Company:San Diego Gas & Electric Company (U 902 M)Proceeding:2024 General Rate CaseApplication:A.22-05-016Exhibit:SDG&E-36-R

REVISED

PREPARED DIRECT TESTIMONY OF

DANE A. WATSON

(DEPRECIATION)

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA



August 2022

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SDG&E 2024 GRC Testimony Revision Log –August 2022

SUMMARY

I sponsor the depreciation rates used in the calculation of the Test Year (TY) 2024 depreciation and amortization expense proposals for Gas Plant depreciation for San Diego Gas and Electric Company (SDG&E or Company). I also provide depreciation and amortization expense recommendations for SDG&E's electric and common plant, based upon my depreciation study. The Policy Overview testimony of Bruce Folkmann (Exhibit (Ex.) SDG&E-01), echoes SDG&E's support for that study. That said, Mr. Folkmann provides SDG&E's proposal to keep depreciation rates for electric and common plant at current levels—based upon the Company's one-time, non-precedential policy determination to maintain those current levels given the current state of wildfire mitigation expenditures—as well as the need to soon update the Company's electric and common depreciation rates based upon grid modernization for electrification, which will increase load.

The purpose of depreciation and amortization expense is to provide for recovery of the original cost of plant (less estimated net salvage) over the used and useful life of the property by means of an equitable plan of charges to operating expenses. Tangible assets, usually referred to as plant, property, and equipment, are depreciated. Intangible assets, such as software, land rights and rights-of-way, are amortized. The technical definition for depreciation and related terms is provided in Section II of my testimony.

The cumulative depreciation costs recovered through depreciation rates is captured in the depreciation reserve. The reserve represents the return of the investment and provides an ongoing record of one of the components in calculating rate base. SDG&E's rate base proposals are sponsored in Exhibit SDG&E-35, in the Rate Base direct testimony of Steven Dais. SDG&E is requesting the adoption of proposed service lives and net salvage rates for gas plant only that were developed in accordance with the California Public Utilities Commission Standard Practice U-4.

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I.

REVISED PREPARED DIRECT TESTIMONY OF DANE A. WATSON DEPRECIATION

INTRODUCTION

A. Summary of Proposals

I sponsor the depreciation rates used in the calculation of Test Year (TY) 2024 depreciation and amortization expense proposals for Gas Plant depreciation for San Diego Gas and Electric Company (SDG&E). I also provide depreciation and amortization expense recommendations SDG&E's electric and common plant, based upon my depreciation study. While supporting those recommendations, the Policy Overview testimony of Bruce Folkmann (Ex. SDG&E-01), provides SDG&E's proposal to maintain depreciation rates for electric and common plant at current levels based upon the Company's one-time policy determinations, as described in Mr. Folkmann's testimony.

Based on my study and analysis, gas depreciation rates for all SDG&E gas depreciable property are shown in Appendix A of my Depreciation Rate Study (Depreciation Study) report attached to my testimony as Attachment C. As shown in Table SDG&E-DW-1, the Gas Plant depreciation and amortization expense (excluding Common) for Recorded Year 2021 is \$67 million. The Gas Plant expense requested for TY 2024 is \$95 million. Beginning in TY 2024, the requested expense is calculated using new depreciation rates resulting from an updated depreciation study.

Table SDG&E-DW-1 SAN DIEGO GAS & ELECTRIC COMPANY TEST YEAR 2024 GAS DEPRECIATION & AMORTIZATION EXPENSE (Thousands of Dollars)

Line No.	Description	2021 Recorded (2021\$)	2024 Test Year (2024\$)
	Depreciation Expense		
1	Underground Storage	95	105
2	Transmission	10,937	9,029
3	Distribution & General Plant	55,839	85,019
4	TOTAL DEPRECIATION	66,871	94,153
	Amortization Expense	-	
5	Land Rights	186	360
6	TOTAL AMORTIZATION	186	360
7	TOTAL GAS DEPR. & AMORT. (EXCLUDING COMMON)	67,057	94,513

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My analysis of a reasonable Recorded Year 2021 depreciation and amortization expense is based on the application of depreciation parameters authorized by the California Public Utilities Commission (Commission or CPUC) in SDG&E's 2019 General Rate Case (GRC) Decision (D.) 19-09-051. The depreciable plant growth and the investments for the Recorded Year 2021 through TY 2024 are addressed in the Rate Base testimony of Steven Dais (Exhibit SDG&E-35).

The increase in SDG&E's depreciation expense is what my analysis found would be reasonable and necessary to ensure appropriate recovery of plant and equipment costs. The depreciation study, analysis and results of the study as described in this testimony support this increase. My study analyzed life and net salvage characters for SDG&E through year end 2020. Due to time constraints based on a May 2022 filing, the study was not able to incorporate 2021 activity in the life and net salvage analysis, but it did incorporate 2021 balances for purposes of calculating depreciation rates. Using the life and net salvage parameters developed from the

1	2020 analysis	, my study used actual plant asset balances and depreciation reserves as of					
2	December 31, 2021, to compute the proposed depreciation rates in my study.						
3	The accompanying workpapers (Exhibit SDG&E-36-WP) support the underlying						
4	depreciation r	ate recommendations.					
5	В.	Organization of Testimony					
6	My tes	stimony is organized as follows:					
7	1.	In Section II, I explain the definitions of depreciation and the type of property					
8		analyzed in the Depreciation Study the property included or excluded from the					
9		Depreciation Study.					
10	2.	In Section III, I explain the four-phase approach I used to conduct the					
11		Depreciation Study and the depreciation system (straight-line method, Broad					
12		(Average) Life Group (ALG) procedure, remaining-life technique) used for the					
13		Depreciation Study. Next, I explain how depreciation rates are determined. This					
14		portion of my Direct Testimony also explains and fully discusses each portion of					
15		the depreciation rate formula that is supported by my Depreciation Study. Section					
16		III is broken into the following subparts, which align with the components of the					
17		depreciation rate formula that the Depreciation Study supports: (A) Depreciation					
18		Rate Formula; (B) Theoretical Reserve; (C) Net Salvage Amounts and					
19		Percentages; (D) Remaining Life Analysis; and (E) Depreciation Rates and					
20		Depreciation Accrual Rates.					
21	3.	Section IV, discusses the Commission's approach to gradualism and how I					
22		recommend it be applied in this depreciation study.					
23	4.	Section V, discusses the specific changes in life and net salvage parameters by					
24		plant account.					
25	5.	Section VI, describes the change in depreciation expense as a result of the					
26		proposed depreciation rates. Specifically, I explain why SDG&E's depreciation					
27		expense is increasing. Note that the 2021 Gas depreciation expense shown in this					
28		section is different from that shown in the table above due to the depreciation					
29		expense in this section being calculated as of December 31, 2021 for comparison					
30		purposes instead of the actual recorded depreciation expense during 2021.					
31	6.	Section VII, details my witness qualifications.					

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II.

DEPRECIATION DEFINITIONS AND APPROACH

The term "depreciation," used here is considered in the accounting sense – that is, a system of accounting that distributes the cost of assets, less net salvage (if any), over the estimated useful life of the assets in a systematic and rational manner. Depreciation is a process of allocation, not valuation. In other words, depreciation expense allocates the cost of the asset, including any estimated net salvage necessary to remove the asset, as an ongoing cost of operations over the economic life of the asset.

However, the amount allocated to any one accounting period does not necessarily represent an actual loss or decrease in value that will occur during that particular period. The Company accrues depreciation on the basis of the original cost of all depreciable property included in each functional property group. On retirement, the full cost of depreciable property, less the net salvage value, is charged to the depreciation reserve.

A depreciation study is a comprehensive analysis of the property characteristics of a utility's assets. It is specific to each utility and that utility's assets in order to determine the appropriate annual depreciation accrual rate for each asset account. The primary factors that influence the depreciation rate for an account are the remaining investment to be recovered in the account, the depreciable life of the account, and the net salvage for the account.

The key functions of the Depreciation Study are to: (1) determine the average service lives for Common, Electric Generation, Electric Distribution, Electric General, and Gas Storage Gas Transmission, Gas Distribution, and Gas General Plant; (2) determine the net salvage percentages for Common, Electric Generation, Electric Distribution, Electric General, and Gas Storage Gas Transmission, Gas Distribution, and Gas General Plant; (3) calculate the theoretical reserve of each property group based on the remaining life of the group, the total life of the group and the estimated net salvage; and (4) develop depreciation rates, including the annual depreciation accrual.

After following all these steps, I conclude that the depreciation rates developed for the Company's Utility Plant accounts as set forth in the Depreciation Study encompass the best and most recent information for calculating the Company's depreciation and amortization expense associated with these assets. Based on life and net salvage parameters developed for actual plant asset balances and depreciation reserves as of December 31, 2021, the depreciation rates in the Depreciation Study would result in an increase in the annual depreciation expense for SDG&E's utility assets of approximately \$618.3 million per year. I calculated that amount by comparing
 the depreciation expense based on the current depreciation rates to the depreciation expense
 based on the proposed depreciation rates as of December 31, 2021. This comparison is shown in
 detail in Appendix B of my Depreciation Study and is summarized in Appendix C of my
 Depreciation Study, which is presented later in my Direct Testimony.

III. DEPRECIATION STUDY

In this section of my Direct Testimony, I testify to the property included or excluded from the Depreciation Study; the four-phase approach I used to conduct the Depreciation Study; and the depreciation system (straight-line method, ALG procedure, remaining-life technique) used for the Depreciation Study. There are seven general classes, or functional groups, of depreciable property that are analyzed in the Study: (1) Common Plant, (2) Electric Production Plant, (3) Electric Distribution Plant property, (4) Electric General Property, (5) Gas Storage and Transmission Plant, (6) Gas Distribution Plant property, and (7) Gas General Property.

A. Depreciation Study Process

With the assistance of my staff, I conducted the Depreciation Study in four phases, as described at pages 14-15 of the Depreciation Study. The four phases are: Data Collection, Analysis, Evaluation, and Calculation. During the initial phase of the Depreciation Study, I collected historical data through December 31, 2020 to be used in the analysis. After the data was assembled, I performed analyses to determine the lives and net salvage percentages for the different property groups being studied. As part of this process, I conferred with field personnel, engineers, and managers responsible for the installation, operation, and removal of the assets to gain their input into the operation, maintenance, and salvage of the assets. I then evaluated the information obtained from field personnel, engineers, and managerial personnel, combined with the Depreciation Study results, to determine how the results of the historical asset activity analysis, in conjunction with the Company's expected future plans, should be applied. In the final phase, I calculated depreciation rates and the theoretical reserve.

The authoritative treatise, DEPRECIATION SYSTEMS, documents the following stages of a depreciation study: statistical analysis, evaluation of statistical analysis, discussions with management, forecast assumptions, and document recommendations.¹ My approach mirrors this

W.C. Fitch and F.K. Wolf, DEPRECIATION SYSTEMS, at page 289 (Iowa State Press, 1994).





Most property groups can be closely fitted to one Iowa Curve with a unique average service life. By blending judgment concerning current conditions and future trends with the matching of historical data, a depreciation analyst can make an informed selection of an account's average service life and survivor curve. When selecting an average service life, the analyst also selects a survivor curve. When recommending depreciation rates, a depreciation analyst selects the average service life and survivor curve that are used to compute remaining life, annual depreciation accrual, and annual depreciation accrual rate.

Historical lives and net salvage data are not the only factors to consider in making life and net salvage recommendations. It is **crucial** to incorporate future trends, changes in equipment and Company-specific operational information before finally making life and net salvage recommendations. Once all the calculations and data are prepared, I take into account

my judgment, Company expectations, and trends to recommend the appropriate net salvagepercentages. A summary of the proposed net salvage percentages is shown below in AttachmentB of this testimony.

For instance, if most of the dollars in an account are associated with assets that have projected lives between 20 and 40 years, an overall life of 60 years for that account would not be reasonable. This is true even if a particular mathematical curve match mechanically produces a 60-year overall life. A statistical analysis may suggest a longer life because, among other things, there may be insufficient retirement data (*i.e.*, the full life cycle of assets is not yet visible in the mathematical calculations)² or because recent changes in technology or changes in how the assets are operated are not adequately reflected in the statistical results. While the results of the calculations themselves may seem accurate to someone who is not aware of or ignores the actual life cycles exhibited, failure modes, and engineering expectations for the various assets in the account, the results are inaccurate because they do not reflect the real-life expectations of the account assets.

As noted above, the manner in which the Company currently uses its assets provides important indicators as to the expected service life of those assets and reveals flaws in generic statistical assumptions. The information was extracted from interviews with Company subject matter experts and is described in my study and accompanying workpapers.

As an example, if a Company expert suggests a life for a specific asset that is shorter or longer than I would expect from my experience, I conduct further investigation as to why they understand the life expectation to vary from what I would normally expect, conduct my own research of the asset as necessary, and use my judgment to determine how much weight to give the SME's feedback.

Accordingly, as I noted before, one must consider the operational information, the expectations across the country for similar assets in similar environments, and the statistical analysis to verify the reasonableness of the results. Information provided by Company experts on the specific plant and equipment being studied is of critical importance in the depreciation study process to ensure the statistical analysis accurately reflects the expected service lives of the assets. In its 1996 edition of the publication *Public Utility Depreciation Practices*, the National

This is the case for Accounts 367, 376 and 380, as discussed in the account level results section.

Association of Regulatory Utility Commissioners (NARUC), specifically advises against strict
 reliance on historical data and curve fitting:

Depreciation analysts should avoid becoming ensnared in the historical life study and relying solely on mathematical solutions. The reason for making an historic life analysis is to develop a sufficient understanding of history in order to evaluate whether it is a reasonable predictor of the future. The importance of being aware of circumstances having direct bearing on the reason for making an historical life analysis cannot be understated.... The analyst should become familiar with the physical plant under study and its operating environment, **including talking with the field people who use the equipment being studied**.³

B. Methodology

The methods used to calculate the mortality characteristics (*i.e.*, service lives, retirement dispersions, and net salvage rates) and to calculate the straight-line remaining life depreciation rates are consistent with CPUC Standard Practice U-4.

C. Determination of the Depreciation Rates

In this section, I explain how depreciation rates are determined, and I identify the formula for depreciation rates. I also explain and fully discuss each portion of the depreciation rate formula that is supported by my Depreciation Study. Section III is broken into the following subparts, which align with the components of the depreciation rate formula that the Depreciation Study supports: (A) The Depreciation Rate Formula; (B) Theoretical Reserve; (C) Net Salvage Amounts or Percentages; (D) Remaining Life Analysis; and (E) Depreciation Rates and Depreciation Accrual Rates.

The formula to derive depreciation rates calculates annual depreciation accrual amounts for each group by dividing the original cost of the asset (gross plant), less allocated depreciation reserve, less estimated net salvage, by the group's respective remaining life. The resulting annual accrual amounts for all depreciable property within an account are accumulated, and the total is divided by the original cost (gross plant) of all depreciable property within the account to determine the annual accrual amount and the annual accrual rate. The Depreciation Study determines several pieces of the overall formula used to derive depreciation rates. The portions of the formula derived by the Depreciation Study are:

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NARUC, Public Utility Depreciation Practices (1996) at 126 (emphasis added).

1	•	Depreciation Reserve Balance: To calculate depreciation reserve, the				
2		Company provided me with the actual gross plant balance amounts and				
3		the actual depreciation reserve as of December 31, 2020. I calculated the				
4		theoretical reserve that is used as a point of comparison to the book				
5		depreciation reserve balance.				
6	•	Net Salvage Amounts or Percentages: For Common, Electric				
7		Production, Electric Distribution Electric Distribution, Electric General,				
8		Natural Gas Storage, Natural Gas Transmission, Natural Gas Distribution				
9		and Natural Gas General Plant, I calculated the net salvage percentages				
10		reflected in the Depreciation Study. For these plant accounts, I calculated				
11		salvage and removal cost percentages by dividing the current cost of				
12		salvage or removal, as supported by the Depreciation Study, by the				
13		original installed cost of the retired asset.				
14	•	<u>Remaining Life</u> : The Depreciation Study supports the remaining life				
15		calculation by determining the appropriate average service lives and				
16		retirement survivor curve for each account within a functional group.				
17	•	Resulting Annual Depreciation Accrual and Depreciation Rates : As				
18		discussed above, I calculated the depreciation rates, and I then derived the				
19		annual accrual amounts from these rates. The computations of the annual				
20		depreciation rates and annual accrual amounts are shown in Appendix A,				
21		of the Depreciation Study.				
22	Annua	l depreciation expense amounts for the SDG&E's depreciable accounts were				
23	calculated by	the straight-line method, life-span procedure, and remaining-life technique. With				
24	this approach,	remaining lives were calculated according to standard ALG group expectancy				
25	techniques, using the Iowa Curves noted in the calculation. For each plant account, the					
26	difference bet	ween the surviving investment, adjusted for estimated net salvage, and the				
27	allocated bool	c depreciation reserve, was divided by the average remaining life to yield the				
28	annual deprec	iation expense. These calculations are shown in Appendix A to the Depreciation				
29	Study.					
30	In a w	hole life representation, the annual accrual rate is computed by the following				

In a whole life representation, the annual accrual rate is computed by the following equation,

Annual Accrual Rate =
$$\frac{(100\% - \text{Net Salvage Percent})}{\text{Average Service Life}}$$

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In the case of natural gas assets, each vintage within the group has a unique average service life and remaining life determined by computing the area under the Iowa Curve. Use of the remaining life depreciation system adds a self-correcting mechanism, which accounts for any differences between theoretical and book depreciation reserve over the remaining life of the group. For each vintage,

Remaining Life(i) =
$$\frac{\text{Area Under Survivor Curve to the Right of Age(i)}}{\text{Survivors(i)}}$$
, and

 $Average Service Life = \frac{Area Under Survivor Curve}{Survivors at age zero}$

With the straight line, remaining life, average life group system using Iowa Curves, composite remaining lives were calculated by computing a direct weighted average of each remaining life by vintage within the group. Within each group (plant account/unit), for each plant account, the difference between the surviving investment, adjusted for estimated net salvage, and the allocated book depreciation reserve, was divided by the composite remaining life to yield the annual depreciation expense as noted in this equation.

Annual Depreciation Expense = $\frac{Original \ Cost - Book \ Reserve - (Original \ Cost * Net \ Salvage \ \%)}{Composite \ Remaining \ Life}$

16 where the net salvage percent represents future net salvage.
17 Within a group, the sum of the group annual depreciation expense amounts, as a
18 percentage of the depreciable original cost investment summed, gives the annual depreciation
19 rate as shown below:

Annual Depreciation Rate = $\frac{\sum \text{Annual Depreciation Expense}}{\sum \text{Original Cost}}$

These calculations are shown in Appendix A of the Depreciation Study. The calculations of the theoretical depreciation reserve values and the corresponding remaining life calculations are shown in the workpapers.

The theoretical reserve represents the portion of a property group's cost that would have been accrued as depreciation reserve if current expectations were used throughout the life of the property group for future depreciation accruals. The theoretical reserve for the asset group serves as a point of comparison to the book reserve to determine if the unrecovered investment of the asset and its removal cost are over or under-accrued.

In the Depreciation Study, I computed theoretical reserves based on projected plant balances as of December 31, 2021. I calculated the theoretical reserve using a reserve model that relies on a prospective concept relating future retirement and accrual patterns for property, given current life and salvage estimates. More specifically, I determined the theoretical reserve of a property group from the estimated remaining life of the group, the total life of the group, and estimated net salvage. This computation for the straight-line, remaining-life theoretical reserve ratio, which I describe in more detail starting on page 12 of the Depreciation Study, involves multiplying the vintage balances within the property group by the theoretical reserve ratio for each vintage.

While discussed more fully in the Study, net salvage is the difference between the gross salvage (what the asset was sold for) and the COR (cost to remove and dispose of the asset). If the COR exceeds gross salvage, net salvage is negative. Some plant assets can experience significant negative removal cost percentages due to the amount of removal cost and the timing of any capital additions versus the retirement. Salvage and removal cost percentages are calculated by dividing the current cost of salvage or removal by the original installed cost of the assets retired.

The Depreciation Study separately calculates the net salvage percentages for the Common, Electric Production, Electric Distribution, Electric General, Natural Gas Underground Storage, Natural Gas Transmission, Natural Gas Distribution, and Natural Gas General Plant accounts. To determine the appropriate net salvage percentages for each account, I started by using an industry-standard method that divides the current cost of salvage or removal by the original installed cost of the assets retired. However, I also applied judgment to select a net salvage percentage that represents the future expectations for each account.

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To apply this judgment, I compiled historical salvage and removal data by functional group and account to determine values and trends in gross salvage and removal cost. As detailed in the Depreciation Study, for most accounts, data for retirements, gross salvage and COR covered the period from 2002-2020. I calculated moving averages with this data to remove timing differences between retirement and salvage and removal cost. Those moving averages are analyzed over periods varying from one to 10 years. These calculations are found in Appendix D of the Depreciation Study.

The current and proposed net salvage percentages are shown in Appendix C-2 of the Depreciation Study, and a detailed history is shown in Appendix D of the Depreciation Study. 10 For the Depreciation Study, I analyzed all Common Plant, Electric Production Plant, Electric Distribution Plant, and Electric General Plant, Natural Gas Storage and Transmission, Natural 12 Gas Distribution, and Natural Gas General Plant accounts using actuarial analysis (retirement 13 rate method) to estimate the life of the property in each account where sufficient activity is 14 available. In much the same manner as human mortality is analyzed by actuaries, depreciation 15 analysts use models of property mortality characteristics that have been validated in research and 16 empirical applications. Aged retirements are combined to develop retirements and property exposed to retirement for each age interval. Interval exposures (total property subject to retirement at the beginning of the age interval, regardless of vintage) and age interval retirements 19 are calculated.

The complement of the ratio of interval retirements to interval exposures establishes a survivor ratio. The survivor ratio is the fraction of property surviving to the end of the selected age interval, given that it has survived to the beginning of that age interval. Survivor ratios for all of the available age intervals were chained by successive multiplications to establish a series of survivor factors, collectively known as an observed life table.

The observed life table shows the experienced mortality characteristic of the account and may be compared to standard mortality curves such as the Iowa Curves. Where data was available, accounts were analyzed using this method. Placement bands were used to illustrate the composite history over a specific era, and experience bands were used to focus on retirement history for all vintages during a set period.

30 The Depreciation Study report provides details regarding the life selection for each 31 account. Graphs and other data supporting the proposed life estimate are provided in the

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DAW-13

"Determination of the Lives" section of the Depreciation Study. A summary comparison of the
 depreciable lives is shown in Attachment B attached to this testimony.

IV. GRADUALISM

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My study applies the Commission's gradualism policy (describe below) in the selections for life and net salvage parameters for SDG&E's depreciable and amortized assets. In recent proceedings, the Commission has applied a principle of gradualism for depreciation rates based upon concerns about the growing cost burdens associated with increasing cost trends for negative net salvage.⁴ The Commission explained that:

[t]he principle of gradualism applies where there is a recognized need to revise estimated parameters, but where the change is allowed to occur incrementally over time rather than all at once. Applying gradualism thus limits the approved increase that would otherwise be warranted, all else being equal and mitigates the short-term impact of large changes in depreciation parameters. Also, it is advisable to be cautious in making large changes in estimates of service lives and net salvage for property that will be in service for many decades, as future experience may show the current estimates to be incorrect.⁵

The Commission gave specificity to this directive in Pacific Gas and Electric Company's 2014 general rate case by allowing "no more than 25% of the estimated net [salvage] increase from current [net salvage] rates."⁶ The Commission has then applied this principle to Southern California Edison Company in D.15-11-021⁷ and D.19-05-020.⁸

By contrast, in SDG&E's 2019 GRC, the depreciation rates, lives, and net salvage parameters from the 2016 GRC were retained.⁹ As such, since the Company's depreciation rates were set in D.16-06-054, no changes in authorized life or net salvage rates have been made. That is, even with the CPUC's guidance for gradualism, the Company was not allowed to gradually increase net salvage estimates (impacted by increased removal costs) or increase lives in the last GRC.

- ⁴ Decision (D.)14-08-032 at 598.
- ⁵ *Id.*
- ⁶ *Id.* at 600.
- ⁷ D.15-11-021 at 413, 421, 425.
- ⁸ D.19-05-020 at 315-320.
- ⁹ D.19-09-051 at 623.

This exacerbated the gap between the Company's actual life and net salvage experience and the authorized amount. In examining parameters for SDG&E's accounts with the largest plant balances, as of December 31, 2020, five of the six plant accounts show an increase in negative net salvage and four of six accounts shown an increase in life between the depreciation rates set in D.16-06-054 and D.19-09-051 and the parameters proposed in this proceeding.

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Acct	D.13-05-010 Approved Life	D.16-06-054 & D.19-09-051 Approved Life	Current Study Proposed Life	
E364.00-Poles, Towers &	44	47	47	
Fxtr				
E365.00-Overhead Cond	48	55	55	
& Dev				
E366.00-Underground	53	57	61	
Conduit				
E367.00-Undergrnd	40	45	52	
Cond & Dev				
E368.10-Line	33	34	36	
Transformers				
G376.00-Mains	60	69	69	

Table SDG&E-DW-2 **SDG&E** Changes in Life Largest Accounts

8 While the lives show gradual change, the net salvage parameters for these same accounts show a

9 more dramatic change over the past 9 years.

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Table SDG&E-DW-3 **SDG&E** Changes in Net Salvage Largest Accounts

Acct	D.13-05-010 Net Salvage	D.16-06-054 & D.19- 09-051 Net Salvage	Current Study Proposed Net Salvage
E364.00-Poles, Towers & Fxtr	-95	-100	-95
E365.00-Overhead Cond & Dev	-70	-70	-95
E366.00-Underground Conduit	-40	-50	-75
E367.00-Undergrnd Cond & Dev	-55	-65	-90
E368.10-Line Transformers	-45	-70	-95
G376.00-Mains	-45	-55	-80

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By having to retain the same net salvage factors over the past nine years, the Company

13 has not been able to recover its increasing net salvage expenditures from customers using those assets. In some cases, like Account E364, the net salvage indications have not changed greatly from 2012 GRC levels. The graph below shows that net salvage has remained stable over the past several years.



But the other largest accounts show a robust trend to increasingly higher negative net salvage, as demonstrated in the graphs below.

DAW-16









FIGURE DW-8

RESULTS OF DEPRECIATION STUDY

The recommended life and curve dispersion and net salvage rates by account, grouped by functional class, are presented below. Documentation in support of these results is found in my workpapers, Exhibit SDG&E-36-WP. The service life and curve dispersion selections and estimated net salvage rates for each account were derived from statistical analyses of historical data, visual matching to Iowa curves, informed judgment, discussions with field personnel, and expectations about the future projection of life and dispersion curve and net salvage.

A. Common Plant

1. Account C303.10 Cloud Computing Costs

This account includes the cost of cloud computing, which is the delivery of services through the internet. It includes tools and applications such as data storage service, data bases, and software. There is approximately \$2.0 million in this account. The approved life for this account is 5 years and a Square (SQ) dispersion. Given the contractual period of time the Company has agreed, my study proposes retaining the current life for these assets. The current net salvage percentage is 0 percent, which would be retained. These assets have no value at the end of their lives.

2. Account C303 Intangible Plant

This account includes the cost of intangible software used for utility service. There is approximately \$687.2 million in this account. Software projects are assigned a life based on the expectation by Company IT subject matter experts of the period that the software will be used and useful. Currently assets in this account have lives of 5 or 15 years. Those assets lives are retained, and the Company also requests the addition of a 3-year and 10-year category. The current net salvage percentage is 0 percent, which is retained. These assets have no value at the end of their lives.

3. Account C389.2 Land Rights

This account consists of land rights associated with common buildings and other facilities. The current plant balance is \$28,000. The approved life for this account is 40 years with a SQ dispersion. This account is fully accrued. Since the life for account 390.1 is being extended, my study recommends a life of 45 years with a SQ dispersion, to match the increase in life in Common Account 390.10. Currently this account has 0 percent net salvage, which is retained in this depreciation study.

4. Account C390.10 Structures & Improvements

This account includes the cost of general structures and improvements used for utility service. There is approximately \$508.5 million in this account, with an approved life of 30 years and an S1 dispersion. Numerous building shells are over 40 years old.

Yet many of the other assets related to the buildings have much shorter lives. Based on the experience of the Company's experts and my experience, various components in this account will have much shorter lives than the shell of the buildings—generators have a life of 15-25 years, AC systems 15-20 years, roofs 20-25 years, security systems 7-10 years, and carpets about 10 years.

After performing actuarial analysis, a longer life than is currently approved is indicated. After evaluating input from Company experts and actuarial analysis, my study recommends increasing the life to 43 years but moving to a slightly flatter dispersion, the L0, which is shown below in Figure DW-9.



The currently authorized net salvage rate for this account is negative 15 percent. The five- and 10-year moving averages show negative 9 percent for both periods. Based on recent experience, my study recommends moving to negative 10 percent net salvage for this account.

5.

