

Company: San Diego Gas & Electric Company (U 902 M)  
Proceeding: 2019 General Rate Case  
Application: A.17-10-007/008 (cons.)  
Exhibit: SDG&E-234

**SDG&E**

**REBUTTAL TESTIMONY OF DANE A. WATSON**

**(DEPRECIATION)**

**JUNE 18, 2018**

**BEFORE THE PUBLIC UTILITIES COMMISSION  
OF THE STATE OF CALIFORNIA**



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1 **SDG&E REBUTTAL TESTIMONY OF DANE A. WATSON**  
2 **(DEPRECIATION)**

3 **I. INTRODUCTION**

4 This rebuttal testimony regarding San Diego Gas & Electric Company's (SDG&E's)  
5 request for Depreciation addresses the following testimony from other parties:

- 6 • The Office of Ratepayer Advocates (ORA) as submitted by Mr. Christian  
7 Lambert, dated April 13, 2018.<sup>1</sup>
- 8 • The Utility Reform Network (TURN), as submitted by Mr. Robert  
9 Finkelstein (Exhibit TURN-07), dated May 14, 2018.<sup>2</sup>

10 I assume the Depreciation witnessing role and adopt the Revised Direct Testimony of  
11 Matthew C. Vanderbilt.<sup>3</sup> My rebuttal testimony addresses issues raised by ORA and TURN.

12 **A. ORA**

13 ORA issued its report on Depreciation on April 13, 2018.<sup>4</sup> The following is a summary  
14 of ORA's positions:

- 15 • ORA opposes an increase in depreciation for the Desert Star Energy  
16 Center (DSEC).
- 17 • ORA opposes an increase in depreciation for the Wind Energy Project  
18 (WEP).
- 19 • ORA recommends retaining the existing survivor curve of 48 R0.5 for  
20 Accounts E370.10 (Legacy Meters) and E370.20 (Legacy Meter)

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<sup>1</sup> April 13, 2018, Direct Testimony of Christian Lambert, Report on the Results of Operations for San Diego Gas and Electric Company Southern California Gas Company Test Year 2019 General Rate Case, Depreciation, Ex. ORA-27 (Ex. ORA-27 (Lambert)).

<sup>2</sup> May 14, 2018, Prepared Testimony of Robert Finkelstein, Addressing the Proposals of San Diego Gas & Electric and Southern California Gas Company in Their Test Year 2019 General Rate Case Related to Depreciation, The Morongo Rights-of-Way Balancing and Memorandum Accounts, and SDG&E's Extraordinary Attempt to Re-Direct Federal Tax Savings, submitted on behalf of The Utility Reform Network, Ex. TURN-07 (Ex. TURN-07 (Finkelstein)).

<sup>3</sup> December 20, 2017, Revised Direct Testimony of Matthew C. Vanderbilt (Depreciation), Ex. SDG&E-34-R, (Ex. SDG&E-34-R (Vanderbilt/Watson)).

<sup>4</sup> Ex. ORA 27 (Lambert).

1 Installations), versus SDG&E's (the Company) proposed 19 5/12 O2 life  
2 and curve.

- 3 • ORA recommends a different net salvage parameter for Account E365  
4 (Overhead Conductors and Devices) of -65%, versus the Company's  
5 proposed net salvage parameter of -70%.
- 6 • ORA recommends a different net salvage parameter for Account E366  
7 (Underground Conduit) of -65%, versus the Company's proposed net  
8 salvage parameter of -75%.
- 9 • ORA recommends a different net salvage parameter for Account E367  
10 (Underground Conductors and Devices) of -80%, versus the Company's  
11 proposed net salvage parameter of -90%.
- 12 • ORA recommends a different net salvage parameter for Account E368.2  
13 (Capacitors) of -80%, versus the Company's proposed net salvage  
14 parameter of -95%.
- 15 • ORA recommends a different net salvage parameter for Account E371  
16 (Installations on Customer Premises) of -65%, versus the Company's  
17 proposed net salvage parameter of -106.25%.
- 18 • ORA recommends a different net salvage parameter for Account E373.20  
19 (Street Lighting and Signal Systems) of -85%, versus the Company's  
20 proposed net salvage parameter of -110%.

21 **B. TURN**

22 TURN submitted testimony on May 14, 2018.<sup>5</sup> The following is a summary of TURN's  
23 positions:

- 24 • TURN opposes any change in depreciation rates, parameters, and/or net  
25 salvage for any plant account that existed in the last General Rate Case  
26 (GRC).
- 27 • For the only new account since the last GRC, Account E398.2 (Electric  
28 Vehicle Supply Equipment), TURN recommends a 10-year life, as  
29 opposed to SDG&E's proposed life of five years.

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<sup>5</sup> Ex. TURN-07 (Finkelstein).

- TURN claims that SDG&E did not explain how judgment shaped its recommendations.
- TURN asserts that SDG&E did not explain their net salvage recommendations and failed to employ gradualism.

## II. REBUTTAL TO ORA’S DEPRECIATION PROPOSALS

Because there are changes in the original recommendations from the filed case, please see Appendix B, which shows the recommended depreciation parameters (life and net salvage), and Appendix C, which shows the recommended depreciation rates.

### A. Depreciation Rates for Production Facilities

#### 1. DSEC

**Table DAW-1: DSEC Accrual Rate**

	<b>Current</b>	<b>Proposed</b>
SDG&E	<b>4.4094%</b>	<b>5.5699%</b>
ORA	<b>4.4094%</b>	<b>4.2687%</b>

ORA’s proposal regarding DSEC violates standard depreciation practices and theory. While ORA accepts the basis for the reduction in life and net salvage estimates, it argues that SDG&E should not recover the additional depreciation resulting from the 3.17-year reduction in remaining life.<sup>6</sup> In this filing, SDG&E proposes to change the terminal retirement date from mid-2029 to mid-2026. From a depreciation theory standpoint, if the life of an asset changes, the depreciation rate should be calculated from the updated life. ORA did not do this.

SDG&E disagrees with ORA’s proposed depreciation rate for this facility. ORA offers no precedent or support for why an inaccurate depreciation rate should be purposefully used as a penalty. The goal in setting a depreciation rate is to allow for, as accurately as possible, the recovery of the original cost of the investment. The depreciation rate ORA proposes will not allow SDG&E to recover a portion of the cost of the Desert Star Energy Center, when there is no claim of imprudence for the capital being depreciated. Such a penalty is inconsistent with reasonable depreciation and regulatory policy, since the investment in this facility was considered prudent and approved. For these reasons, SDG&E requests approval of its originally proposed depreciation rate, based on a retirement date of mid-2026.

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<sup>6</sup> Ex. ORA-27 (Lambert) at 8-12.

1                   **2.     WEP**

2                                   **Table DAW-2: WEP Accrual Rate**

	<b>Current</b>	<b>Revised Proposal</b>
SDG&E	<b>5.0322%</b>	<b>5.9413%</b>
ORA	<b>5.0322%</b>	<b>5.9413%</b>

3                   ORA proposes to maintain the current 20-SQ interim retirement survivor curve for the  
4 WEP.<sup>7</sup> Upon further review, SDG&E accepts ORA’s proposal and adopts ORA’s proposed life,  
5 net salvage, and depreciation rate.

6                   **B.     Life of Assets**

7                                   **1.     Account E370.10 (Legacy Meters)**

8   **Table DAW-3: E370.10 Life and Survivor Curve**

	<b>Current</b>	<b>Revised Proposed</b>
SDG&E	<b>48 R0.5</b>	<b>48 R0.5</b>
ORA	<b>48 R0.5</b>	<b>48 R0.5</b>

9  
10   **Table DAW-4: E370.10 Accrual Rate**

	<b>Current</b>	<b>Revised Proposed</b>
SDG&E	<b>2.0112%</b>	<b>2.0112%</b>
ORA	<b>2.0112%</b>	<b>2.0112%</b>

11                   ORA takes issue with the proposed life for Account E370.10. SDG&E requests a  
12 reduction in life for this account, whereas ORA suggests retaining this account’s existing life.<sup>8</sup>  
13 This account has been impacted by SDG&E’s Smart Meter implementation. Since SDG&E’s  
14 Test Year (TY) 2012 GRC, the plant balance of this account has declined from \$90 million to  
15 \$3.5 million at year-end 2016. The historical results noted in the Company’s original proposal  
16 reflect the rapid retirement of legacy meters during the Smart Meter program. Instead of simply  
17 retaining the existing life, to remove the impact of the deployment, an actuarial analysis between  
18 1990-2009 should be examined to reflect the experience in this account before the Smart Meter  
19 program. As ORA has observed, “these assets serve customers who elected to opt out of Smart  
20

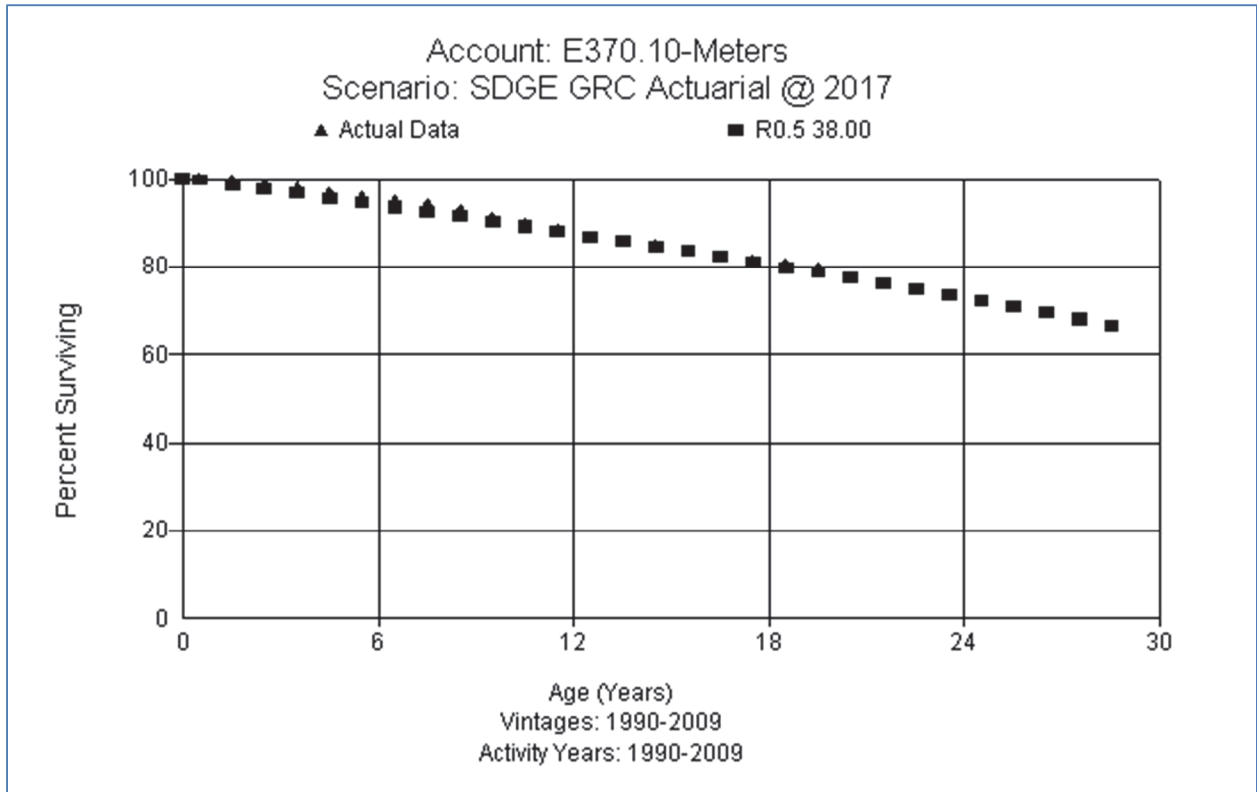
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<sup>7</sup> *Id.* at 12-13.

<sup>8</sup> *Id.* at 13-14.

1 Metering, as well as customers in rural areas where Smart Meter deployment is not possible.”<sup>9</sup>  
 2 In that analysis, the best fitting curve visually, is a 38 R0.5 as shown below.

