/12	-	28 5/12	0.6902%	17 11/12	-	17 5/12	(1.0927%)
G387.12-Other EQ.-CNG Deprec	L0-16	-	8 1/4	0.2468%	R2-25	-	10 1/12	0.2019%	9	-	1 5/6	(0.0449%)
G392.20-Transprtn Eq-Trailer	R5-21	-	2 2/3	-	SQ-21	-	1 1/12	-	-	-	(1 7/12)	-
G394.10-Portable Tools	L5-24	-	14 1/4	4.1903%	SQ-23	-	12 11/12	4.6229%	(1)	-	(1 1/3)	0.4326%
G394.20-Shop Equipment	R1.5-24	-	10 1/12	3.2280%	SQ-23	-	3 7/12	9.0836%	(1)	-	(6 1/2)	5.8556%
G395.00-Laboratory Equipment	L1-19	-	8 3/4	0.3193%	SQ-18	-	-	-	(1)	-	(8 3/4)	(0.3193%)
G396.00-Power Operated Eq.	S6-20	-	2 2/3	18.8758%	SQ-20	-	2 1/2	20.1343%	-	-	(1/6)	1.2585%
G397.00-Communication Equip.	S6-15	-	8 7/12	6.9776%	SQ-15	-	8 1/2	7.0460%	-	-	(1/12)	0.0684%
G398.00-Misc. Equipment	R2.5-19	-	15 1/6	5.5900%	SQ-19	-	14 2/3	5.7806%	-	-	(1/2)	0.1906%
Gas Distribution & General		(48.45%)	45 1/4	2.4086%		(68.35%)	45 11/12	2.7443%		(19.90%)	2/3	0.3357%
GAS TANGIBLE PLANT		(42.43%)	41 7/12	2.4329%		(62.08%)	46	2.5703%		(19.65%)	4 5/12	0.1374%
TANGIBLE PLANT		(53.25%)	32 11/12	3.7824%		(68.26%)	36	3.9527%		(15.00%)	3 1/12	0.1703%

SoCalGas Depreciation Parameters

Acct.	Account Description	2016 Authorized			2019 Proposed		
		Curve	FNS	Rate	Curve	FNS	Rate
Underground Storage							
350x	Rights	40 Amort	0	1.51%	40 Amort	0	1.51%
351x	Structures and Improvements	48 R1.5	-70	3.55%	52 R1.5	-80	3.46%
352x	Wells	49 R2.5	-70	3.47%	53 R1	-80	3.20%
353x	Lines	54 R3	-40	1.67%	54 R3	-45	1.82%
354	Compressor Station Equip.	41 L0.5	-15	2.35%	41 S-.5	-20	2.53%
355	Meas and Reg Equipment	22 L0	5	3.73%	29 R0.5	5	2.78%
356x	Purification Equipment	39 R2.5	-30	2.97%	40 R2.5	-30	2.87%
357x	Other Equipment	37 R2.5	-100	5.60%	39 R1.5	-100	5.15%
Transmission							
365.29	Rights-of-Way	40 Amort	0	2.50%	40 Amort	0	2.50%
366x	Structures and Improvements	47 R2	-40	2.92%	53 R2	-45	2.62%
367x	Mains	64 R3	-60	2.49%	64 R3	-65	2.59%
368x	Compressor Station Equip.	50 R1	-15	1.84%	49 R1.5	-25	2.24%
369	Meas and Reg Equipment	46 S0	-50	3.34%	45 R1	-60	3.67%
370	Communication Equipment	15 SQ	0	7.10%	15 SQ	0	7.10%
371x	Other Equipment	21 L0.5	-10	3.87%	23 L0.5	-10	3.45%