Account C391.1 Office Furniture and Equipment

This account consists of miscellaneous office furniture such as desks, chairs, filing cabinets, and tables used for general utility service. There is approximately \$43.0 million in this account. This account currently has a life of 18 S6.

In the early 2000s, the Company refurbished office furniture at Century Park. They are now starting a new refresh cycle. There is also a safety component related to furniture, as SDG&E moves to more ergonomically friendly designs. Based on Company experience, the 18year life is still reasonable.

To continue the use of vintage group amortization, my study recommends an amortization period of 18 years with an SQ dispersion. The current authorized net salvage for this account is 0 percent. The five- and 10-year moving averages show 0 percent for both

DAW-21

periods. Based on the type of assets and Company experience, my study recommends retaining the approved 0 percent net salvage for this account.

6. Account C391.2 Computer Equipment

This account consists of computer equipment used for general utility service. There is approximately \$103.8 million in this account. This account currently has a life of 5 S6, which is still consistent with the Company's refresh cycle for computer equipment. In order to continue the use of vintage group amortization, my study recommends an amortization period of 5 years with an SQ dispersion.

The current authorized net salvage for this account is 0 percent. The five- and 10-year moving averages show 0 and 1 percent, respectively. Based on the type of assets and Company experience, my study recommends retaining the approved 0 percent net salvage.

Account C392.1 Autos

This account consists of automobiles and similar transportation equipment used for general utility service, worth about \$406,000. This account currently has a life of 10 SQ. Based on the practices and expectations of the Company's fleet operations, this life is still reasonable.

In order to continue the use of vintage group amortization, my study recommends an amortization period of 10 years with an SQ dispersion. The current authorized net salvage for this account is 0 percent. There has been limited activity in this account. Based on judgment, my study recommends retaining the approved 0 percent net salvage for this account.

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8. Account C392.2 Trailers

This account consists of trailers and other transportation equipment used for general utility service. There is approximately \$108,000 in this account. This account currently has a life of 20 L0.

Based on the practices and expectations of the Company's fleet operations, as well as the results of the actuarial analysis, this life is still reasonable. In order to continue the use of vintage group amortization, my study recommends an amortization period of 20 years with an SQ dispersion. The current authorized net salvage for this account is 0 percent. There has been limited retirement and/or net salvage activity in this account. Based on judgment, my study recommends retaining the approved 0 percent net salvage for this account.

9.

Account C392.3 Aviation Equipment

This account consists of aviation equipment ranging from helicopters to drones. These assets are used for wildfire mitigation and monitoring equipment in areas that are difficult to access. There is approximately \$12.0 million in this account. This account currently has a life of 10 SQ. The Company has purchased a 2017 Airbus H145a 2020 Sikorsky Blackhawk, configured as a Firehawk (final delivery will be in late 2022/early 2023) and a 2021 Bell 412 EPX (with delivery in late 2022). After purchase, the Company operates the helicopters with strict adherence to maintenance schedules, engine warranties, and part replacement at required intervals. The Company plans to operate the helicopters it owns for an additional 20 years.

The Company buys drones about every two years. Those assets are replaced as technology improves with better cameras and security features. The drones are a small portion of this account compared to helicopters, with drones being \$0.3 million of the current plant in service. My study recommends a 25-year life with an SQ dispersion based on discussion with Company experts who are familiar with these assets.

The current authorized net salvage for this account is 0 percent. There is a robust market for used helicopters. The company plans to keep its current helicopter 25 years and maintain the helicopter with manufacturer recommendations.

There is limited data in the public domain to predict the value of the helicopters 25 years from now. The small number of drones in this account have no value at the end of their lives and no salvage is predicted for those assets. There has been limited retirement and/or net salvage activity in this account. Based on judgment, my study recommends moving to positive 50 percent net salvage for this account.

10. Account C393.10 Stores Equipment

This account consists of stores equipment used for general utility service. There is approximately \$333 thousand in this account. This account currently has a life of 19 L0. Based on the practices and expectations of the Company's operating personnel and the 25-year life recommendation for similar assets in Account E393.10, this study recommends moving to a 25-year life with an SQ dispersion, matching the life of Account E393.10.

The current authorized net salvage for this account is 0 percent. The five- and 10-year moving averages show 0 percent for both periods. Based on the type of assets and Company experience, my study recommends retaining the approved 0 percent net salvage for this account.

11. Account C394.11 Portable Tools

This account consists of portable tools such as mobile computer data, test equipment, and pumps. There is approximately \$1.5 million in this account. This account currently has a life of 23 R2.5.

In this common function, two-thirds of the total plant is ruggedized laptops (MDTs) used in the field. Company experts believe that a life of 23 years is not reasonable for these laptops. Company Experts believe a life of 10 years for this account based on the asset mixture is operationally reasonable.

In order to continue the use of vintage group amortization, my study recommends an amortization period of 10 years with an SQ dispersion associated with portable tools such as mobile computer data, test equipment, and pumps. The current authorized net salvage for this account is 0 percent. The five- and 10-year moving averages show 0 percent for both periods. Based on the type of assets and Company experience, my study recommends retaining the approved 0 percent net salvage for this account.

12. Account C394.21 Shop Equipment

This account consists of shop equipment such as ammeters, purifiers, and steam cleaners. There is approximately \$143 thousand in this account. This account currently has a life of 35 L1.5.

Based on the practices and expectations of the Company's operating personnel, this life is longer than expected for these types of assets. Account E394.20, Shop Equipment, has a current and proposed 26-year life. Since those assets are similar between electric general and common plant, my study proposes moving to a 26-year life.

In order to continue to use vintage group amortization, my study recommends an amortization period of 26 years with an SQ dispersion. The current authorized net salvage for this account is 0 percent. There was gross salvage received in 2017 that has not occurred in other periods. Based on judgment, my study recommends retaining the approved 0 percent net salvage for this account

13. Account C394.31 Garage Equipment

This account consists of various garage equipment such as lathes and other tools. There is approximately \$1.8 million in this account. This account currently has a life of 19 R3.

Based on the practices and expectations of the Company's operating personnel, this life is still appropriate. In order to continue to use vintage group amortization, my study recommends an amortization period of 19 years with an SQ dispersion. The current authorized net salvage for this account is 0 percent. The five- and 10-year moving averages show 0 percent for both periods. Based on the type of assets and Company experience, my study recommends retaining the approved 0 percent net salvage for this account.

14. Account C395.10 Laboratory Equipment

This account consists of laboratory equipment used in general utility service. There is approximately \$1.7 million in this account. This account currently has a life of 25 R5.

Company experts report that the items used for laboratory equipment are increasingly technology driven. Based on their recent experience, they do not believe these assets can last 25 years. Their expectations are 15 years at most.

My study continues to use vintage group amortization with an amortization period of 15 years with an SQ dispersion. The current authorized net salvage for this account is 0 percent. The five- and 10-year moving averages show 1 percent for both periods. Based on the type of assets and Company experience, my study recommends retaining the approved 0 percent net salvage for this account.

15. Account C397.10 Communication Equipment

This account consists of miscellaneous communication equipment used in general utility service. Assets in this account include AV equipment, network infrastructure equipment, and telecom equipment. There is approximately \$306.1 million in this account.

This account currently has a life of 13 S6. Company personnel report that these assets are very technology driven. Based on the practices and expectations of the Company's operating personnel, this life is still appropriate.

In order to continue to use vintage group amortization, my study recommends an amortization period of 13 years with an SQ dispersion. The current authorized net salvage for this account is 0 percent. The five- and 10-year moving averages show 0 percent for both periods. Based on the type of assets and Company experience, my study recommends retaining the approved 0 percent net salvage for this account.

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16. Account C398.10 Miscellaneous Equipment

This account consists of miscellaneous equipment used in general utility service. There is approximately \$3.6 million in this account. This account currently has a life of 13 R0.5.

Based on the types of assets in this account expectations of the Company's operating personnel, this life is still appropriate. In order to continue to use vintage group amortization, my study recommends an amortization period of 13 years with an SQ dispersion. The current authorized net salvage for this account is 10 percent. The five- and 10-year moving averages show 0 percent for both periods. Based on the type of assets and Company experience, my study recommends moving to 0 percent net salvage for this account.

B. Electric Production Plant

The balance for Electric Steam Production Plant as of December 31, 2020, was \$533.2 million. The accumulated reserve was \$277.0 million. The balance for Other Production Plant as of December 31, 2020, was \$578.8 million. The accumulated reserve was \$301.7.0 million.

Electric steam production and other production plant consists of several, large-scale, generation plants, and numerous, smaller, renewable-energy projects. While these plants are discussed as single units, the unique assets comprising them are accounted for across the FERC accounts below, with separate delineation by large-scale facility and renewable-energy type.

Table SDG&E-DW-4Electric Production FERC Accounts

Steam Production	Other Production
310: Land Rights	340: Land Rights
311: Structures and Improvements	341: Structures and Improvements
312: Boiler Plant Equipment	342: Fuel Holders, Producers, and Accessories
313: Engines and Engine-Driven Generators	343: Prime Movers
314: Turbogenerator Units	344: Generators
315: Accessory Electric Equipment	345: Accessory Electric Equipment
316: Miscellaneous Power Plant Equipment	346: Miscellaneous Power Plant Equipment

1. Cuyamaca Peak Energy Plant

The Cuyamaca Peak Energy Plant (CPEP) is a 45-megawatt (MW) single unit simplecycle peaking power plant that was purchased from CalPeak Power-El Cajon LLC in January 2012.¹⁰ The depreciation study models CPEP to be retired in 2027. Sargent & Lundy (S&L)

¹⁰ SDG&E Peaker Plants Fact Sheet (May 27, 2014).

performed an undated, independent dismantling cost study for CPEP. The results of this updated study are included in the calculation of depreciation rate for CPEP.¹¹

As a single unit production site, SDG&E continues to utilize end-of-life accounting with a fixed decommissioning date of mid-2027 based on a 25-year service life. No interim retirements for this plant were modeled in the depreciation study. Additionally, while S&L notes that "[t]he decommissioning costs are expected to increase by the end of service life of the asset due to escalation,"¹² the FNS% proposal in the depreciation study is based on a conservative, non-escalated, allocation across associated depreciation accounts for this plant.

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	Current			Proposed		
		Decom.			Decom.	
Account	Curve	Date	FNS%	Curve	Date	FNS%
E341.00	SQ	mid-2027	-17.45%	SQ	mid-2027	-24.20%
E342.00	SQ	mid-2027	-5.02%	SQ	mid-2027	-11.12%
E343.00	SQ	mid-2027	0.00%	SQ	mid-2027	0.00%
E315.00	SQ	mid-2027	-9.07%	SQ	mid-2027	-5.44%
E345.00	SQ	mid-2027	-14.47%	SQ	mid-2027	-31.86%
E346.00	SQ	mid-2027	0.00%	SQ	mid-2027	0.00%
			-3.30%			-3.58%

Table SDG&E-DW-5 **Depreciation Parameters - CPEP**

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2. **Desert Star Energy Center**

The Desert Star Energy Center (DSEC) is a 480-MW electric generating facility situated on land leased from the City of Boulder. In mid-2000, DSEC entered commercial operation as El Dorado Energy, LLC, and SDG&E purchased DSEC from Sempra Energy in October 2011. The depreciation study models DSEC to retire in 2026 based on the lease requirements and is supported by Company witness Daniel S. Baerman in the Electric Generation testimony, Ex. SDG&E-14.

S&L performed an updated, independent dismantling cost study for DSEC. The results of this updated study are included in the calculation of depreciation rate for DSEC. As a production site, SDG&E continues to utilize end-of-life accounting with a fixed retirement and

S&L, Cuyamaca Peak Energy Plant Decommissioning Study (April 4, 2022), Table ES-1 at ll. 12 Id. at I.

decommissioning date based upon lease requirements. No interim retirements were modeled for this facility in the depreciation study. While S&L notes that "[t]he decommissioning costs are expected to increase by the end of service life of the asset due to escalation,"¹³ the FNS% proposal in the depreciation study is based on a conservative, non-escalated, allocation across associated depreciation accounts.

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		Current			Proposed	
Account	Curve	Decom. Date	FNS%	Curve	Decom. Date	FNS%
E311.00	SQ	mid-2026	10.58%	SQ	mid-2026	(12.47%))
E312.00	SQ	mid-2026	-4.27%	SQ	mid-2026	(3.90%)
E314.00	SQ	mid-2026	-10.49%	SQ	mid-2026	(7.68%)
E315.00	SQ	mid-2026	-0.08%	SQ	mid-2026	(0.83%)
E316.00	SQ	mid-2026	-0.70%	SQ	mid-2026	(0.73%)
E341.00	SQ	mid-2026	-30.74%	SQ	mid-2026	(81.68%)
E342.00	SQ	mid-2026	-24.16%	SQ	mid-2026	(1.38%)
E343.00	SQ	mid-2026	0.00%	SQ	mid-2026	-
E344.00	SQ	mid-2026	-0.42%	SQ	mid-2026	(0.74%)
E345.00	SQ	mid-2026	4.71%	SQ	mid-2026	(2.42%)
E346.00	SQ	mid-2026	0.00%	SW	mid-2026	-
			(2.57%)			(3.37%)

Table SDG&E-DW-6 Depreciation Parameters - DSEC

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3. Miramar Energy Facility

The Miramar Energy Facility (MEF) consists of two units. The first facility entered service in 2005. The second, which is virtually identical to the first, entered service in 2009.

S&L performed an updated, independent dismantling cost study for MEF. The results of this updated study are included in the calculation of depreciation rate for MEF. As a single

production site, SDG&E continues to utilize end-of-life accounting with affixed

decommissioning date of mid-2032, based on a conservative 25-year ASL from the simple-

average in-service date for the units.

No interim retirements were modeled for this facility in the depreciation study. While S&L notes that "decommissioning costs are expected to increase by the end of service life due to

¹³ S&L, Desert Start Energy Center Decommissioning Study (April 4, 2022) at I.

escalation,"¹⁴ the FNS% proposal is based on a conservative, non-escalated, allocation across

Table SDG&E-DW-7

Depreciation Parameters - MEF

associated depreciation accounts.

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_		Current			Proposed		
Account	Curve	Decom. Date	FNS%	Curve	Decom. Date	FNS%	
E341.00	SQ	mid-2032	(6.76%)	SQ	mid-2032	(6.45%)	
E342.00	SQ	mid-2032	(2.92%)	SQ	mid-2032	(4.08%)	
E343.00	SQ	mid-2032	-	SQ	mid-2032	-	
E344.00	SQ	mid-2032	(2.63%)	SQ	mid-2032	(4.05%)	
E345.00	SQ	mid-2032	(0.08%)	SQ	mid-2032	(3.22%)	
E346.00	SQ	mid-2032	-	SW	mid-2032	-	
			(1.09%)			(3.22%)	

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4. Palomar Energy Center

The Palomar Energy Center (PEC), which went into service in 2006, is a 588 MW, natural gas-fired, electric generation facility owned by SDG&E. S&L performed an updated, independent dismantling cost study for PEC. The results of this updated study are included in the calculation of depreciation rate for PEC.

As a single production site, SDG&E continues to utilize End-of-Life Accounting with a fixed decommissioning date of mid-2036, based on a 30-year ASL. No interim retirements were modeled for this facility in the depreciation study. While S&L notes that "[t]he decommissioning costs are expected to increase by the end of service life of the asset due to escalation,"¹⁵ the FNS% recommendation is based on a conservative, non-escalated, allocation across associated depreciation accounts.

¹⁴ S&L, Miramar Energy Facility Decommissioning Study (April 4, 2022) at I.

¹⁵ S&L, Palomar Energy Center Decommissioning Study (April 4, 2022) at I.

Depreciation 1 arameters - 1 EC							
	Current			Proposed			
Account	Curve	Decom. Date	FNS%	Curve	Decom. Date	FNS%	
E311.00	SQ	mid-2036	-2.30%	SQ	mid-2036	(3.11%)	
E312.00	SQ	mid-2036	-2.30%	SQ	mid-2036	(3.10%)	
E314.00	SQ	mid-2036	-1.41%	SQ	mid-2036	(2.64%)	
E315.00	SQ	mid-2036	-0.32%	SQ	mid-2036	(1.30%)	
E316.00	SQ	mid-2036	-0.25%	SQ	mid-2036	(0.28%)	
E341.00	SQ	mid-2036	-3.29%	SQ	mid-2036	(4.29%)	
E342.00	SQ	mid-2036	-1.45%	SQ	mid-2036	(2.32%)	
E343.00	SQ	mid-2036	0	SQ	mid-2036	-	
E344.00	SQ	mid-2036	-0.60%	SQ	mid-2036	(1.31%)	
E345.00	SQ	mid-2036	3.06%	SQ	mid-2036	(5.02%)	
E346.00	SQ	mid-2036	0	SW	mid-2036		
			(-1.24%)			(2.08%)	

Table SDG&E-DW-8

Doprociation Parameters PEC

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Account E344.1 Solar Energy Projects

SDG&E has installed numerous solar energy projects (SEP), or photovoltaic (PV) powergeneration equipment, throughout its service territory. Currently, the approved life and curve for these facilities is 25 years with a SQ dispersion. The same 25-year life is used in this depreciation study.

S&L performed an independent dismantling cost estimates for SEP. The results of this updated study are included in the calculation of depreciation rate for SEP. There are two types of solar assets are in this account: the Ramona facility and various rooftop solar installations.

The two estimates computed by S&L were combined to produce the net salvage percentages shown below. While S&L notes that "[d]ecommissioning costs are expected to increase by the end of service life due to escalation,"¹⁶ the FNS% recommendation is based on a conservative, non-escalated, allocation across associated depreciation accounts.

¹⁶ S&L, Ramona Solar Energy Plant Decommissioning Study (April 4, 2022) at I.
Table SDG&E-DW-9

Depreciation Parameters - SEP

Current			Proposed	
Account	Curve	FNS%	Curve	FNS%
E341.10	SQ-25	-	SQ-25	0.00%
E344.10	SQ-25	-	SQ-25	-19.22%
E345.10	SQ-25	-	SQ-25	-13.91%
		-	-	-18.98%

6. Account E344.2 Generators Other

This account consists of generators, gas turbines and control systems, circulating water systems, and other related assets. A pro-forma adjustment was made in 2021 to transfer assets into this account. After those adjustments, the plant balance in this account is \$5.4 million.

No specific power plant is mentioned for these assets. The assets transferred into this account are large portable generators that can be used at any location. Currently there are no interim retirements modeled for generation assets.

The ability to move these assets to different locations results in more wear and tear. Given those circumstances, I recommend in my judgment a 20-year life with an R1 dispersion for these assets. The current net salvage percentage is 0 percent. There has been no historical activity, and there is no interim net salvage estimated for this account. Based on judgment, my study recommends 0 percent net salvage for this account.

7.

Account E303 Intangible Plant

This account includes the cost of intangible software used for electric utility service. There is approximately \$192.3 million in this account. Software projects are assigned a life based on the expectation by Company IT subject matter experts of the period that the software will be used and useful.

Currently assets in this account have lives of 5 and 10 years. Those assets lives are retained. The Company also requests the addition of a 3-year category. The current net salvage percentage is 0 percent, which is retained. These assets have no value at the end of their lives, given the pace of technology change.

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C. Electric Distribution Plant

The balance for Electric Distribution General plant as of December 31, 2020, was \$7.914 billion, excluding \$16.5 million for land which is non-depreciable. The accumulated reserve was \$3.367 billion.

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Account E360.2 Land Rights (65 SQ)

This account contains right of way for distribution plant. On December 31, 2020, there was approximately \$83.9 million in this account. The current approved life for this account is 45 years with an SQ dispersion.

My study proposes extending the life of this account to correspond to the longest lives of assets within this functional group. Since the longest proposed life for this functional group is 61 years for Account 361 Structures and Improvements, my study proposes moving to a 65-year life with an SQ dispersion. The currently approved net salvage estimate for this account is zero percent. Since land rights intrinsically have no removal costs (removal costs are attributed to the property on the land) and have no salvage value, a zero percent net salvage estimate is retained for this account.

2. Account E361.0 Structures & Improvements

This grouping contains facilities such as building station control, fencing, yard improvements, and other structures for distribution plant. On December 31, 2020, there was approximately \$12.3 million in this account. There is a diverse mixture of assets in the accounts that have a wide range of lives.

Longer lived assets include site preparation, drainage, and foundations. Shorter lived assets are security system upgrades, which have been added in the past few years. The existing approved life is 63 years with an R2.5 dispersion curve.

The Company is planning to remove all 12kV - 4 kV substations over the next 10 years (around 10-20 stations out of around 180-200 stations). Some of the more recent bands are showing a slight reduction in life to 57 years. To move partway in direction of this trend, my study recommends a slight decrease in average life. Based on the actuarial analysis, the type of assets in this account, and judgment, my study recommends moving the life to 61 years and moving to an R2 dispersion. A graph of the observed life table versus the proposed curve is shown below in Figure DW-10.



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The current approved net salvage estimate for this account is negative 125 percent. Transactional history shows a negative net salvage in nearly every year analyzed. In the most recent period, a moving average of negative 520 and negative 431 percent exists for the five-year and 10-year bands, respectively. Given the continued trend in negative net salvage, my study recommends implementing the 25 percent change that would be permitted by the Commission's gradualism precedent. Based on the transactional history, a proposed net salvage estimate of negative 150 percent is supported and recommended for this account.

3. Account E362.1 Station Equipment

This grouping contains switchboards, station wiring, transformers, and a wide variety of other equipment, from circuit breakers to switchgear, for distribution plant. On December 31, 2020, there was approximately \$618.0 million in this account. The existing approved life is 51 years with an R1.5 dispersion curve.

As with Account 361, the Company is planning to remove all 12kV - 4 kV substations over the next 10 years (around 10-20 stations out of around 180-200 stations). CBM (Condition Based Monitoring) is in place for transformers in this account. Many transformers are older than
 the 51-year approved life.

Company Experts expect transformers to have a 40–60-year life. At this point, 30-35 transformers are past the 60-year mark. Breakers are a mix of oil, vacuum, and air. The life expectations for different types of breakers are: oil 50 years, vacuum 30 years, and metal clad 30-50 years.

There are some electromechanical relays on the system, but the Company would replace those with solid state relays upon replacement. Company Experts state that the ranges of life for relays are 20 years for solid state and 30-40 years for electromechanical. Ground grids are generally maintained rather than having a full-scale replacement. Batteries are estimated to have a life in the range of 10–20 years.

From an operations perspective, Company experts support a slight increase in life. Based on the analysis, type of assets, and Company input, my study recommends moving to a 55 R2. A graph of the observed life table versus the proposed curve is shown in Figure DW-11.



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Figure DW-11 Account 362- Station Equipment



The current approved net salvage estimate for this account is negative 125 percent. In the most recent period, a moving average of negative 196 and negative 186 percent exists for the five-year and 10-year bands. Given the continued trend in negative net salvage, my study recommends a 25 percent change, consistent with the Commission's gradualism requirements. After examining SDG&E history, I recommend moving toward the more negative indications with a negative 150 percent net salvage estimate.

4. Account E363 Energy Storage Equipment

This account includes energy storage equipment such as batteries, inverters, and containers. Switchgear, transformers, conduit, and the like would be booked to other accounts. There is \$126.0 million in plant in this account.

The current life of this account is 10 years with an SQ dispersion. Company Experts report that some battery projects will reach their end of life at around 10-15 years (Li Ion). The Tesla time frame is 10 years. Miramar and Fallbrook have 20-year LTSAs. Newer battery chemistry (Iron Phosphate) would allow less degradation and more cycling.

Due to the mix of lives expected for batteries, moving from a 10 year to a 15-year life is reasonable from an operations perspective. Based on information from Company Experts and judgment, my study recommends a 15-year life with SQ dispersion for this account. No graph is shown.

The current approved net salvage estimate for this account is 0 percent. The Company had a consultant, Renewance, perform a decommissioning study on the batteries that will be booked in this account.¹⁷ There will be disposal costs associated with batteries and it is necessary to request a small amount of removal cost associated with them. Based on information from the decommissioning studies, negative 3.60 percent net salvage is recommended for this account.

5. Account E364.0 Poles, Towers & Fixtures

This account contains poles, towers, and fixtures for distribution plant. As of December 31, 2020, there was approximately \$942.1 million in this account. The approved life is 47 R0.5. The Company uses poles made of wood, steel, and concrete. For the past 30 years, the Company has gradually been moving from wood poles to steel and concrete. The wood poles

¹⁷ Renewance, SDG&E Battery Energy Storage System Decommissioning Plans and Study (January 2022).

being replaced are likely 50+ years old at retirement. Company experts state that steel poles have
a 50+ year life per the manufacturer, which is also support by operations experience. Concrete
poles installed over the past 20-30 years have issues with spalling corrosion. Fiberglass poles
have a life of 30 or more years.

Company experts report that they are proactively undergrounding in certain fire hardening areas. The largest hardening effort is focused is on areas with wood poles. Some areas that may have had wood changed out to steel in the past would now, based on risk assessment, move to undergrounding or replacement with covered wire. And some portions of the steel poles in areas that have already been hardened may need to be reworked. Specifically, in high fire threat districts (HFTD), SDG&E is installing 233 miles of undergrounding, leading to 155 miles of overhead poles being removed in this GRC's three-year time frame.

Yet the undergrounding effort will not have a significant impact on the overall account as it will install only 880 miles of underground to convert 587 miles of overhead; a small percentage of the total number of poles. The total miles in the service territory are 6,431 overhead and 10,729 underground. Based on the actuarial analysis, Company input, and judgment, my study recommends retaining the 47-year life with the R0.5 dispersion. A graph of the observed life table versus the proposed curve is shown in Figure DW-12.



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The current approved net salvage estimate for this account is negative 100 percent. In the most recent period, a moving average of negative 86 percent and negative 94 percent exists for the five-year and 10-year bands, respectively. Given the slight movement in the Company's experience, the study recommends an incremental movement to a negative 95 percent net salvage estimate.

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Account E365.0 Overhead Conductor & Devices

This account consists of overhead (OH) conductor of various thickness, as well as various switches and reclosers. As of December 31, 2020, there was approximately \$974.3 million in the account. The approved life is 55 R0.5.

From an operations perspective, Company experts expect that overhead wire would have a longer life than poles. The Company has an active reconductoring program and will, in some cases, replace conductor when hardening the system. Specifically, the Company is replacing single strand with multistrand steel conductor.

With the 10-year plan, SDG&E is expecting over 800 miles of covered conductor to be installed, of which about 40% could be rework. There will be some early retirements with the rework. The Company has no current plans to replace conductor with covered conductor outside of the HFTD area.

Covered conductor is a newer technology for the company. Based on engineering analysis and history from other companies, Company experts expect the covered conductor to last as long as the bare wire. There will be areas where the conductor has been hardened but will now be replaced with covered conductor, but the steel poles will not be replaced.

Based on the actuarial analysis, Company input, the type of assets, and judgment, my study recommends retaining the current 55-year life with an R0.5 dispersion. A graph of the observed life table versus the proposed curve is shown in Figure DW-13.





The current approved net salvage estimate for this account is negative 70 percent. In the most recent period, a moving average of negative 161 and negative 131 percent exists for the five-year and 10-year bands, respectively. My study recommends moving toward those indications with a negative 95 percent net salvage estimate.

7. Account E366.0 Underground Conduit

This account consists of underground conduit, duct banks, vaults, and ventilating system equipment. On December 31, 2020, there was approximately \$1.6 billion in this account. The approved life is 57 years with an R3 dispersion pattern.

Company experts state that they have moved away from soil compacted back fill. Since the 1970s-1980s, SDG&E has used a slurry mix, which protects conductor better. Based on indications from the actuarial analysis, the type of assets in this account, and judgment, my study recommends increasing to a 61-year life and retaining the R3 dispersion. A graph of the observed life table versus the proposed curve is shown in Figure DW-14 below.



The current approved net salvage estimate for this account is negative 50 percent. In the most recent period, a moving average of negative 148 and negative 122 percent exists for the five-year and 10-year bands, respectively. To incrementally model net salvage in the future and give recognition to the higher negative net salvage indications, a negative 75 percent net salvage estimate is recommended for this account at this time.

8. Account E367.0 Underground Conductors & Devices

This account consists of underground conductor, switches, and switchgear for distribution plant. As of December 31, 2020, there was approximately \$1.8 billion in this account. The currently approved life estimate is 45 years with the R3 dispersion curve.

Company experts report connectors and related materials have improved compared to historical standards. Cable technology has improved over time. The HFTD areas are generally not in coastal areas and thus face less water issues overall.

Analytics from actuarial analysis show a slightly longer life. Company experts agree that from an operations perspective moving the life of this account longer is reasonable. Based on the analysis, Company input, the types of assets, and judgment, my study recommends an
 increase in life to 52 years while moving to the R2 dispersion. A graph of the observed life table
 versus the proposed curve is shown in Figure DW-15.



> The currently approved net salvage estimate for this account is negative 65 percent. In the most recent period, a moving average of negative 126 percent and negative 120 percent exists for the five-year and 10-year bands, respectively. Based on current trends to higher negative net salvage my study recommends negative 90 percent net salvage estimate for this account at this time.