3 **Figure DAW-1: E370.10 Survivor Curve**



4  
 5 From the results of that analysis, the life ORA is recommending is closer to the actual  
 6 experience absent the Smart Meter deployment. Therefore, SDG&E will not challenge ORA’s  
 7 recommendation.

8 **2. Account E370.20 (Legacy Meter Installations)**

9 **Table DAW-5: E370.20 Life and Survivor Curve**

	<b>Current</b>	<b>Revised Proposed</b>
SDG&E	<b>48 R0.5</b>	<b>48 R0.5</b>
ORA	<b>48 R0.5</b>	<b>48 R0.5</b>

10

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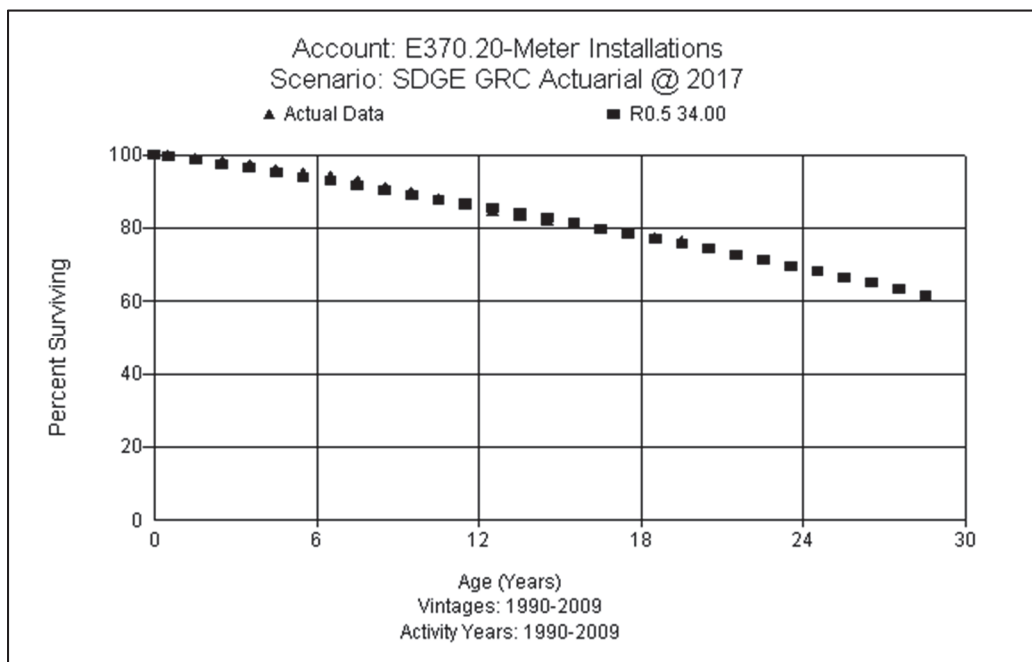
<sup>9</sup> *Id.*

**Table DAW-6: E370.20 Accrual Rate**

	<b>Current</b>	<b>Revised Proposed</b>
SDG&E	<b>2.0417%</b>	<b>2.0417%</b>
ORA	<b>2.0417%</b>	<b>2.0417%</b>

ORA takes issue with the proposed life for Account E370.20 (Legacy Meter Installations). SDG&E requests a reduction in life for this account. ORA suggests retaining the existing life.<sup>10</sup> This account has been impacted by SDG&E’s Smart Meter implementation. Since SDG&E’s TY 2012 GRC, the plant balance has declined from \$44.8 million to \$5.2 million at year-end 2016. The historical results noted in SDG&E’s original proposal reflect the rapid retirement of legacy meters during the Smart Meter program. Instead of simply retaining the existing life, to remove the impact of the deployment, an actuarial analysis between 1990-2009 should be examined to reflect the experience in this account before the Smart Meter program. As ORA has observed, “these assets serve customers who elected to opt out of Smart Metering, as well as customers in rural areas where Smart Meter deployment is not possible.”<sup>11</sup> In that analysis, the best fitting curve visually, is a 34 R0.5 shown below.

**Figure DAW-2: E370.20 Survivor Curve**



<sup>10</sup> *Id.* at 13-14.

<sup>11</sup> *Id.*



1 From the results of that analysis, the life ORA is recommending is closer to the actual  
2 experience. Therefore, SDG&E will not challenge ORA's recommendation.

### 3 C. Net Salvage

4 In ORA's net salvage recommendations, they claim a Federal Energy Regulatory  
5 Commission (FERC) precedent for using a 15-year average as a reasonable basis for calculating  
6 net salvage rates.<sup>12</sup> However, there appears to be only one case citation from a 2006 case to  
7 support the veracity of ORA's claims. In my various depreciation filings with FERC, I have  
8 never been held to that standard. Nor am I aware of others who have. The normal depreciation  
9 standard is to analyze short, medium, and long averages (*e.g.*, 3, 5, and 10-year averages), to  
10 look for changes or trends in the actual experience of a company. More recent averages tend to  
11 be better predictors of current experience and the future net salvage that should be expected. As  
12 stated in Public Utility Depreciation Practices,

13 In making this analysis it is common to look at data for bands of years, such as  
14 1988-93, 1989-94, 1990-95.etc. These bands may, or may not coincide with the  
15 bands used in making the life analysis. They should be just broad enough so a  
16 family smooth trend can be detected, if one exists. If retirements are few or  
17 erratic from one period to another, it will be necessary to use the wider band. As  
18 a general rule, the greater the retirement activity the shorter the band necessary for  
19 analysis and vice versa. If the band is too long, it may mask any trend.<sup>13</sup>

20 The treatise Introduction to Depreciation for Public Utilities and Other Industries  
21 likewise states that, "[t]he final selection should be based in part on judgment using the facts and  
22 circumstances surrounding the data with a weighting toward more current data to the degree that  
23 is more representative of the future."<sup>14</sup>

24 ORA also contends that SDG&E incurs higher negative net salvage because of inflation.  
25 This contention is incorrect. The analysis used by SDG&E was based on the labor to remove  
26 assets from service (*i.e.*, wages, not general inflation). Additionally, as stated in Mr.  
27 Vanderbilt's direct testimony, "[c]hanges in designs, technology, and environmental regulations  
28 will influence both the cost of removal and salvage values."<sup>15</sup> ORA's confusing distinction

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<sup>12</sup> *Id.* at 15.

<sup>13</sup> 1996, Public Utility Practices at 159.

<sup>14</sup> 2013, Introduction to Depreciation for Public Utilities and Other Industries, at 117.

<sup>15</sup> Ex. SDG&E-34-R (Vanderbilt/Watson) at 6.

1 between inflation and nominal wage growth is an attempt to deny the fact that the costs to  
2 remove assets continue to rise. In many urban areas, there are restrictions on work hours,  
3 signage, and traffic control that impact cost of removal. Finding qualified contractors can also  
4 be a factor that increases removal cost. These factors, as well as increases in the cost of labor,  
5 affect the removal costs incurred by SDG&E.

6 **1. Account E365 (OH Conductors and Devices)**

7 **Table DAW-7: E365 Net Salvage**

	<b>Current</b>	<b>Proposed</b>
SDG&E	<b>-70%</b>	<b>-70%</b>
ORA	<b>-70%</b>	<b>-65%</b>

8  
9 ORA takes issue with the Company's net salvage proposal for Account E365.<sup>16</sup> ORA  
10 criticizes the data adjustments made to the Company's net salvage data, but the adjustment for  
11 this account reduced removal cost. This means that the adjustment made the analysis show a less  
12 negative net salvage for this account than would have been exhibited without the adjustment.  
13 ORA's argument is unfounded. If ORA's contention was correct, the removal of the adjustment  
14 would result in making the salvage rate even more negative.

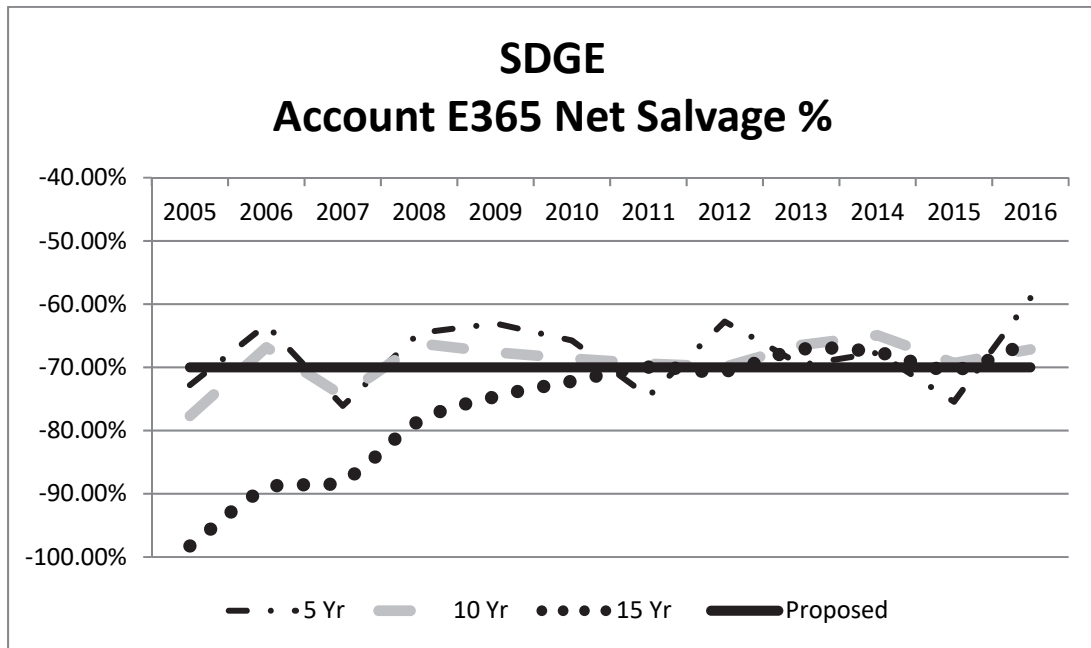
15 SDG&E disagrees with ORA's recommendation for this account. As shown below, the  
16 net salvage for this account for various bands (including the 15-year band) hovers around -70  
17 percent for numerous years. Based on the indications of the data, we continue to recommend -70  
18 percent net salvage for this account.

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<sup>16</sup> Ex. ORA-27 (Lambert) at 18.

1

Figure DAW-3: E365 Net Salvage



2

2. Account E366 (UG Conduit)

3

Table DAW-8: E366 Net Salvage

4

	Current	Proposed
SDG&E	-50%	-75%
ORA	-50%	-65%

5

ORA disagrees with the Company’s net salvage proposal for Account E366.<sup>17</sup> As with E365, ORA criticizes the data adjustments made to the Company’s net salvage data. And as with E365, the adjustment for this account reduced removal cost. This means that the adjustment made the analysis show a less negative net salvage for this account than would have been exhibited without the adjustment. As with the last account discussed, ORA’s argument is unfounded. If believed, it would have the effect of moving the net salvage even more negative.