Distribution

374.2	Land Rights	40 Amort	0	2.50%	40 Amort	0	2.50%
375	Structures and Improvements	40 S0	-10	2.68%	44 S0	-15	2.52%
376x	Mains	68 R2.5	-80	2.48%	68 R3	-85	2.62%
378	Meas and Reg Equipment	47 S0.5	-95	3.48%	52 S0.5	-100	3.20%
380x	Services	67 R2	-115	2.75%	67 R2	-115	2.75%
381x	Meters	25 S0.5	5	4.04%	25 S0.5	5	4.04%
381.15	AMI Modules			5.01%	20 SQ	0	5.01%
382x	Meter Installations	30 S1	-10	3.43%	29 S1.5	-5	3.39%
382.6	Meter Installations (Other)	15 SQ	0	5.35%	15 SQ	0	5.35%
382.15	AMI Module Installations			5.01%	20 SQ	0	5.01%
383	House Regulators	33 L5	5	2.97%	33 R5	5	3.00%
387x	Other Equipment	21 O1	5	2.93%	22 L0	0	2.85%

General

389.2	Land Rights	40 Amort	0	2.50%	40 Amort	0	2.50
390	Structures and Improvements	33 R1.5	-15	1.95%	38 R1.5	-15	1.84
391.1	Office Furniture & Equipment	14 SQ	0	13.40%	14 SQ	0	13.40%
391.2	Computer Equipment	5 SQ	0	19.29%	5 SQ	0	19.29%
391.3	Software 2-4 Yrs (3yr ASL)	3 Amort	0	33.33%	3 Amort	0	33.33%
391.35	Software 5 Yrs (AMI)	5 Amort	0	20.00%	5 Amort	0	20.00%

391.4	Software 5-8 Yrs (6yr ASL)	6 Amort	0	16.70%	6 Amort	0	16.67%
391.5	Software 9-12 Yrs (10yr ASL)	10 Amort	0	10.00%	10 Amort	0	10.00%
391.55	Software 15 Yrs (15yr ASL)	15 Amort	0	6.67%	15 Amort	0	6.67%
391.6	Software 20 Yrs (20yr ASL)	20 Amort	0	5.00%	20 Amort	0	5.00%
392x	Transportation Equipment	7 SQ	5	7.03%	7 SQ	15	4.36%
393	Stores Equipment	20 SQ	0	2.23%	20 SQ	0	2.23%
394x	Shop and Garage Equipment	29 SQ	0	4.03%	29 SQ	0	4.03%
394.19	Large Portable Tools	24 SQ	0	4.16%	24 SQ	0	4.16%
395	Laboratory Equipment	25 SQ	0	4.37%	25 SQ	0	4.37%
396.1	Construction Equipment	12 SQ	25	22.53%	12 SQ	0	27.97%
397x	Communication Equipment	15 SQ	0	6.99%	15 SQ	0	6.99%
397.1	Gen Network Equip-5yr ASL	5 SQ	0	21.20%	5 SQ	0	21.20%
397.2	PBX/Voice Equip-7yr ASL	7 SQ	0	16.08%	7 SQ	0	16.08%
397.3	Microwave/Radio-10yr ASL	10 SQ	0	10.05%	10 SQ	0	10.05%
397.4	Communication Structures	15 SQ	-5	7.01%	15 SQ	-5	7.01%
397.55	AMI Communication Poles	40 SQ	0	2.50%	40 SQ	-5	2.64%
398	Miscellaneous Equipment	20 SQ	0	12.42%	20 SQ	0	12.42%

APPENDIX B - DATA **R**EQUESTS CITED IN **E**X. **ORA-27**

ORA DATA REQUEST
ORA-SDG&E-DR-005-CL8
SDG&E 2019 GRC – A.17-10-007
SDG&E RESPONSE
DATE RECEIVED: OCTOBER 26, 2017
DATE RESPONDED: NOVEMBER 09, 2017

Subject: Depreciation

Please provide the following:

1. Referring to page MCV-6, lines 12-14, please explain the methodology SDG&E uses to allocate actual removal costs across depreciation accounts.

SDG&E Response 1:

The cost to remove capital assets is recorded on specific internal orders and direct charged by operational field personnel. Based on the budget codes assigned to specific cost of removal internal orders, the removal cost is summarized at the functional level. During the monthly closing process, the monthly total of removal cost, by functional area, is allocated across the appropriate utility accounts/depreciation groups using a 12-month rolling average of retirements segregated by depreciation account. Since removal cost is direct charged at today's labor values and is not impacted by the age of the asset removed, the 12-month rolling average of retirements is escalated to current cost, to mitigate any impact of the age/dollar value of the asset retired.