9. Account E368.0 Line Transformers

This account consists of line transformers, regulators, and capacitors. On December 31, 2020, there was approximately \$721.7 million in this account. The current approved life for this account is 34 years with an L0.5 dispersion pattern.

Company experts report that they have better protection and better lightning arrestors than in the past. The Company has reduced the amount of repairing of old transformers, and

newer transformers are more robust. When a line is hardened, the transformers and capacitors would also be changed out, as well as the lightning arresters, fuses and associated parts.

These assets would be changed out in HFTD areas as necessary even if the pole or conductor was not replaced. Actuarial analysis shows a slightly longer life in the 37-year range. Company Experts state that, given the better materials and upgrades, a slightly longer life is reasonable operationally. Based on the actuarial analysis, the type of assets in this account, Company input, and judgment, the Study recommends an increase in the life to 36-years while moving to an L1 dispersion. A graph of the observed life table versus the proposed curve is shown in Figure DW-16.



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The currently approved net salvage estimate for this account is negative 70 percent. In the most recent period, a moving average of negative 180 and negative 167 percent exists for the five-year and 10-year bands, respectively. Based on current trends to higher negative net salvage my study recommends negative 95 percent net salvage estimate for this account at this time.

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10. Account E368.2 Capacitor Banks

This account consists of capacitor banks installed around line transformers. On December 31, 2020, there was approximately \$30.9 million in this account. The current approved life for this account is 12 years with an L0 dispersion pattern.

Company experts are not aware of any material changes in this account that would affect the life of capacitors. Some future activities (such as better communication) may shorten the life from a reliability standpoint. The current life is 12 years, which is consistent with the actuarial analysis. Based on the actuarial analysis, the type of assets in this account, Company input, and judgment, the Study recommends retention of the existing 12-year life with an L0 dispersion. A graph of the observed life table versus the proposed curve is shown in Figure DW-17.



Figure DW-17 Account 368.2- Capacitors

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The currently approved net salvage estimate for this account is negative 70 percent. In the most recent period, a moving average of negative 35 percent and negative 79 percent exists for the five-year and 10-year bands, respectively. To model net salvage toward the indications, a negative 60 percent estimate is recommended.

11. Account E369.1 Overhead Services

This account includes overhead electric services. On December 31, 2020, the balance in this account was approximately \$231.1 million. The current approved life for this account is 55 years with the R0.5 dispersion curve.

Company experts state that equipment in this account would be similar to assets in Account 365 Overhead Conductor (where the approved life is the same for both accounts). There are no drivers for a life change from an operations perspective. Based on the actuarial analysis, the type of assets in this account, Company input, and judgment, the Study recommends retaining the existing 55-year life with an R0.5 dispersion. A graph of the observed life table versus the proposed curve is shown in Figure DW-18.

Figure DW-18



The currently approved net salvage estimate for this account is negative 110 percent. In the most recent period, a moving average of negative 496 percent and negative 353 percent exists for the five-year and 10-year bands, respectively. To model net salvage toward the indications, a negative 135 percent estimate is recommended.

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12. Account E369.2 Underground Services

This account includes underground electric services. As of December 31, 2020, the balance in this account was approximately \$389.6 million. The current approved life for this account is 53 years with the L4 dispersion curve.

Company experts report that they are installing increasing levels of underground services. The Company is also installing better hardware that would tend to increase the life from an operations perspective. And SDG&E just updated their cable to a better-quality material.

SDG&E no longer uses paper lead (1920-1960) and will replace those services when found. In the early 1960s the Company moved to in-conduit services, which gives higher reliability with fewer outages. Around the time of changing to conduit, the Company also started using Cross Linked Polyethylene (XLPE) cable.

Company experts believe they may see a slightly longer life in the future. Based on the analysis, type of assets, Company input, and judgment, the Study recommends moving to a 57-year life and move to the R5 dispersion. A graph of the observed life table versus the proposed curve is shown in Figure DW-19.



Figure DW-19 Account 369.2- Underground Services

The currently approved net salvage estimate for this account is negative 75 percent. In the most recent period, a moving average of negative 403 percent and negative 282 percent exists for the five-year and 10-year bands, respectively. To model net salvage toward the indications, a negative 100 percent estimate is recommended for this account.

13. Account E370.10 Meters

This account includes all distribution meters, excluding Automatic Meter Reading (AMR) Meters. On December 31, 2020, there was approximately \$7.6 million in this account. The current approved life is 48 years with an R0.5 dispersion curve. There are very few electromechanical meters left on the system, and the remaining electromechanical meters are mostly used for opt-out customers.

Analytics show a large drop in life for these assets. Based on the analysis, type of assets, Company input, and judgment, the Study recommends moving to a 19-year life and move to the L0 dispersion. A graph of the observed life table versus the proposed curve is shown Figure DW-20.





The currently approved net salvage estimate for this account is 0 percent. In the most recent period, there is a moving average of 0 percent for the five-year and 10-year bands. To model net salvage indications, a 0 percent estimate is retained for this account.

14. Account E370.11 Meters Electronic

This account includes AMR equipment. On December 31, 2020, there was approximately \$197.3 million in this account. The existing infrastructure is only lasting 10-12 years in some cases. Company experts report that some AMR meters have had early failures due to internal capacitors failing with a significant defective population identified in batches deployed in 2009-2010.

Although there are some advanced failures, a 15-year life is still generally reasonable from an operations perspective. Based on input from Company experts, my study thus recommends retention of the existing 15-year life with an SQ dispersion. The currently approved net salvage estimate for this account is 0 percent. In the most recent period, a moving average of 0 percent exists for the five-year and 9-year bands. To model net salvage indications, a 0 percent estimate is retained for this account.

15. Account E370.20 Meter Installations

This account includes meter installations for meters booked in account E370.10, non-AMR equipment. On December 31, 2020, there was approximately \$8.8 million in the account. The current approved life is 48 years with the R0.5 dispersion curve.

Analytics show a reduction in life even larger than that found in Account E370.10. Meter installations are capitalized when service is established and retired when the location goes away. Given the relationship between this account and Account E370.10, my study recommends moving to a 19-year life and L0 dispersion which matches the recommendation for Account E370.10. A graph of the observed life table versus the proposed curve is shown Figure DW-21.

Figure DW-21 Account 370.2- Meter Installations



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The currently approved net salvage estimate for this account is 0 percent. In the most recent period, a moving average of 0 percent exists for the five-year and 10-year bands. To model net salvage indications, a 0 percent estimate is retained for this account.

16. Account E370.21 Meter Installations Electronic Meters

This account includes meter installations for Smart meters/AMRs. As of December 31, 2020, there was approximately \$59.4 million in the account. The current approved life is 15 years with the SQ dispersion curve. From an operations perspective, the life of this account is tied to Account E370.11 Electronic Meters.

Based on the recommendation for Account E370.11, my study recommends retention of the existing 15-year life with an SQ dispersion. The currently approved net salvage estimate for this account is 0 percent. In the most recent period, a moving average of 0 percent for the fiveyear and 9-year bands, respectively. To model net salvage indications, 0 percent estimate is retained for this account.

17. Account E371.0 Installation on Customer Premises

This account consists of luminaire, pedestals, and poles. On December 31, 2020, there was approximately \$10.0 million in this account. The current approved life for this account is 34 years with the R0.5 dispersion pattern.

Company experts report that they are migrating to LED bulbs for this account as current lighting fails. Operationally, they feel that a life of around 30 years is reasonable. They would expect the life to shorten as bulbs burn out and the heads are retired and replaced with LED (instead of replacing the bulbs under O&M). Based on the actuarial analysis, the type of assets in this account, and judgment, my Study recommends retaining the approved 34 R0.5. A graph of the observed life table versus the proposed curve is shown Figure DW-22.

Figure DW-22





The currently approved net salvage estimate for this account is negative 90 percent. In the most recent period, a moving average of negative 671 percent and negative 341 percent exists for the five-year and 10-year bands, respectively. To model net salvage toward the indications, a negative 115 percent estimate is recommended for this account.

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18. Account E371.10 EV Charging Units

This account includes the service panel, the charge stub, and the wiring between the two for electric vehicles charging on customers' premises. There is \$64.4 million in this account on December 31, 2020. Currently this account is being depreciated with a 10-year life and SQ retirement dispersion.

The Company only installs Level 2 or DC fast chargers. When they must transfer the charger to the customer, the period used in the calculation is between 8-10 years (as specified by the Commission). The first chargers were put into service in 2017. There have been a few sites where chargers had to be removed, mostly due to lease issues. The Company has not had any non-warranty failures or repairs in the four years they have been in operations. The warranty period is 2-year for parts and 1 year for service.

The only assets in the account are the charger itself: the pedestal mount and integrated charging unit. The communication devices inside the charger may need replacement over the 10-year time frame due to technology changes. Based on current operations and input from the Company as to how these assets are used, my study recommends retention of the current 10-year life with an SQ dispersion.

The currently approved net salvage estimate for this account is 0 percent. So far, no removal cost as been experienced for this account. The Company had Sargent & Lundy in 2022 perform a decommissioning study on Electric Vehicle (EV) charging units. The estimated assumes that there will be small amounts of removal cost in the future. Based on information from the decommissioning study and judgment, a negative 18.97 percent estimate is recommended for this account.

19. Account E373.2 Street Lighting & Signal Systems

This account includes all distribution streetlights, conductor, conduit, luminaire, and standards. On December 31, 2020, there was approximately \$34.1 million in this account. The current approved life for this account is 36 years with the L0 dispersion curve.

Company experts report that they are migrating to LED lights for this account as current lighting fails. On burnout, they replace the head and bulb with LED. But there is no active program to convert from HPS to LED.

Company experts believe that the life of this account will shorten in the future as bulbs burn out and the heads are retired and replaced with LED (instead of replacing the bulbs under O&M). With the conversion to LEDs, the Company will replace the whole head (which would be a capital item). From an operations perspective, Company experts think the current life of 36 years would still be reasonable at this point. Based on the type of assets in this account, input from Company personnel, and judgment, the current Study recommendation is to retain the 36year life and L0 dispersion curve. A graph of the observed life table versus the proposed curve is shown Figure DW-23.

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The currently approved net salvage estimate for this account is negative 85 percent. In the most recent period, a moving average of negative 317 percent and negative 243 percent exists for the five-year and 10-year bands, respectively. My study recommends conservatively moving toward the indications with a negative 110 percent net salvage estimate for this account.

D. Electric General Plant

The balance for Electric General plant as of December 31, 2020 was \$479.6 million, excluding \$7.3 million for land which is non-depreciable. The accumulated reserve was \$197.4 million.

1. Account E390 All Structures & Improvements (43 L0) These accounts include the cost of buildings, yard improvements, and partitions used for utility service. On December 31, 2020, there was approximately \$45.6 million in this account. The current approved life for this account is 34 S4. There have been limited retirements in this

account. Based on the recommendation for Account 390 Common (which has had more retirement activity), my study recommends a 43-year life with an L0 dispersion. A graph of the

observed life table compared to the proposed curve is shown Figure DW-24.



Figure DW-24 **Account 390- Structures and Improvements**

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The currently approved net salvage estimate for this account is negative 10 percent. There have been limited retirement activity in recent years. Based on experience with Common Account 390 Structures and Improvements (which has more than 10 times the plant balance), my study recommends retaining a negative 10 percent net salvage estimate for this account.

2. Account E392.2 Trailers

This account consists of trailers and other transportation equipment used for general utility service. There is approximately \$58,000 in this account. This account currently has a life of 27 S5.

Based on the practices and expectations of the Company's fleet operations, this life is still reasonable. In order to continue to use vintage group amortization, my study recommends retaining an amortization period of 27 years with an SQ dispersion. The currently approved net salvage estimate for this account is 0 percent. There has been no retirement or net salvage activity for this account. Based on judgment, my study recommends retention of a 0 percent net salvage estimate for this account.

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3. Account E393.10 Stores Equipment

This account consists of stores equipment used for general utility service. There is approximately \$47,000 in this account. This account currently has a life of 25 S5.

Based on the practices and expectations of the Company operations, this life is still reasonable. In order to continue to use vintage group amortization, my study recommends retaining an amortization period of 25 years with an SQ dispersion. The currently approved net salvage estimate for this account is 0 percent. In the most recent period, a moving average of negative 0 percent for the five-year and 10-year. My study recommends retention of the existing 0 percent net salvage estimate for this account.

4. Account E394.11 Portable Tools

This account consists of portable tools such as mobile computer data, test equipment, and pumps. There is approximately \$37.4 million in this account. This account currently has a life of 27 S6.

Equipment in this account is similar to Common Account 394.11, with the newer equipment being more technology-based than prior equipment. Company experts suggest a life of 10 years for this account based on the asset mixture in this account. In order to continue to use vintage group amortization, my study recommends an amortization period of 10 years with an SQ dispersion. The currently approved net salvage estimate for this account is 0 percent. In the most recent period, a moving average of 0 exists for the five-year and 10-year bands. My study recommends retaining the currently approved 0 percent net salvage estimate for this account.

5. Account E394.20 Shop Equipment

This account consists of shop equipment such as ammeters, purifiers, and steam cleaners. There is approximately \$278 thousand in this account. This account currently has a life of 26 L4. Based on the practices and expectations of the Company operations, this life is still
 reasonable.

In order to continue to use vintage group amortization, my study recommends an amortization period of 26 years with an SQ dispersion. The currently approved net salvage estimate for this account is 0 percent. In the most recent period, there is a moving average of 0 percent for the five-year and 10-year bands. My study recommends retaining the currently approved 0 percent net salvage estimate for this account.

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6. Account E395.1 Laboratory Equipment

This account consists of laboratory equipment used in general utility service. There is approximately \$5.3 million in this account. This account currently has a life of 22 L3.

Similar to Common Account C395.1, Company experts report that the items used for laboratory equipment are increasingly technology driven. They recommend shortening the life of this account to 15 years. In order to continue to use vintage group amortization, my study recommends an amortization period of 15 years with an SQ dispersion. The currently approved net salvage estimate for this account is 0 percent. Normally these assets have no residual value. My study recommends retaining the existing 0 percent net salvage estimate for this account.

7. Account E397.1 Communication Equipment

This account consists of miscellaneous communication equipment used in general utility service. There is approximately \$364.5 million in this account. This account currently has a life of 30 R2.

Assets in this account include AV equipment, fiber optic equipment, retirement terminal units, and Supervisory Control and Data Acquisition (SCADA) equipment. Company personnel report that these assets are very technology driven. Given the changes in technology for these assets, Company experts recommend a shorter life for this account, in the 20-year range.

In order to continue to use vintage group amortization, my study recommends an amortization period of 20 years with an SQ dispersion. The currently approved net salvage estimate for this account is negative 50 percent. In the most recent period, a moving average of negative 28 percent and negative 51 percent exists for the five-year and 10-year bands, respectively. My study recommends moving in the direction of the trend in recent years with a negative 35 percent net salvage estimate for this account.

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Account E397.2 Communication Equipment SWPL

This account consists of miscellaneous communication equipment used in Southwest Power Link (SWPL). There is approximately \$8.2 million in this account. This account currently has a life of 30 R2.

Assets in this account include microwave equipment, remote terminal units, and other communication equipment. Given the changes in technology for these assets, Company experts recommend a shorter life for this account, in the 20-year range. In order to continue to use vintage group amortization, my study recommends an amortization period of 20 years with an SQ dispersion. The currently approved net salvage estimate for this account is negative 50 percent. There has been no retirement activity to date in this account. Based on the indications from Account 397.1, my study recommends conservatively moving toward the recent trends with a negative 35 percent net salvage estimate for this account.

9. Account E397.6 Communication Equipment SRPL

This account consists of miscellaneous communication equipment used in Sunrise Power Link (SRPL). There is approximately \$14.1 million in this account. This account currently has a life of 30 R2.

Assets in this account include substation equipment, remote terminal units, and other communication equipment. Given the changes in technology for these assets, Company Experts recommend a shorter life for this account, in the 20-year range. In order to continue to use vintage group amortization, my study recommends an amortization period of 20 years with an SQ dispersion.

The currently approved net salvage estimate for this account is 0 percent. There has been no retirement activity to date in this account. Based on the indications from Account 397.1, my study conservatively recommends moving toward the recent trends with a negative 25 percent net salvage estimate for this account.

10. Account E397.7 Telecom

This account consists of miscellaneous telecommunication equipment used in general utility service. There is approximately \$1.2 million in this account. This account currently has a life of 30 R2.

Assets in this account are telecom equipment and antennas. Similar to Accounts 397.1, 397.2, and 397.6, company personnel recommend shortening the life to 20 years. In order to

continue to use vintage group amortization, my study recommends an amortization period of 20 years with an SQ dispersion.

The currently approved net salvage estimate for this account is negative 50 percent. There have been no retirements in this account. Based on judgment, my study recommends negative 35 percent net salvage estimate for this account.

11. Account E398.0 Miscellaneous Equipment

This account consists of miscellaneous equipment used in general utility service. There is approximately \$3.2 million in this account. This account currently has a life of 16 L4.

Based on the practices and expectations of the Company operations, this life is still reasonable. In order to continue to use vintage group amortization, my study recommends an amortization period of 16 years with an SQ dispersion.

The currently approved net salvage estimate for this account is 0 percent. In the most recent period, a moving average of 0 percent exists for the five-year and 10-year bands. My study recommends retaining the currently approved 0 percent net salvage estimate for this account.

E. Natural Gas Operations

Both SDG&E and its sister Company, Southern California Gas Company (SoCalGas) provide natural gas services. The SDG&E system is much smaller. After reviewing operations with subject matter experts from both companies, operationally, many assets common to both companies such as transmission and distribution plant have similar characteristics. In some cases, there may be insufficient SDG&E actuarial data to detect a solid trend. In such cases, input from experts is crucial (as well as consideration of characteristics of similar SoCalGas assets) in making life selection for each plant account.

F.

Natural Gas Storage and Transmission Plant

SDG&E has no underground storage plant. But it has some Liquefied Natural Gas (LNG) assets. Storage and Transmission natural gas plant balance as of December 31, 2020 was \$500.7 million, excluding \$4.6 million for land, which is non-depreciable. The accumulated reserve was \$201.7 million.

1. Account G363.60 LNG Distribution Storage Equipment

This account includes liquid natural gas storage equipment. There is currently \$2.2 million in plant in this account and the current authorized life parameter is 20 years with an S4 dispersion.

SDG&E owns a small facility that was originally installed in 1956. The average age of investment in this account is 13.49 years. Tanks and vaporizers are original equipment. Cryogenic components, alarms/controls, and valves have been replaced.

The alarms/controls would have a 10–15-year life. There are two small cryogenic tanks, as well as storage and vaporization equipment. There was an upgrade to the system several years ago. Much of the cost in this account is related to alarms and instrumentation, which would have a short life.

Company personnel believe that the life of this equipment would be somewhere around
that of Compressed Natural Gas (CNG) assets, about 20 years. Therefore, my study
recommends retaining the approved 20-year life with an S4 dispersion for this account.
Authorized net salvage for this account is 0 percent. Although there have been few retirements,
there have been removal cost charges recorded consistently over the last several years.
Therefore, my study recommends recognizing that by recommending a negative 5 percent net
salvage for this account.

2. Account G365.2 Land Rights

This account includes the cost of land rights used in connection with gas transmission operations. There is approximately \$3.5 million in this account. Currently, the approved life for this account is 40 years with an SQ dispersion. The average age of survivors in this account is 21.78 years.

These land rights are associated with various assets in this function, the longest proposed life being 69 years for transmission mains. Based on judgment and the proposed life for Account 367, my study recommends moving to a 70-year life with an SQ dispersion. The authorized net salvage rate for this account is 0 percent. Generally, little or no removal cost is incurred, and no salvage is received at the retirement of land rights. Therefore, my study recommends retaining

the approved 0 percent net salvage for this account. Although this recommendation will not be implemented in this proceeding, it is planned for implementation in SDG&E's 2028 GRC.¹⁸

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Account G366 Structures and Improvements

This account includes the cost of structures and improvements such as buildings, gas pumping and regulating stations, and other items used in connection with distribution operations. There is approximately \$20.4 million in this account. Currently, the approved life for this account is 34 years with an S3 dispersion.

The average age of survivors in this account is 18.58 years. There is a difference in approved lives between SDG&E natural gas assets and SoCalGas life estimates. Company experts report that operating rules, maintenance practices, and other forces of retirement impacting this account have been the same for the past several years.

12 The current life for these assets seems shorter than Company experts would support from an operations perspective. With limited actuarial analysis indications, I gave input from 14 Company experts and results from my SoCalGas analysis weight in my study to recommend 15 moving to match the SoCalGas life of 47 years with an R2 dispersion. An observed life table is 16 graphed for this account with the recommended life and curve in Figure DW-25.

Due to timing constraints and complexity, the current proposal for land rights was not incorporated into the Results of Operation (RO) model logic. SDG&E proposes to include this model logic in the 2028 GRC.



The authorized net salvage rate for this account is 0 percent. There have been no retirements since 2016 but removal cost has continued from 2016-2020. Based on judgment, my study recommends a slight change by moving to negative 5 percent net salvage for this account.

4. Account G367 Mains

This account includes the cost of transmission mains, primarily coated and wrapped steel. The current approved life for this account is 45 years with an S4 dispersion. There is approximately \$353.2 million in plant in this account.

The average age of survivors in this account is 11.83 years. Operations personnel report that there has been a greater amount of replacement of these SDG&E assets than comparable ones for SoCalGas as a percentage of the overall system at SDG&E. Since SDG&E has a much smaller system, there is less mileage for SDG&E than SoCalGas, and the mains are newer. Operations personnel believe the life characteristics should be similar between SoCalGas and SDG&E.

The Company is also seeing some class changes as the population densities increase. TheIntegrity Management Program (IMP) forced the retirement of some valves. SDG&E has been

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adding more instrumentation and automation (remote control) in recent years. For the most part, the automation could be added to existing assets (such as valves) in the majority of instances. But in maybe 40% of the cases, they would have to replace the full valve assembly.

My study recommends moving to a 69-year life and R3 dispersion—which is close to the 70 R2 recommended for SoCalGas and has support from the limited actuarial results. An observed life table is graphed for this account with the recommended life and curve in Figure DW-26. The authorized net salvage rate for this account is negative 25 percent. The five- and 10-year moving averages show negative 160 and negative 373 percent, respectively. Retirements appear to be backlogged since removal cost is higher in years 2017-2020. Until the retirement activity catches up with removal cost, my study recommends retention of the existing

11 negative 25 percent net salvage for this account.

Figure DW-26



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1. Account G367.6 Hydro Test Costs

This is a new account that will be used as the Company complies with new regulations issued effective July 1, 2020 by the Pipeline Hazardous Materials and Safety Administration (PHMSA) that will impact pipeline of vintage 1970 and older. The rule, known as the Mega

Rule, combines previous regulations for onshore gas transmission regarding pipeline safety and
 environmental risk with the goal of improving pipeline safety.

In response to these new regulations for operations and increased requirements for reporting, pipeline operators have expanded Integrity Management Programs, verified Maximum Allowable Operating Pressure (MAOP), and tested previously untested pipe to ensure they are in compliance.¹⁹ Costs incurred to comply the with Mega Rule will be treated as a capital item. After examining the remaining life of vintages 1970 and older, those assets will have an average remaining life of about 17 years, assuming the proposed life and curve for Account 367. Since this is a new account with no history, actuarial analysis was not utilized. The testing costs are proposed to be depreciated over 17 years with an SQ curve. Since these costs are not directly tied to specific mains, auto retirement is recommended. No net salvage is estimated for this account.

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5. Account G368 Compressor Station Equipment

This account includes the cost of compressor station equipment used in connection with transmission operations. There is approximately \$99.5 million in this account. Currently, the approved life for this account is 35 years with an S3 dispersion.

The average age of survivors in this account is 19.58 years. The Company relies heavily on turbine compressors. Company personnel report that the Company has a modernization program driven by emissions compliance and decarbonization initiatives. Higher risk regulating stations are being targeted for replacement.

The requirements for stations have changed more than the regulations for mains and services. As a result, the Company has upgraded stations. Actuarial analysis is inconclusive. Given the focus on the stations, the reliance on turbine compressors and the characteristics of the various assets in this account, my study recommends a slight increase in life to 40 years and retaining the S3 dispersion. An observed life table is graphed for this account with the recommended life and curve in Figure DW-27.

¹⁹ Dynamic Risk, PHMSA's Final Ruling – What's Next for Pipeline Operators? (November 14, 2020), available at <u>https://dynamicrisk.net/2020/11/14/phmsa-mega-rule-in-practice/#:~:text=PHMSA's%20Mega%20Rule%20is%20now,management%20programs%20and%2 0operating%20practices.</u>

The authorized net salvage rate for this account is negative 10 percent. The five 10 year moving average shows negative 121 percent. Since retirements in 2016 have been much smaller than removal cost from 2016-2020, I recommend only a slight movement in net salvage. Based on judgment and Company history, my study recommends moving to negative 14 percent net salvage for this account, which reflect the Company's experience during a period with higher levels of retirements.

Figure DW-27



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6. Account G369 Measuring and Regulating Station Equipment

This account includes the cost of measuring and regulating station equipment used in connection with transmission operations. There is approximately \$29.1 million in this account. Currently, the approved life for this account is 31 years with an S3 dispersion. The average age of survivors in this account is 16.23 years.

Company experts report that there has been a lot of investment related to IMP to retrofit for pigging. They have been adding more instrumentation and automation (remote control) in recent years. For the most part, the automation could be added to existing assets (such as valves) in most instances. But in about 40% of the automation work they would have to replace the full
 valve assembly.

There have been activities to change out actuating equipment that might release methane.
As communities become more developed, increasing population densities can trigger class
location changes and the need for more accurate regulating equipment. Based on the
characteristics of the assets within the account and the more comprehensive actuarial analysis for
SoCalGas assets, an increase in life is reasonable. Based on input from Company personnel and
experience with SoCalGas, my study recommends moving to a 48-year life and a R0.5
dispersion.

Below in Figure DW-28 is a graph of the limited actuarial results and recommended curve. The authorized net salvage rate for this account is negative 5 percent. There have been no retirements since 2015. But SDG&E has faced removal costs. Since retirements are lagging removal costs, my study recommends retention of the existing negative 5 net salvage parameter for this account.





DAW-62

7. Account G371 Other Equipment

This account includes the cost of other equipment used in connection with transmission operations. There is approximately \$2.8 million in this account. Currently, the approved life for this account is 27 years with an SQ dispersion.

The average age of survivors in this account is 2.74 years. There have been no retirements to date, and Company experts do not expect a change from the current life parameter. Based on input from Company personnel and judgment, my study recommends retaining the existing 27-year life and SQ dispersion.

The authorized net salvage rate for this account is 0 percent. There has not been any retirement or net salvage received in this account. Based on judgment, my study recommends retention of 0 percent net salvage for this account.

G.

Natural Gas Distribution Plant

SDG&E'S distribution natural gas plant balance as of December 31, 2020, was \$2.14 billion, excluding \$1.5 million for land which is non-depreciable. The accumulated reserve was \$899.7 million.

1. Account G374.2 Rights of Way (ROW)

This account includes the cost of land rights used in connection with gas distribution operations. There is approximately \$8.5 million in this account. Currently, the approved life for this account is 31 years with an SQ dispersion. The average age of survivors in this account is 32.00 years. There have been few retirements in this account. Generally, the life of the right of way should be equal to the life of the underlying assets residing on the ROW. Since the longest life proposed for any account in this function is 70 years, my study recommends moving to a 70-year life and retaining the SQ dispersion. No graph is shown.

Generally, little or no removal cost is incurred, and no salvage is received at the retirement of land rights. The historical data also supports a 0 percent net salvage for this account. Therefore, my study recommends retaining the approved 0 percent net salvage. Although this recommendation will not be implemented in this proceeding, it is planned for implementation in SDG&E's 2028 GRC.²⁰

²⁰ Due to timing constraints and complexity, the current proposal for land rights was not incorporated into the Results of Operation (RO) model logic. SDG&E proposes to include this model logic in the 2028 GRC.

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2. Account G375 Structures and Improvements

This account includes the cost of structures and improvements used in connection with gas distribution operations. There is approximately \$43,000 in this account. Currently, the approved life for this account is 44 years with an S3 dispersion.

Operations personnel state that there are no obvious changes in the usage or characteristics of these assets that would suggest a material change in life. There are numerous assets with shorter lives within the group: roofs, fire protection systems, plumbing, water systems, parking lots and other small items that would moderate the building lives. Based on input from Company experts and an inconclusive actuarial analysis, my study recommends retaining the 44-year life and S3 dispersion. An observed life table is graphed with the proposed life and dispersion curve in Figure DW-29.

The Commission has authorized a 0 percent net salvage rate for this account. There have been no retirements over the period from 2002-2020, with a small amount of removal cost. There is expected to be a small amount of removal cost when the assets in this account are retired. Based on judgment, my study recommends moving to negative 5 percent net salvage.