11

SDG&E disagrees with ORA’s recommendation for this account. The graph below shows the removal cost for this account over time. There clearly is a continually decreasing (more negative) net salvage through time. With this increasing removal cost, SDG&E’s recommendation is conservative compared to any band other than the 15-year band. The 15-year band is the only band that is less negative than SDG&E recommended (-75 percent), and that is

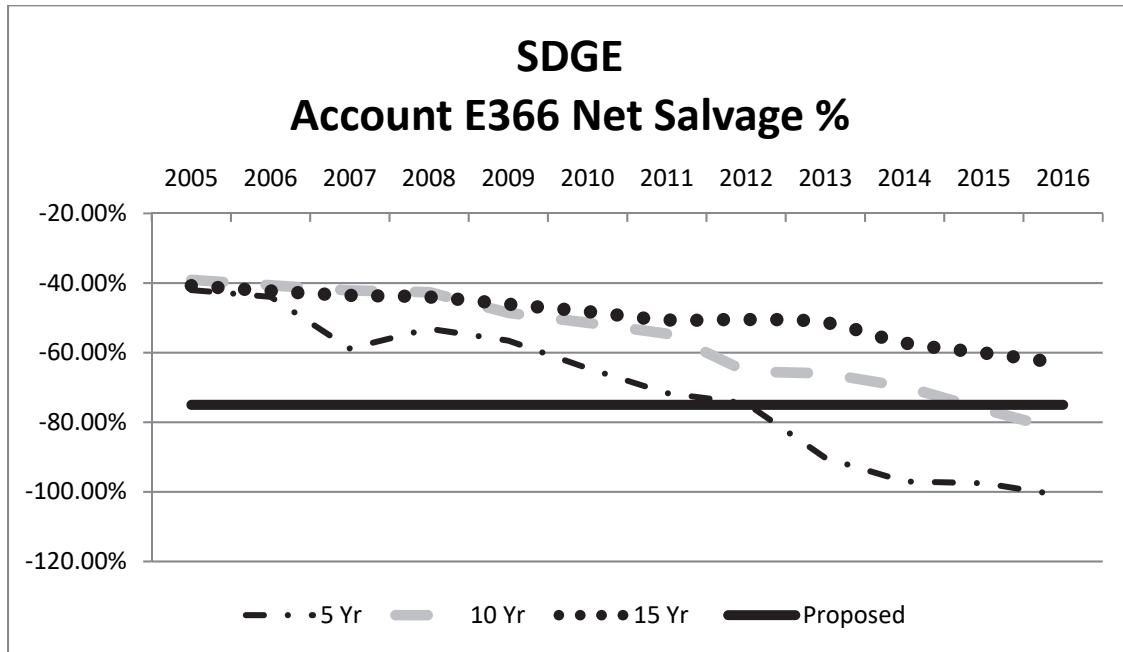
15

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<sup>17</sup> *Id.*

1 driven by a single year transaction 15 years ago. Based on the indications of the data, SDG&E's  
 2 proposal is reasonable and conservative based on historical analysis. SDG&E continues to  
 3 recommend -75 percent net salvage for this account.

4 **Figure DAW-4: E366 Net Salvage**



5  
6 **3. Account E367 (UG Conductors & Devices)**

7 **Table DAW-9: E367 Net Salvage**

	Current	Proposed
SDG&E	-65%	-90%
ORA	-65%	-80%

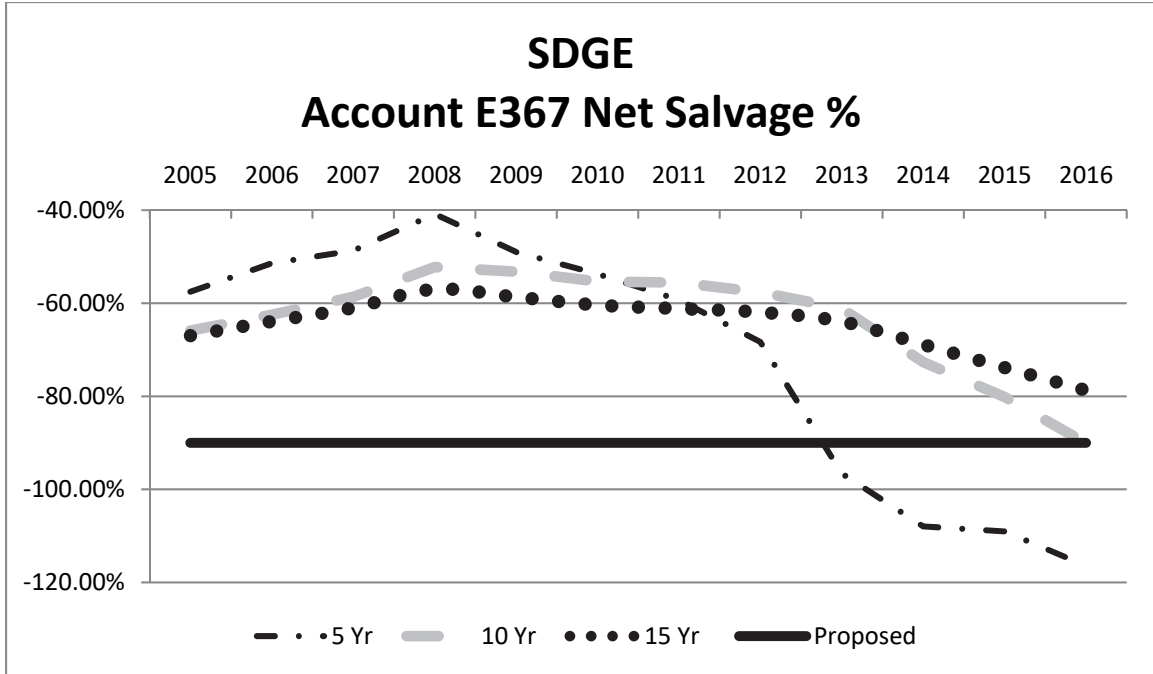
8 ORA disagrees with the Company's net salvage proposal for Account E367.<sup>18</sup> As with  
 9 previous accounts, ORA criticizes the data adjustments made to the Company's net salvage data.  
 10 But as with the other accounts, the adjustment for this account reduced removal cost,  
 11 contributing to a less negative net salvage reflected in the analysis for this account.

12 SDG&E disagrees with ORA on its recommendation. The graph below shows the impact  
 13 of increasing removal cost for this account. Using data that is more than 10 years old – when  
 14 removal cost has been steadily increasing over the last decade – is not indicative of future net

<sup>18</sup> *Id.*

1 salvage for this account. Based on the indications of the data, SDG&E continues to recommend  
 2 a -90 percent net salvage.

3 **Figure DAW-5: E367 Net Salvage**



4  
 5 **4. Account E368.2 (Capacitors)**

6 **Table DAW-10: E368.2 Net Salvage**

	Current	Proposed
SDG&E	-70%	-95%
ORA	-70%	-80%

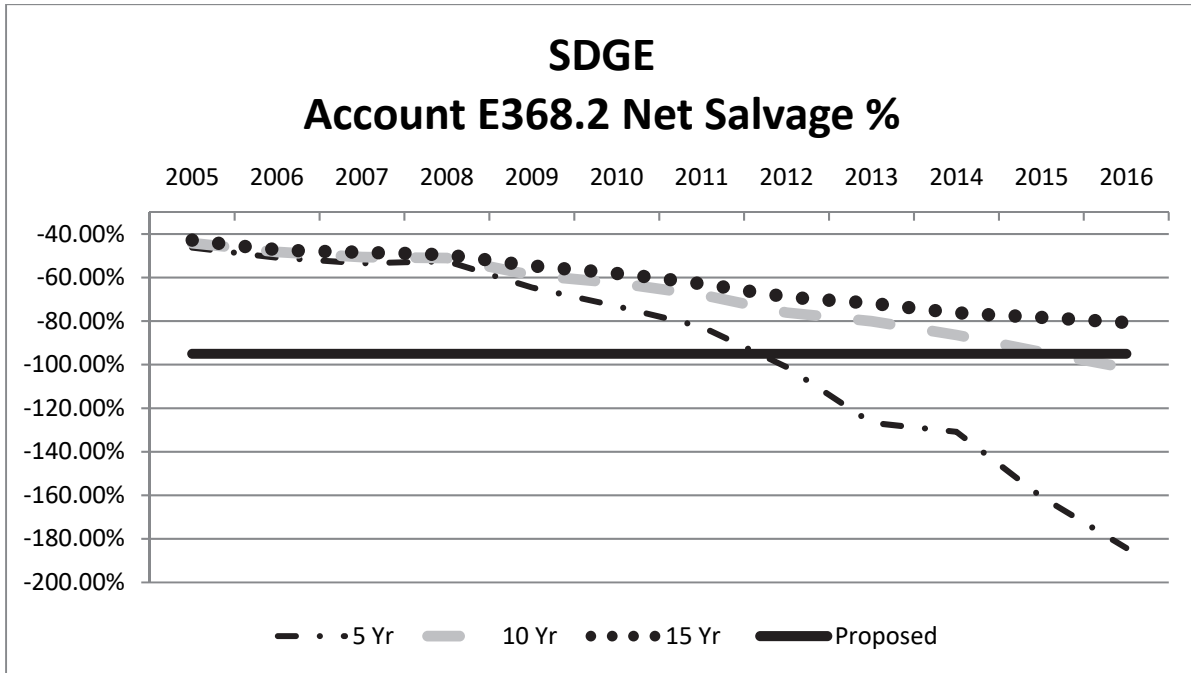
7  
 8 ORA disagrees with the Company's net salvage proposal for Account E368.2.<sup>19</sup> As with  
 9 other accounts, ORA criticizes the data adjustments made to the Company's net salvage data.  
 10 But the adjustment for this account reduced removal cost and contributes to a less negative net  
 11 salvage.

12 SDG&E disagrees with ORA. As with previous accounts discussed, SDG&E is  
 13 exhibiting continuously more negative net salvage in recent years. With this steadily increasing  
 14 removal cost, using data from nearly 15-year-old data will not represent the expectations for  
 15 future net salvage. The graph below shows the impact of increasing removal cost for this

<sup>19</sup> *Id.* at 19.

1 account. Based on the indications of the data, SDG&E continues to recommend -95 percent net  
 2 salvage for this account.

3 **Figure DAW-6: E368.2 Net Salvage**



4  
 5 **5. Account E371 (Installations on Customer Premises)**

6 **Table DAW-11: E371 Net Salvage**

	<b>Current</b>	<b>Proposed</b>
SDG&E	<b>-90%</b>	<b>-106.25%</b>
ORA	<b>-90%</b>	<b>-65%</b>

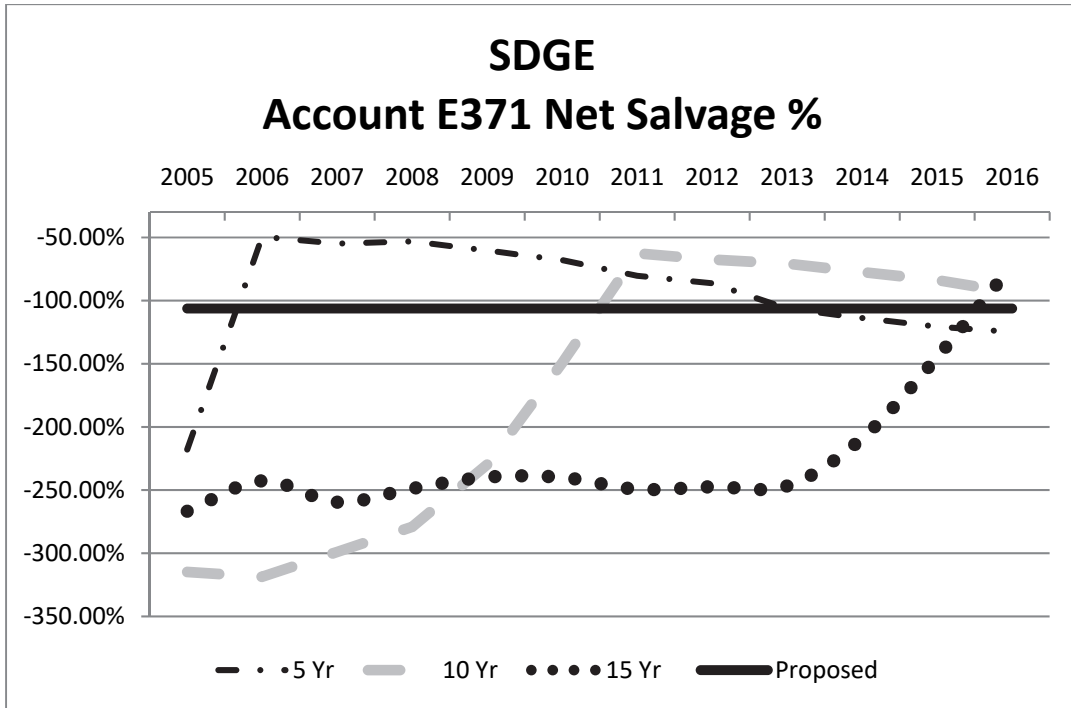
7 ORA disagrees with the Company's net salvage proposal for Account E371.<sup>20</sup> Again,  
 8 ORA criticizes the data adjustments made to the Company's net salvage data. But the  
 9 adjustment for this account reduced removal cost and contribute to a less negative net salvage for  
 10 this account.