…

3. Referring to page MCV-10, lines 16-20:

   a. Please explain what typical "timing differences" SDG&E encounters between the retirement of an asset, its removal, and the final disposition of materials.

   b. Please explain the methodology used to "transfer net salvage between periods to align data and retirements" and reduce "removal costs for an activity year to visually normalize data."

SDG&E Response 3:

   a. Various timing differences result throughout the process of retiring an asset from service. Company resources will charge labor to remove an asset, which will be direct-charged to a project. Depending on whether a job involves a replacement or just removal, "street repair" and other effort may be necessary after-the-fact. Various engineering and mapping reviews and processes then occur to provide for the safe and reliable update of system data. After completion of such steps and depending upon the asset type, information is issued to Accounting via an automated/electronic

or manual process, resulting in the actual retirement of an asset from the financial book of record. The actual process of preparing and selling any materials for scrap/salvage value will then occur in bulk at a later date. Should any of these processes be in-process at year-end, it will result in alignment challenges between salvage, removal costs, and retirements during the future net salvage analysis, necessitating some level of visual and analytical data shifting.

b. Several methods were applied to "transfer net salvage between periods to align data and retirements" and reduce "removal costs for an activity year to visually normalize data." The net result was the removal of $16.1M of net removal costs (*i.e.*, negative net salvage) and $8.6M of asset retirements. The analytical methods applied to analytical data were:

- Recast of net salvage between concurrent years.
- Adjustment to forecast rate based on linear regression analysis.
- Adjustment to forecast net salvage rate as linear trend between two years.
- Adjustment of net salvage rate to historical, 15-year, ten-year, or five-year average as calculated at the prior year.
- Adjustment of net salvage rate to a previous or subsequent year's rate.
- Adjustment of net salvage rate down to next highest year's rate.
- Removal of negative net salvage and retirement data from study.

…

7. Referring to page MCV-20, lines 2-12:

a. Please provide the referenced "equipment-failure curves."

b. Please confirm whether the 30% FNS described in line 10 is [positive] 30% or [negative] (30%).

SDG&E Response 7:

a. The statement, "to align more closely with equipment-failure curves suggestive of inherent risk potential" is not intended to represent specific curves. This statement is intended to describe the generalized expectation that equipment does not tend to have a strict service life, but rather a life dispersion (*i.e.*, variance) around the mean (*i.e.*, average service life). For example, provided a statistically-normal life dispersion, as essentially selected for this account through the symmetrical (S-type) Iowa curve, 68.2% of retirements will occur within one standard deviation of the mean, 95.4% within two standard deviations, and 99.7% within three standard deviations. Exhibit SDG&E-34-WP, pages 875 through 880, provides a visual summary of the standardized survivor curves that were utilized in development of the depreciation study.

b. The 30% FNS% described in line 10 on page MCV-20 was intended to describe a *negative* future net salvage rate (*i.e.*, retirement costs in excess of salvage).

8. Referring to page MCV-24, lines 18-27:

    a. Please explain why legacy electro-mechanical meters will experience "an expected decrease in necessary service life."

    b. Is the legacy meter technology currently used to serve customers who have opted out of the Smart Meter program different from the meter technology used prior to the implementation of the Smart Meter program?

    c. Please explain why this expected decrease will result in an ASL that is less than half the current ASL.

SDG&E Response 8:

    a. At the onset of SDG&E's Smart Meter Program (AMI), it was anticipated that approximately 98% of the legacy electro-mechanical meters would be replaced by a Smart Meter. As the roll-out moved forward, it was discovered that there were some areas in SDG&E's more remote and rural service territory, that could not support the Smart Meter technology. As a result, the customers in these remote areas as well as any 'Opt Out' customers, will continue to utilize the legacy electro-mechanical meters. This resulted in a dramatically lower number of meter assets to analyze for future depreciation studies. As stated in Exhibit SDGE-34, page MCV-24, lines 21-23, in deriving the survivor-curve proposal, the mortality was limited to 2009 through 2016 to exclude data from prior to smart meter implementation, resulting in the proposed ASL.

    b. No, the legacy meter technology currently used to serve customers who have opted out of the Smart Meter program is not different from the meter technology used prior to implementation of the Smart Meter program.

    c. Please see the response above to (a).