3. Account G376 Mains

This account includes the cost of mains used in connection with distribution operations. There is approximately \$1.4 billion in this account. Currently, the approved life for this account is 69 years with an R3 dispersion.

The average age of survivors in this account is 13.58 years. Company operations personnel report that SDG&E's Integrity Program is targeting replacing plastic prior to 1986 for both mains and services. SDG&E is replacing over 50 miles per year, and there are over 15,000 miles of total distribution miles for mains/services for SDG&E (steel and plastic). There is around 1,600 miles of Aldyl-A that remain in the system.

There are 3 separate steel programs (pre-34, 34-65 and 65 and over) that are not part of the Distribution Integrity Management Program (DIMP). There are only 150 miles left in the system of pre-34 pipe. Most of the SDG&E system is from later than the 1950s, with most pipe having been added in the "boom" in the 1970s and 1980s. The steel programs did not kick off until late 2019 and ramped up in 2020. Some of the older steel pipe that is cathodically protected is being focused on but is not part of DIMP. This is in addition to normal replacements.

The planned replacement programs that are ranked by risk would signal that the pipe will be replaced sooner than it was in the past. Company experts feel from an operations perspective that life should decrease (at least in the short-term) with the level of retirements that are occurring. The average life of 88 years indicated in the some of the limited actuarial analyses is significantly longer than the expectations from Company personnel, since most replacements are closer to a 70-year life. Given the uncertain future with California's continued use of natural gas and input from operations personnel, my study recommends retaining the 69-year life and the R3 dispersion. An observed life table is graphed with the proposed life and dispersion curve in Figure DW-30.

The Commission has authorized a negative 55 percent net salvage rate for this account. The three-year, five year, and 10 year moving averages show negative 345, negative 324, and negative 242 percent, respectively. To move in the direction of this trend, a higher (more negative) net salvage is recommended. Based on judgment and Company experience, my study recommends moving to negative 80 percent net salvage, which would remain consistent with the Commission's gradualism precedent.



Account 376- Gas Distribution Mains Account: G376.00-Mains Scenario: SDGE Actuarial @ 2020 D R3 69.00 Percent Surviving 60 40· 20 0 0 22 44 110 Age (Years) Vintages: 1915-2020 Activity Years: 1947-2020

Figure DW-30

4. Account G378 Measuring and Regulating (M&R) Equipment

This account consists of measuring and regulating equipment used in distribution operations. There is approximately \$20.8 million of investment in this account. The current approved life for this account is 47 years with an R2 dispersion.

The average age of survivors in this account is 17.74 years. In the last rate case, Company experts reported that a study was done to assess the condition of M&R stations. Five years ago, 70% of regulator stations were 24 years or older. Those stations are about 30 years old now.

There are around 500 stations. Stations would retire based on capacity, the type of equipment (if outdated), in an unsafe area, etc. There is a parts and inspection program that can extend the life in some cases. Some older stations will have components that are not easy to replace, as the older components are at least 50-70 years old. SDG&E would thus replace the entire station instead of replacing the regulator.

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Higher risk regulating stations are being targeted for replacement. The rules for regulating stations have changed more than the regulations for mains and services. And the Company has been upgrading stations.

Operationally, there is no reason that the life should increase. There are drivers that would decrease the life, such as Control Center Modernization programs. My study recommends retaining the 47-year life with an R2 dispersion for this account. An observed life table is graphed with the proposed life and dispersion curve in Figure DW-31.

The current authorized net salvage is negative 25 percent. The 10 year moving averages shows negative 116, which may not be representative the future. Since 2012, there have been no retirements in this account with small amounts of removal cost in 2016-2020. Based on judgment, my study recommends retention of negative 25 percent net salvage for this account.

Figure DW-31



5. Account G380 Services

This account consists of services used in gas distribution operations. There is approximately \$420 million of investment in this account. The current approved life for this account is 65 years with an R2.5 dispersion.

The average age of survivors in this account is 19.04 years. The service rises above the ground for a portion of its length. According to Company experts, the above ground portion is vulnerable to weed eaters, fertilizer, dig-ins by customers, abandoning houses, etc.

It is more likely that the Company would replace services than mains. If the main is Aldyl-A, the Company would normally replace the service as well. If there is a cut, Company personnel report that they generally repair the service. If a service has had a leak in the past, they would likely replace. If a steel main is replaced with plastic, the service would be replaced with steel. Company operations personnel feel that the life of services should have a slightly shorter life than mains, since there are many factors that would retire a service earlier. The higher focus on not stranding steel services would also be a factor in shortening the life of services.

In some of the actuarial analysis, the average life is in the 90 plus year range. Company experts state that services have a life closer to 50-60 years from an operations perspective. Operationally, a life of 90 years does not seem consistent with expectations, nor industry expectations. Given the uncertain future with regulation and input from operations personnel, my study recommends retaining the existing 65-year life with an R2.5 dispersion for this account. The visual match is not as representative and input from Company personnel and industry norms support this proposal.

The current authorized net salvage is negative 70 percent. The three-year, five year, and 10 year moving averages shows negative 324, negative 293, and negative 260 percent, respectively. Based on judgment and Company experience, my study recommends moving to negative 95 percent net salvage for this account, which remains consistent with the Commission's gradualism precedent.

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6. Account G381 Meters and Regulators

This account includes the cost of meters and regulators used in measuring gas to residential customers. There is approximately \$87.9 million in plant in this account. The current approved life of the meter account is 41 years with an L1.5 dispersion. The average age of survivors in this account is 18.55 years.

Meters have traditionally lasted longer than they do now according to Company operations personnel. SDG&E used three different manufacturers. Meter costs have escalated, and there are only two-meter manufacturers in US now. Company operations personnel report
 that they still repair meters, but now expense the repair.

From an operations perspective, a small decrease in life may be expected. Based on the visual matching and input from operations personnel, my study recommends moving to 35 years while retaining the L1.5 dispersion curve for this account. An observed life table is graphed with the proposed life and dispersion curve in Figure DW-32 below. This account includes gross salvage and cost of removal associated with the cost of meters and regulators used in measuring gas to residential customers.

The current authorized net salvage is 0 percent. The three-year, five year, and 10 year moving averages shows 0 or all periods. Based on judgment and Company experience, my study recommends retention of 0 percent net salvage for this account.

Figure DW-32



7. Account G381.01 Meters/Regulators- Modules

This account includes the cost of modules used on gas smart meters. The current approved life for this account is 15 years with an SQ dispersion. There is approximately \$92.0 million in plant in this account. The average age of survivors in this account is 7.78 years.

These assets have only been in service since 2012. There is insufficient history to analyze the data. Operations personnel believe the life of this account will be the same as the current estimate. Based on input from Company personnel, my study recommends retention of the 15-year life with an SQ dispersion. The current authorized net salvage is 0 percent. The three-year and five-year moving averages shows 0 percent for both periods. Based on judgment and Company experience, my study recommends retention of 0 percent net salvage for this account.

8. Account G382.00 Meter and Regulator Installations

This account includes the cost of domestic meter installations (excluding meters) and regulator installations. The current approved life for this account is 35 years with an L2 dispersion. There is approximately \$84.2 million in plant in this account.

The average age of survivors in this account is 14.45 years. SDG&E does not use premanufactured loops for residential service. If there is no overpressure protection on the regulator, Company experts report that they will replace the asset. For every two meters they replace, they will replace one regulator. Typically, the Meter Set Assembly (MSA) would not be replaced before the meter (unless the customer needed more gas, in which case both would be replaced at the same time), but the MSA is typically not replaced at the same time as a meter but would be replaced, as necessary.

Actuarial analysis shows a similar life to that currently approved with a slightly flatter dispersion. Based on actuarial analysis and judgment, my study recommends retaining the 35-year life while moving to an L1 dispersion for this account. An observed life table is graphed with the proposed life and dispersion curve in Figure DW-33.

The current authorized net salvage is negative 30 percent. The three-year, five year, and 10 year moving averages shows negative 1, negative 2, and negative 9 percent, respectively. Based on judgment and Company experience, my study recommends moving to negative 5 percent net salvage for this account.



Account 382- Meter Installations Account: G382.00-Meter & Reg Instilns Scenario: SDGE Actuarial @ 2020 Actual Data □ L1 35.00 80 ^Dercent Surviving 60 40 20 0 0 18 90 Age (Years) Vintages: 1916-2020 Activity Years: 1961-2020

Figure DW-33 Account 382- Meter Installations

9. Account G382.01 Meter Installations Modules

This account includes the cost of module installations for smart meters. The current approved life for this account is 15 years with an SQ dispersion. There is approximately \$25.9 million in plant in this account. The average age of survivors in this account is 10.27 years. These assets have only been in service since 2012, so there is insufficient history to analyze the data.

Operations personnel believe that the life of this account will be the same as the current estimate and match the life of the modules. Based on input from Company personnel, my study recommends retention of the 15-year life with an SQ dispersion.

The current authorized net salvage is 0 percent. Since these assets have not been in service long, there is little historical data to project from. Based on judgment and Company experience, my study recommends retaining 0 percent net salvage for this account.

10. Account G385 Measuring and Regulating Equipment

This account includes the measuring and regulating station equipment such as regulators, electrical equipment, and other devices. There is approximately \$1.5 million of plant in this

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account. The current approved life for this account is 28 years with an S6 dispersion. The average age of survivors in this account is 22.31 years. There is no retirement history available.Using judgment, my study recommends retaining the 28-year life with an S6 dispersion.

A generic curve shape is shown in Figure DW-34 below. The current authorized net salvage is 0 percent. Over the available history there has been no net salvage experience. Based on judgment, my study recommends retention of 0 percent net salvage for this account.





 11. Account 387.11 Other Equipment

This account includes the cost of other miscellaneous equipment such as measurement systems, recording gauges, rectifiers, and other equipment. There is approximately \$994 thousand of plant in this account. The current approved life for this account is 16 years with an L0 dispersion.

The average age of survivors in this account is 14.98 years. My study recommends retaining the current 16-year life with an L0 dispersion. An observed life table is graphed with

the proposed life and dispersion shown in Figure DW-35. The current authorized net salvage is
0 percent. The 10-year moving average shows 0 percent. Based on judgment and Company
experience, my study recommends retaining 0 percent net salvage for this account.



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12. Account G387.12 CNG Equipment

This account includes the cost of natural gas vehicle charging station and related equipment. There is approximately \$9.8 million of plant in this account. The current approved life for this account is 16 years with an L0 dispersion. The average age of survivors in this account is 11.30 years. Company Experts report that they have five CNG stations, and three have been refurbished in the last couple years. Of the five CNG stations, the latest two were installed in 2014 and 2017.

Company Experts suggest their expectations for the life of this account to be closer to 20 years. Based on input from Company operations personnel, my study recommends moving from the 16-year life to a 20-year life with an L0.5 dispersion. While many of the proposed life selections are not a good visual match for SDG&E, my study is recommending consistency for

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these assets between SDG&E and SoCalGas. An observed life table is graphed with the
 proposed life and dispersion shown in Figure DW-36.

The current authorized net salvage is 0 percent. There has been no retirement or net salvage received over the available history. It is estimated there will be a small amount of removal cost associated with these facilities as they are used. To incorporate a small amount of removal cost for these assets, my study recommends moving to negative 5 percent net salvage for this account.



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H. Natural Gas General Plant

SDG&E'S general natural gas plant balance as of December 31, 2020 was \$23.9 million. The accumulated reserve was \$5.8 million.

1. Account G394.1 Portable Tools

This account consists of various items or portable tools used in shop and garages such as air compressors, grinders, and mixers. There is approximately \$21.1 million in this account. This account currently has a life of 24 years with an L5 dispersion.

Since the Company plans to continue using vintage group accounting for its common and electric general accounts, the same is proposed for the Company's natural gas general plant. My study recommends moving to a 10-year life with an SQ dispersion for this account, consistent with Common and Electric function assets.

The current authorized net salvage rate for this account is 0 percent. The three-year, five year, and 10 year moving averages are 0 for all periods. Based on recent experience and judgment, my study recommends retention of 0 percent net salvage for this account.

2. Account G394.20 Shop Equipment

This account consists of large items or tools used in shop and garages such as hoists and cranes. There is approximately \$70,000 in this account. This account currently has a life of 24 years with an R1.5 dispersion. Since the assets are similar to Account 394.1, my study proposes the same average life.

Since the Company plans to continue using vintage group accounting for its common and electric general accounts, the same is proposed for the Company's natural gas general plant. My study recommends a 10-year life with an SQ dispersion for this account. The current authorized net salvage rate for this account is 0 percent. The three-year, five year, and 10 year moving averages are 0 percent for all periods. Based on recent experience and judgment, my study recommends retention of 0 percent net salvage for this account

3. Account G397.0 Communication Equipment

This account consists of miscellaneous communication equipment such as fiber optics, SCADA equipment, and various upgrades used in general utility service. There is approximately \$2.3 million in this account. This account currently has a fixed life for amortization of 15 years with an S6 dispersion. Based on the practices and expectations of the Company operations, this life is still reasonable.

Since the Company plans to continue using vintage group accounting for its common and electric general accounts, the same is proposed for the Company's natural gas general plant. My study recommends retaining the 15-year life with change to an SQ dispersion for this account. The current authorized net salvage rate for this account is 0 percent. The three-year, five year, and 10 year moving averages are 0 percent for each period. Based on recent experience and judgment, my study recommends retention of 0 percent net salvage for this account.

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4. Account G398.0 Miscellaneous Equipment

This account consists of miscellaneous equipment used in general utility service. There is approximately \$466,000 in this account. This account currently has a life of 19 years with an R2.5 dispersion.

Based on the practices and expectations of the Company operations, this life is still reasonable. Since the Company plans to continue using vintage group accounting for its common and electric general accounts, the same is proposed for the Company's natural gas general plant. My study recommends retaining the 19-year life with change to an SQ dispersion for this account.

The current authorized net salvage rate for this account is 0 percent. No gross salvage or cost of removal has been received in this account over the available history. Based on historic activity and judgment, my study recommends retention of 0 percent net salvage for this account.

VI. CONCLUSION

SDG&E's proposed service lives and net salvage rates for natural gas plant, which were developed in accordance with CPUC Standard Practice U-4, are reasonable and should be adopted. The resulting depreciation expense set forth in Table SDG&E-DW-1 above, should be approved by the CPUC for use in TY 2024 for determination of SDG&E 's revenue requirement.

I conducted a complete depreciation study using standard depreciation processes and methodologies that resulted in the recommended parameters and depreciation rates. My recommended life and net salvage parameters are reasonable and specific to SDG&E's unique circumstances. My depreciation rates, when applied to SDG&E's plant in service balances, would provide fair and reasonable recovery to both the Company and its customers.

Account-level detail workpapers (historical data, statistical tables, and charts) are submitted separately with this testimony in support of the proposed underlying depreciation rates. This concludes my prepared direct testimony. 1 2

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VII. WITNESS QUALIFICATIONS

My name is Dane A. Watson. My business address is 101 E. Park Blvd, Suite 220, Plano, TX 75074. I am Manager Partner of Alliance Consulting Group. Alliance Consulting Group provides consulting and expert services to the utility industry. In this proceeding I am testifying on behalf of San Diego Gas and Electric (SDG&E).

I hold a Bachelor of Science degree in Electrical Engineering from the University of Arkansas at Fayetteville and a master's degree in Business Administration from Amberton University.

Since graduation from college in 1985, I have worked in the area of depreciation and valuation. I founded Alliance Consulting Group in 2004 and am responsible for conducting depreciation, valuation, and certain accounting-related studies for clients in various industries. My duties related to depreciation studies include the assembly and analysis of historical and simulated data, conducting field reviews, determining service life and net salvage estimates, calculating annual depreciation, presenting recommended depreciation rates to utility management for its consideration, and supporting such rates before regulatory bodies.

I have twice been Chair of the Edison Electric Institute (EEI) Property Accounting and Valuation Committee and have been Chairman of EEI's Depreciation and Economic Issues Subcommittee. I am a Registered Professional Engineer in the State of Texas and a Certified Depreciation Professional. I am a Senior Member of the Institute of Electrical and Electronics Engineers (IEEE) and served for several years as an officer of the Executive Board of the Dallas Section of IEEE as well as national and and worldwide offices. I have served as President of the Society of Depreciation Professionals twice.

I am qualified as Certified Depreciation Professional as recognized by the Society of Depreciation Professionals. The Society administers an examination and has certain required qualifications to become and remain certified in this field. I meet and maintain all those requirements.

I have presented testimony and or depreciation studies in nearly 300 depreciation studies over the course of my career. I have testified before the California Public Utilities Commission in nine cases: on behalf of Southwest Gas – Northern California and Southwest Gas- Southern California both in proceeding Application (A.)19-08-015; San Diego Gas and Electric Company in proceeding A.17-10-007; on behalf of Golden State Water Company in proceeding A.14-07-

006; California American Water Company in proceedings A.16-07-002 and A.10-07-007, and
 Southern California Edison Company in proceedings A.10-11-015 and A.13-11-003. I have
 appeared before the Federal Energy Regulatory Commission, more than 35 United States state

4 commissions, and in three international proceedings.

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I train people who want to learn more about utility depreciation by serving on the training faculty of the Society of Depreciation Professionals, teaching classes in utility seminars at Michigan State University and for the EEI and AGA.

ATTACHMENT A

GLOSSARY OF TERMS

A.:	Application
AGA:	American Gas Association
AMI:	Advanced Metering Infrastructure
Amort:	Amortization
ASL:	Average Service Life
CFR:	Code of Federal Regulations
CPUC:	California Public Utilities Commission
CSF:	Customer Services Field
D.:	Decision
EEI:	Edison Electric Institute
FERC:	Federal Energy Regulatory Commission
GCT:	Gas Company Tower
GEMS:	Gas Energy Measurement Systems
GRC:	General Rate Case
MDTs:	Mobile Data Terminal
NARUC:	National Association of Regulatory Utility Commissioners
PACER:	Portable Automated Centralized Electronic Retrieval system
SCADA:	Supervisory Control and Data Acquisition
SDG&E:	San Diego Gas & Electric Company
SPR:	Simulated Plant Record
SQ:	Square
TY:	Test Year
USofA:	Uniform System of Accounts

ATTACHMENT B

PROPOSED DEPRECIATION PARAMETERS

This attachment 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-36-WP, Comparison of Current and Proposed Depreciation Parameters.

	Current			Proposed		Change				
	X . 6		Future Net Salv	X . 6		Future Net Salv	X * 6	Future Net		
Depreciation Account	Life	Curve	%	Life	Curve	%	Life	Salv %		
Common Plant										
C303.10- Cloud Costs	5		0	5		0	0	0		
C303.C- Intangible	- 1-			0 5 1 0 1 5						
Plant	5, 15		0	3,5,10,15		0	-	0		
C389.2 Land Rights	40	SQ	0	45	SQ	0	5	0		
C390.10-Structures &		~ .						_		
Imprv.	30	S1	-15	43	LO	-10	13	5		
C391.10-Furniture &								_		
Equip.	18	S6	0	18	SQ	0	0	0		
C391.20-Computers &										
Equip.	5	S6	0	5	SQ	0	0	0		
C392.10-Automotive										
Equip.	10	SQ	0	10	SQ	0	0	0		
C392.20-Trailers	20	L0	0	20	SQ	0	0	0		
C392.30-Aviation	10	SQ	0	25	SQ	50	15	50		
C393.10-Stores Equip.	19	L0	0	25	SQ	0	6	0		
C394.11-Portable										
Tools	23	R2.5	0	10	SQ	0	-13	0		
C394.21-Shop Equip.	35	L1.5	0	26	SQ	0	-9	0		
C394.31-Garage										
Equip.	19	R3	0	19	SQ	0	0	0		
C395.10-Laboratory										
Equip.	25	R5	0	15	SQ	0	-10	0		
C397.10-Commun										
Equip.	13	S6	0	13	SQ	0	0	0		
C398.10-										
Miscellaneous Equip.	13	R0.5	10	13	SQ	0	0	0		
Electric Production Plant										
Cuyamaca Peak	mid-			mid-						
Energy Plant	2027		(3.30)	2027		(3.58)		(0.28)		
Desert Star Energy	mid-			mid-						
Center	2026		(2.57)	2026		(3.37)		(0.80)		
Miramar Energy	mid-			mid-						
Facility	2032		(1.09)	2032		(3.22)		(2.13)		
Palomar Energy	mid-			mid-						
Center	2036		(1.24)	2036		(2.08)		((0.84)		

Solar Energy Projects	25	SQ	000	25	SQ	(18.98)		(18.98)
E344.2 Generators								
Other	NA	NA	NA	20	R1	0		
Land Rights – Steam	45	SQ	0	45	SQ	0		0
Land Rights – Other	25	SQ	0	25	SQ	0		0
Electric Distribution P	lant							
E360.20-Land Rights	45	SQ	0	65	SQ	0	20	0
E361.00-Structures &								
Imprv.	63	R2.5	-125	61	R2	-150	-2	-25
E362.10-Sta. Equip.	51	R1.5	-125	55	R2	-150	4	-25

	Current			Proposed			Change		
			Future Net Salv			Future Net Salv		Future Net Salv	
Depreciation Account	Life	Curve	%	Life	Curve	%	Life	%	
E363.00 Energy Storage									
Equip.	10	SQ	0	15	SQ	-3.60	5	-3.60	
E364.00-Poles, Towers, &									
Fxtr.	47	R0.5	-100	47	R0.5	-95	0	5	
E365.00-OH Conductor &									
Dev.	55	R0.5	-70	55	R0.5	-95	0	-25	
E366.00-UG Conduit	57	R3	-50	61	R3	-75	4	-25	
E367.00-UG Conductor &									
Dev.	45	R3	-65	52	R2	-90	7	-25	
E368.10-Line Transformers	34	L0.5	-70	36	L1	-95	2	-25	
E368.20-Capacitors	12	L0	-70	12	L0	-60	0	10	
E369.10-OH Services	55	R0.5	-110	55	R0.5	-135	0	-25	
E369.20-UG Services	53	L4	-75	57	R5	-100	4	-25	
E370.10-Legacy Meters	48	R0.5	0	19	L0	0	-29	0	
E370.11- "Smart" Meters	15	SQ	0	15	SQ	0	0	0	
E370.20-Legacy Meter									
Install.	48	R0.5	0	19	L0	0	-29	0	
E370.21- "Smart" Meter									
Install.	15	SQ	0	15	SQ	0	0	0	
E371.00-Install. on Cust.									
Prem.	34	R0.5	-90	34	R0.5	-115	0	-25	
E371.10 EV Charging									
Units Total	10	SQ	0	10	SQ	-18.97	0	-18.97	
E373.20-Street Light. &									
Signals	36	L0	-85	36	L0	-130	0	-45	
Electric General Plant	Electric General Plant								
E303.00-Software &									
Franchise	5		0	3,5		0			

E390.00- Structures &								
Imprv.	34	S4	-10	43	L0	-10	9	0
E392.20-Trailers	27	S5	0	27	SQ	0	0	0
E393.10-Stores Equip.	25	S5	0	25	SQ	0	0	0
E394.11-Portable Tools	27	S6	0	10	SQ	0	-17	0
E394.20-Shop Equip.	26	L4	0	26	SQ	0	0	0
E395.10-Laboratory Equip.	22	L3	0	15	SQ	0	-7	0
E397.10-Com. Equip								
Other	30	R2	-50	20	SQ	-35	-10	15
E397.20-Com. Equip								
SWPL	30	R2	-50	20	SQ	-35	-10	15
E397.60-Com. Equip								
SRPL	30	R2	0	20	SQ	-25	-10	-25
E397.70-Com. Dev								
Telecom	30	R2	-50	20	SQ	-35	-10	15
E398.10-Miscellaneous								
Equip.	16	L4	0	16	SQ	0	0	0
Gas Storage and Transmiss	ion Plan	t	-		-			
G363.60-LNG DI Strg.								
Equip.	20	S4	0	20	S4	-5	0	-5
G365.20-Land Rights	40	SQ	0	70	SQ	0	30	0
G366.00-Struct and Land								
Imp.	34	S3	0	47	R2	-5	13	-5
G367.00-Mains	45	S4	-25	69	R3	-25	24	0
G367.60 Hydro Test	NA	NA	NA	17	SQ	0		
G368.00-Compressor Sta.								
Equip.	35	S3	-10	40	S3	-14	5	-4
G369.00-Meas. & Reg. Sta.								
Equip.	31	S3	-5	48	R0.5	-5	17	0
G371.00-Other Equipment	27	SQ	0	27	SQ	0	0	0
Gas Distribution Plant								
G374.20-Land Rights	31	SQ	0	70	SQ	0	39	0
G375.00-Struct & Imp	44	S3	0	44	S3	-5	0	-5
G376.00-Mains	69	R3	-55	69	R3	-80	0	-25
G378.00-Meas. & Reg. Sta.								
Equip.	47	R2	-25	47	R2	-25	0	0
	Current			Proposed			Chan	ge
			Future			Future		Future
			Net			Net		Net
			Salv			Salv		Salv
Depreciation Account	Life	Curve	%	Life	Curve	%	Life	%
G380.00-Services	65	R2.5	-70	65	R2.5	-95	0	-25
G381.00-Meters & Reg.	41	L1.5	0	35	L1.5	0	-6	0
G381.01-Meter Modules	15	SQ	0	15	SQ	0	0	0

G382.00-Meter & Reg.								
Install.	35	L2	-30	35	L1	-5	0	25
G382.01-Meter Module								
Install.	15	SQ	0	15	SQ	0	0	0
G385.00-Ind. Meas. & Reg.								
Equip.	28	S6	0	28	S6	0	0	0
G387.11-Other Equipment	16	L0	0	16	L0	0	0	0
G387.12- CNG	16	L0	0	20	L0.5	-5	4	-5
Gas General Plant								
G394.10-Portable Tools	24	L5	0	10	SQ	0	-14	0
G394.20-Shop Equip.	24	R1.5	0	10	SQ	0	-14	0
G397.00-Com. Equip.	15	S6	0	15	SQ	0	0	0
G398.00-Miscellaneous								
Equip.	19	R2.5	0	19	SQ	0	0	0

ATTACHMENT C

DEPRECIATION RATE STUDY

SAN DIEGO GAS & ELECTRIC COMPANY

COMMON, ELECTRIC, AND NATURAL GAS OPERATIONS DEPRECIATION RATE STUDY AS OF DECEMBER 31, 2021





http://www.utilityalliance.com

SAN DIEGO GAS & ELECTRIC COMPANY COMMON, ELECTRIC, AND NATURAL GAS OPERATIONS DEPRECIATION RATE STUDY EXECUTIVE SUMMARY

San Diego Gas & Electric Company ("SDGE" or "Company") engaged Alliance Consulting Group to conduct a depreciation study of the Company's common, electric, and natural gas operations depreciable assets as of December 31, 2021. This study was conducted under the traditional depreciation study approach.

Overall, the lives of the accounts are moving longer. Based on the Company's experience, there are 20 accounts that have increasing lives and 13 accounts that have decreasing lives. The Company's experience also indicates that net salvage has also moved more negative in many accounts. Forty-two accounts were decreasing (i.e., more negative) net salvage and 15 accounts increasing (i.e., less negative) net salvage. Please see Appendix C for a listing of the various changes in lives and net salvage.

This study analyzed life and net salvage characters for SDGE through year end 2020. Due to time constraints based on a May 2022 filing, the study was not able to incorporate 2021 activity in the life and net salvage analysis but did incorporate 2021 balances for purposes of calculating depreciation rates. Using the life and net salvage parameters developed from the 2020 analysis, this study used actual plant asset balances and depreciation reserves as of December 31, 2021, to compute the proposed depreciation rates in this study.

Based on plant as of December 31, 2021, this study recommends an increase of \$47.8 million in annual depreciation expense compared to the depreciation rates currently in effect. Appendix A to this study provides the change in depreciation expense.

SAN DIEGO GAS & ELECTRIC COMMON, ELECTRIC, AND NATURAL GAS OPERATIONS DEPRECIATION RATE STUDY AS OF DECEMBER 31, 2021 Table of Contents

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PURPOSE

The purpose of this study is to develop depreciation rates for the depreciable property as recorded on SDGE's books as of December 31, 2021. The account-based depreciation rates were designed with the concept of recovering the total remaining undepreciated investment, adjusted for net salvage, over the remaining life of SDGE's property on a straight-line basis.

SDGE is a regulated public utility that provides energy service to 3.6 million people through 1.4 million electric meters and 873,000 natural gas meters in San Diego and southern Orange counties. The Company's service area spans 4,100 square miles. SDGE has 775,000 natural gas customers and 3 million electric customers, and supplies energy to a population of 1.4 million business and residential accounts in a 4,100 square-mile service area spanning 2 counties and 25 communities.



STUDY RESULTS

Overall depreciation rates for all SDGE depreciable property are shown in Appendix A. The Electric and Gas Plant depreciation and amortization expense as calculated at year end 2021 is also found in Appendix A and is shown in Table 1 below.