11 SDG&E disagrees with ORA. For the last six years, SDG&E has experienced more than  
 12 -100 percent net salvage. The historical experience shows consistent removal costs and very  
 13 little salvage. These removal costs are increasing. The graph below shows the impact of  
 14 increasing removal cost for this account – and the fallacy of recommending a -65 percent net

<sup>20</sup> *Id.* at 20.

1 salvage. Based on the above, SDG&E recommends retaining -106.25 percent net salvage for this  
 2 account.

3 **Figure DAW-7: E371 Net Salvage**



4  
 5 **6. Account E373.2 (Street Lighting & Signal Systems)**

6 **Table DAW-12: E373.2 Net Salvage**

	<b>Current</b>	<b>Proposed</b>
SDG&E	<b>-85%</b>	<b>-110%</b>
ORA	<b>-85%</b>	<b>-85%</b>

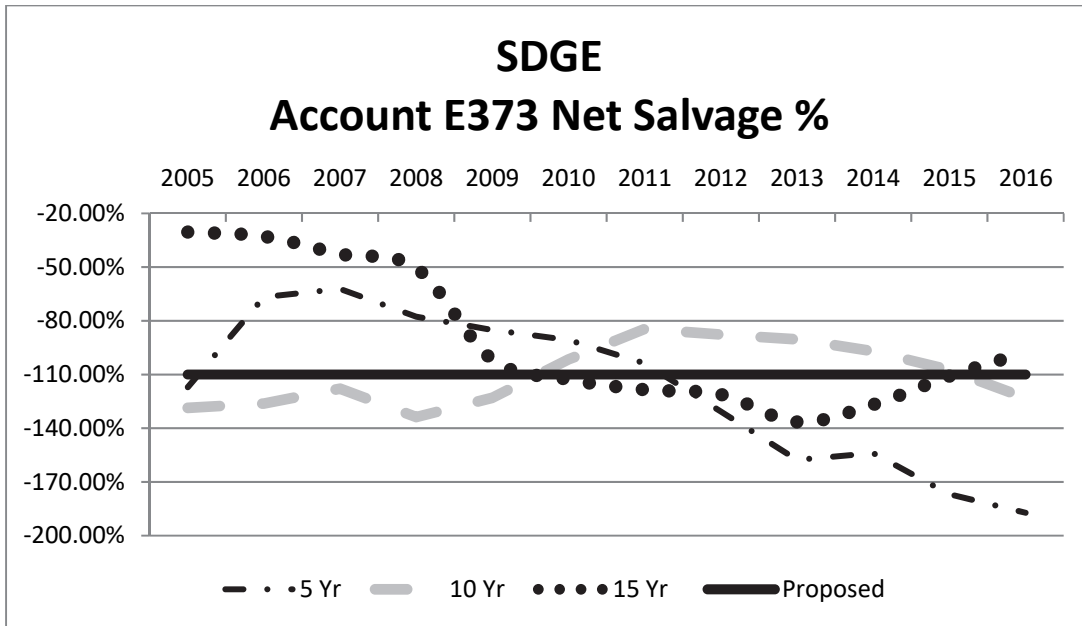
7 ORA disagrees with the Company's net salvage proposal for Account E373.2.<sup>21</sup> As with  
 8 other accounts, ORA criticizes the data adjustments made to the Company's net salvage data.  
 9 But again, the adjustment for this account reduced removal cost and contributed to a less  
 10 negative net salvage for this account.

11 SDG&E disagrees with ORA. As with the previous accounts discussed, net salvage  
 12 experienced by SDG&E is increasingly negative over time. The graph below shows the impact  
 13 of increasing removal cost for this account. All bands throughout the last 11 years exhibit a net  
 14 salvage more negative than SDG&E's recommendation. In other words, the indication of the

<sup>21</sup> *Id.*

1 increasingly negative net salvage from the last 10 years is a better representation of future net  
 2 salvage than those of the more distant past. Based on the indications of the data, SDG&E  
 3 continues to recommend -110 percent net salvage for this account.  
 4

**Figure DAW-8: E373 Net Salvage**



5  
 6 **III. REBUTTAL TO TURN’S DEPRECIATION PROPOSALS**

7 **A. TURN’S Proposal for No Change in Depreciation Rates or Parameters**

8 TURN recommends no change to SDG&E’s depreciation proposals.<sup>22</sup> In so doing, it  
 9 ignores the Company’s several hundred pages of workpapers and responses to data requests,  
 10 which support changes in life, net salvage, and depreciation accrual rates. As shown in response  
 11 to ORA’s arguments above (as well as in the Company’s original filing), SDG&E’s removal cost  
 12 is clearly and irrefutably increasing and the adjustments to the Company’s lives are fully  
 13 supportable. To deny any adjustment to SDG&E’s depreciation rates is not supported by the  
 14 facts in this proceeding that demonstrate the need for additional depreciation expense. SDG&E’s  
 15 incremental movement in net salvage toward the actual experience of the Company is a reasoned  
 16 and rational step to address that continued increase in removal cost.

17 Notably, TURN does not challenge any of SDG&E’s lives except for Accounts E398.2  
 18 and E370.1/E370.2 (discussed above). It only challenges those two lives by critiquing the

<sup>22</sup> Ex. TURN-07 (Finkelstein) at 2.



1 summary-level descriptions in direct testimony – while ignoring the exhibits and workpapers.  
2 Worse, TURN confuses the record with citations from another company’s depreciation study  
3 from five years ago, which is not the subject of this proceeding and is not relevant to a decision  
4 for SDG&E.<sup>23</sup>

5 TURN supports its desire to ignore the updated depreciation study for SDG&E by  
6 claiming there was not a full “showing” of judgment.<sup>24</sup> TURN describes the similarities in  
7 summary-level discussion for two SDG&E accounts (one large and one small), while failing to  
8 mention the hundreds of pages of workpapers provided in support of the analysis of the various  
9 accounts in the depreciation study.

10 As background to the discussion of judgment, every depreciation study contains  
11 elements of judgment – survivor curve, average service life, and a determination as to  
12 whether expectations of the past will be present in the future. Judgment is a recognized  
13 component of depreciation studies. The California Public Utilities Commission’s  
14 (Commission) Standard Practice U-4 states:

15 Determination of the remaining life basically involves the **judgment** estimate of  
16 the engineer as to the future effect of wear and tear, decay, action of the elements,  
17 inadequacy, obsolescence, and public requirements. In special cases other factors  
18 may be important, such as anticipated changeovers to new or improved major  
19 units of plant, and other specific plans of management. To arrive at a satisfactory  
20 estimate of future conditions, the past experience generally gives indications  
21 which may be used as a major element in the remaining life estimate. The weight  
22 to be given past experience depends upon the extent to which conditions affecting  
23 service life in the future are expected to be similar to or different from those in the  
24 past. However, substantial weight is generally given to results of past experience  
25 in the same or comparable properties.<sup>25</sup>

26 Public Utility Depreciation Practices offers similar guidance: “[t]he estimation of  
27 depreciation parameters is not, of course, a scientifically exact process, since it involves a large

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<sup>23</sup> *Id.* at 3-4.

<sup>24</sup> *Id.* at 3.

<sup>25</sup> California Public Utilities Commission Standard Practice U-4: Determination of Straight-Line Remaining Life Depreciation Accruals, 1961 (Commission Standard Practice U-4) at 15 (emphasis added).

1 element of informed judgment regarding future developments.”<sup>26</sup> Any depreciation study  
2 requires informed judgment by the analyst conducting the study. A knowledge of the property  
3 being studied, company policies and procedures, general trends in technology and industry  
4 practice, and a sound basis of understanding depreciation theory are needed to apply this  
5 informed judgment. In SDG&E’s depreciation study, judgment was used in areas such as  
6 survivor curve modeling and selection, depreciation method selection, and life analysis.

7         Where there are multiple factors, activities, actions, property characteristics, statistical  
8 inconsistencies, property mix in accounts or a multitude of other considerations that affect the  
9 analysis (potentially in various directions), judgment is used to take these considerations into  
10 account and synthesize them into a general direction or understanding of the characteristics of  
11 the property. Individually, no one consideration in these cases may have a substantial impact on  
12 the analysis. But overall, the collective effect of these considerations may shed light on the use  
13 and characteristics of assets. Judgment may also be defined as deduction, inference, wisdom,  
14 common sense, or the ability to make sensible decisions. There is no single correct result from  
15 statistical analysis; hence, there is no answer absent judgment.

16         TURN states that the Commission has had concerns about a company supporting  
17 judgment used in depreciation studies, referring to Southern California Edison’s (SCE) TY 2015  
18 GRC.<sup>27</sup> In the SCE TY 2015 GRC, the Commission pointedly noted that it had already  
19 “warned” SCE in SCE’s TY 2012 GRC about “over-reliance on judgment without” SCE  
20 providing further explanation.<sup>28</sup> Although the Commission concluded in that SCE GRC that  
21 “expert judgment can and should be used to complement, balance, and even override statistical  
22 results,” the Commission instructed that an “expert witness must be able to explain the  
23 quantitative or qualitative basis for such” an application of judgment.<sup>29</sup> The decision in SCE’s  
24 TY 2015 GRC was solely related to net salvage.<sup>30</sup>

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<sup>26</sup> 1996, Public Utility Depreciation Practices, National Association of Regulatory Utility Commissioners (NARUC) at 22.

<sup>27</sup> Ex. TURN-07 (Finkelstein) at 4:18-19 (citing Decision (D.) 15-11-021 (A.13-11-003)).

<sup>28</sup> D.15-11-021 at 396.

<sup>29</sup> *Id.* at 397-98.

<sup>30</sup> *Id.* at 398.

1 Here, SDG&E has fully supported its net salvage recommendations, and TURN  
2 mischaracterizes SDG&E's showing related to the Commission's decision in SCE's GRC.  
3 SDG&E follows the methods and procedures for depreciation in accordance with Commission  
4 Standard Practice U-4. TURN fails to consider the tangible information provided by SDG&E in  
5 this proceeding. Specifically, TURN lacks any quantitative analysis and review of SDG&E's  
6 testimony and workpapers. The "showing" by SDG&E and level of workpapers are very similar  
7 to what was provided in SDG&E's last GRC. This issue was not raised by TURN in SDG&E's  
8 last case. ORA challenged only a handful of SDG&E's proposed parameters; suggesting that  
9 ORA had sufficient information from testimony, workpapers, and data request responses to  
10 accept the remaining parameter proposals.

11 TURN critiques the proposed mortality curve selections, because the proposed curves  
12 may not be the highest ranked curve by least squares criteria. Mathematical matching is a tool to  
13 narrow the population of curves to consider. As stated in Public Utility Depreciation Practices,  
14 "the curves with the least sum of squared deviations are considered the best fits. The intent is  
15 not to select the one *best* curve but to consider the indicated patterns."<sup>31</sup> SDG&E reviewed  
16 mathematical fitting results, but many other factors such as placement bands/experience bands  
17 and visual matching were incorporated before making the final mortality selection. Depreciation  
18 Systems warns against strictly using methodical fitting by stating:

19 On the surface, the removal of judgment from the fitting process may appear to be  
20 an advantage, but blind acceptance of mechanical fitting process will occasionally  
21 but consistently result in poor results. A better procedure is to use the least  
22 squares method to select candidates for the best fit. Comparison of the sum of  
23 squares will reveal situations where the difference between the best choices is  
24 small. The analyst should then visually examine the observed data and compare  
25 them to the theoretical curves.<sup>32</sup>

26 The procedures the Company has used to select mortality curves are not capricious  
27 choices, but reasoned judgment recommended by treatises on the subject and the Commission's  
28 own guidelines. As such, TURN's recommendation is without merit and should be rejected by  
29 this Commission.