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ORA DATA REQUEST
ORA-SDG&E-DR-011-CL8
SDG&E 2019 GRC – A.17-10-007
SDG&E REVISED RESPONSE
DATE RECEIVED: NOVEMBER 1, 2017
DATE REVISED RESPONSE: DECEMBER 21, 2017

Exhibit Reference: SDG&E-33; SDG&E-34; SDG&E-47
SDG&E Witness: R. Craig Gentes; Matthew C. Vanderbilt; Joseph S. Velasquez
Subject: Rate Base; Depreciation; Mobilehome Park Utility Upgrade Program

Please provide the following:

1. Please provide electronic copies of all workpapers pertaining to Exhibits SDG&E-33, SDG&E-34, and SDG&E-47, including any Excel or other working spreadsheets, that have not yet been provided to ORA. Please maintain all formulas intact in those Excel or other working spreadsheets.

SDG&E Revised Response 1:

In an email received from ORA on December 18, 2017, it was identified that one of the net salvage workpapers for SDG&E's depreciation proposals may be mistaken, in both the original
submission and in the response the data request ORA SDG&E 011 CL8. That page 297 of Volume I of Matthew Vanderbilt's workpapers provides the net salvage activity for account **G**367 (gas mains), rather than account **E**367 (underground conductors and devices), as expected.

The attached workpaper replaces the previous workpaper provided on November 20, 2017 (correction to tab E367).

Please see the attached document:

▢ ORA-SDGE-011-CL8-Q1-SDG&E-34-WP-281 MVanderbilt_Depreciation_FNS-**R**.xlsx

o (Revised version for correction to tab E367)
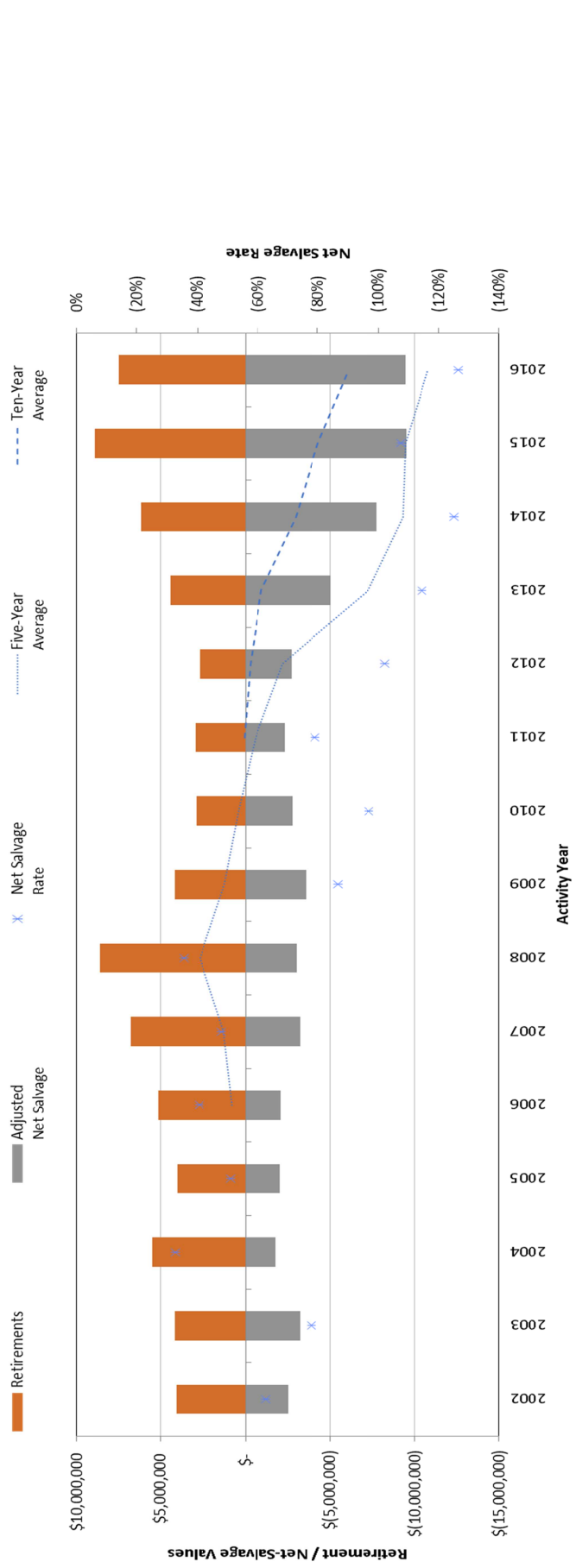
ORA DATA REQUEST
ORA-SDGE-052-CL8
SDG&E 2019 GRC – A.17-10-007
SDG&E RESPONSE
DATE RECEIVED: DECEMBER 6, 2017
DATE RESPONDED: DECEMBER 20, 2017