TABLE 1 SAN DIEGO GAS & ELECTRIC COMPARISON OF CURRENT AND PROPOSED DEPRECIATION RATES

	Plant	Current	Proposed	
	In Service	Accrual	Accrual	
Function	12/31/2021	Expense	Expense	Difference
Common	1,101,481,805	78,377,873	79,241,533	863,661
Electric Production	541,074,442	25,083,011	26,255,507	1,172,496
Electric Other Production	579,393,175	27,734,191	31,800,070	4,065,879
Electric Distribution	8,641,726,514	337,787,053	352,220,440	14,433,387
Electric General	511,530,052	23,242,273	45,928,324	22,686,051
Gas Processing	2,168,803	94,674	107,001	12,327
Gas Transmission	622,540,912	16,887,988	10,648,115	-6,239,872
Gas Distribution	2,376,673,258	58,757,671	68,630,583	9,872,911
Gas General	27,319,253	1,217,002	3,467,783	2,250,781
Total	14,403,908,215	569,181,736	618,299,356	49,117,620

Excludes amortized land rights and intangible plant

Appendix A to this study demonstrates the development of the annual depreciation rates and accruals. Appendix B to this study presents a comparison of approved rates versus proposed rates by account. Appendix C presents a comparison of mortality and net salvage estimates by account. Appendix D shows net salvage experience for the Company's depreciable assets from 1999 through 2020. Removal cost from projects where retirements were not booked through calendar year 2020 were removed from the analysis.

GENERAL DISCUSSION

Definition

The term "depreciation" as used in this study is considered in the accounting sense; that is, a system of accounting that distributes the cost of assets, less net salvage (if any), over the estimated useful life of the assets in a systematic and rational manner. It is a process of allocation, not valuation. This expense is systematically allocated to accounting periods over the life of the properties. The amount allocated to any one accounting period does not necessarily represent the loss or decrease in value that will occur during that particular period. The Company accrues depreciation on the basis of the original cost of all depreciable property included in each functional property group. On retirement, the full cost of depreciable property, less the net salvage value, is charged to the depreciation reserve.

Basis of Depreciation Estimates

The straight-line, broad (average) life group, remaining-life depreciation system was employed to calculate annual and accrued depreciation in this study. In this system, the annual depreciation expense for each group is computed by dividing the original cost of the asset less allocated depreciation reserve less estimated net salvage by its respective average life group remaining life. The resulting annual accrual amounts of all depreciable property within a function were accumulated, and the total was divided by the original cost of all functional depreciable property to determine the depreciation rate. The calculated remaining lives and annual depreciation accrual rates were based on attained ages of plant in service and the estimated service life and salvage characteristics of each depreciable group. The computations of the annual functional depreciation rates are shown in Appendix A and remaining life calculations are shown in Appendix B.

Actuarial analysis was used with each account within a function where sufficient data was available, and judgment was used to some degree on all accounts.

Survivor Curves

To fully understand depreciation projections in a regulated utility setting, there must be a basic understanding of survivor curves. Individual property units within a group do not normally have identical lives or investment amounts. The average life of a group can be determined by first constructing a survivor curve, which is plotted as a percentage of the units surviving at each age. A survivor curve represents the percentage of property remaining in service at various age intervals. The chart below shows a typical generalized survivor curve as well as some of the life characteristics that can be derived from the survivor curve.



GENERALIZED SURVIVOR CURVE

The lowa Curves are the result of an extensive investigation of life characteristics of physical property made at lowa State College Engineering Experiment Station in the first half of the twentieth century. Through common usage, revalidation and regulatory acceptance, these curves have become a descriptive standard for the life characteristics of industrial property.

There are four families in the Iowa Curves that are distinguished by the relation of the age at the retirement mode (largest annual retirement frequency) and the average life. For distributions with the mode age greater than the average life, an "R" designation (i.e., Right modal) is used. The family of "R" moded curves is shown below.



R-TYPE IOWA SURVIVOR CURVES

Similarly, an "S" designation (i.e., Symmetric modal) is used for the family whose mode age is symmetric about the average life. The higher the number of the curve, the greater the peak. A graph showing the S curves is shown below.



S-TYPE IOWA SURVIVOR CURVES

For distributions with the mode age less than the average life, an "L" designation (i.e., Left modal) is used. The family of "L" moded curves is shown below.



L-TYPE IOWA SURVIVOR CURVES

A special case of left modal dispersion is the "O" or origin modal curve family, which was developed in the 1950s.



O-TYPE IOWA SURVIVOR CURVES

Given how long the O curves live, the O curves are seldom used in analyzing utility property in the Alliance Consulting Group's experience, other than with intellectual property. Within each curve family, numerical designations are used to describe the relative magnitude of the retirement frequencies at the mode. A "6" indicates that the retirements are a small dispersion from the mode (i.e., high mode frequency), while a "1" indicates a large dispersion about the mode (i.e., low mode frequency). For example, a curve with an average life of 30 years and an "L3" dispersion is a moderately dispersed, left modal curve that can be designated as a 30 L3 Curve. An SQ, or square, survivor curve occurs where no dispersion is present (i.e., units of common age retire simultaneously).

Most property groups can be closely fitted to one Iowa Curve with a unique average service life. The blending of judgment concerning current conditions and future trends, along with the matching of historical data, permits the depreciation analyst to make an informed selection of an account's average life and retirement dispersion pattern.

Life Span Procedure

The life span procedure is used for production facilities for which most components are expected to have a retirement date concurrent with the planned retirement date of the generating unit. The terminal retirement date refers to the year that each unit will cease operations. The terminal retirement date, along with the interim retirement characteristics of the assets that will retire prior to the facility ceasing operation, describe the pattern of retirement of the assets that comprise a generating unit. Retirement dates for Production and Other Production generating units was provided to Alliance by the Company.



An example of a life span and interim retirement application is shown below.

In the case of SDGE, production and other production facilities have experienced very few retirements over the life of assets. The last depreciation study as well as this study do not model interim retirements. And assets are assumed to remain in service for the life of each generating unit.

Judgment

Any depreciation study requires informed judgment by the analyst conducting the study. A knowledge of the property being studied, company policies and procedures, general trends in technology and industry practice, and a sound basis of understanding in depreciation theory are needed to apply this informed judgment. Judgment was used in areas such as survivor curve modeling and selection, depreciation method selection, simulated plant record method analysis, and actuarial analysis.

Judgment is not defined as being used in cases where there are specific, significant pieces of information that influence the choice of a life or curve. Those cases would simply be a reflection of specific facts in the analysis. Where there are multiple factors, activities, actions, property characteristics, statistical inconsistencies, implications of applying certain curves, property mix in accounts or a multitude of other considerations that impact the analysis (potentially in various directions), judgment is used to take all of these factors and synthesize them into a general direction or understanding of the characteristics of the property.

Individually, no one factor in these cases may have a substantial impact on the analysis. But overall, they may shed light on the utilization and characteristics of assets. Judgment may also be defined as deduction, inference, wisdom, common sense, or the ability to make sensible decisions. There is no single correct result from statistical analysis; hence, there is no answer absent judgment. At the very least for example, any analysis requires choosing which bands to place more emphasis on.

The establishment of appropriate lives, interim retirement dispersions, and interim net salvage for SDGE's generation accounts requires judgment to incorporate the understanding of the operation of the system with the available accounting information. The appropriateness of lives and curves depends not only on statistical analyses, but also on how well future retirement patterns will match past retirements.

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Current applications and trends in use of the equipment also need to be factored into life and survivor curve choices to allow appropriate mortality characteristics to be chosen.

Actuarial Analysis

Actuarial analysis (retirement rate method) was used in evaluating historical asset retirement experience where vintage data were available and sufficient retirement activity was present. In actuarial analysis, interval exposures (total property subject to retirement at the beginning of the age interval, regardless of vintage) and age interval retirements are calculated. The complement of the ratio of interval retirements to interval exposures establishes a survivor ratio. The survivor ratio is the fraction of property surviving to the end of the selected age interval, given that it has survived to the beginning of that age interval. Survivor ratios for all of the available age intervals were chained by successive multiplications to establish a series of survivor factors, collectively known as an observed life table. The observed life table shows the experienced mortality characteristic of the account and may be compared to standard mortality curves such as the lowa Curves. Where data was available, accounts were analyzed using this method. Placement bands were used to illustrate the composite history over a specific era, and experience bands were used to focus on retirement history for all vintages during a set period. The results from these analyses for those accounts which had data sufficient to be analyzed using this method are shown in the Life Analysis section of this report.

Average Life Group Depreciation

SDGE was authorized to use the average life group ("ALG") depreciation procedure with the remaining life technique by the California Public Utilities Commission in A.17-10-008. At the request of SDGE, this study continues to use the ALG depreciation procedure to group the assets within each account. After an average service life and dispersion were selected for each account, those parameters were used to estimate what portion of the surviving investment of each vintage was expected to retire.

The depreciation of the group continues until all investment in the vintage group is retired. ALG groups are defined by their respective account dispersion, life, and salvage estimates. A straight-line rate for each ALG group is calculated by computing a composite

remaining life for each group across all vintages within the group, dividing the remaining investment to be recovered by the remaining life to find the annual depreciation expense and dividing the annual depreciation expense by the surviving investment. The resultant rate for each ALG group is designed to recover all retirements less net salvage when the last unit retires. The ALG procedure recovers net book cost over the life of each account by averaging many components.

Theoretical Depreciation Reserve

The book depreciation reserve was derived from Company records and was reallocated from a functional level to individual accounts level. As a point of comparison, a theoretical depreciation reserve model was computed for each account. This study used a reserve model that relied on a prospective concept relating future retirement and accrual patterns for property, given current life and salvage estimates.

The theoretical reserve of a group is developed from the estimated remaining life, total life of the property group, and estimated net salvage. The theoretical reserve represents the portion of the group cost that would have been accrued if current forecasts were used throughout the life of the group for

future depreciation accruals. The computation involves multiplying the vintage balances within the group by the theoretical reserve ratio for each vintage. The average life group method requires an estimate of dispersion and service life to establish how much of each vintage is expected to be retired in each year until all property within the group is retired. Estimated average service lives and dispersion determine the amount within each average life group. The straight-line remaining-life theoretical reserve ratio at any given age (RR) is calculated as:

$$RR = I - \frac{(Average Remaining Life)}{(Average Service Life)} * (I - Net Salvage Ratio)$$
DETAILED DISCUSSION

Depreciation Study Process

This depreciation study encompassed four distinct phases. The first phase concerned data collection and field interviews. The second phase involved initial data analysis occurred. The third phase encompassed information and analysis evaluation. Once the first three stages were complete, the fourth phase began. This phase involved calculating deprecation rates and documenting the corresponding recommendations.

During the Phase 1 data collection process, historical data was compiled from continuing property records and general ledger systems. Data was validated for accuracy by extracting and comparing to multiple financial system sources. An audit of this data was validated against historical data from prior periods, historical general ledger sources, and field personnel discussions.

This data was reviewed extensively to put in the proper format for a depreciation study. Further discussion on data review and adjustment is found in the Salvage Considerations Section of this study. And as part of the Phase 1 data collection process, numerous discussions were conducted with Company engineers and field operations personnel to obtain information that would assist in formulating life and salvage recommendations in this study.

One of the most important elements of performing a proper depreciation study is to understand how the Company utilizes assets and the environment of those assets. Interviews with engineering and operations personnel are important steps to allow the analyst to obtain information that is beneficial when evaluating the output from the life and net salvage programs in relation to the Company's actual asset utilization and environment. Information that was gleaned in these discussions is found both in the Detailed Discussion of this study in the life analysis and salvage analysis sections and also in workpapers. Phase 2 is where the actuarial analysis is performed. Phase 2 and Phase 3 overlap to a significant degree. The detailed property records information is used in Phase 2 to develop observed life tables for life analysis. These tables are visually compared to industry standard tables to determine historical life characteristics. It is possible that the analyst would cycle back to this phase based on the evaluation process performed in Phase 3. Net salvage analysis consists of compiling historical salvage and removal data by functional group to determine values and trends in gross salvage and removal cost. This information is then carried forward into Phase 3 for the evaluation process.

Phase 3 is the evaluation process, which synthesizes analysis, interviews, and operational characteristics into a final selection of asset lives and net salvage parameters. The historical analysis from Phase 2 is further enhanced by the incorporation of recent or future changes in the characteristics or operations of assets that were revealed in Phase 1. Phases 2 and 3 allow the depreciation analyst to validate the asset characteristics as seen in the accounting transactions with actual company operational experience.

Finally, Phase 4 involves the calculation of accrual rates, making recommendations, and documenting the conclusions in the Study. The calculation of accrual rates is found in Appendix A to this Study. Recommendations for the various accounts are contained within the life and net salvage sections of this Study. The depreciation study flow diagram shown as Figure 1¹ below also documents the steps used in conducting this Study. DEPRECIATION SYSTEMS,² at page 289, documents the same basic processes in performing a depreciation study which are: statistical analysis, evaluation of statistical analysis, discussions with management, forecast assumptions, and document recommendations.

¹ Introduction to Depreciation for Public Utilities & Other Industries, AGA EEI (2013).

² W. C. Fitch and F.K.Wolf, DEPRECIATION SYSTEMS, Iowa State Press, at page 289 (1994).



Source: Introduction to Depreciation for Public Utilities and Other Industries, AGA EEI , 2013. *Although not specifically noted, the mathematical analysis may need some level of input from other sources (for example, to determine analysis bands for life and adjustments to data used in all analysis).



SAN DIEGO GAS & ELECTRIC DEPRECIATION STUDY PROCESS

Depreciation Rate Calculation

Annual depreciation expense amounts for the depreciable accounts of SDGE were calculated by the straight line, ALG, remaining life procedure. With this approach, remaining lives were calculated according to standard ALG group expectancy techniques, using the Iowa Curves noted in the calculation. For each plant account, the difference between the surviving investment, adjusted for estimated net salvage, and the allocated book depreciation reserve was divided by the average remaining life to yield the annual depreciation expense. These calculations are shown in Appendix B.

Remaining Life Calculation

The establishment of appropriate average service lives and retirement dispersions for each account within a functional group was based on engineering judgment that incorporated available accounting information analyzed using the Retirement Rate actuarial method. After establishing the appropriate average service lives and retirement dispersion, remaining life was computed for each account. Theoretical depreciation reserve with zero net salvage was calculated using theoretical reserve ratios as defined in the theoretical reserve portion of the General Discussion section. The difference between plant balance and theoretical reserve was then spread over the ALG depreciation accruals. Remaining lives for each account are found in Appendix B, and the computations are shown in the workpapers.

Gradualism

In recent proceedings, the California Public Utilities Commission has applied a principle of gradualism in response to expressed concerns about growing cost burdens associated with increasing cost trends for these rates.³ The Commission explained that

[t]he principle of gradualism applies where there is a recognized need to revise estimated parameters, but where the change is allowed to occur incrementally over time rather than all at once. Applying gradualism thus limits the approved increase that would

³ D-14-08-032 at 597.

otherwise be warranted, all else being equal and mitigates the shortterm impact of large changes in depreciation parameters. Also, it is advisable to be cautious in making large changes in estimates of service lives and net salvage for property that will be in service for many decades, as future experience may show the current estimates to be incorrect.⁴

The Commission gave specificity to this directive in PGE's 2014 general rate case by allowing "no more than 25 percent of the estimated net salvage increase from current [net salvage] rates."⁵ The Commission has then applied this principle to Southern California Edison in D.15-11-021⁶ and D.19-05-020.⁷

By contrast, in SDG&E's last GRC, the depreciation rates, lives, and net salvage parameters from the A.14-11-003 GRC were retained.⁸ As such, since the Company's depreciation rates were set in D.16-06-054, no changes in authorized life or net salvage rates have been made. That is, even with the CPUC's guidance for gradualism, the Company was not allowed to gradually increase net salvage estimates (impacted by increased removal costs) or increase lives in the last GRC.

This exacerbated the gap between the Company's actual life and net salvage experience and the authorized amount. In examining parameters for SDG&E's accounts with the largest plant balances, as of December 31, 2020, five of the six plant accounts show an increase in negative net salvage and four of six accounts shown an increase in life between the depreciation rates set in D.16-06-054 and D.19-09-051 and the parameters proposed in this proceeding.

⁴ Id.

 $^{^{5}}$ *Id*, at 600.

⁶ *Id.* at 413, 421, 425.

⁷ A19-05-020 at 315 and 329.

⁸ D-19-09-051 020 at 623;

Acct	D.13-05- 010 Approved Life	D.16-06-054 & D.19-09-051 Approved Life	Current Study Proposed Life
E364.00-Poles,	44	47	47
Towers & Fxtr			
E365.00-Overhead	48	55	55
Cond & Dev			
E366.00-	53	57	61
Underground			
Conduit			
E367.00-Undergrnd	40	45	52
Cond & Dev			
E368.10-Line	33	34	36
Transformers			
G376.00-Mains	60	69	69

SDGE Changes in Life Largest Accounts

While the lives show gradual change, the net salvage parameters for many

of these same accounts show a more dramatic change over the past 9 years.

SDGE Changes	s in Net	Salvage	Largest	Accounts
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Acct	D.13-05-010 Net Salvage	D.16-06-054 & D.19-09-051 Net Salvage	Current Study Proposed Net Salvage
E364.00-Poles, Towers	-95	-100	-95
& Fxtr			
E365.00-Overhead	-70	-70	-95
Cond & Dev			
E366.00-Underground	-40	-50	-75
Conduit			
E367.00-Undergrnd	-55	-65	-90
Cond & Dev			
E368.10-Line	-45	-70	-95
Transformers			
G376.00-Mains	-45	-55	-80

By retaining the same net salvage factors over the past nine years, the Company has not been able to recover its increasing net salvage expenditures from customers using those assets.

In some cases, like Account E364, the net salvage indications have not changed greatly from 2012 GRC levels. The graph below shows that net salvage for this account has remained stable over the past several years.



But other accounts show a robust trend to increasingly higher negative net salvage, as demonstrated in the graphs below.







Programs Impacting Life and Net Salvage of SDGE Assets

SDGE has been focused on various programs to improve its electric operations. The Company's energy infrastructure projects help reduce the risk of wildfires, prevent power shutoffs, and enhance power grid resilience. Other benefits include beautification of neighborhoods and easing the need for vegetation management efforts, leaving more of California's trees untouched. This is accomplished by undergrounding overhead electric power lines and replacing wood power poles with fire-resistant steel poles. Other steps the Company is taking are aimed at improving reliability, including through more inspections of the electric system and additional tree trimming.

The Company's other energy infrastructure projects include expanding and modernizing electric substations to help increase system capacity and reduce congestion on the power grid. As the region expands, the demand for energy also grows. The Company's substation enhancement projects help to facilitate the increase of renewable energy by giving the electric system greater capacity. Other efforts include adding renewables to the generation mix, adding battery storage, and continuing wildfire mitigation programs ("WMP"). Each of these efforts will be discussed further in the account-specific sections of this report.

In natural gas operations, SDGE is focused on its Distribution Integrity Management Program ("DIMP"). DIMP began around 2011-2012. The Pipeline Hazardous Materials and Safety Administration ("PHMSA") is the main driver for this program. There is an active pipeline replacement program for medium pressure (<60 psig), which is replacing around 120 miles (30% steel and 70% plastic). The DIMP is targeting plastic pipe prior to 1986 and steel prior to 1971. Including both mains and services, the Company has roughly 42k miles of "modern" plastic and 24k miles of vintage plastic.

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LIFE ANALYSIS

The retirement rate actuarial analysis method was applied to all accounts for SDGE. For each account, an actuarial retirement rate analysis was made with placement and experience bands of varying width. The historical observed life table was plotted and compared with various lowa Curves to obtain the most appropriate match. A selected curve for each account is shown in the Life Analysis Section of this report. The observed life tables for all analyzed placement and experience bands are provided in workpapers.

For each account on the overall band (i.e., placement from earliest vintage year, which varied for each account, through 2020), approved survivor curves from D.17-10-008 were used as a starting point. Then using the same average life, various dispersion curves were plotted. Frequently, visual matching would confirm one specific dispersion pattern (e.g., L, S, or R) as an obviously better match than others. The next step would be to determine the most appropriate life using that dispersion pattern. Then, after looking at the overall experience band, different experience bands were plotted and analyzed in increments of approximately ten years, for instance 1991-2020, 1981-2020, etc. Next, placement bands of varying width were plotted with each experience band discussed above. Repeated matching usually pointed to a focus on one dispersion family and small range of service lives. The goal of visual matching was to minimize the differential between the observed life table and lowa Curve in the top and mid-range of the plots. These results are used in conjunction with all other factors that may influence asset lives.

COMMON PLANT

Some accounts in this function are being amortized. All amortized accounts will use the SQ dispersion pattern, and no graph is provided.

Common Intangible Plant

Account C303.10 Cloud Costs (5 SQ)

This account includes the cost of cloud computing and delivery of services through the internet. It includes tools and applications such as data storage service, data bases, and software. There is approximately \$2.0 million in this account. The approved life for this account is 5 years and an SQ dispersion. Given the period of time the Company has made to these contracts, this study proposes to retain the current life for these assets.

Account C303 Intangible Plant (3, 5, 10 15 years)

This account consists of miscellaneous computer software. There is currently \$687.2 million in plant. Software projects are assigned a life based on the software's use by Company IT personnel. Currently, assets in this account have lives of 5 or 15 years. Those assets lives are retained, and this study also recommends the addition of a 3 year and 15-year category.

Common General Accounts

Account C389.2 Land Rights (45 SQ)

This account consists of land rights associated with common buildings and other facilities. The current plant balance is \$28 thousand. The approved life for this account is 40 years with a SQ dispersion. This account is fully accrued. Since the life for account C390.1 is being extended, this study recommends a life of 45 years with a SQ dispersion to match the increase in life in Common Account C390.10.

Account C390.10 Structures & Improvements 43 L0

This account includes the cost of general structures and improvements used for utility service. There is approximately \$508.5 million in this account. The approved life for this account is 30 years and an S1 dispersion. The Company has made changes to leased facilities much more frequently than to owned facilities. SDG&E has made significant investment in system hardening, generators, security work, HVAC, and landscaping. Improvements range from \$25k to \$30M. A recent Critical Asset Security Project (CASP) has a short life, given the focus of the expenditure. Any work done in recent years would be charged to Account C390.

There have been few structural changes to facilities. Over the next few years, there are plans for significant "ground up" projects that may trigger some retirements. There are many buildings that are well past 40 years old. Company subject matter experts ("SMEs") believe that various components in this account have differing lives: generators have a life of 15-25 years, AC systems 15-20 years, roofs 20-25 years, security systems 7-10 years, and carpet about 10 years. Leasehold improvement projects have been suspended due to COVID-19 and the office environment is changing, so many leasehold decisions, changes, and improvements will be considered in the future. Recent replacements of security systems have occurred at the 7-to-10-year age range discussed above.

After evaluating input from Company SMEs, this study recommends increasing the life to 43 years but moving to a slightly flatter dispersion, the L0, which is shown below.



Vintage Group Amortization

This study recommends the continued use of vintage group amortization for certain common plant accounts, specifically for accounts 391-398. FERC adopted Accounting Release 15 in 1997 using the following criteria:

1. The individual classes of assets for which vintage year accounting is followed are high volume, low value items;

2. There is no change in existing retirement unit designations, for purposes of determining when expenditures are capital or expense;

3. The cost of the vintage groups is amortized to depreciation expense over their useful lives and there is no change in depreciation rates resulting from the adoption of the vintage year accounting;

4. Interim retirements are not recognized;

5. Salvage and removal cost relative to items in the vintage categories are included in the accumulated depreciation account and assigned to the oldest vintage first; and

6. Properties are retired from the affected accounts that, at the date of the adoption of vintage year accounting, meet or exceed the average service life of properties in that account.

A vintage year method of accounting for the common plant accounts that meets all of the foregoing requirements may be implemented without obtaining specific authorization from the Commission to do so.

This methodology requires the retirement of assets whose age is longer than the recommended service life for each group. It is not necessary to track the location and retirement of those assets. Those amounts are shown for each account in Appendix A. After those assets are retired, the remaining plant in service for each account will be amortized using the amortization rates shown in Appendix A. Annually, assets that reach the average service life of each account will be retired when the assets reach their average service life.

C391.1 Office Furniture and Equipment 18 SQ

This account consists of miscellaneous office furniture such as desks,

chairs, filing cabinets, and tables used for common utility service. There is approximately \$43.0 million in this account. This account currently has a life of 18 S6. In the early 2000s, the Company refurbished office furniture at Century Park. They are starting a new refresh cycle. There is also a safety component related to furniture and the Company is moving to more ergonomically friendly designs. Based on Company experience, the 18-year life is reasonable. In order to continue use of vintage group amortization, this study recommends an amortization period of 18 years with an SQ dispersion.

C391.2 Computer Equipment 5 SQ

This account consists of computer equipment used for common utility service. There is approximately \$103.8 million in this account. This account currently has a life of 5 S6. This life continues to match the Company's refresh cycle. In order to order to continue use of vintage group amortization, this study recommends an amortization period of 5 years with an SQ dispersion.

Account C392.1 Autos 10 SQ

This account consists of automobiles and similar transportation equipment used for common utility service. There is approximately \$406 thousand in this account. This account currently has a life of 10 SQ. This account contains trucks, and the 10-year life continues to be appropriate for this account. This study recommends an amortization period of 10 years with an SQ dispersion.

Account C392.2 Trailers 20 SQ

This account consists of trailers and other transportation equipment used for common utility service. There is approximately \$108 thousand in this account. This account currently has a life of 20 L0. In continue use of vintage group amortization, this study recommends an amortization period of 20 years with an SQ dispersion.

Account C392.3 Aviation Equipment 25 SQ

This account consists of aviation equipment ranging from helicopters to drones. These assets are used for wildfire mitigation and monitoring equipment in areas that are difficult to access. There is approximately \$12.0 million in this account. This account currently has a life of 10 SQ. The Company has purchased a 2017 Airbus H145, 2020 Sikorsky Blackhawk, configured as a Firehawk (final delivery will be in late 2022/early 2023) and 2021 Bell 412 EPX (with delivery in late 2022). After purchase, the Company operates the helicopters with strict adherence to maintenance schedules, engine warranties, and part replacement at required intervals. The Company plans to operate the helicopter it owns for another 20 years.

The Company buys drones every two years or so, and those assets are replaced as technology improves with better cameras and security features. Since drones are a small dollar investment in this account, the overall life of the helicopters is recommended for this account. As noted, company SMEs estimate that the current helicopter will be in use for 25 years and see no reason that the crafts planned for purchase will have a different life. This study recommends an amortization period of 25 years with an SQ dispersion based on discussion with Company SMEs who are familiar with these assets.

Account C393.10 Stores Equipment 25 SQ

This account consists of stores equipment used for common utility service. There is approximately \$334 thousand in this account. This account currently has a life of 19 L0. Assets in this account are racks and shelving. Account E393.10 has a current and proposed 25-year life. Since those assets are similar between electric general and common plant, this study recommends moving to a 25 year life. In order to continue use of vintage group amortization, this study recommends an amortization period of 25 years with an SQ dispersion.

Account C394.11 Portable Tools 10 SQ

This account consists of portable tools such as mobile computer data, test equipment, and pumps. There is approximately \$1.5 million in this account. This account currently has a life of 23 R2.5. In common facilities, 2/3 of the total plant are ruggedized laptops (MDTs) used in the field. Company subject matter experts believe that a life of 23 years is not reasonable for laptops and other electronic equipment in this account. Company SMEs suggest a life of 10 years for this account based on the account's asset mixture. In order to continue use of vintage group amortization, this study recommends an amortization period of 10 years with an SQ dispersion.

Account C394.21 Shop Equipment 26 SQ

This account consists of shop equipment such as ammeters, purifiers, and steam cleaners worth approximately \$143,000. This account currently has a life of 35 L1.5. Account E394.20, Shop Equipment, has a current and proposed 26-year life. Since those assets are similar between electric general and common plant, this study recommends moving to a 26-year life. In order to continue use of vintage group amortization, this study recommends an amortization period of 26 years with an SQ dispersion.

Account C394.31 Garage Equipment 19 SQ

This account consists of various garage equipment such as lathes and other tools. There is approximately \$1.8 million in this account. This account currently has a life of 19 R3. In performing actuarial analysis on this account, the currently approved 19-year life with a R3 dispersion continues to fit the historic pattern of retirements in this account. In order to continue use of vintage group amortization, this study recommends an amortization period of 19 years with an SQ dispersion.

Account C395.10 Laboratory Equipment 15 SQ

This account consists of laboratory equipment used in common utility service. There is approximately \$1.7 million in this account. This account currently

has a life of 25 R5. Company SMEs report that the items used for laboratory equipment are increasingly technology driven. They recommend shortening the life of this account to 15 years based on the technology-driven life expectations. In order to continue use of vintage group amortization, this study recommends an amortization period of 15 years with an SQ dispersion.