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<sup>31</sup> Public Utility Depreciation Practices at 125.

<sup>32</sup> Dr. F. K. Wolf and W. C. Fitch, Depreciation Systems, Iowa State University Press, (1994) at 47.

1           **B.     Net Salvage Recommendations**

2           Because depreciation expense is the loss in service value of an asset during a defined  
3 period (*e.g.*, one year), it must include a ratable portion of both the original cost of the asset and  
4 the net salvage. That is, the net salvage related to an asset should be incorporated in the cost of  
5 service during the same period as its original cost, so that customers receiving service from the  
6 asset pay rates that include a portion of both elements of the asset’s service value, the original  
7 cost and the net salvage value. For example, the full-service value of a \$500 distribution pole  
8 may also include \$350 of cost of removal and \$50 gross salvage, for a total service value of  
9 \$800.

10           The net salvage percentages estimated in SDG&E’s Depreciation Study were based on  
11 informed judgment that incorporated factors such as the statistical analyses of historical net  
12 salvage data, general knowledge, and experience of the industry practices, and trends in the  
13 industry in general. The statistical net salvage analyses incorporate the Company’s actual  
14 historical data for the period 2002 through 2016, and consider the cost of removal and gross  
15 salvage ratios to the associated retirements during the 15-year period. Trends of these data are  
16 also measured based on moving averages indications. Data from periods prior to 2002 show the  
17 continued increase in net salvage for the Company’s property.

18           In performing this depreciation study, SDG&E has employed gradualism and limited net  
19 salvage increases from current authorized levels. Increases in negative net salvage have been  
20 noted across the utility industry for decades. This is true not only in California, but across the  
21 nation. Data for specific accounts challenged by ORA are discussed earlier in this testimony.

22           TURN tries to mischaracterize SDG&E’s gradual approach to the movement in net  
23 salvage recommendations as “acceleration.”<sup>33</sup> In reality, gradualism is the incremental  
24 movement toward the actual experience of the Company. That the Company’s removal cost has  
25 continued to grow significantly over the last three GRC cycles is a fact clearly shown in the  
26 books and records of the company and presented in the depreciation study work papers. Below  
27 is a table of the 5-year average net salvage and recommended net salvage for SDG&E in those  
28 last three GRCs.

---

<sup>33</sup> Ex. TURN-07 (Finkelstein) at 9.

1

**Table DAW-13: Net Salvage Summary**

<b>Account</b>	<b>2012 GRC</b>	<b>2016 GRC</b>	<b>2019 GRC</b>	<b>5-yr Avg. 2016 GRC</b>	<b>5-Yr Avg. 2019 GRC</b>
E366	-40%	-50%	-75%	-90.24%	-101.09%
E367	-55%	-65%	-90%	-96.55%	-116.43%
E369.1	-90%	-110%	-137.5%	-179.20%	-219.95%
E369.2	-70%	-75%	-100%	-113.42%	-229.17%
E373.2	-70%	-85%	-110%	-157.71%	-187.25%
E397	-15%	-50%	-75%	-128.23%	-132.88%
G366	0%	0%	-25%	-950.67%	-579.18%
G367	-5%	-25%	-50%	-41.61%	-55.59%
G376	-45%	-55%	-80%	-70.58%	-121.77%
G378	-15%	-25%	-50%	-50.93%	-77.05%
G380	-75%	-70%	-95%	-109.99%	-173.11%

2

3

4 As shown, actual net salvage rates have become more negative as service lives have  
5 lengthened. While TURN suggests the movement is “accelerated,” it is clear the Company has  
6 tried to gradually move toward the actual experience of the company.

7 TURN’s proposal to hold net salvage at its current level has no supportable basis and will  
8 create intergenerational inequities. TURN’s recommendations should be rejected.

9

### **C. Life of Account E398.2 (Electric Vehicle Supply Equipment)**

9 Account E398.2 is a new account that did not exist in SDG&E’s last GRC cycle. These

10 assets are unlike other plant in service accounts currently in SDG&E’s assets. Below are the  
11 differing life proposals for this account.

12

**Table DAW-14: E398.2 Life Estimate**

	<b>Current</b>	<b>Proposed</b>
SDG&E / ORA	<b>NA</b>	<b>5 Years</b>
TURN	<b>NA</b>	<b>10 Years</b>

13

14 TURN’s recommendation ignores information provided in the Company’s workpapers

15 that support the Company’s recommended five-year life.<sup>34</sup> The Company retained Sargent &

<sup>34</sup> Ex. SDG&E-34-WP-R, Vanderbilt/Watson workpapers, Vol. 2, at 823, 836-839.

1 Lundy (S&L), a nationally known engineering firm to provide decommissioning estimates for its  
2 electric vehicle (EV) charging stations. To reflect the type of assets and the pace of technology  
3 for EV charging stations, S&L used a life of five years. S&L also benchmarked studies from  
4 other sources to establish the five-year life. TURN's proposal of a 10-year life ignores this data.  
5 TURN recommends that information from the pilot program application should be used to set the  
6 life for this account. Their recommendation ignores the additional facts and support from S&L  
7 and would create the risk of causing intergenerational inequities. The Company's  
8 recommendation of five years should be adopted for this account.

#### 9 **IV. CONCLUSION**

10 In conclusion, I disagree with ORA's life recommendation and proposed adjustments for  
11 net salvage for DSEC. ORA purposefully proposes an inaccurate depreciation rate that would  
12 not recover the original cost of the investment. I agree with ORA's proposal for life on WEP,  
13 Account E370.10 (Legacy Meters), and Account E370.2 (Legacy Meter Installations).

14 I also disagree with TURN's proposal to retain all of SDG&E's existing depreciation  
15 rates and parameters. The Commission has set a scheduled cycle for review of each company's  
16 depreciation rates. TURN's proposal lacks any quantitative analysis or review of SDG&E's  
17 workpapers. And TURN's proposal would create problems with the matching principle that the  
18 Commission strives to retain.

19 ORA and TURN both propose net salvage positions that ignore the reality of SDG&E's  
20 increasing removal cost, and I recommend the revised proposal in this testimony be adopted.

21 This concludes my rebuttal testimony.

1 **V. WITNESS QUALIFICATIONS**

2 My name is Dane A. Watson. I assumed the Depreciation witnessing role and  
3 responsibility for the Revised Direct Testimony of Matthew C. Vanderbilt. My business address  
4 is 101 E. Park Blvd, Suite 220, Plano, TX 75074. My title is Partner in Alliance Consulting  
5 Group (Alliance). Alliance provides consulting and expert services to the utility industry.

6 I hold a Bachelor of Science degree in Electrical Engineering from the University of  
7 Arkansas at Fayetteville and a Master's Degree in Business Administration from Amberton  
8 University. Since graduation from college in 1985, I have worked in the area of depreciation and  
9 valuation. I founded Alliance Consulting Group in 2004 and am responsible for conducting  
10 depreciation, valuation, and certain other accounting-related studies for utilities in various  
11 regulated industries. My duties related to depreciation studies include the assembly and analysis  
12 of historical and simulated data, conducting field reviews, determining service life and net  
13 salvage estimates, calculating annual depreciation, presenting recommended depreciation rates to  
14 utility management for its consideration, and supporting such rates before regulatory bodies.

15 My prior employment from 1985 to 2004 was with Texas Utilities (TXU). During my  
16 tenure with TXU, I was responsible for, among other things, conducting valuation and  
17 depreciation studies for the domestic TXU companies. During that time, I also served as  
18 Manager of Property Accounting Services and Records Management in addition to my  
19 depreciation responsibilities.

20 I am a Certified Depreciation Professional (CDP). The Society of Depreciation  
21 Professionals (the Society) has established national standards for depreciation professionals. The  
22 Society administers an examination and has certain required qualifications to become certified in  
23 this field. I have met all requirements and am a Certified Depreciation Professional.

24 I have twice been Chair of the Edison Electric Institute (EEI) Property Accounting and  
25 Valuation Committee and have been Chairman of EEI's Depreciation and Economic Issues  
26 Subcommittee. I was the Industry Project Manager for the EEI/AGA effort around the electric  
27 and gas industry adoption of FAS 143 and testified before FERC in the hearings leading up to  
28 the release of FERC Order 631. I am a Registered Professional Engineer (PE) in the State of  
29 Texas and a Certified Depreciation Professional. I am a Senior Member of the Institute of  
30 Electrical and Electronics Engineers (IEEE) and have held numerous offices on the Executive  
31 Board of the Dallas Section, Region and World-wide offices of IEEE. I have also twice served

1 as President of the Society of Depreciation Professionals. I also teach depreciation seminars on  
2 an annual basis for EEI and the American Gas Association (both basic and advanced levels) as  
3 well as developed and teach the advanced training for the Society of Depreciation Professionals  
4 and other venues.

5 I have conducted depreciation studies, filed written testimony, and testified before other  
6 state and federal agencies in my 33-year career in performing depreciation studies. A listing of  
7 my testimony appearances is found in Appendix D.

8 I have previously testified before the California Public Utilities Commission.



**APPENDIX A**

**GLOSSARY OF TERMS**

## APPENDIX A – GLOSSARY OF TERMS

Commission	California Public Utilities Commission
DSEC	Desert Star Energy Center
EV	Electric Vehicle
FERC	Federal Energy Regulatory Commission
GRC	General Rate Case
ORA	Office of Ratepayer Advocates
SDG&E/Company	San Diego Gas & Electric Company
TURN	The Utility Reform Network
S&L	Sargent & Lundy
WEP	Wind Energy Project

**APPENDIX B**

**SDG&E'S PROPOSED DEPRECIATION PARAMETERS**

## APPENDIX B: PROPOSED DEPRECIATION PARAMETERS

This appendix provides a summary comparison of current depreciation parameters to those proposed within this testimony. Additional detail regarding this comparison is located in Exhibit SDG&E-34-R-WP-002, Comparison of Current and Proposed Depreciation Parameters.

Depreciation Account	Current		Proposed		Revised Proposed <sup>1, 2</sup>	
	Curve-ASL <sup>3</sup> (1)	FNS% (2)	Curve-ASL (3)	FNS% (4)	Curve-ASL (5)	FNS% (6)
<b>Common Plant</b>						
C303.00-Software & Franchise	3,5,7,10	-	2-20	-	-	-
C390.10-Structures & Imprv.	S1-30	(15.00)	R0.5-41 <sup>11/12</sup>	(10.00)	-	-
C391.10-Furniture & Equip.	S6-18	-	SQ-18	3.73	-	-
C391.20-Computers & Equip.	S6-5	-	SQ-5	-	-	-
C392.10-Automotive Equip.	SQ-10	-	S3-3 <sup>1/2</sup>	-	-	-
C392.20-Trailers	L0-20	-	SQ-23	-	-	-
C392.30-Aviation	-	-	SQ-6	71.00	-	-
C393.10-Stores Equip.	L0-19	-	SQ-23	-	-	-
C394.11-Portable Tools	R2.5-23	-	SQ-23	-	-	-
C394.21-Shop Equip.	L1.5-35	-	SQ-29	-	-	-
C394.31-Garage Equip.	R3-19	-	SQ-21	-	-	-
C395.10-Laboratory Equip.	R5-25	-	SQ-26	-	-	-
C397.10-Commun Equip.	S6-13	-	SQ-13	-	-	-
C398.10-Miscellaneous Equip.	R0.5-13	10.00	SQ-14	1.00	-	-
<b>Electric Production Plant<sup>4</sup></b>						
Cuyamaca Peak Energy Plant	mid-2027	(0.36)	mid-2027	(4.72)	-	-
Desert Star Energy Center	mid-2029	(6.03)	mid-2026	(2.90)	-	-
Miramar Energy Facility	mid-2032	(0.52)	mid-2032	(1.33)	-	-
Palomar Energy Center	mid-2036	(4.75)	mid-2036	(1.78)	-	-
Solar Energy Projects	SQ-25	-	L3-25	(15.00)	-	-
						(cont )

<sup>1</sup> In the Revised Proposal column, any cells which are blank indicate retention of the Company's original proposal.