Exhibit Reference: SDG&E-34 and SDG&E-34-WP
SDG&E Witness: Matthew C. Vanderbilt
Subject: Depreciation

Please provide the following:

1. Follow-up question to the Master Data Request response, Chapter 27, Question 2.

a. Please provide 5 years of historical data (2012-2016) of actual net salvage
   dollars collected in rates.

b. Please provide 5 years of historical data (2012-2016) of year-end accumulated
   net salvage, *i.e.,* total accumulated net salvage dollars accounted for within the
   depreciation reserve.

c. Please explain why 2012 appears to be a historical outlier with a particularly high
   recorded cost of removal, whereas subsequent years start at a much lower level
   and show a time trend towards increasing costs.

SDG&E Response 1:

a. The actual net salvage dollars collected in rates for 2012-2016 are the amounts authorized
per the Commission's decision on SDG&E's TY 2012 GRC (D.13-05010) and TY 2016
GRC (D.16-06-054). As stated in the Master Data Request response, Chapter 27, Question 2:
"The annual negative net salvage authorized in rates for 2012 through 2015 was
approximately $319,604,000 and $118,607,000 for 2016."

b. Shown below is 5 years of historical data (2012-2016) of year-end accumulated net
salvage accounted for within the depreciation reserve.

2012 = $ (1,036,952,763)

2013 = $ (1,065,827,421)

2014 = $ (1,106,367,549)

2015 = $ (1,142,188,481)

2016 = $ (1,204,601,037)

c. When preparing the responses for the Master Data Request, some removal costs related to the San Onofre Nuclear Generating Station (SONGS) Steam Generator Replacement Project, which were never a part of any SDG&E General Rate Case, were inadvertently included. The correct amount for 2012, excluding the SONGS Steam Generator Replacement Project, is $45,394,037.52.

2. Follow-up question to Data Request ORA-SDG&E-005-CL8, Question 5:

a. Please provide a copy of the DSEC lease. Reference the section(s) of the lease that govern the return of the property to the City of Boulder.

b. Please provide a copy of the independent auditor's report regarding DSEC, as referenced in Finding and Conclusion 19 on page 19 of Resolution E-4465.

c. Please provide historical data for the DSEC for each year since 2011, inclusive, as of December 31 of each year, plus data that were current when SDG&E assumed ownership of DSEC in October 2011. Break the data down by FERC account. Please include:
i. Accumulated cost;
ii. Additions;
iii. Retirements;
iv. Accumulated reserves;
v. Future net salvage;
vi. Recoverable balance (accumulated cost plus net salvage, less reserves);
vii. Any applicable adjustments.

d. Please provide a reconciliation of each annual amount of capital additions. Include cross-references to all relevant regulatory filings according to which the additions were approved.

e. Were the terms of the lease reviewed during the Commission's examination of any of the regulatory filings identified under (d) above?

f. Please explain why SDG&E did not request this change to the decommissioning date during its 2016 GRC proceeding.

g. Do the depreciation amounts embedded within the revenue requirements that were identified and approved by Resolution E-4465 correspond to a date for the commencement of decommissioning in mid-2026?
i. If so, please explain why this differs from the 2016 GRC filing.
ii. If not, please explain what date was used for the estimated date of decommissioning commencement when the Commission issued Resolution E-4465, and explain why this date did not account for the lease terms that require a mid-2026 date.

h. Given the 18-month decommissioning schedule noted in response to Question 5(a), please explain why the commencement of decommissioning in "mid-2026" noted in response to 5(b) is apparently less than 18 months prior to April 2027.