Account C397.10 Communication Equipment 13 SQ

This account consists of miscellaneous communication equipment used in common utility service. Assets in this account include AV equipment, network infrastructure equipment, and telecom equipment. There is approximately \$306.1 million in this account. Company personnel report that these assets are very technology driven and that the current life is reasonable from an operational perspective. This account currently has a life of 13 S6. In order to continue use of vintage group amortization, this study recommends retaining a 13-year life with amortization based on the technology-driven life expectations with an SQ dispersion.

Account C398.10 Miscellaneous Equipment 13 SQ

This account consists of miscellaneous equipment used in common utility service. There is approximately \$3.6 million in this account. This account currently has a life of 13 R0.5. Based on the types of assets in this account and expectations of the Company's operating personnel, this life is still appropriate. In order to continue use of vintage group amortization, this study recommends retaining a 13-year life with amortization using an SQ dispersion.

ELECTRIC OPERATIONS

Electric Intangible

Account E303 Intangible Plant (3 or 5 years)

This account consists of miscellaneous computer software. There is currently \$192.3 million in plant. Software projects are assigned a life by Company IT personnel based on the software's use. Currently, assets in this account have a life of 5 years. The Study recommends retaining that asset life and the addition of a 3-year life category for software assets such as cloud computing with a shorter actual life.

STEAM AND OTHER PRODUCTION

In the steam and other production groups, SDGE has various generation facilities that provide energy to its customers. Each will be discussed further below:

Palomar Energy Center

The Palomar Energy Center is a 565-megawatt gas-fired combined-cycle plant with 2 GE 5 7FA combustion turbines and a GE steam turbine. The plant is equipped with inlet-air chillers and a thermal energy storage tank that allows the plant to produce energy at its capacity during the summer months. Recycled water is used for cooling of the plant equipment.

Desert Star Energy Center (DSEC)

The Desert Star Energy Center, located in Boulder City, NV, is a 480 megawatt gas-fired 5 combined-cycle plant with 2 Siemens 501-FC combustion turbines and a Westinghouse steam 6 turbine. This plant was acquired by SDGE in October 2011 pursuant to D.07-11-046. The unit went in service May 2000. Various specifics were provided by Company SMEs: 2 on 1 501FC+, all three modular hydrogen BB3365 Steam Turbine, HRSG, triple pressure Ericson, air cooled.

The current lease agreement expires in 2027. But SDG&E is exploring a potential lease extension, along with alternatives to convert the plant to a clean dispatchable resource. If these initiatives move forward, additional filings would be made in the future to seek applicable regulatory approvals.

The turbines are under LTSAs. The Company just finished a hot gas path, and the next would be a major service event. Later in 2021, one generator rotor

33

was replaced. The Company does not retire an asset unless it is totally removed. Thus far there are no major retirements, so no interim retirement curve is planned for this generating station.

Miramar Energy Facility

The Miramar Energy Facility is a peaking plant with two GE LM6000 turbines that together produce 92 megawatts. This site also provides black start services used for restoration of the electric grid. Operations and maintenance personnel based out of the Palomar Energy Center provide all plant services to this facility. Unit 1 came in service in 2005 and Unit 2 came in service in 2009. The control systems have been upgraded. Currently, the estimated retirement date for this facility is 2032, which remains unchanged. Company SMEs expect the same pattern of interim retirement for Palomar and Miramar.

Cuyamaca Peak Energy Plant (CPEP)

The Cuyamaca Peak Energy Plant is a peaking plant with a Pratt & Whitney FT8 turbine 16 generator set that produces 45 megawatts. This unit went in service in 2002. The plant also has black start generators. The Company has upgraded the controls for CPEP and is projecting a 2027 retirement date. Operations and maintenance personnel based out of the Palomar Energy Center provide all plant services to this facility.

Ramona Solar Facility

The Ramona solar energy facility spans 18 acres on the outskirts of Ramona. Its 1,600 photovoltaic panels generate nearly 5 megawatts of electricity. That energy is channeled onto the local distribution system and used to power about 1,500 homes and businesses in Ramona.

Account E311.0 Structures and Improvements (Life of Plant)

This account consists of buildings, structures, fences, lighting systems, and other related assets at each power plant. The retirement dates for each unit are found in Appendix D. The plant balance in this account is \$91.4 million. Currently, there are no interim retirements modeled for generation assets. There has been minimal retirement activity over the available history. Given those circumstances, no interim retirements are modeled in this depreciation study.

Account E312.0 Boiler Plant Equipment (Life of Plant)

This account consists of boiler plant equipment, bag houses, preheaters, and other related equipment. The retirement dates for each unit are found in Appendix D. The plant balance in this account is \$162.2 million. Currently, there are no interim retirements modeled for generation assets. There has been minimal retirement activity over the available history. Given those circumstances, no interim retirements are modeled in this depreciation study.

Account E314.0 Turbogenerator Equipment (Life of Plant)

This account consists of turbogenerator equipment, stationary blades, turbine control systems, and other related assets at each power plant. Retirement dates for each unit are found in Appendix D. The plant balance in this account is \$132.2 million. Currently, there are no interim retirements modeled for generation assets. There has been minimal retirement activity over the available history. Given those circumstances, no interim retirements are modeled in this depreciation study.

Account E315.0 Accessory Electric Equipment (Life of Plant)

This account consists of power transformer, regulators, and related assets at each power plant. Retirement dates for each unit are found in Appendix D. The plant balance in this account is \$87.0 million. Currently, there are no interim retirements modeled for generation assets. There has been minimal retirement activity over the available history. Given those circumstances, no interim retirements are modeled in this depreciation study.

Account E316.0 Miscellaneous Power Plant Equipment (Life of Plant)

This account consists of tanks, pumps, work equipment, and other related assets at each power plant. Retirement dates for each unit are found in Appendix D. The plant balance in this account is \$60.5 million. Currently, there are no interim retirements modeled for generation assets. There has been minimal retirement activity over the available history. Given those circumstances, no interim retirements are modeled in this depreciation study.

OTHER PRODUCTION

Interim Retirement Curve

Historical data for all units was combined by account for accounts 341-346 to analyze historic activity. This combined experience across various generating units was used as a representation of SDGE's retirement history for other production to model future retirement activity. Since interim retirement experience is very limited, no interim curves were selected for this depreciation study.

Account E341.0 Structures and Improvements (Life of Plant)

This account consists of buildings, structures, fences, lighting systems, and other related assets at each power plant. Retirement dates for each unit are found in Appendix D. The plant balance in this account is \$24.8 million. Currently there are no interim retirements modeled for generation assets. There has been minimal retirement activity over the available history. Given those circumstances, no interim retirements are modeled in this depreciation study.

Account E342.0 Fuel Holders and Accessory Equipment (Life of Plant)

This account consists of auxiliary boilers, feedwater systems, pumps, storage tanks, natural gas/fuel oil piping, and other related assets at each power plant. Retirement dates for each unit are found in Appendix D. The plant balance in this account is \$21.7 million. Currently there are no interim retirements modeled for generation assets. There has been minimal retirement activity over the available history. Given those circumstances, no interim retirements are modeled in this depreciation study.

Account E343.0 Prime Movers (Life of Plant)

This account consists of heat recovery steam generators, cooling tower systems, foundations, gas turbines, controls, tack mufflers, and other related assets at each power plant. Retirement dates for each unit are found in Appendix D. The plant balance in this account is \$94.5 million. Currently there are no interim retirements modeled for generation assets. There has been minimal retirement activity over the available history. Given those circumstances, no interim retirements are modeled in this depreciation study.

Account E344.0 Generators (Life of Plant)

This account consists of generators, gas turbines and control systems, circulating water systems, and other related assets at each power plant. Retirement dates for each unit are found in Appendix D. The plant balance in this account is \$305.5 million. Currently there are no interim retirements modeled for generation assets. There has been minimal retirement activity over the available history. Given those circumstances, no interim retirements are modeled in this depreciation study.

Account E345.0 Accessory Electric Equipment (Life of Plant)

This account consists of station controls, motor control center, station wiring, fire protection system, power supply, regulators, and related assets at each power plant. Retirement dates for each unit are found in Appendix D. The plant balance in this account is \$30.6 million. Currently there are no interim retirements modeled for generation assets. There has been minimal retirement activity over the available history. Given those circumstances, no interim retirements are modeled in this depreciation study.

Accounts E346.0 Miscellaneous Power Plant Equipment (Life of Plant)

This account consists of Instruments for air systems, work equipment, test equipment, pumps, fire protection systems, and other related assets at each power plant. Retirement dates for each unit are found in Appendix D. The plant balance in this account is \$39.7 million. Currently there are no interim retirements modeled for generation assets. There has been minimal retirement activity over the available history. Given those circumstances, no interim retirements are modeled in this depreciation study.

SOLAR FACILITIES

Solar Ramona is the biggest photovoltaic ("PV") project to date (4 MW). The Company has just started construction of projects that are ground mounted (e.g., Cameron Corners). The manufacturer's (Canadian Solar) warranty is 25 years. This 25-year life is a standard in the industry. At the end of a project, it is likely that the full site would be replaced. SDG&E also has a small program called Sustainable Communities, which had a 10-year lease term. Although 25 years would not be accurate for that project—given that most of the capitalized investment is in larger solar facilities with a life expectation of 25 years and that PPAs generally have a 20–25-year life—the Company has not broken out the Sustainable Communities project. This study thus recommends setting the 25-year lifespan for all solar accounts.

Account E341.1 Structures and Improvements (Life of Plant)

This account consists of a small structure at solar facilities. The plant balance in this account is \$96 thousand as of December 31, 2021. Currently, there are no interim retirements used for this account. All facilities with solar assets will be modeled with a 25-year life and SQ dispersion.

Account E344.1 Generators Solar (Life of Plant)

This account consists of batteries, photovoltaic panels, generators, invertors, fuel cells, and other related assets at each solar facility. The plant

balance in this account is \$54.3 million. Currently, there are no interim retirements used for this account. There may be some assets that will produce interim retirements, such as inverters, which may only last 7-10 years. The first inverter replacement may be under warranty. Panels would generally be replaced under O&M. At this point, all facilities with solar assets will be modeled with a 25-year life and SQ dispersion.

Account E345.1 Accessory Electrical Equipment (Solar Life of Plant)

This account consists of station controls, motor control center, station wiring, fire protection system, power supply, regulators, and related assets at each solar facility. The plant balance in this account is \$2.3 million. Currently, there are no interim retirements modeled for generation assets. All facilities with solar assets will be modeled with a 25-year life and SQ dispersion.

Account E344.2 Generators Other (20 R1)

This account consists of generators, gas turbines and control systems, circulating water systems, and other related assets. A pro-forma adjustment was made in 2021 to transfer assets into this account. After those adjustments, the plant balance in this account is \$5.4 million. No specific power plant is mentioned for these assets. The assets transferred into this account are large portable generators that can be used at any location. Currently there are no interim retirements modeled for generation assets. Since these assets can be used at multiple locations, there will be more wear and tear on the assets. Given those circumstances, this study recommends based on judgment a 20-year life with an R1 dispersion for these assets. A representative curve is shown below.



DISTRIBUTION PLANT

Distribution Accounts,

Account E360.2 Land Rights (65 SQ)

This account contains rights of way for distribution plant. As of December 31, 2020, there was approximately \$83.9 million in this account. The current approved life for this account is 45 years with an SQ dispersion. This study recommends extending the life of this account to correspond to the longest lives of assets within this functional group. Since the longest proposed life for this functional group is 61 years for Account E361 Structures and Improvements, this study proposes moving to a 65-year life with an SQ dispersion. No curve is shown.

Account E361.0 Structures & Improvements (61 R2)

This grouping contains facilities, such as building station control, fencing, yard improvements, and other structures for distribution plant. As of December 31, 2020, there was approximately \$12.3 million in this account. The approved life and curve is 63 years with an R2.5 dispersion. The Company is removing all its 12kV-4kV stations, averaging 1-2 removals per year over the past few years. Prior to that, SDG&E was removing one every 1-2 years.

There is a diverse mixture of assets in the accounts that have a wide range of lives. Longer lived assets would be site preparation, drainage, and foundations. Shorter lived assets are security system upgrades, which have been added in the past few years. Some of the more recent bands are showing a slight reduction in life to 57 years. To move partway in direction of this trend, this study recommends a slight decrease in average life. Based on the actuarial analysis, the type of assets in this account, and judgment, this Study recommends moving the life to 61 years and moving to an R2 dispersion. A graph of the observed life table versus the proposed curve is shown below.



Account E362.1 Station Equipment (55 R2)

This grouping contains switchboards, station wiring, transformers, and a wide variety of other equipment, from circuit breakers to switchgear, for distribution plant. As of December 31, 2020, there was approximately \$618.0 million in this account. The existing approved life is 51 years with an R1.5 dispersion curve.

As stated in Account E361, the Company is planning to remove all 12kV -4 kV substations over the next 10 years (around 10-20 stations out of around 180-200 stations). CBM (Condition Based Monitoring) monitoring occurs for transformers in this account. Many transformers are older than the 51-year approved life.

Company SMEs expect transformers to have a 40–60-year life. At this point, 30-35 transformers are past the 60-year mark. Breakers are a mix of oil,

vacuum, oil, and air. The life expectations for different types of breakers are oil 50 years, vacuum 30 years, and metal clad 30-50 years. There are some electromechanical relays on the system.

But the Company would replace electromechanical relays with solid state relays upon replacement of the relay. Company SMEs state that the ranges of life for relays are 20 years for solid state and 30-40 years for electromechanical. Ground grids are generally maintained rather than having a full-scale replacement. Batteries are estimated to have a life in the range of 10–20 years. From an operations perspective, Company experts support a slight increase in life. Based on the analysis, type of assets, and Company input, this Study recommends moving to a 55 R2. A graph of the observed life table versus the proposed curve is shown below.



Account E363 Energy Storage Equipment (15 SQ)

This account includes energy storage equipment such as batteries, inverters, and containers. Switchgear, transformers, conduit, etc. would be booked to other accounts. There is \$126.0 million in plant in this account.

The current life of this account is 10 years with an SQ dispersion. Company SMEs report that some battery projects will reach their end of life at around 10-15 years (Li Ion). The Tesla time frame is 10 years. Miramar and Fallbrook have 20-year LTSAs. Newer (Iron Phosphate) chemistry would allow less degradation and more cycling. Due to the mix of lives expected for batteries, moving from a 10 year to a 15-year life makes sense from an operations perspective. Based on information from Company SMEs and judgment, this study recommends a 15-year life with SQ dispersion for this account. No graph is shown.

Account E364.0 Poles, Towers & Fixtures (47 R0.5)

This account contains poles, towers, and fixtures for distribution plant. As of December 31, 2020, there was approximately \$942.1 million in this account. The approved life is 47 R0.5.

The Company uses poles made of wood, steel, and concrete. For the past 30 years, the Company has gradually been moving from wood poles to steel and concrete. The wood poles being replaced are likely 50+ years old at retirement. Company experts state that steel poles have a 50+ year life per the manufacturer, which is also support by operations experience. Concrete poles installed over the past 20-30 years have issues with spalling corrosion. Fiberglass poles have a life of 30 or more years.

Company experts report that they are proactively undergrounding in certain fire hardening areas. The largest hardening effort is focused is on areas with wood poles. Some areas that may have had wood changed out to steel in the past would now, based on risk assessment, move to undergrounding or replacement with covered wire. And some portions of the steel poles in areas that have already been hardened may need to be reworked. Specifically, in high fire threat districts (HFTD), SDG&E is installing 233 miles of undergrounding, leading to 155 miles of overhead poles being removed in this GRC's three-year time frame.

Yet the undergrounding effort will not have a significant impact on the overall account as it will install only 880 miles of underground to convert 587 miles of overhead; a small percentage of the total number of poles. Although shorter-term actuarial analysis would support a shorter life, based on the longer-term actuarial analysis, Company input, and judgment, this Study recommends retaining the 47-year life with the R0.5 dispersion. A graph of the observed life table versus the proposed curve is shown below.



Account E365.0 Overhead Conductor & Devices (55 R0.5)

This account consists of overhead (OH) conductor of various thickness, as well as various switches and reclosers. As of December 31, 2020, there was approximately \$974.3 million in the account. The approved life is 55 R0.5.

From an operations perspective, Company experts expect that overhead wire would have a longer life than poles. The Company has an active reconductoring program and will, in some cases, replace conductor when hardening the system. Specifically, the Company is replacing single strand with multistrand steel conductor.

With the 10-year plan, SDG&E is expecting over 800 miles of covered conductor to be installed, of which about 40% could be rework. There will be some early retirements with the rework. The Company has no current plans to replace conductor with covered conductor outside of the HFTD area.

Covered conductor is a newer technology for the Company. Based on engineering analysis and history from other companies, Company experts expect the covered conductor to last as long as the bare wire. There will be areas where the conductor has been hardened but will now be replaced with covered conductor, but the steel poles will not be replaced.

Based on the actuarial analysis, Company input, the type of assets, and judgment, this Study recommends retaining the current 55-year life with an R0.5 dispersion. A graph of the observed life table versus the proposed curve is shown below.



Account E366.0 Underground Conduit (61 R3)

This account consists of underground conduit, duct banks, vaults, and ventilating system equipment. As of December 31, 2020, there was approximately \$1.6 billion in this account. The approved life is 57 years with an R3 dispersion pattern.

Company SMEs state that they have moved away from soil compacted back fill, and since the 1970s/80s have used a slurry mix, which better protects conductors. Based on indications from the actuarial analysis, the type of assets in this account, and judgment, this Study recommends increasing to a 61-year life and retaining the R3 dispersion. A graph of the observed life table versus the proposed curve is shown below.



Account E367.0 Underground Conductors & Devices (52 R2)

This account consists of underground conductor, switches, and switchgear for distribution plant. As of December 31, 2020, there was approximately \$1.8 billion in this account. The currently approved life estimate is 45 years with the R3 dispersion curve.

Company experts report connectors and related materials have improved compared to historical standards. Cable technology has improved over time. The HFTD areas are generally not in coastal areas and thus face less water issues overall.

Analytics from actuarial analysis show a slightly longer life. Company experts agree that from an operations perspective moving the life of this account longer is reasonable. Based on the analysis, Company input, the types of assets, and judgment, this Study recommends an increase in life to 52 years while moving to the R2 dispersion. A graph of the observed life table versus the proposed curve is shown below.



Account E368.0 Line Transformers (36 L1)

This account consists of line transformers, regulators, and capacitors. As of December 31, 2020, there was approximately \$721.7 million in this account. The current approved life for this account is 34 years with an L0.5 dispersion pattern.

Company SMEs report that they have better protection and better lightning arrestors than in the past. The Company has reduced the amount of repairing of old transformers, and newer transformers are more robust. When a line is hardened, the transformers and capacitors would also be changed out, as well as the lightning arresters, fuses, etc. These assets would be changed out in HFTD areas as necessary even if the pole or conductor was not replaced.

Actuarial analysis shows a slightly longer life in the 36-year range. Company SMEs state that, given the better materials and upgrades, a slightly longer life makes sense operationally. Based on the actuarial analysis, the type of assets in this account, Company input, and judgment, the Study recommends an increase in the life to 36-years while moving to an L1 dispersion. A graph of the observed life table versus the proposed curve is shown below.


Account E368.2 Capacitor Banks (12 L0)

This account consists of capacitor banks installed around line transformers. As of December 31, 2020, there was approximately \$30.9 million in this account. The current approved life for this account is 12 years with an L0 dispersion pattern.

Company SMEs are not aware of any material changes in this account that would affect the life of capacitors. Some future activities (such as better communication) may shorten the life from a reliability standpoint. Moving from regular to SCADA device would be a capital replacement. Like for like replacement of components of the asset is maintenance, while replacement of an asset is a capital expenditure.

The current life is 12 years, which appears to remain unchanged in the analysis. Based on the actuarial analysis, the type of assets in this account, Company input, and judgment, the Study recommends retention of the existing 12-year life with an L0 dispersion. A graph of the observed life table versus the proposed curve is shown below.



Account E369.1 Overhead Services (55 R0.5)

This account includes overhead electric services. As of December 31, 2020, the balance in this account was approximately \$231.1 million. The current approved life for this account is 55 years with the R0.5 dispersion curve. Company SMEs state that equipment in this account would be similar to Account E365 Overhead Conductor (where the approved life is the same for both accounts).

There are no drivers for a life change from an operations perspective. Based on the actuarial analysis, the type of assets in this account, Company input, and judgment, the Study recommends retention of the existing 55-year life with an R0.5 dispersion. A graph of the observed life table versus the proposed curve is shown below.



Account E369.2 Underground Services (57 R5)

This account includes underground electric services. As of December 31, 2020, the balance in this account was approximately \$389.6 million. The current approved life for this account is 53 years with the L4 dispersion curve.

Company SMEs report that they are installing increasing levels of underground services. The Company is also installing better hardware that would tend to increase the life from an operations perspective. Company SMEs report that they have updated their cable to a better-quality material.

SDGE no longer uses paper lead (1920-1960) and will replace those services when found. In the early 1960s they moved to in-conduit services, which is more reliable with fewer outages. Around the time of changing to conduit, the Company also started using XLPE. From an operations perspective, Company SMEs recommend moving the life of this account out slightly. Based on the analysis, type of assets, Company input, and judgment, the Study recommends moving to a 57-year life and move to the R5 dispersion. A graph of the observed life table versus the proposed curve is shown below.



Account E370.10 Meters (19 L0)

This account includes all distribution meters, excluding Automatic Meter Reading ("AMR") Meters. As of December 31, 2020, there was approximately \$7.6 million in this account. The current approved life is 48 years with an R0.5 dispersion curve.

There are very few electromechanical meters left on the system. There are proactive measures to replace old meters. The remaining electromechanical meters are mostly used for opting out customers. There are about 2,000-3,000 opt out meters. The Company has been moving to solid state meters (non-communicating) for opt out meters. Analytics show a large drop in life for these assets. Based on the analysis, type of assets, Company input, and judgment, the Study recommends moving to a 19-year life and move to the L0 dispersion. A graph of the observed life table versus the proposed curve is shown below.



Account E370.11 Meters Electronic (15 SQ)

This account includes AMR equipment. As of December 31, 2020, there was approximately \$197.3 million in this account. Company SMEs report that some AMR meters have had early failures due to internal capacitors failing.

There was also a batch in 2009-2010 that had manufacturing issues (specific to the displays). The existing infrastructure is only lasting 10-12 years in some cases. Although there are some advanced failures, a 15-year life is still generally reasonable from an operations perspective. Based on input from Company SMEs, this study recommends retention of the existing 15-year life with an SQ dispersion. No graph is shown.

Account E370.20 Meter Installations (19 L0)

This account includes meter installations for meters booked in account E370.10, non-AMR equipment. As of December 31, 2020, there was approximately \$8.8 million in the account. The current approved life is 48 years with the R0.5 dispersion curve.

Analytics show a reduction in life similar to Account E370.10. Meter installations are capitalized when service is established and retired when the location goes away. Although the analysis would suggest a shorter life, given the relationship between this account and Account E370.10, this Study recommends moving to a 19-year life and L0 dispersion. A graph of the observed life table versus the proposed curve is shown below.



Account E370.21 Meter Installations Electronic Meters (15 SQ)

This account includes meter installations for Smart meters, AMRs. As of December 31, 2020, there was approximately \$59.4 million in the account. The current approved life is 15 years with the SQ dispersion curve. From an operations perspective, the life of this account will be tied to Account E370.11 Electronic Meters. Based on the recommendation for Account E370.11, this study recommends retention of the existing 15-year life with an SQ dispersion. No graph is shown.

Account E371.0 Installation on Customer Premises (34 R0.5)

This account consists of luminaire, pedestals, and poles. As of December 31, 2020, there was approximately \$10.0 million in this account. The current approved life for this account is 34 years with the R0.5 dispersion pattern. Company SMEs report that they are migrating to LED bulbs for this account as current lighting fails. Operationally, Company SMEs feel that a life of about 30 years is appropriate. They would expect the life to shorten as bulbs burn out and the heads are retired and replaced with LED (instead of replacing the bulbs under O&M).

Based on the actuarial analysis, the type of assets in this account, and judgment, the current Study recommendation is to retain the approved 34 R0.5. A graph of the observed life table versus the proposed curve is shown below.



Account E371.10 EV Charging Units (10 SQ)

This account includes the charger, the pedestal mount and integrated charging unit for electric vehicles charging on customers' premises. There is \$64.4 million in this account as of December 31, 2020. Currently, this account is being depreciated with a 10-year life and SQ retirement dispersion.

In SDG&E's 2019 GRC, SDGE conducted a study and requested a 5-year life. The Commission moved the life to 10 years. The first chargers were put into service in 2017. There have been a few sites where chargers had to be removed, mostly due to lease issues.

The Company has not had any non-warranty failures or repairs in the four years they have been in operations. The warranty period is 2-year for parts and 1 year for service. The only assets in the account are the charger itself: the pedestal mount and integrated charging unit. The communication devices inside the charger may need replacement over the 10-year time frame due to technology changes. The Company did not install any Level 1 chargers. When they must transfer the charger to the customer, the period used in the calculation is between

8 – 10 years (as specified by the Commission). Based on current operations and input from the Company as to how these assets are used, this study recommends retention of the current 10-year life with an SQ dispersion. No graph is shown.

Account E373.2 Street Lighting & Signal Systems (36 L0)

This account includes all distribution streetlights, conductor, conduit, luminaire, and standards. As of December 31, 2020, there was approximately \$34.1 million in this account. The current approved life for this account is 36 years with the L0 dispersion curve.

Company SMEs report that they are migrating to LED lights for this account as current lighting fails. On burnout, they replace the bulb with LED, but there is no active program to convert from HPS to LED. Company experts believe that the life of this account will shorten in the future as bulbs burn out and the heads are retired and replaced with LED (instead of replacing the bulbs under O&M). Historically, some of the components would fail and be replaced under O&M. With the conversion to LEDs, the company will replace the whole head (which would be a capital item). From an operations perspective, Company SMEs think the current life of 36 years would still be reasonable. Based on the type of assets in this account, input from Company personnel, and judgment, the current Study recommendation is to retain the 36-year life and L0 dispersion curve. A graph of the observed life table versus the proposed curve is shown below.



ELECTRIC GENERAL PLANT

Electric General Accounts,

Account E390 All Structures & Improvements (43 L0)

This account includes the cost of buildings, yard improvements, and partitions used for utility service. As of December 31, 2020, there was approximately \$45.6 million in this account. The current approved life for this account is 34 S4.

There have been limited retirements in this account to this point in time. Based on the recommendation for Account C390 (which has had more retirement activity), this study recommends a 43-year life with an L0 dispersion. A graph of the observed life table compared to the proposed curve is shown below.



General Plant Amortized Accounts

Vintage Group Amortization

This study recommends the continued use of vintage group amortization for certain General plant accounts. Specifically, this study recommends this amortization for accounts 392.2 through 398.

Account E392.2 Trailers 27 SQ

This account consists of trailers and other transportation equipment used for general utility service. There is approximately \$58 thousand in this account. This account currently has a life of 27 S5. Based on the practices and expectations of the Company's fleet operations, this life is still reasonable. In order to continue use of vintage group amortization, this study recommends an amortization period of 27 years with an SQ dispersion.

Account E393.10 Stores Equipment 25 SQ

This account consists of stores equipment used for general utility service. There is approximately \$47 thousand in this account. This account currently has a life of 25 S5. Based on the practices and expectations of the Company operations, this life is still reasonable. In order to continue use of vintage group amortization, this study recommends an amortization period of 25 years with an SQ dispersion.

Account E394.11 Portable Tools 10 SQ

This account consists of portable tools such as mobile computer data, test equipment, and pumps. There is approximately \$37.4 million in this account. This account currently has a life of 27 S6.

Equipment in this account is similar to Common Account C394.11, with the newer equipment being more technology-based than prior equipment. Company SMEs suggest a life of 10 years for this account based on the asset mix and short lives for the small portable tools in this account. In order to continue use of vintage group amortization, this study recommends an amortization period of 10 years with an SQ dispersion.

Account E394.20 Shop Equipment 26 SQ

This account consists of shop equipment such as ammeters, purifiers, and steam cleaners. There is approximately \$278 thousand in this account. This account currently has a life of 26 L4. Based on the practices and expectations of the Company operations, this life is still reasonable. In order to continue use of vintage group amortization, this study recommends an amortization period of 26 years with an SQ dispersion.

Account E395.1 Laboratory Equipment 15 SQ

This account consists of laboratory equipment used in general utility service. There is approximately \$5.3 million in this account. This account currently has a life of 22 L3. Similar to Common Account C395.1, Company SMEs report

that the items used for laboratory equipment are increasingly technology driven. They recommend shortening the life of this account to 15 years. In order to continue use of vintage group amortization, this study recommends an amortization period of 15 years with an SQ dispersion.

Account E397.1 Communication Equipment 20 SQ

This account consists of miscellaneous communication equipment used in general utility service. There is approximately \$364.5 million in this account. This account currently has a life of 30 R2. Assets in this account include AV equipment, fiber optic equipment, retirement terminal units, and SCADA equipment. Company personnel report that these assets are very technology driven. Given the changes in technology for these assets, Company SMEs recommend a shorter life for this account, in the 20-year range. In order to continue use of vintage group amortization, this study recommends an amortization period of 20 years with an SQ dispersion.