<sup>2</sup> While presented here, changes in ASL should be viewed in conjunction with survivor-curve dispersion in terms of resultant expectancy shifts for existing plant, as well as the minimum and maximum theoretical life. Additionally, ASL and FNS% are partially correlated, meaning ASL increases will generally result in FNS% decreases due to rising removal costs and lower salvage value over time.

<sup>3</sup> Curve-ASL referenced in this table provides the expected decommissioning date for end-of-life plant.

<sup>4</sup> FNS% for Electric Production Plant is expressed as the weighted-average figure based on year-end 2016 (BY 2016) plant balances and age dispersion. The FERC breakdown is provided in Exhibit SDG&E-34-R-WP-002.

Depreciation Account	Current		Proposed		Revised Proposed	
	Curve-ASL (1)	FNS% (2)	Curve-ASL (3)	FNS% (4)	Curve-ASL (5)	FNS% (6)
Wind Energy Projects	SQ-20	-	S5-13	(15.00)	SQ-20	-
Land Rights – Steam	45	-	45	-	-	-
Land Rights – Other	25	-	25	-	-	-
<b>Electric Distribution Plant</b>						
E360.20-Land Rights	45	-	45	-	-	-
E361.00-Structures & Imprv.	R2.5-63	(125.00)	S0-62 <sup>5</sup> / <sub>12</sub>	(145.00)	-	-
E362.10-Sta. Equip.	R1.5-51	(125.00)	R1.5-53 <sup>1</sup> / <sub>2</sub>	(145.00)	-	-
E363.00-Energy Storage Equip.	SQ-10	-	SQ-10	(15.00)	-	-
E364.00-Poles, Towers, & Fxtr.	R0.5-47	(100.00)	R0.5-48 <sup>2</sup> / <sub>3</sub>	(100.00)	-	-
E365.00-OH Conductor & Dev.	R0.5-55	(70.00)	R1-59 <sup>1</sup> / <sub>12</sub>	(70.00)	-	-
E366.00-UG Conduit	R3-57	(50.00)	R3-59 <sup>2</sup> / <sub>3</sub>	(75.00)	-	-
E367.00-UG Conductor & Dev.	R3-45	(65.00)	R3-49	(90.00)	-	-
E368.10-Line Transformers	L0.5-34	(70.00)	L0.5-34 <sup>1</sup> / <sub>3</sub>	(95.00)	-	-
E368.20-Capacitors	L0-12	(70.00)	O2-12 <sup>1</sup> / <sub>4</sub>	(95.00)	-	-
E369.10-OH Services	R0.5-55	(110.00)	S-.5-58 <sup>7</sup> / <sub>12</sub>	(137.50)	-	-
E369.20-UG Services	L4-53	(75.00)	L4-55 <sup>1</sup> / <sub>6</sub>	(100.00)	-	-
E370.10-Legacy Meters	R0.5-48	-	O2-19 <sup>5</sup> / <sub>12</sub>	-	R0.5-48	-
E370.11- “Smart” Meters	SQ-15	-	R5-15	-	-	-
E370.20-Legacy Meter Install.	R0.5-48	-	O2-19 <sup>5</sup> / <sub>12</sub>	-	R0.5-48	-
E370.21- “Smart” Meter Install.	SQ-15	-	R0.5-50 <sup>1</sup> / <sub>6</sub>	-	-	-
E371.00-Install. on Cust. Prem.	R0.5-34	(90.00)	O1-40	(106.25)	-	-
E373.20-Street Light. & Signals	L0-36	(85.00)	O1-40	(110.00)	-	-
<b>Electric General Plant</b>						
E303.00-Software & Franchise	3,5,7,10	-	2-20	-	-	-
E390.00- Structures & Imprv.	S4-34	(10.00)	R2.5-51	(10.00)	-	-
E392.20-Trailers	L5-27	-	SQ-27	-	-	-
E393.10-Stores Equip.	S5-25	-	SQ-26	-	-	-
E394.11-Portable Tools	S6-27	-	SQ-27	-	-	-
E394.20-Shop Equip.	L4-26	-	SQ-24	-	-	-
E395.10-Laboratory Equip.	L3-22	-	SQ-20	-	-	-
E397.10-Com. Equip. - Other	R2-30	(50.00)	R2.5-34 <sup>11</sup> / <sub>12</sub>	(75.00)	-	-
E397.20-Com. Equip. - SWPL	R2-30	(50.00)	R2.5-34 <sup>11</sup> / <sub>12</sub>	(75.00)	-	-
E397.60-Com. Equip. - SRPL	R2-30	-	R2.5-34 <sup>11</sup> / <sub>12</sub>	(75.00)	-	-
E397.70-Com. Dev. - Telecom	R2-30	(50.00)	R2.5-34 <sup>11</sup> / <sub>12</sub>	(75.00)	-	-
E398.10-Miscellaneous Equip.	L4-16	-	SQ-14 <sup>7</sup> / <sub>12</sub>	-	-	-
E398.20-EVSE	-	-	SQ-5	(10.00)	-	-
						(cont.)

Depreciation Account	Current		Proposed		Revised Proposed	
	Curve-ASL (1)	FNS% (2)	Curve-ASL (3)	FNS% (4)	Curve-ASL (5)	FNS% (6)
<b>Gas Storage and Transmission Plant</b>						
G363.60-LNG DI Strg. Equip.	S4-20	-	S4-20	-		
G365.20-Land Rights	40	-	40	-		
G366.00-Struct and Land Imp	S3-34	-	R2-53	(25.00)		
G367.00-Mains	S4-45	(25.00)	R3-64	(50.00)		
G368.00-Compressor Sta. Equip	S3-35	(10.00)	R3-55	(15.00)		
G369.00-Meas. & Reg. Sta. Equip.	S3-31	(5.00)	R2.5-51	(10.00)		
G371.00-Other Equipment	SQ-27	-	L0.5-23	(10.00)		
<b>Gas Distribution Plant</b>						
G374.20-Land Rights	31	-	31	-	-	-
G375.00-Struct & Imp	S3-44	-	S0-44	(15.00)	-	
G376.00-Mains	R3-69	(55.00)	R3-69	(80.00)	-	
G378.00-Meas. & Reg. Sta. Equip.	R2-47	(25.00)	R2-52	(50.00)		
G380.00-Services	R2.5-65	(70.00)	R2-67	(95.00)		
G381.00-Meters & Reg.	L1.5-41	-	L1-40 <sup>2/3</sup>	-		-
G381.01-Meter Modules	SQ-15	-	R3-15	-	-	-
G382.00-Meter & Reg. Install.	L2-35	(30.00)	L2-35 <sup>1/12</sup>	(22.50)		
G382.01-Meter Module Install.	SQ-15	-	R3-15	-	-	-
G385.00-Ind. Meas. & Reg. Equip.	S6-28	-	S6-35	-		-
G387.11-Other Equipment	L0-16	-	O1-33 <sup>11/12</sup>	-		-
G387.12- CNG	L0-16	-	R2-25	-		-
<b>Gas General Plant</b>						
G303.00-Software & Franchise	3,5,7,10	-	2-20	-		-
G392.20-Trailers	R5-21	-	SQ-21	-	-	-
G394.10-Portable Tools	L5-24	-	SQ-23	-		-
G394.20-Shop Equip.	R1.5-24	-	SQ-23	-		-
G395.00-Laboratory Equip.	L1-19	-	SQ-18	-		-
G396.00-Power Operated Equip.	S6-20	-	SQ-20	-	-	-
G397.00-Com. Equip.	S6-15	-	SQ-15	-	-	-
G398.00-Miscellaneous Equip.	R2.5-19	-	SQ-19	-	-	-

**APPENDIX C**

**SDG&E'S PROPOSED DEPRECIATION RATES**

**APPENDIX C  
PROPOSED DEPRECIATION RATES**

Depreciation Account	Current Accrual Rate	Proposed Accrual Rate	Revised Proposed Accrual Rate [01]
<b>Common Plant</b>			
C390.10-Structures & Imprv.	3.3232%	1.8476%	-
C391.10-Furniture & Equip.	5.8299%	5.4727%	-
C391.20-Computers & Equip.	24.4661%	25.8254%	-
C392.10-Automotive Equip.	20.0368%	66.5738%	-
C392.20-Trailers	5.7002%	-	-
C392.30-Aviation	-	-	-
C393.10-Stores Equip.	2.0267%	5.3250%	-
C394.11-Portable Tools	4.2967%	4.5035%	-
C394.21-Shop Equip.	1.8838%	5.1416%	-
C394.31-Garage Equip.	6.9718%	6.3693%	-
C395.10-Laboratory Equip.	4.3637%	4.1640%	-
C397.10-Commun Equip.	7.5626%	7.5626%	-
C398.10-Miscellaneous Equip.	6.9948%	8.8198%	-
<b>Electric Production Plant</b>			
Cuyamaca Peak Energy Plant	6.9310%	7.3466%	-
Desert Star Energy Center	4.4094%	5.5699%	-
Miramar Energy Facility	4.3290%	4.3812%	-
Palomar Energy Center	3.6968%	3.5173%	-
Solar Energy Projects	3.9737%	4.7375%	-
Wind Energy Projects	5.0322%	10.3190%	5.9413%
<b>Electric Distribution Plant</b>			
E361.00-Structures & Imprv.	3.8610%	4.1327%	-
E362.10-Sta. Equip.	4.7504%	4.9498%	-
E363.00-Energy Storage Equip.	10.3117%	12.1867%	-
E364.00-Poles, Towers, & Fxtr.	4.1127%	3.9441%	-
E365.00-OH Conductor & Dev.	2.8836%	2.7212%	-
E366.00-UG Conduit	2.6253%	3.0324%	-
E367.00-UG Conductor & Dev.	3.3841%	3.7285%	-
E368.10-Line Transformers	5.5189%	6.3793%	-
E368.20-Capacitors	17.5764%	18.9271%	-
E369.10-OH Services	2.8235%	3.2006%	-
E369.20-UG Services	2.9630%	3.4596%	-
E370.10-Legacy Meters	2.0117%	5.3210%	2.0117%
E370.11- "Smart" Meters	6.7139%	6.7139%	-
E370.20-Legacy Meter Install.	2.0414%	5.2412%	2.0414%
E370.21- "Smart" Meter Install.	6.6564%	1.3003%	-
E371.00-Install. on Cust. Prem.	3.0483%	2.8309%	-
E373.20-Street Light. & Signals	4.6181%	4.9549%	-
<b>Electric General Plant</b>			
E390.00- Structures & Imprv.	2.2197%	1.0654%	-
E392.20-Trailers	4.4254%	4.4254%	-



<b>Depreciation Account</b>	<b>Current Accrual Rate</b>	<b>Proposed Accrual Rate</b>	<b>Revised Proposed Accrual Rate [01]</b>
E393.10-Stores Equip.	1.1701%	5.0707%	-
E394.11-Portable Tools	3.7345%	3.7345%	-
E394.20-Shop Equip.	2.9783%	4.9478%	-
E395.10-Laboratory Equip.	4.6409%	5.1687%	-
E397.10-Com. Equip. - Other	4.9534%	5.0847%	-
E397.20-Com. Equip. - SWPL	4.7958%	5.3037%	-
E397.60-Com. Equip. - SRPL	3.1619%	5.1125%	-
E397.70-Com. Dev. - Telecom	4.9812%	5.0084%	-
E398.10-Miscellaneous Equip.	6.2429%	6.9903%	-
E398.20-EVSE	-	-	-

**Gas Storage and Transmission Plant**

G363.60-LNG DI Strg. Equip.	4.6383%	4.6383%	-
G366.00-Struct and Land Imp	2.2339%	1.7416%	-
G367.00-Mains	2.8877%	2.2956%	-
G368.00-Compressor Sta. Equip	1.7625%	1.0025%	-
G369.00-Meas. & Reg. Sta. Equip.	1.9161%	1.0153%	-
G371.00-Other Equipment	3.6479%	4.7233%	-

**Gas Distribution Plant**

G375.00-Struct & Imp	-	-	-
G376.00-Mains	2.0922%	2.5538%	-
G378.00-Meas. & Reg. Sta. Equip.	2.2509%	2.5935%	-
G380.00-Services	1.3753%	1.8266%	-
G381.00-Meters & Reg.	2.1935%	2.1441%	-
G381.01-Meter Modules	7.0942%	6.8537%	-
G382.00-Meter & Reg. Install.	3.8293%	3.4966%	-
G382.01-Meter Module Install.	6.6363%	6.3290%	-
G385.00-Ind. Meas. & Reg. Equip.	2.0534%	1.2402%	-
G387.11-Other Equipment	1.7829%	0.6902%	-
G387.12- CNG	0.2468%	0.2019%	-

**Gas General Plant**

G392.20-Trailers	-	-	-
G394.10-Portable Tools	4.1903%	4.6229%	-
G394.20-Shop Equip.	3.2280%	9.0836%	-
G395.00-Laboratory Equip.	0.3193%	-	-
G396.00-Power Operated Equip.	18.8758%	20.1343%	-
G397.00-Com. Equip.	6.9776%	7.0460%	-
G398.00-Miscellaneous Equip.	5.5900%	5.7806%	-

[1] In the Revised Proposal column, any cells which are blank indicate retention of the Company's original proposal.