SDG&E Response 2:

a. Please refer to Sections 1.3, 2.10, 28.1, and 28.2 of the attached document: ORASDGE-052-CL8_Attachment1.xlsx.[1]

b. Please refer to the attached document: ORA-SDGE-052-CL8_Attachment 2.xlsx.

c. Please refer to the attached document: ORA-SDGE-052-CL8_Attachment 3.xlsx.

d. Please refer to the attached document for a summary of capital additions: ORASDGE-052-CL8_Attachment3.xlsx.

D.07-11-046 approved SDG&E's request to exercise an option to purchase the Desert Star Energy Center (DSEC), formerly the El Dorado Power Plant. SDG&E assumed ownership of DSEC on October 1, 2011. SDG&E is not aware of any regulatory filings approving upgrades to DSEC outside of the general rate case proceedings. Capital costs related to SEC are addressed in SDG&E's General Rate Case. DSEC was first included in SDG&E's TY 2016 GRC.

e. SDG&E is not aware of a Commission review of the lease terms during its 2016 GRC or any other regulatory filings.

f. Review of the lease terms in 2017 necessitated a change in the decommissioning date.

g. No, the revenue requirements that were identified and approved by Resolution E4465 did not correspond to commencement of decommissioning in mid-2026. The revenue requirements approved in Resolution E-4465 did not consider the lease terms.

h. Pursuant to Section 2.10 of the lease, the Tenant must remove all improvements from the leased premises "within one hundred eighty (180) days after (i) the expiration or earlier termination of this Lease or (ii) notice from Landlord given not later than one hundred (180) days after the expiration or termination of this Lease, whichever is later, as to that portion of the Leased Premises upon which Improvement to be removed is situated". Commencement of decommissioning in mid-2026 is based on the requirement that removal of improvements is complete 180 days after expiration of the lease in April 2027. With an 18-month decommissioning schedule, work must begin in approximately mid-2026 to be complete 180 days after termination of the lease.[1]

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1. Original effective date of the lease is April 30, 1997.

ORA DATA REQUEST
ORA-SCG-061-CL8
SOCALGAS 2019 GRC – A.17-10-008
SOCALGAS RESPONSE
DATE RECEIVED: DECEMBER 27, 2017
DATE RESPONDED: JANUARY 10, 2018

Exhibit Reference: SCG-36 and SCG-36-WP
SCG Witness: Flora Ngai
Subject: Depreciation

2. Follow-up question to ORA-SCG-032-CL8, Question 1 (b). ORA requested the following: "Please provide 5 years of historical data (2012-2016) for year-end accumulated net salvage (i.e., accumulated net salvage dollars accounted for within the depreciation reserve)."

SoCalGas responded, "The net salvage dollars accounted for within the depreciation reserve is the "Net Salvage Recorded" column as shown in the table provided in response to the Master Data Request, Chapter 30, Question 2. For your convenience, the table is reproduced below..." SoCalGas provided the actual (current-year) recorded net salvage, but not the requested data for the **accumulated** net salvage. The total amount of pre-funded future net salvage held by SoCalGas increases with each year that SoCalGas collects net salvage dollars in rates in excess of the recorded actual net salvage of that year. This accumulation is a regulatory liability arising from removal obligations, as reported on Sempra Energy's balance sheet. Please provide the originally requested 5 years (2012-2016) of historical data for year-end accumulated net salvage.

SoCalGas Response 2:

In response to Data Request ORA-SCG-032-CL8 Question 1(b), SoCalGas provided the salvage and cost of removal activity for 2012-2016. In this follow-up request, ORA clarifies that the reserve balance is being requested and not the activity for salvage and cost of removal. As explained in response to Question 1 above, SoCalGas' accounting data records gross salvage as part of the life accrual and not separately. Therefore, a net salvage provision and accumulated provision is not available. In response to this request, below is the accumulated cost of removal reserve balances for 2012-2016.

Year	*Accumulated Provision (Cost of Removal)
2012	$1,914,667,366
2013	$1,977,617,874
2014	$2,034,400,764
2015	$2,073,738,067
2016	$2,130,185,768

*Excludes SECCBA (PSEP) which has separate rate-making.