Account E397.2 Communication Equipment SWPL 20 SQ

This account consists of miscellaneous communication equipment used in Southwest Power Link ("SWPL"). There is approximately \$8.2 million in this account. This account currently has a life of 30 R2. Assets in this account include microwave equipment, remote terminal units, and other communication equipment. Given the changes in technology for these assets, Company SMEs recommend a shorter life for this account, in the 20-year range. In order to continue use of vintage group amortization, this study recommends an amortization period of 20 years with an SQ dispersion.

Account E397.6 Communication Equipment SRPL 20 SQ

This account consists of miscellaneous communication equipment used in Sunrise Power Link ("SRPL"). There is approximately \$14.1 million in this account. This account currently has a life of 30 R2. Assets in this account include substation equipment, remote terminal units, and other communication equipment. Given the

changes in technology for these assets, Company SMEs recommend a shorter life for this account, in the 20-year range. In order to continue use of vintage group amortization, this study recommends an amortization period of 20 years with an SQ dispersion.

Account E397.7 Telecom 20 SQ

This account consists of miscellaneous communication equipment used in general utility service. There is approximately \$1.2 million in this account. This account currently has a life of 30 R2. Assets in this account are telecom equipment and antennas. Similar to Accounts E397.1. E397.2, and 3E97.6, company personnel recommend shortening the life to 20 years. In order to continue use of vintage group amortization, this study recommends an amortization period of 20 years with an SQ dispersion.

Account E398.0 Miscellaneous Equipment 16 SQ

This account consists of miscellaneous equipment used in general utility service. There is approximately \$3.2 million in this account. This account currently has a life of 16 L4. Based on the practices and expectations of the Company operations, this life is still reasonable. In order to continue use of vintage group amortization, this study recommends an amortization period of 16 years with an SQ dispersion.

NATURAL GAS OPERATIONS

Gas Storage and Processing

Account G363.60 LNG Distribution Storage Equipment (20 S4)

This account includes liquid natural gas storage equipment. There is currently \$2.2 million in plant in this account and the current authorized life parameter is 20 years with an S4 dispersion. SDGE owns a small facility that was originally installed in 1956.

The average age of investment in this account is 13.49 years. Tanks and vaporizers are original equipment. Cryogenic components, alarms/controls, and valves have been replaced. The alarms/controls would have a 10–15-year life. There are two small cryogenic tanks, as well as storage and vaporization equipment. There was an upgrade to the system a couple years ago. Much of the cost is alarms and instrumentation. Company personnel believe that the life of this equipment would be somewhere around that of CNG assets, about 20 years. Therefore, this study recommends retaining the approved 20-year life with an S4 dispersion for this account. There has been a limited number of retirements with this account, and a generic curve shape is shown below.



GAS TRANSMISSION PLANT

Account G365.2 Land Rights (70 SQ)

This account includes the cost of land rights used in connection with transmission operations. There is approximately \$3.5 million in this account. Currently, the approved life for this account is 40 years with an SQ dispersion. The average age of survivors in this account is 21.78 years. These land rights are associated with various assets in this function with the longest proposed life being 69 years for transmission mains. Based on judgment and the proposed life for Account G367, this study recommends moving to a 70-year life with an SQ dispersion. No graph is shown.

This recommendation will not be implemented in this proceeding, but is planned for implementation in the 2028 GRC.⁹

Account G366 Structures and Improvements (47 R2)

This account includes the cost of structures and improvements such as buildings, property improvements, fencing, security used in connection with transmission operations. There is approximately \$20.4 million in this account. Currently, the approved life for this account is 34 years with an S3 dispersion. The average age of survivors in this account is 18.58 years.

The life for this account between SDGE and SoCalGas is significantly different. Company experts report that operating rules, maintenance practices, and other forces of retirement impacting this account have been the same for the past several years between the two entities. The current life for these assets is shorter than Company experts support from an operations perspective. Based on the larger statistical sample from SoCal Gas and input from Company experts, this study recommends moving to a life of 47 years with an R2 dispersion. An observed life table showing the small level of transactions is graphed for this account with the recommended life and curve below.

⁹ Due to timing constraints and complexity, the current proposal for land rights was not incorporated into the Results of Operation (RO) model logic. SDG&E proposes to include this model logic in the 2028 GRC.



Account G367 Mains (69 R3)

This account includes the cost of transmission mains, primarily coated and wrapped steel. The current approved life for this account is 45 years with an S4 dispersion. There is approximately \$353.2 million in plant in this account.

The average age of survivors in this account is 11.83 years. Operations personnel report that there has been more replacement of SDGE than SoCalGas based on percentage of the overall system at SDGE since SDGE has a much smaller system. There is less mileage on SDGE than SoCalGas, and the mains are newer.

Operations personnel think the life should be similar between SoCalGas and SDGE. The Company is also seeing some class changes as the population densities increase. IMP forced the retirement of some valves. SDGE has been adding more instrumentation and automation (remote control) in recent years. For the most part, the automation could be added to existing assets (such as valves) in the majority of instances but in maybe 40% they would have to replace the full valve assembly. In performing actuarial analysis, the observed life table stops at 90 percent in the longest period, which does not provide meaningful analysis results. Most natural gas companies show a similar life between transmission mains in account 367 and distribution mains in account 376, Account 376 has an approved life of 69 years with a R3 dispersion, which is consistent with industry norms. Given the similarity between the asset groups, this study recommends moving to a life of 69 years with a R3 dispersion. An observed life table is graphed for this account with the recommended life and curve below.



Account G367.6 Hydro Test Costs (17 SQ)

This is a new account that will be used being as the Company complies with new regulations. PHMSA has issued new regulations effective July 1, 2020 that will impact pipeline of vintage 1970 and older. Costs incurred to comply with the Mega Rule will be treated as a capital item. After examining the remaining life of vintages 1970 and older, those assets will have an average remaining life of about 17 years, assuming the proposed life and curve for Account G376. The testing costs are proposed to be depreciated over 17 years with an SQ curve. Since these costs are not directly tied to specific mains, auto retirement is recommended.

Account G368 Compressor Station Equipment (40 S3)

This account includes the cost of compressor station equipment used in connection with transmission operations. There is approximately \$99.5 million in this account. Currently, the approved life for this account is 35 years with an S3 dispersion.

The average age of survivors in this account is 19.58 years. Company personnel report that the Company has a modernization program driven by emissions compliance and decarbonization initiatives. The Company relies heavily on turbine compressors. The regulations for stations have changed more than the regulations for mains and services. They have been upgrading stations. After examining the various assets in this account, this study recommends an increase life to 40 years and retaining the S3 dispersion. An observed life table is graphed for this account with the recommended life and curve below.



Account G369 Measuring and Regulating Station Equipment (48 R0.5)

This account includes the cost of measuring and regulating station equipment used in connection with transmission operations. There is approximately \$29.1 million in this account. Currently, the approved life for this account is 31 years with an S3 dispersion.

The average age of survivors in this account is 16.23 years. Company SMEs report that there has been a lot of investment related to IMP to retrofit for pigging. They have been adding more instrumentation and automation (remote control) in recent years. For the most part, the automation could be added to existing assets (such as valves) in the majority of instances. But in maybe 40% of the cases, the Company would have to replace the full valve assembly. There have been activities to change out actuating equipment that might release methane. As communities become more developed, class location changes as population density increases the need for accurate regulating equipment. Based on input from Company personnel and experience with SoCalGas, this study recommends moving to a 48-year life while retaining the R0.5 dispersion. A generic curve shape is shown below.



Account G371 Other Equipment (27 SQ)

This account includes the cost of other equipment used in connection with transmission operations. There is approximately \$2.8 million in this account. Currently, the approved life for this account is 27 years with an SQ dispersion. The average age of survivors in this account is 2.74 years. There have been no retirements to date. And Company SMEs do not expect a change from the current life parameter. Based on input from Company personnel and judgment, this study recommends retention of the existing 27-year life and SQ dispersion. No graph is shown.

GAS DISTRIBUTION PLANT

Account G374.2 Rights of Way (70 SQ)

This account includes the cost of land rights used in connection with distribution operations. There is approximately \$8.5 million in this account. Currently, the approved life for this account is 31 years with an SQ dispersion. The average age of survivors in this account is 32.00 years.

There have been few retirements in this account. Company personnel state that the life of the right of way should be in line with the underlying life of the assets on the ROWs. Since the longest life proposed for any account in this function is 70 years, this study recommends moving to a 70-year life and retaining the SQ dispersion. No graph is shown.

This recommendation will not be implemented in this proceeding but is planned for implementation in the 2028 GRC.¹⁰

¹⁰ Due to timing constraints and complexity, the current proposal for land rights was not incorporated into the Results of Operation (RO) model logic. SDG&E proposes to include this model logic in the 2028 GRC.

Account G375 Structures and Improvements (44 S3)

This account includes the cost of structures and improvements used in connection with distribution operations. There is approximately \$43 thousand in this account. Currently, the approved life for this account is 44 years with an S3 dispersion.

The average age of retirements in this account is 72.17 years. Operations personnel state that there are no obvious changes in the usage or characteristics of these assets that would suggest a material change in life. There are a number of shorter life assets within the group: roofs, HVAC, Generators, parking lot replacements, etc. that would moderate the building lives. Analytics is holding in the 40-year range. There has been little activity in this account for SDGE in recent years. Operations personnel believe a life in the 40-45 year range is reasonable from an operations perspective. Based on actuarial analysis and input from Company experts, this study recommends retaining the 44-year life and S3 dispersion. An observed life table is graphed with the proposed life and dispersion curve below.



Account G376 Mains (69 R3)

This account includes the cost of mains used in connection with distribution operations. There is approximately \$1.4 billion in this account. Currently, the approved life for this account is 69 years with an R3 dispersion.

The average age of survivors in this account is 13.58 years. The average age of retirements in this account is 25.49 years. Company operations personnel report that the Integrity Program is targeting replacing plastic prior to 1986 for both mains and services. About 1,600 miles of Aldyl-A remain in the system.

SDGE is replacing over 50 miles per year, and there are over 15,000 miles of total distribution miles for mains/services for SDGE (steel and plastic). There are 3 separate steel programs (pre-34, 34-65 and 65 and over) that are not part of DIMP. There are only 150 miles left in the system of pre-34 pipe.

Most of the SDGE system is from later than the 1950s, with most pipe having been added in the "boom" in the 1970s and 1980s. The steel programs did not start until late 2019 and ramped up in 2020. Some of the older steel pipe that is catholically protected is being focused on but is not part of DIMP.

RAMP is also increasing funding to be able to replace more pipe. This is in addition to normal replacements. The planned replacement programs that are ranked by risk would signal that the pipe will be replaced sooner than in the past. Company SMEs feel from an operations perspective that life should decrease (at least in the short-term) with the level of retirements that are occurring. The average life of 88 years indicated in the some of the actuarial analyses is significantly longer than the expectations from the SMEs since most replacements are closer to a 70-year life. Given the uncertain future with regulation and input from operations personnel, this study recommends retaining the 69-year life and the R3 dispersion. An observed life table is graphed with the proposed life and dispersion curve below.



Account G378 Measuring and Regulating Equipment (47 R2)

This account consists of measuring and regulating equipment used in distribution operations. There is approximately \$20.8 million of investment in this account. The current approved life for this account is 47 years with an R2 dispersion. The average age of survivors in this account is 17.74 years.

The average age of retirements in this account is 23.60 years. In the last rate case, Company SMEs reported that a study was done for M&R stations. Five years ago, 70% of regulator stations were 24 years or older. So, they are about 30 years old now. There are around 500 stations. Stations would retire based on capacity, the type of equipment (outdated), in an unsafe area, etc. There is a parts and inspection program that can extend the life. Some older stations will have components that are not easy to replace, and SDGE would replace the entire station instead of replacing the regulator. The older components were from the 1950s-1970s.

Higher risk regulating stations are being targeted for replacement. The regulations for regulating stations have changed more than the regulations for

mains and services. The Company has been upgrading stations. They are also more aggressively targeting regulating stations than they have in the past. Operationally, there is no reason that the life should increase. There are drivers that would decrease the life, such as RAMP and Control Center Modernization programs. This study recommends retaining the 47-year life with an R2 dispersion for this account. An observed life table is graphed with the proposed life and dispersion curve below.



Account G380 Services (65 R2.5)

This account consists of services used in distribution operations. There is approximately \$420 million of investment in this account. The current approved life for this account is 65 years with an R2.5 dispersion.

The average age of survivors in this account is 19.04 years. The average age of retirements in this account is 22.55 years. The service rises above the ground for a portion of its length. According to Company SMEs, the above ground portion is vulnerable to weed eaters, fertilizer, dig-ins by customers, houses abandoned, etc.

It is more likely that the Company would change services than mains. If the main is Aldyl-A, they would normally replace the service. If there is a cut, Company personnel report that they generally repair the service. If a service has had a leak in the past, they would likely replace. If a steel main is replaced with plastic, the service would be replaced if steel.

Company operations personnel believe that the life of services should have a shorter live than mains, since there are many factors that would retire a service earlier. The higher focus on not stranding steel services would also be a factor in shortening the life of services. In some of the actuarial analysis, the average life indications are much longer than the approved or expectations across the industry. Company SMEs state that services have a life closer to 50-60 years from an operations perspective. Operationally, a longer life does not seem consistent with expectations. Given the uncertain future with regulations and input from operations personnel, this study recommends retaining the existing 65-year life with an R2.5 dispersion for this account. An observed life table is graphed with the proposed life and dispersion curve below.



Account G381 Meters and Regulators (35 L1.5)

This account includes the cost of meters and regulators used in measuring gas to residential customers. There is approximately \$87.9 million in plant in this account. The current approved life of the meter account is 41 years with an L1.5 dispersion.

The average age of survivors in this account is 18.55 years. The average age of retirements in this account is 27.35 years. Historically, meters lasted longer than now seen according to Company operations personnel. SDGE used three different manufacturers. Company operations personnel report that they still repair meters, but now expense that repair. Meter costs have escalated, and there are only two meter manufacturers in the United States now. From an operations perspective, a small decrease in life is expected. Based on the visual matching and input from operations personnel, this study recommends moving to 35 years while retaining the L1.5 dispersion curve for this account. An observed life table is graphed with the proposed life and dispersion curve below.



Account G381.01 Meters/Regulators- Modules (15 SQ)

This account includes the cost of modules used on gas smart meters. The current approved life for this account is 15 years with an SQ dispersion. There is approximately \$92.0 million in plant in this account.

The average age of survivors in this account is 7.78 years. The average age of retirements in this account is 5.66 years. These assets have only been in service since 2012, and there is insufficient history to analyze the data. Operations personnel believe the currently approved life of this account is still reasonable. Based on input from Company personnel, this study recommends retention of the 15-year life with an SQ dispersion. No graph is shown.

Account G382.00 Meter and Regulator Installations (35 L1)

This account includes the cost of domestic meter installations (excluding meters) and regulator installations. The current approved life for this account is 35 years with an L2 dispersion. There is approximately \$84.2 million in plant in this account.

The average age of survivors in this account is 14.45 years. The average age of retirements in this account is 22.93 years. SDGE does not use premanufactured loops for residential. If there is no overpressure protection on regulator, Company SMEs report that they will replace the asset. For every two meters they replace, they will replace one regulator. Typically, the meter set assembly ("MSA") would not be replaced before the meter (unless customer needed more gas, in which case both would be replaced at the same time), but the MSA is typically not replaced at the same time as a meter but would be replaced as necessary. Actuarial analysis shows a similar life with a slightly flatter dispersion. Based on actuarial analysis and judgment, this study recommends retaining the 35-year life while moving to an L1 dispersion for this account. An observed life table is graphed with the proposed life and dispersion curve below.



Account G382.01 Meter Installations Modules (15 SQ)

This account includes the cost of module installations for smart meters. The current approved life for this account is 15 years with an SQ dispersion. There is approximately \$25.9 million in plant in this account. The average age of survivors in this account is 10.27 years.

The average age of retirements in this account is 4.89 years. These assets have only been in service since 2012, and there is insufficient history to analyze the data. Operations personnel believe the currently approved life of this account is still reasonable. Based on input from Company personnel, this study recommends retention of the 15-year life with an SQ dispersion. No graph is shown.

Account G385 Measuring and Regulating Equipment (28 S6)

This account includes the measuring and regulating station equipment such as regulators, electrical equipment, and other devices. There is approximately \$1.5 million of plant in this account. The current approved life for this account is 28 years with an S6 dispersion.

The average age of survivors in this account is 22.31 years. Company personnel report that they have used premanufactured loops for many years. Industrial station lives in this account would likely be less than M & R stations in account G378 due to being governed by the requirements of businesses using the station. Based on the recommended 47-year life for Account G378, retention of the existing life is reasonable. This study recommends retaining the 28-year life with an S6 dispersion. A generic curve shape is shown below.



Account G387.11 Other Equipment (16 L0)

This account includes the cost of other miscellaneous equipment such as measurement systems, recording gauges, rectifiers, and other equipment. There is approximately \$994 thousand of plant in this account. The current approved life for this account is 16 years with an L0 dispersion. The average age of survivors in this account is 14.98 years. The average age of retirements in this account is 13.06 years. This study recommends retaining the current 16-year life with an L0 dispersion. An observed life table is graphed with the proposed life and dispersion curve below.



Account G387.12 CNG Equipment (20 L0.5)

This account includes the cost of natural gas vehicle charging stations and related equipment. There is approximately \$9.8 million of plant in this account. The current approved life for this account is 16 years with an L0 dispersion. The average age of survivors in this account is 11.30 years. The average age of retirements in this account is 9.68 years.

Company SMEs report that they have five CNG stations, and three have been refurbished in the last couple years. The first were installed in the 1990s. Most of the original assets have been retired and replaced. Of the remaining, the latest two were installed in 2014 and 2017. Company SMEs suggest their expectations for the life of this account to be closer to that recommended for SoCalGas in this account. This study recommends moving from the 16-year life to a 20-year life with an L0.5 dispersion. An observed life table is graphed with the proposed life and dispersion curve below.



GAS GENERAL PLANT

Account G394.1 Portable Tools (10 SQ)

This account consists of various items or portable tools used in shop and garages such as air compressors, grinders, and mixers. There is approximately \$21.1 million in this account. This account currently has a life of 24 years with an L5 dispersion.

Given the small and portable nature of these assets, this study recommends retention of the current life for this account. Since the Company plans to continue use of vintage group amortization for its common and electric general accounts, the same is proposed for the Company's natural gas general plant. This study recommends a 10-year life with an SQ dispersion for this account.

Account G394.20 Shop Equipment (10 SQ)

This account consists of large items or tools used in shop and garages such as hoists and cranes. There is approximately \$70 thousand in this account. This account currently has a life of 24 years with an R1.5 dispersion.

This account currently has a fixed life of 24 years for amortization. Since the assets are similar to Account E394.2 and C394.21, this study proposes the same average life. Since the Company plans to continue use of vintage group amortization for its common and electric general accounts, the same is proposed for the Company's natural gas general plant. This study recommends a 10-year life with an SQ dispersion for this account.

Account G397.0 Communication Equipment (15 SQ)

This account consists of miscellaneous communication equipment such as fiber optics, SCADA equipment, and various upgrades used in general utility service. There is approximately \$2.3 million in this account. This account currently has a fixed life for amortization of 15 years with an S6 dispersion. Since the Company plans to continue use of vintage group amortization for its common and electric general accounts, the same is proposed for the Company's natural gas general plant. This study recommends retaining the 15-year life and moving to an

SQ dispersion for this account.

Account G398.0 Miscellaneous Equipment (19 SQ)

This account consists of miscellaneous equipment used in general utility service. There is approximately \$466 thousand in this account. This account currently has a life of 19 years with an R2.5 dispersion. Since the Company plans to continue use of vintage group amortization for its common and electric general accounts, the same is proposed for the Company's natural gas general plant. This study recommends retaining the 19-year life moving to an SQ dispersion for this account.

NET SALVAGE ANALYSIS

When a capital asset is retired, physically removed from service, and finally disposed of, terminal retirement is said to have occurred. The residual value of a terminal retirement is called gross salvage. Net salvage is the difference between the gross salvage (what the asset was sold for) and the removal cost (the cost to remove and dispose of the asset). Salvage and removal cost percentages are calculated by dividing the <u>current</u> cost of salvage or removal by the <u>original</u> installed cost of the asset. Some plant assets can experience significant negative removal cost percentages due to the timing of the original addition versus the retirement.

ELECTRIC OPERATIONS

The cost of demolition and removal of electric assets has increased over time due to several general factors including:

Time Value of Money

Many transmission assets have a life cycle of 40 years or more. Some of the assets being removed were installed over 40 years ago when materials and labor were less expensive.

Environmental Regulations and Right-of-Way Access/Use Restrictions

The cost of demolition has increased due to the continual evolution of environmental regulations affecting mitigation and restoration measures required during and after transmission line projects. This environmental rigor was not in place at the time of the assets' initial installations. Consequently, assets located on difficult terrain or in sensitive locations require additional equipment, labor, and other expenses to ensure compliance during and after construction. Post-construction restoration may span several growing seasons to achieve the necessary vegetation and site stability required for permit compliance. Environmental protections also affect the salvage value of material. Wood poles that were once sold for a positive salvage value now cost the Company to dispose of due to the wood protectant materials like creosote.

<u>Labor</u>

In the last decade, investment in the transmission system has increased substantially across the country. This has created a high demand for the limited number of qualified resources available to construct the work. The increases in capital expenditures are such that utilities now have to augment their internal workforces with external contract construction providers, who often come at a higher cost.

Safety Requirements

The industry has become intolerant of unsafe working practices. The robust equipment and stringent safety provisions required today have changed substantially from that of 40 years ago. Safety and compliance are core values for SDGE and this may result in an increase in the cost of doing business.

Increase Financial Controls

Over time, financial standards and regulations have increased. SDGE has adopted the best practices and incorporated cost and quality control measures into the close out of construction work orders. This provides greater details of costs associated with demolition work compared to several years prior.

Salvage Value

Many of the assets that are removed do not carry a high salvage value. Some of the assets may be sold as scrap, but it would not amount to the cost of installation or offset the removal costs. Assets that can be reused are placed into inventory instead of being sold. In several cases, the assets being removed are of wood construction, in which case there is no salvage value.

Asset Renewal

Utilities across the nation are now dealing with aging, antiquated transmission infrastructure. It is now a necessity for utilities to have proactive asset renewal programs to replace transmission assets before they fail. The frequency of projects requiring removal of existing assets has increased substantially over the last decade and will continue to increase into the future.

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Wildfire Mitigation Plan

The Company is focused on compliance with all directives and commitments regarding wildfire mitigation in hardening its system. This plan increases the number of asset renewal projects SDGE does in rugged/mountainous terrain each year in order to reduce wildfire ignition risk in the Company's service territory as quickly as possible. The removal cost for the structures targeted by the Company's Wildfire Mitigation Plan is often higher than normal because those structures are more difficult to access and may require special equipment (such as a helicopter or a temporary bridge) or nonstandard construction methods (such as hand digging, flaggers for trail closures, etc.)

To determine how removal costs have escalated, consider one of SDGE's electric distribution accounts. An Electric Distribution asset in Account E366 with a current installed cost of \$500 (2020) would have had an installed cost of \$39.68¹¹ in 1959. If one were to calculate removal cost as a percent of current cost, a removal cost of \$50 for the asset would only have a -10 percent removal cost (\$50/\$500). This would be incorrect. A correct removal cost calculation would show a negative 126 percent removal cost for that asset (\$50/\$39.68). Inflation from the time of installation of the asset until the time of its removal must be taken into account in the calculation of the removal cost percentage because the depreciation rate, which includes the removal cost percentage, will be applied to the <u>original</u> installed cost of assets

NATURAL GAS OPERATIONS

In the same way, the cost of removing natural gas assets from service has increased over time. Many general factors have occurred, creating changes that increase removal cost including:

Gas Main Abandonment Procedures

While gas mains for distribution are usually abandoned in place, the following removal costs are incurred per 49 CFR 192.727 (entitled "Abandonment or deactivation

¹¹ Using the Handy-Whitman Bulletin No. 194, E-6, line 46, \$39.68 = \$500 x 55/693.

of facilities"). This regulation provides as follows:

(a) Each operator shall conduct abandonment or deactivation of pipelines in accordance with the requirements of this section.

(b) Each pipeline abandoned in place must be disconnected from all sources and supplies of gas; purged of gas; in the case of offshore pipelines, filled with water or inert materials; and sealed at the ends. However, the pipeline need not be purged when the volume of gas is so small that there is no potential hazard.

(c) Except for service lines, each inactive pipeline that is not being maintained under this part must be disconnected from all sources and supplies of gas; purged of gas; in the case of offshore pipelines, filled with water or inert materials; and sealed at the ends. However, the pipeline need not be purged when the volume of gas is so small that there is no potential hazard.

The cost of deactivation, abandon in place, or removal of gas assets has increased over time due to several general factors, including:

Time Value of Money

Many gas main assets have a life cycle of 60 years or more. Some of the assets being removed were installed nearly 60 years ago when materials, labor, and cost of goods were cheaper.

Urban Areas

The majority of the construction and reconstruction projects are in urban areas. Many cities require permits. These permits may impose fees and certain limitations, such as the closure of roads during high traffic times. These permits may also require construction to occur in the evening or on weekends, which requires overtime of crews and additional equipment. Some municipalities are increasingly requiring companies to repave more of the road than just the paving disturbed by excavation activity.

Contract Labor

In the last decade, investment in utility gas main renewal projects has increased substantially across the country. In addition, the same skills and resources are needed in the larger oil and gas industry. This has created a high demand for the limited number of qualified personnel available to construct the work. Therefore, the cost of external contracts has increased due to supply and demand factors.

Safety Requirements

The industry, and specifically SDGE, strives to provide a very high level of safe working practices. The equipment and provisions required today have increased substantially from 50 years ago. SDGE uses work safety practices that align with modern industry practice. These policies have increased the cost of doing business but are an important part of the strong safety principles at SDGE.

To determine how removal costs have escalated, consider one of SDGE's Gas accounts. A Gas Transmission asset in Account G367 with a current installed cost of \$500 (2020) would have had an installed cost of \$28.74¹² in 1951. If one were to calculate removal cost as a percent of current cost, a removal cost of \$50 for the asset would only have a -10 percent removal cost (\$50/\$500). This would be incorrect. A correct removal cost calculation would show a negative 174 percent removal cost for that asset (\$50/\$28.74). Inflation from the time of installation of the asset until the time of its removal

¹² Using the Handy-Whitman Bulletin No. 194, G-6, line 27, \$28.74 = \$500 x 38/661

must be taken into account in the calculation of the removal cost percentage because the depreciation rate, which includes the removal cost percentage, will be applied to the <u>original</u> installed cost of assets.

Net Salvage Characteristics

For each function, data for retirements, gross salvage, and cost of removal for each functional group, adjusted as discussed above, was derived from 2002-2020. Moving averages, which remove timing differences between retirement and salvage and removal cost, were analyzed over periods varying from one to 10 years.

COMMON PLANT

Common Intangible Plant

Account C303.10 Cloud Costs (0 percent net salvage)

This account includes gross salvage and cost of removal associated with cloud computing and the delivery of services through the internet. The current net salvage percentage is 0 percent. These assets have no value at the end of their lives, given the pace of technology change. Thus, the current net salvage parameter of 0 percent is proposed.

Account C303 Intangible Plant (0 percent net salvage)

This account includes gross salvage and cost of removal associated with the cost of intangible software used for utility service. The current net salvage percentage is 0 percent. These assets have no value at the end of their lives, given the pace of technology change. Thus, the current net salvage of 0 percent is proposed.

Common General Plant

Account C389.2 Land Rights (0 percent net salvage)

This account includes any salvage and removal cost related to land rights for structures and improvements used for general utility operations. The currently authorized net salvage rate for this account is 0 percent. These assets generally have no value at the end of their useful lives. Based on judgment, this study recommends retention of the existing 0 percent net salvage for this account.

Account C390.10 Structures & Improvements (-10% Net Salvage)

This account includes any salvage and removal cost related to structures and improvements used for general utility operations. The currently authorized net salvage rate for this account is negative 15 percent. The five- and 10-year moving averages show negative 9 percent for both periods. Based on recent experience, this study recommends moving to negative 10 percent net salvage for this account.

Account C391.1 Office Furniture and Equipment (0% Net Salvage)

This account consists of gross salvage and/or cost of removal associated with miscellaneous office furniture such as desks, chairs, filing cabinets, and tables used for general utility service. The current authorized net salvage for this account is 0 percent. The five- and 10-year moving averages show 0 percent for both periods. Based on the type of assets and Company experience, this study recommends retaining the approved 0 percent net salvage for this account.

Account C391.2 Computer Equipment (0% Net Salvage)

This account consists of gross salvage and/or cost of removal associated with computer equipment used for general utility service. The current authorized net salvage for this account is 0 percent. The five- and 10-year moving averages show 0 and 1 percent respectively. Based on the type of assets and Company experience, this study recommends retaining the approved 0 percent net salvage for this account.