**APPENDIX D**

**DANE A. WATSON TESTIMONY APPEARANCES**

**Dane Watson Testimony Appearances**

<b>Asset Location</b>	<b>Commission</b>	<b>Docket (If Applicable)</b>	<b>Company</b>	<b>Year</b>	<b>Description</b>
Texas	Public Utility Commission of Texas	48401	Texas New Mexico Power	2018	Electric Depreciation Study
Nevada	Public Utility Commission of Nevada	18-05031	Southwest Gas	2018	Gas Depreciation Study
Texas	Public Utility Commission of Texas	48231	Oncor Electric Delivery	2018	Depreciation Rates
Texas	Public Utility Commission of Texas	48371	Entergy Texas	2018	Electric Depreciation Study
Kansas	Kansas Corporation Commission	18-KCPE-480-RTS	Kansas City Power and Light	2018	Electric Depreciation Study
Arkansas	Arkansas Public Service Commission	18-027-U	Liberty Pine Bluff Water	2018	Water Depreciation Study
Kentucky	Kentucky Public Service Commission	2017-00349	Atmos KY	2018	Gas Depreciation Rates
Tennessee	Tennessee Public Utility Commission	18-00017	Chattanooga Gas	2018	Gas Depreciation Study
Texas	Railroad Commission of Texas	10679	Si Energy	2018	Gas Depreciation Study
Alaska	Regulatory Commission of Alaska	U-17-104	Anchorage Water and Wastewater	2017	Water and Waste Water Depreciation Study
Michigan	Michigan Public Service Commission	U-18488	Michigan Gas Utilities Corporation	2017	Gas Depreciation Study
Texas	Railroad Commission of Texas	10669	CenterPoint South Texas	2017	Gas Depreciation Study
Arkansas	Arkansas Public Service Commission	17-061-U	Empire District Electric Company	2017	Depreciation Rates for New Wind Generation

**Dane Watson Testimony Appearances**

<b>Asset Location</b>	<b>Commission</b>	<b>Docket (If Applicable)</b>	<b>Company</b>	<b>Year</b>	<b>Description</b>
Kansas	Kansas Corporation Commission	18-EPDE-184-PRE	Empire District Electric Company	2017	Depreciation Rates for New Wind Generation
Oklahoma	Oklahoma Corporation Commission	PUD 201700471	Empire District Electric Company	2017	Depreciation Rates for New Wind Generation
Missouri	Missouri Public Service Commission	EO-2018-0092	Empire District Electric Company	2017	Depreciation Rates for New Wind Generation
Michigan	Michigan Public Service Commission	U-18457	Upper Peninsula Power Company	2017	Electric Depreciation Study
Florida	Florida Public Service Commission	20170179-GU	Florida City Gas	2017	Gas Depreciation Study
Michigan	FERC	ER18-56-000	Consumers Energy	2017	Electric Depreciation Study
Missouri	Missouri Public Service Commission	GR-2018-0013	Liberty Utilites	2017	Gas Depreciation Study
Michigan	Michigan Public Service Commission	U-18452	SEMCO	2017	Gas Depreciation Study
Texas	Public Utility Commission of Texas	47527	SPS	2017	Electric Production Depreciation Study
MultiState	FERC	ER17-1664	American Transmission Company	2017	Electric Depreciation Study
Alaska	Regulatory Commission of Alaska	U-17-008	Municipal Power and Light City of Anchorage	2017	Generating Unit Depreciation Study
Mississippi	Mississippi Public Service Commission	2017-UN-041	Atmos Energy	2017	Gas Depreciation Study
Texas	Public Utility Commission of Texas	46957	Oncor Electric Delivery	2017	Electric Depreciation Study

**Dane Watson Testimony Appearances**

<b>Asset Location</b>	<b>Commission</b>	<b>Docket (If Applicable)</b>	<b>Company</b>	<b>Year</b>	<b>Description</b>
Oklahoma	Oklahoma Corporation Commission	PUD 201700078	CenterPoint Oklahoma	2017	Gas Depreciation Study
New York	FERC	ER17-1010-000	New York Power Authority	2017	Electric Depreciation Study
Texas	Railroad Commission of Texas	GUD 10580	Atmos Pipeline Texas	2017	Gas Depreciation Study
Texas	Railroad Commission of Texas	GUD 10567	CenterPoint Texas	2016	Gas Depreciation Study
MultiState	FERC	ER17-191-000	American Transmission Company	2016	Electric Depreciation Study
New Jersey	New Jersey Public Utilities Board	GR16090826	Elizabethtown Natural Gas	2016	Gas Depreciation Study
North Carolina	North Carolina Utilities Commission	Docket G-9 Sub 77H	Piedmont Natural Gas	2016	Gas Depreciation Study
Michigan	Michigan Public Service Commission	U-18195	Consumers Energy/DTE Electric	2016	Ludington Pumped Storage Depreciation Study
Alabama	FERC	ER16-2313-000	SEGCO	2016	Electric Depreciation Study
Alabama	FERC	ER16-2312-000	Alabama Power Company	2016	Electric Depreciation Study
Michigan	Michigan Public Service Commission	U-18127	Consumers Energy	2016	Natural Gas Depreciation Study
Mississippi	Mississippi Public Service Commission	2016 UN 267	Willmut Natural Gas	2016	Natural Gas Depreciation Study
Iowa	Iowa Utilities Board	RPU-2016-0003	Liberty-Iowa	2016	Natural Gas Depreciation Study
Illinois	Illinois Commerce Commission	GRM #16-208	Liberty-Illinois	2016	Natural Gas Depreciation Study

**Dane Watson Testimony Appearances**

<b>Asset Location</b>	<b>Commission</b>	<b>Docket (If Applicable)</b>	<b>Company</b>	<b>Year</b>	<b>Description</b>
Kentucky	FERC	RP16-097-000	KOT	2016	Natural Gas Depreciation Study
Alaska	Regulatory Commission of Alaska	U-16-067	Alaska Electric Light and Power	2016	Generating Unit Depreciation Study
Florida	Florida Public Service Commission	160170-EI	Gulf Power	2016	Electric Depreciation Study
California	California Public Utilities Commission	A 16-07-002	California American Water	2016	Water and Waste Water Depreciation Study
Arizona	Arizona Corporation Commission	G-01551A-16-0107	Southwest Gas	2016	Gas Depreciation Study
Texas	Public Utility Commission of Texas	45414	Sharyland	2016	Electric Depreciation Study
Colorado	Colorado Public Utilities Commission	16A-0231E	Public Service of Colorado	2016	Electric Depreciation Study
Multi-State NE US	FERC	16-453-000	Northeast Transmission Development, LLC	2015	Electric Depreciaton Study
Arkansas	Arkansas Public Service Commission	15-098-U	CenterPoint Arkansas	2015	Gas Depreciation Study and Cost of Removal Study
New Mexico	New Mexico Public Regulation Commission	15-00296-UT	SPS NM	2015	Electric Depreciation Study
Atmos Energy Corporation	Tennessee Regulatory Authority	14-00146	Atmos Tennessee	2015	Natural Gas Depreciation Study
New Mexico	New Mexico Public Regulation Commission	15-00261-UT	Public Service Company of New Mexico	2015	Electric Depreciation Study
Hawaii	NA	NA	Hawaii American Water	2015	Water/Wastewater Depreciation Study

**Dane Watson Testimony Appearances**

<b>Asset Location</b>	<b>Commission</b>	<b>Docket (If Applicable)</b>	<b>Company</b>	<b>Year</b>	<b>Description</b>
Kansas	Kansas Corporation Commission	16-ATMG-079-RTS	Atmos Kansas	2015	Gas Depreciation Study
Texas	Public Utility Commission of Texas	44704	Entergy Texas	2015	Electric Depreciation Study
Alaska	Regulatory Commission of Alaska	U-15-089	Fairbanks Water and Wastewater	2015	Water and Waste Water Depreciation Study
Arkansas	Arkansas Public Service Commission	15-031-U	Source Gas Arkansas	2015	Underground Storage Gas Depreciation Study
New Mexico	New Mexico Public Regulation Commission	15-00139-UT	SPS NM	2015	Electric Depreciation Study
Texas	Public Utility Commission of Texas	44746	Wind Energy Transmission Texas	2015	Electric Depreciation Study
Colorado	Colorado Public Utilities Commission	15-AL-0299G	Atmos Colorado	2015	Gas Depreciation Study
Arkansas	Arkansas Public Service Commission	15-011-U	Source Gas Arkansas	2015	Gas Depreciation Study
Texas	Railroad Commission of Texas	GUD 10432	CenterPoint- Texas Coast Division	2015	Gas Depreciation Study
Kansas	Kansas Corporation Commission	15-KCPE-116-RTS	Kansas City Power and Light	2015	Electric Depreciation Study
Alaska	Regulatory Commission of Alaska	U-14-120	Alaska Electric Light and Power	2014-2015	Electric Depreciation Study
Texas	Public Utility Commission of Texas	43950	Cross Texas Transmission	2014	Electric Depreciation Study
New Mexico	New Mexico Public Regulation Commission	14-00332-UT	Public Service of New Mexico	2014	Electric Depreciation Study
Texas	Public Utility Commission of Texas	43695	Xcel Energy	2014	Electric Depreciation Study

**Dane Watson Testimony Appearances**

<b>Asset Location</b>	<b>Commission</b>	<b>Docket (If Applicable)</b>	<b>Company</b>	<b>Year</b>	<b>Description</b>
Multi State – SE US	FERC	RP15-101	Florida Gas Transmission	2014	Gas Transmission Depreciation Study
California	California Public Utilities Commission	A.14-07-006	Golden State Water	2014	Water and Waste Water Depreciation Study
Michigan	Michigan Public Service Commission	U-17653	Consumers Energy Company	2014	Electric and Common Depreciation Study
Colorado	Public Utilities Commission of Colorado	14AL-0660E	Public Service of Colorado	2014	Electric Depreciation Study
Wisconsin	Wisconsin	05-DU-102	WE Energies	2014	Electric, Gas, Steam and Common Depreciation Studies
Texas	Public Utility Commission of Texas	42469	Lone Star Transmission	2014	Electric Depreciation Study
Nebraska	Nebraska Public Service Commission	NG-0079	Source Gas Nebraska	2014	Gas Depreciation Study
Alaska	Regulatory Commission of Alaska	U-14-055	TDX North Slope Generating	2014	Electric Depreciation Study
Alaska	Regulatory Commission of Alaska	U-14-054	Sand Point Generating LLC	2014	Electric Depreciation Study
Alaska	Regulatory Commission of Alaska	U-14-045	Matanuska Electric Coop	2014	Electric Generation Depreciation Study
Texas, New Mexico	Public Utility Commission of Texas	42004	Xcel Energy	2013-2014	Electric Production, Transmission, Distribution and General Plant Depreciation Study
New Jersey	Board of Public Utilities	GR13111137	South Jersey Gas	2013	Gas Depreciation Study



**Dane Watson Testimony Appearances**

<b>Asset Location</b>	<b>Commission</b>	<b>Docket (If Applicable)</b>	<b>Company</b>	<b>Year</b>	<b>Description</b>
Various	FERC	RP14-247-000	Sea Robin	2013	Gas Depreciation Study
Arkansas	Arkansas Public Service Commission	13-078-U	Arkansas Oklahoma Gas	2013	Gas Depreciation Study
Arkansas	Arkansas Public Service Commission	13-079-U	Source Gas Arkansas	2013	Gas Depreciation Study
California	California Public Utilities Commission	Proceeding No.: A.13-11-003	Southern California Edison	2013	Electric Depreciation Study
North Carolina/South Carolina	FERC	ER13-1313	Progress Energy Carolina	2013	Electric Depreciation Study
Wisconsin	Public Service Commission of Wisconsin	4220-DU-108	Northern States Power-Wisconsin	2013	Electric, Gas and Common Transmission, Distribution and General
Texas	Public Utility Commission of Texas	41474	Sharyland	2013	Electric Depreciation Study
Kentucky	Kentucky Public Service Commission	2013-00148	Atmos Energy Corporation	2013	Gas Depreciation Study
Minnesota	Minnesota Public Utilities Commission	13-252	Allete Minnesota Power	2013	Electric Depreciation Study
New Hampshire	New Hampshire Public Service Commission	DE 13-063	Liberty Utilities	2013	Electric Distribution and General
Texas	Railroad Commission of Texas	10235	West Texas Gas	2013	Gas Depreciation Study
Alaska	Regulatory Commission of Alaska	U-12-154	Alaska Telephone Company	2012	Telecommunications Utility
New Mexico	New Mexico Public Regulation Commission	12-00350-UT	SPS	2012	Electric Depreciation Study
Colorado	Colorado Public Utilities Commission	12AL-1269ST	Public Service of Colorado	2012	Gas and Steam Depreciation Study

**Dane Watson Testimony Appearances**

<b>Asset Location</b>	<b>Commission</b>	<b>Docket (If Applicable)</b>	<b>Company</b>	<b>Year</b>	<b>Description</b>
Colorado	Colorado Public Utilities Commission	12AL-1268G	Public Service of Colorado	2012	Gas and Steam Depreciation Study
Alaska	Regulatory Commission of Alaska	U-12-149	Municipal Power and Light City of Anchorage	2012	Electric Depreciation Study
Texas	Texas Public Utility Commission	40824	Xcel Energy	2012	Electric Depreciation Study
South Carolina	Public Service Commission of South Carolina	Docket 2012-384-E	Progress Energy Carolina	2012	Electric Depreciation Study
Alaska	Regulatory Commission of Alaska	U-12-141	Interior Telephone Company	2012	Telecommunications Utility
Michigan	Michigan Public Service Commission	U-17104	Michigan Gas Utilities Corporation	2012	Gas Depreciation Study
North Carolina	North Carolina Utilities Commission	E-2 Sub 1025	Progress Energy Carolina	2012	Electric Depreciation Study
Texas	Texas Public Utility Commission	40606	Wind Energy Transmission Texas	2012	Electric Depreciation Study
Texas	Texas Public Utility Commission	40604	Cross Texas Transmission	2012	Electric Depreciation Study
Minnesota	Minnesota Public Utilities Commission	12-858	Minnesota Northern States Power	2012	Electric, Gas and Common Transmission, Distribution and General
Texas	Railroad Commission of Texas	10170	Atmos Mid-Tex	2012	Gas Depreciation Study
Texas	Railroad Commission of Texas	10174	Atmos West Texas	2012	Gas Depreciation Study
Texas	Railroad Commission of Texas	10182	CenterPoint Beaumont/ East Texas	2012	Gas Depreciation Study
Kansas	Kansas Corporation Commission	12-KCPE-764-RTS	Kansas City Power and Light	2012	Electric Depreciation Study

**Dane Watson Testimony Appearances**

<b>Asset Location</b>	<b>Commission</b>	<b>Docket (If Applicable)</b>	<b>Company</b>	<b>Year</b>	<b>Description</b>
Nevada	Public Utility Commission of Nevada	12-04005	Southwest Gas	2012	Gas Depreciation Study
Texas	Railroad Commission of Texas	10147, 10170	Atmos Mid-Tex	2012	Gas Depreciation Study
Kansas	Kansas Corporation Commission	12-ATMG-564-RTS	Atmos Kansas	2012	Gas Depreciation Study
Texas	Texas Public Utility Commission	40020	Lone Star Transmission	2012	Electric Depreciation Study
Michigan	Michigan Public Service Commission	U-16938	Consumers Energy Company	2011	Gas Depreciation Study
Colorado	Public Utilities Commission of Colorado	11AL-947E	Public Service of Colorado	2011	Electric Depreciation Study
Texas	Texas Public Utility Commission	39896	Entergy Texas	2011	Electric Depreciation Study
MultiState	FERC	ER12-212	American Transmission Company	2011	Electric Depreciation Study
California	California Public Utilities Commission	A1011015	Southern California Edison	2011	Electric Depreciation Study
Mississippi	Mississippi Public Service Commission	2011-UN-184	Atmos Energy	2011	Gas Depreciation Study
Michigan	Michigan Public Service Commission	U-16536	Consumers Energy Company	2011	Wind Depreciation Rate Study
Texas	Public Utility Commission of Texas	38929	Oncor	2011	Electric Depreciation Study
Texas	Railroad Commission of Texas	10038	CenterPoint South TX	2010	Gas Depreciation Study
Alaska	Regulatory Commission of Alaska	U-10-070	Inside Passage Electric Cooperative	2010	Electric Depreciation Study
Texas	Public Utility Commission of Texas	36633	City Public Service of San Antonio	2010	Electric Depreciation Study
Texas	Texas Railroad Commission	10000	Atmos Pipeline Texas	2010	Gas Depreciation Study
Multi State – SE US	FERC	RP10-21-000	Florida Gas Transmission	2010	Gas Depreciation Study

**Dane Watson Testimony Appearances**

<b>Asset Location</b>	<b>Commission</b>	<b>Docket (If Applicable)</b>	<b>Company</b>	<b>Year</b>	<b>Description</b>
Maine/ New Hampshire	FERC	10-896	Granite State Gas Transmission	2010	Gas Depreciation Study
Texas	Public Utility Commission of Texas	38480	Texas New Mexico Power	2010	Electric Depreciation Study
Texas	Public Utility Commission of Texas	38339	CenterPoint Electric	2010	Electric Depreciation Study
Texas	Texas Railroad Commission	10041	Atmos Amarillo	2010	Gas Depreciation Study
Georgia	Georgia Public Service Commission	31647	Atlanta Gas Light	2010	Gas Depreciation Study
Texas	Public Utility Commission of Texas	38147	Southwestern Public Service	2010	Electric Technical Update
Alaska	Regulatory Commission of Alaska	U-09-015	Alaska Electric Light and Power	2009-2010	Electric Depreciation Study
Alaska	Regulatory Commission of Alaska	U-10-043	Utility Services of Alaska	2009-2010	Water Depreciation Study
Michigan	Michigan Public Service Commission	U-16055	Consumers Energy/DTE Energy	2009-2010	Ludington Pumped Storage Depreciation Study
Michigan	Michigan Public Service Commission	U-16054	Consumers Energy	2009-2010	Electric Depreciation Study
Michigan	Michigan Public Service Commission	U-15963	Michigan Gas Utilities Corporation	2009	Gas Depreciation Study
Michigan	Michigan Public Service Commission	U-15989	Upper Peninsula Power Company	2009	Electric Depreciation Study
Texas	Railroad Commission of Texas	9869	Atmos Energy	2009	Shared Services Depreciation Study
Mississippi	Mississippi Public Service Commission	09-UN-334	CenterPoint Energy Mississippi	2009	Gas Depreciation Study
Texas	Railroad Commission of Texas	9902	CenterPoint Energy Houston	2009	Gas Depreciation Study
Colorado	Colorado Public Utilities Commission	09AL-299E	Public Service of Colorado	2009	Electric Depreciation Study

**Dane Watson Testimony Appearances**

<b>Asset Location</b>	<b>Commission</b>	<b>Docket (If Applicable)</b>	<b>Company</b>	<b>Year</b>	<b>Description</b>
Tennessee	Tennessee Regulatory Authority	11-00144	Piedmont Natural Gas	2009	Gas Depreciation Study
Louisiana	Louisiana Public Service Commission	U-30689	Cleco	2008	Electric Depreciation Study
Texas	Public Utility Commission of Texas	35763	SPS	2008	Electric Production, Transmission, Distribution and General Plant Depreciation Study
Wisconsin	Wisconsin	05-DU-101	WE Energies	2008	Electric, Gas, Steam and Common Depreciation Studies
North Dakota	North Dakota Public Service Commission	PU-07-776	Northern States Power	2008	Net Salvage
New Mexico	New Mexico Public Regulation Commission	07-00319-UT	SPS	2008	Testimony – Depreciation
Multiple States	Railroad Commission of Texas	9762	Atmos Energy	2007-2008	Shared Services Depreciation Study
Minnesota	Minnesota Public Utilities Commission	E015/D-08-422	Minnesota Power	2007-2008	Electric Depreciation Study
Texas	Public Utility Commission of Texas	35717	Oncor	2008	Electric Depreciation Study
Texas	Public Utility Commission of Texas	34040	Oncor	2007	Electric Depreciation Study
Michigan	Michigan Public Service Commission	U-15629	Consumers Energy	2006-2009	Gas Depreciation Study
Colorado	Colorado Public Utilities Commission	06-234-EG	Public Service of Colorado	2006	Electric Depreciation Study
Arkansas	Arkansas Public Service Commission	06-161-U	CenterPoint Energy – Arkla Gas	2006	Gas Distribution Depreciation Study and Removal Cost Study

**Dane Watson Testimony Appearances**

<b>Asset Location</b>	<b>Commission</b>	<b>Docket (If Applicable)</b>	<b>Company</b>	<b>Year</b>	<b>Description</b>
Texas, New Mexico	Public Utility Commission of Texas	32766	Xcel Energy	2005-2006	Electric Production, Transmission, Distribution and General Plant Depreciation Study
Texas	Railroad Commission of Texas	9670/9676	Atmos Energy Corp	2005-2006	Gas Distribution Depreciation Study
Texas	Railroad Commission of Texas	9400	TXU Gas	2003-2004	Gas Distribution Depreciation Study
Texas	Railroad Commission of Texas	9313	TXU Gas	2002	Gas Distribution Depreciation Study
Texas	Railroad Commission of Texas	9225	TXU Gas	2002	Gas Distribution Depreciation Study
Texas	Public Utility Commission of Texas	24060	TXU	2001	Line Losses
Texas	Public Utility Commission of Texas	23640	TXU	2001	Line Losses
Texas	Railroad Commission of Texas	9145-9148	TXU Gas	2000-2001	Gas Distribution Depreciation Study
Texas	Public Utility Commission of Texas	22350	TXU	2000-2001	Electric Depreciation Study, Unbundling
Texas	Railroad Commission of Texas	8976	TXU Pipeline	1999	Pipeline Depreciation Study
Texas	Public Utility Commission of Texas	20285	TXU	1999	Fuel Company Depreciation Study
Texas	Public Utility Commission of Texas	18490	TXU	1998	Transition to Competition
Texas	Public Utility Commission of Texas	16650	TXU	1997	Customer Complaint
Texas	Public Utility Commission of Texas	15195	TXU	1996	Mining Company Depreciation Study
Texas	Public Utility Commission of Texas	12160	TXU	1993	Fuel Company Depreciation Study

**Dane Watson Testimony Appearances**

<b>Asset Location</b>	<b>Commission</b>	<b>Docket (If Applicable)</b>	<b>Company</b>	<b>Year</b>	<b>Description</b>
Texas	Public Utility Commission of Texas	11735	TXU	1993	Electric Depreciation Study