Account C392.1 Autos (0% Net Salvage)

This account consists of gross salvage and/or cost of removal associated with automobiles and similar transportation equipment used for general utility service. The current authorized net salvage for this account is 0 percent. There has been limited activity in this account. Based on judgment, this study recommends retaining the approved 0 percent net salvage for this account.

Account C392.2 Trailers (0% Net Salvage)

This account consists of gross salvage and/or cost of removal associated with trailers and other transportation equipment used for general utility service. The current authorized net salvage for this account is 0 percent. There has been limited retirement and/or net salvage activity in this account. Based on judgment, this study recommends retaining the approved 0 percent net salvage for this account.

Account C392.3 Transportation Equipment- Aviation (50% Net Salvage)

This account consists of gross salvage and/or cost of removal associated with aviation equipment- helicopters and drones. The current authorized net salvage for this account is 0 percent. There is a robust market for used helicopters. The company plans to keep its current helicopter 25 years and maintain the helicopter with manufacturer recommendations. There is limited data in the public domain to predict the value of the helicopters 25 years from now. The small quantity of drones in this account has no value at the end of their lives and no salvage is predicted for those assets. Based on judgment, this study recommends moving to positive 50 percent net salvage for this account.

Account C393.10 Stores Equipment (0% Net Salvage)

This account consists of gross salvage and/or cost of removal associated with stores equipment used for general utility service. The current authorized net salvage for this account is 0 percent. The five- and 10-year moving averages show 0 percent for both periods. Based on the type of assets and Company experience, this study recommends retaining the approved 0 percent net salvage for this account.

Account C394.11 Portable Tools (0% Net Salvage)

This account consists of gross salvage and/or cost of removal associated with portable tools such as mobile computer data, test equipment, and pumps. The current authorized net salvage for this account is 0 percent. The five- and 10-year moving averages show 0 percent for both periods. Based on the type of assets and Company experience, this study recommends retaining the approved 0 percent net salvage for this account.

Account C394.21 Shop Equipment (0% Net Salvage)

This account consists of gross salvage and/or cost of removal associated with shop equipment such as ammeters, purifiers, and steam cleaners. The current authorized net salvage for this account is 0 percent. There was gross salvage received in 2017 that has not occurred in other periods. Based on judgment, this study recommends retaining the approved 0 percent net salvage for this account.

Account C394.31 Garage Equipment (0% Net Salvage)

This account consists of gross salvage and/or cost of removal associated with various garage equipment such as lathes and other tools. The current authorized net salvage for this account is 0 percent. The five- and 10-year moving averages show 0 percent for both periods. Based on the type of assets and Company experience, this study recommends retaining the approved 0 percent net salvage for this account.

Account C395.10 Laboratory Equipment (0% Net Salvage)

This account consists of gross salvage and/or cost of removal associated with laboratory equipment used in general utility service. The current authorized net salvage for this account is 0 percent. The five- and 10-year moving averages show 1 percent for both periods. Based on the type of assets and Company experience, this study recommends retaining the approved 0 percent net salvage for this account.

Account C397.10 Communication Equipment (0% Net Salvage)

This account consists of gross salvage and/or cost of removal associated with miscellaneous communication equipment used in general utility service. Assets in this account include AV equipment, network infrastructure equipment, and telecom equipment. The current authorized net salvage for this account is 0 percent. The five-and 10-year moving averages show 0 percent for both periods. Based on the type of assets and Company experience, this study recommends retaining the approved 0 percent net salvage for this account.

Account C398.10 Miscellaneous Equipment (0% Net Salvage)

This account consists of gross salvage and/or cost of removal associated with miscellaneous equipment used in general utility service. The current authorized net salvage for this account is 10 percent. The five- and 10-year moving averages show 0 percent for both periods. Based on the type of assets and Company experience, this study recommends moving to 0 percent net salvage for this account.

ELECTRIC OPERATIONS

Electric Intangible Plant

Account E303 Intangible Plant (3 or 5 years)

This account consists of miscellaneous computer software. The current net salvage is zero percent. Software has no value at the end of its life. Based on judgment, this study recommends retention of zero net salvage for those assets.

Production Net Salvage

The concept behind the net salvage cost component of depreciation rates for power plants is different from that of Transmission or Distribution assets. Power plants are discrete units that will need to be dismantled after the end of their useful lives. Because of this, there are two types of analysis required, one for the interim activity and a second based on engineering studies conducted to determine the cost to dismantle the individual units or plants at end of life.

SDGE has not historically included interim retirements in the production and other production depreciation rate computation process. The same approach will be applied to interim net salvage costs in this depreciation study. The only removal costs to be included will be the terminal retirement for each generating site. The Company asked the consulting firm Sargent Lundy to update the decommissioning costs for these units to 2021 dollars. These net salvage percentages were used in the calculation of the depreciation expense for each plant.

Life span properties consist of property units that will retire concurrently at a specific time. While mass property accounts include a large number of units, the life span groups generally contain a small group of large units. Although there are interim additions

and retirement that occur over the service life, the plant as a whole is subject to final retirement. SDGE's generating plants–Desert Star, Palomar, Miramar, and Cuyamaca– fit these characteristics. Currently, there is no estimated dismantling cost for solar facilities in the Company's depreciation rates. This study incorporates dismantling costs for those facilities.

Palomar

The table below shows the estimated dismantling costs and development of net salvage parameters for each account.

Acct	Plant \$	Dismantle \$	Net Salvage %
311	61,977,056	1,926,247	-3.11%
312	107,510,111	3,334,916	-3.10%
314	115,597,435	3,052,089	-2.64%
315	37,257,746	484,650	-1.30%
316	59,537,674	165,083	-0.28%
341	14,820,631	636,144	-4.29%
342	14,913,944	346,465	-2.32%
344	132,145,015	1,732,669	-1.31%
345	6,705,845	336,407	-5.02%
346	3,157,516	0	0.00%

Desert Star

The table below shows the estimated dismantling costs and development of net salvage parameters for each account.

Acct	Plant \$	Dismantle \$	Net Salvage %
311	29,453,098	3,671,588	-12.47%
312	57,546,560	2,243,392	-3.90%
314	17,142,114	1,316,775	-7.68%
315	49,704,144	412,082	-0.83%
316	5,348,504	39,201	-0.73%
341	3,005,685	2,455,075	-81.68%
342	877,752	12,092	-1.38%
343	24,517,649		0.00%
344	113,877,122	844,735	-0.74%
345	9,572,164	231,248	-2.42%
346	22,382,347	0	0.00%

<u>Miramar</u>

The table below shows the estimated dismantling costs and development of net salvage parameters for each account.

Acct	Plant \$	Dismantle \$	Net Salvage %
341	5,075,863	327,239	-6.45%
342	5,232,870	213,446	-4.08%
343	53,287,154	0	0.00%
344	19,735,850	799,785	-4.05%
345	13,461,480	433,251	-3.22%
346	12,924,120	0	0.00%

<u>Cuyamaca</u>

The table below shows the estimated dismantling costs and development of net salvage parameters for each account.

Acct	Plant \$	Dismantle \$	Net Salvage %
341	1,897,458	459,273	-24.20%
342	627,012	69,713	-11.12%
343	16,861,455	0	0.00%
344	6,125,932	333,484	-5.44%
345	833,677	265,588	-31.86%
346	5,142,925	0	0.00%

Ramona and rooftop solar

The table below shows the estimated dismantling costs and development of net salvage parameters for each account.

		Roof Top Solar	Ramona	
Acct	Plant \$	Dismantle \$	Dismantle \$	Net Salvage %
341	96,364	0	0	0.00%
344	58,998,688	8,159,713	3,180,366	-19.22%
345	2,444,803	339,988	0	-13.91%

Account E344.2. Generators Other (0 percent)

This account consists of any gross salvage or removal cost associated with instruments for air systems, work equipment, test equipment, pumps, fire protection systems, and other related assets located at any generating facility. The current net salvage percentage is 0 percent. There has been no historical activity, and there is no interim net salvage estimated for this account. Based on judgment, this study recommends 0 percent net salvage for this account.

DISTRIBUTION PLANT

Increasing levels of removal cost are experienced in most accounts in this function. The salvage received for retired assets has decreased over that time while the removal cost of assets has increased dramatically. In Decision 19-09-051, SDG&E was not allowed to update its net salvage parameters. Removal cost has been increasing for a number of years. Please see the earlier portion of this report that discusses the CPUC's concept of gradualism. Detailed analysis and results by account are shown in Appendix E and individual account results are discussed below.

Account E360 Distribution Depreciable Land Rights (0 percent)

This account contains gross salvage and cost of removal associated with right of way for distribution plant. The currently approved net salvage estimate for this account is zero percent. Retirement activity has been very limited in this account. Since land rights intrinsically have no removal costs (removal costs are attributed to the property on the land) and have no salvage value, this Study proposes that a zero percent net salvage estimate be retained for this account.

Account E361 Distribution Substation Structures and Improvements (Negative 150 percent)

This grouping contains gross salvage and cost of removal associated with facilities, such as building station control, fencing, yard improvements, and other structures for distribution plant. The current approved net salvage estimate for this account is negative 125 percent. Transactional history shows a negative net salvage in nearly every year

analyzed. In the most recent period, a moving average of negative 520 and negative 431 percent exists for the five-year and 10-year bands, respectively. After examining SDGE history and the continued strong trend in increasingly negative net salvage, moving toward the more negative indications with the net salvage estimate is recommended for this account. This study recommends a 25 percent change, consistent with the CPUC's gradualism precedent, moving the proposed net salvage estimate to negative 150 percent.

Account E362 Distribution Substation Equipment (Negative 150 percent)

This grouping contains gross salvage and cost of removal associated with switchboards, station wiring, transformers, and a wide variety of other equipment, from circuit breakers to switchgear, for distribution plant. The current approved net salvage estimate for this account is negative 125 percent.

In the most recent period, a moving average of negative 196 and negative 186 percent exists for the five-year and 10-year bands. After examining SDGE history and the continued strong trend in increasingly negative net salvage indications, moving toward the more negative indications with the net salvage estimate is recommended for this account. This study recommends a 25 percent change, consistent with the CPUC's gradualism precedent, moving the proposed net salvage estimate to negative 150 percent.

Account E363 Energy Storage Equipment (Negative 3.60 percent net salvage)

This account includes any gross salvage or cost of removal associated with energy storage equipment. The current approved net salvage estimate for this account is 0 percent. The Company had a consultant, Renewance, perform a decommissioning study on the batteries that are and will be booked in this account. There will be disposal costs associated with batteries and it is necessary to request a small amount of removal cost associated with them. Based on information from the Decommissioning Studies, negative 3.60 percent net salvage is recommended for this account.

Account E364 Distribution Poles, Towers, and Fixtures (Negative 95 percent)

This account includes any gross salvage and cost of removal associated with poles, towers, and fixtures for distribution plant. The current approved net salvage estimate for this account is negative 100 percent. In the most recent period, a moving average of negative 86 percent and negative 94 percent exists for the five-year and 10-year bands, respectively. Given the slight decrease in experienced net salvage, the study recommends an incremental movement to a negative 95 percent net salvage estimate.

Account E365 Distribution Overhead Conductor and Devices (Negative 95 percent)

This account consists of gross salvage and cost of removal associated with of overhead (OH) conductor of various thickness, as well as various switches and reclosers. The current approved net salvage estimate for this account is negative 70 percent. In the most recent period, a moving average of negative 161 and negative 131 percent exists for the five-year and 10-year bands, respectively. As with the substation accounts, following the CPUC precedent on gradualism, this study recommends moving toward those indications with a negative 95 percent net salvage estimate.

Account E366 Distribution Underground Conduit (Negative 75 percent)

This account consists of gross salvage and cost of removal associated with underground conduit, duct banks, vaults, and ventilating system equipment. The current approved net salvage estimate for this account is negative 50 percent. In the most recent period, a moving average of negative 148 and negative 122 percent exists for the five-year and 10-year bands, respectively. To incrementally model net salvage in the future and give recognition to the higher negative net salvage indications, as with the previous accounts, this Study, consistent with the Commission's gradualism precedent, recommends a negative 75 percent net salvage estimate for this account.

Account E367 Distribution Underground Conductor and Devices (Negative 90 percent)

This account consists of gross salvage and cost of removal associated with underground conductor, switches, and switchgear for distribution plant. The currently approved net salvage estimate for this account is negative 65 percent. In the most recent period, a moving average of negative 126 percent and negative 120 percent exists for the five-year and 10-year bands, respectively. Based on current trends to higher negative net salvage while following with the CPUC's gradualism precedent, this study recommends negative 90 percent net salvage estimate for this account at this time.

Account E368 Distribution Line Transformers (Negative 95 percent)

This account consists gross salvage and cost of removal associated with line transformers, regulators, and capacitors. The currently approved net salvage estimate for this account is negative 70 percent. In the most recent period, a moving average of negative 180 and negative 167 percent exists for the five-year and 10-year bands, respectively. Based on current trends to higher negative net salvage while following with the CPUC's gradualism precedent, this study recommends negative 95 percent net salvage estimate for this account at this time.

Account E368.2 Capacitor Banks (Negative 60 percent)

This account includes gross salvage and cost of removal associated with capacitor banks installed around line transformers. The currently approved net salvage estimate for this account is negative 70 percent. In the most recent period, a moving average of negative 35 percent and negative 79 percent exists for the five-year and 10-year bands, respectively. An uncharacteristically large retirement in 2020 makes the most recent transaction year appear that net salvage has changed dramatically which may not be correct. If one examines the period ending in 2019, a moving average of negative 71 percent and negative 110 percent exists for the five-year and 10-year bands, respectively. To model net salvage toward the indications while being consistent with the Commission's gradualism precedent, a negative 60 percent estimate is recommended for this account.

Account E369.1 Overhead Services (Negative 135 percent)

This account includes gross salvage and cost of removal associated with overhead electric services. The currently approved net salvage estimate for this account is negative 110 percent. In the most recent period, a moving average of negative 496 percent and

negative 353 percent exists for the five-year and 10-year bands, respectively. To model net salvage toward the indications while being consistent with the Commission's gradualism precedent, a negative 135 percent estimate is recommended for this account.

Account E369.2 Underground Services (Negative 100 percent)

This account includes gross salvage and cost of removal associated with underground electric services. The currently approved net salvage estimate for this account is negative 75 percent. In the most recent period, a moving average of negative 403 percent and negative 282 percent exists for the five-year and 10-year bands, respectively. To model net salvage toward the indications while being consistent with the Commission's gradualism precedent, a negative 100 percent estimate is recommended for this account.

Account E370.10 Meters (0 percent)

This account includes gross salvage and cost of removal associated with all distribution meters, excluding AMR Meters. The currently approved net salvage estimate for this account is 0 percent. In the most recent period, there is a moving average of 0 percent for the five-year and 10-year bands. To model net salvage experience, a 0 percent estimate is recommended for this account.

Account E370.11 Meters Electronic (0 percent)

This account includes gross salvage and cost of removal associated with AMR equipment. The currently approved net salvage estimate for this account is 0 percent. In the most recent period, a moving average of 0 percent exists for the five-year and 9-year bands. To model net salvage experience, a 0 percent estimate is recommended for this account.

Account E370.20 Meter Installations (0 percent)

This account includes gross salvage and cost of removal associated with meter installations for meters booked in Account E370.10, non-AMR equipment. The currently approved net salvage estimate for this account is 0 percent. In the most recent period, a

moving average of 0 percent exists for the five-year and 10-year bands. To model net salvage experience, a 0 percent estimate is recommended for this account.

Account E370.21 Meter Installations Electronic Meters (0 percent)

This account includes gross salvage and cost of removal associated with meter installations for Smart meters/AMRs. The currently approved net salvage estimate for this account is 0 percent. In the most recent period, a moving average of 0 percent for the five-year and 9-year bands, respectively. To model net salvage experience, a 0 percent estimate is recommended for this account.

Account E371.0 Installation on Customer Premises (Negative 115 percent)

This account includes gross salvage and cost of removal associated with luminaire, pedestals, and poles. The currently approved net salvage estimate for this account is negative 90 percent. In the most recent period, a moving average of negative 671 percent and negative 341 percent exists for the five-year and 10-year bands, respectively. To model net salvage toward the indications while following with the CPUC's gradualism precedent, a negative 115 percent estimate is recommended for this account.

Account E371.10 EV Charging Units (Negative 18.97 percent)

This account includes gross salvage and cost of removal associated with the service panel, charge stub, and the wiring between the two for electric vehicles charging on customers' premises. The currently approved net salvage estimate for this account is 0 percent. So far, no removal cost has been experienced for this account.

The Company had Sargent Lundy perform a decommissioning study on EV charging units. The estimate assumes that there will be small amounts of removal cost in the future. Based on information from the decommissioning study and judgment, a negative 18.97 percent estimate is recommended for this account.

Account E373.2 Street Lighting & Signal Systems (Negative 110 percent)

This account includes gross salvage and cost of removal associated with distribution streetlights, conductor, conduit, luminaire, and standards. The currently

approved net salvage estimate for this account is negative 85 percent. In the most recent period, a moving average of negative 317 percent and negative 243 percent exists for the five-year and 10-year bands, respectively. To be consistent with the Commission's gradualism precedent, this study recommends moving toward the indications with a negative 110 percent net salvage estimate for this account.

ELECTRIC GENERAL PLANT

Electric General Accounts

Account E390 All Structures & Improvements (Negative 10 percent)

This account includes gross salvage and cost of removal the cost of buildings, yard improvements, and partitions used for utility service. The currently approved net salvage estimate for this account is negative 10 percent. There has been limited retirement activity in recent years. Based on experience with Common Account C390 Structures and Improvements (with more transactional experience), this study recommends retaining the negative 10 percent net salvage estimate for this account.

Account E392.2 Trailers (0 percent)

This account consists of gross salvage and cost of removal associated with trailers and other transportation equipment used for general utility service. The currently approved net salvage estimate for this account is 0 percent. There has been no retirement or net salvage activity for this account. Based on judgment, this study recommends retention of a 0 percent net salvage estimate for this account.

Account E393.10 Stores Equipment (0 percent)

This account consists of gross salvage and cost of removal associated with stores equipment used for general utility service. The currently approved net salvage estimate for this account is 0 percent. In the most recent period, a moving average of negative 0 percent for the five-year and 10-year. This study recommends retention of the existing 0 percent net salvage estimate for this account.

Account E394.11 Portable Tools (0 percent)

This account consists of gross salvage and cost of removal associated with portable tools such as mobile computer data, test equipment, and pumps. The currently approved net salvage estimate for this account is 0 percent. In the most recent period, a moving average of 0 exists for the five-year and 10-year bands. This study recommends retaining the currently approved 0 percent net salvage estimate for this account.

Account E394.20 Shop Equipment (0 percent)

This account consists of gross salvage and cost of removal associated with shop equipment such as ammeters, purifiers, and steam cleaners. The currently approved net salvage estimate for this account is 0 percent. In the most recent period, there is a moving average of 0 percent for the five-year and 10-year bands. This study recommends retaining the currently approved 0 percent net salvage estimate for this account.

Account E395.1 Laboratory Equipment (0 percent)

This account consists of gross salvage and cost of removal associated with laboratory equipment used in general utility service. The currently approved net salvage estimate for this account is 0 percent. Normally these assets have no residual value. This study recommends retaining the existing 0 percent net salvage estimate for this account.

Account E397.1 Communication Equipment (Negative 35 percent)

This account consists of gross salvage and cost of removal associated with miscellaneous communication equipment used in general utility service. The currently approved net salvage estimate for this account is negative 50 percent. In the most recent period, a moving average of negative 28 percent and negative 51 percent exists for the five-year and 10-year bands, respectively. This study recommends moving toward those indications with a negative 35 percent net salvage estimate for this account.

Account E397.2 Communication Equipment SWPL (Negative 35 percent)

This account consists of gross salvage and cost of removal associated with miscellaneous communication equipment used in Southwest Power Link (SWPL). The

currently approved net salvage estimate for this account is negative 50 percent. There has been no retirement activity to date in this account. Based on the indications from Account E397.1, this study recommends conservatively moving toward the indications with a negative 35 percent net salvage estimate for this account.

Account E397.6 Communication Equipment SRPL (Negative 25 percent)

This account consists of gross salvage and cost of removal associated with miscellaneous communication equipment used in Sunrise Power Link (SRPL). The currently approved net salvage estimate for this account is 0 percent. There has been no retirement activity to date in this account. Based on the indications from Account E397.1, this study recommends matching those indications with a negative 25 percent net salvage estimate for this account.

Account E397.7 Telecom (Negative 35 percent)

This account consists of gross salvage and cost of removal associated with miscellaneous communication equipment used in general utility service. The currently approved net salvage estimate for this account is negative 50 percent. There have been no retirements in this account. Based on judgment, this study recommends moving to a negative 35 percent net salvage estimate for this account.

Account E398.0 Miscellaneous Equipment (0 percent)

This account consists of gross salvage and cost of removal associated with miscellaneous equipment used in general utility service. The currently approved net salvage estimate for this account is 0 percent. In the most recent period, a moving average of 0 percent exists for the five-year and 10-year bands. This study recommends retaining the currently approved 0 percent net salvage estimate for this account.

NATURAL GAS OPERATIONS

Gas Storage and Processing

Account G363.60 LNG Distribution Storage Equipment (-5% Net Salvage)

This account includes any salvage and removal cost equipment used for LNG storage such as alarm systems, structures, and tanks. The current authorized net

salvage for this account is 0 percent. Generally, little or no removal cost is incurred, and no salvage is received at the retirement of land rights. Therefore, this study recommends negative 5 percent net salvage for this account.

GAS TRANSMISSION PLANT

Account G365.2 Rights of Way (0% Net Salvage)

This account includes any salvage and removal cost related to land rights used in connection with transmission operations. The authorized net salvage rate for this account is 0 percent. Generally, little or no removal cost is incurred, and no salvage is received at the retirement of land rights. Therefore, this study recommends retaining the approved 0 percent net salvage for this account.

Account G366 Structures and Improvements (Negative 5% Net Salvage)

This account includes any salvage and removal cost related to structures and improvements used in connection with transmission operations. The authorized net salvage rate for this account is 0 percent. There have been no retirements since 2016 but removal cost has continued from 2016-2020. Based on judgment, this study recommends a slight change by moving to negative 5 percent net salvage for this account.

Account G367 Mains (Negative 25% Net Salvage)

This account includes any salvage and removal cost related to mains used in connection with transmission operations. The authorized net salvage rate for this account is negative 25 percent. The five- and 10-year moving averages show negative 160 and negative 373 percent respectively. Retirements appear to be backlogged since removal cost is higher is years 2017-2020. Until the retirement activity catches up with removal cost, this study recommends retention of the existing negative 25 percent net salvage for this account.

Account G367.6 Hydro Test Costs (0% Net Salvage)

This is a new account that will be used as the Company complies with new regulations. PHMSA has issued new regulations effective July 1, 2020 (the Mega Rule) that will impact pipeline of vintage 1970 and older. Costs incurred to comply with the Mega Rule will be treated as a capital item. These costs will have no residual value, so

0 percent net salvage rate is recommended for this account.

Account G368 Compressor Station Equipment (Negative 14% Net Salvage)

This account includes any salvage and removal cost related to compressor station equipment used in connection with transmission operations. The authorized net salvage rate for this account is negative 10 percent. The 10-year moving average shows negative 121 percent. Since retirements since 2016 have been much smaller than removal cost from 2016-2020, we recommend only a slight movement in net salvage. In examining the net salvage indications in 2015 when the last large retirement occurred. the 5- and 10- year moving averages both show negative 14 percent. Based on judgment and Company history, this study recommends moving to negative 14 percent net salvage for this account.

Account G369 Measuring & Regulating Equipment (Negative 5% Net Salvage)

This account includes any salvage and removal cost related to measuring and regulating station equipment used in connection with transmission operations. The authorized net salvage rate for this account is negative 5 percent. There has been no retirement since 2015, but removal cost has been experienced. Since the retirements are lagging the removal cost, this study recommends retention of the existing negative 5 net salvage parameter for this account.

Account G371 Other Equipment (0% Net Salvage)

This account includes any salvage and removal cost related to other equipment used in connection with transmission operations. The authorized net salvage rate for this account is 0 percent. There has not been any retirement or net salvage received in this account. Based on judgment, this study recommends retention of 0 percent net salvage for this account.

GAS DISTRIBUTION PLANT

Account G374.2 Rights of Way (0% Net Salvage)

This account includes any salvage and removal cost related to land rights used in connection with distribution operations. Generally, little or no removal cost is incurred, and no salvage is received at the retirement of land rights. The historical data also supports a 0 percent net salvage for this account. Therefore, this study recommends retaining the approved 0 percent net salvage.

Account G375.0 Structures and Improvements (Negative 5% Net Salvage)

This account consists of any salvage and removal cost related to small structures and associated assets on the distribution system. The Commission has authorized a 0 percent net salvage rate for this account. There have been no retirements over the period from 2002-2020, with a small amount of removal cost. There is expected to be a small amount of removal cost when those assets are retired. Based on judgment, this study recommends moving to negative 5 percent net salvage.

Account G376 Mains (Negative 80% Net Salvage)

This account consists of any salvage and removal cost related to distribution mains. The Commission has authorized a negative 55 percent net salvage rate for this account. The three-year, five year, and 10 year moving averages show negative 345, negative 324, and negative 242 percent, respectively. To move in the direction of this trend, a higher (more negative) net salvage is recommended. Based on judgment and Company experience, this study recommends moving to negative 80 percent net salvage, consistent with the CPUC's gradualism precedent.

Account G378.0 Measuring & Regulating Station Equipment (Negative 25% Net Salvage)

This account includes any salvage and removal cost related to installed equipment used in regulating gas at entry points to the distribution system. The current authorized net salvage is negative 25 percent. The 10 year moving averages shows negative 116, which may not represent the future. Since 2012, there have been no retirements in this account with small amounts of removal cost in 2016-2020. Based on judgment, this study

recommends retention of negative 25 percent net salvage for this account.

Account G380 Services (Negative 95% Net Salvage)

This account includes any salvage and removal cost related to services used in distribution operations. The current authorized net salvage is negative 70 percent. The three-year, five year, and 10 year moving averages shows negative 324, negative 293, and negative 260 percent respectively. Based on judgment and Company experience, this study recommends moving to negative 95 percent net salvage for this account, consistent with the CPUC's gradualism precedent.

Account G381 Meters and Regulators (0% Net Salvage)

This account includes gross salvage and cost of removal associated with includes the cost of meters and regulators used in measuring gas to residential customers. The current authorized net salvage is 0 percent. The three-year, five year, and 10 year moving averages shows 0 or all periods. Based on judgment and Company experience, this study recommends retention of 0 percent net salvage for this account.

Account G381.01 Meters/Regulators- Modules (0% Net Salvage)

This account includes gross salvage and cost of removal associated with the cost of modules used on gas smart meters. The current authorized net salvage is 0 percent. The three-year and five-year moving averages shows 0 percent for both periods. Based on judgment and Company experience, this study recommends retention of 0 percent net salvage for this account.

Account G382.00 Meter and Regulator Installations (Negative 5% Net Salvage)

This account includes gross salvage and cost of removal associated with the cost of domestic meter installations (excluding meters) and regulator installations. The current authorized net salvage is negative 30 percent. The three-year, five year, and 10 year moving averages shows negative 1, negative 2, and negative 9 percent respectively. Based on judgment and Company experience, this study recommends reducing the negative net salvage to a negative 5 percent net salvage for this account.

Account G382.01 Meter Installations Modules (0% Net Salvage)

This account includes gross salvage and cost of removal associated with the cost of module installations for smart meters. The current authorized net salvage is 0 percent. Since these assets have not been in service long, there is little historical data to project from. Based on judgment and Company experience, this study recommends retaining 0 percent net salvage for this account.

Account G385 Measuring and Regulating Equipment (0 % Net Salvage)

This account includes gross salvage and cost of removal associated with measuring and regulating station equipment such as regulators, electrical equipment, and other devices. The current authorized net salvage is 0 percent. Over the available history there has been no net salvage experience. Based on judgment and Company experience, this study recommends retention of 0 percent net salvage for this account.

Account G387.11 Other Equipment (0% Net Salvage)

This account includes gross salvage and cost of removal associated with the cost of other miscellaneous equipment such as measurement systems, recording gauges, rectifiers, and other equipment. The current authorized net salvage is 0 percent. The 10year moving average shows 0 percent. Based on judgment and Company experience, this study recommends retaining 0 percent net salvage for this account.

Account G387.12 CNG Equipment (Negative 10 % Net Salvage)

This account includes gross salvage and cost of removal associated with cost of natural gas vehicle charging station and related equipment. The current authorized net salvage is 0 percent. There has been no retirement or net salvage received over the available history. It is estimated there will be a small amount of removal cost associated with these facilities as they are used. Based on judgment, this study recommends moving to negative 10 percent net salvage for this account.

GAS GENERAL PLANT

Account G394.1 Portable Tools (0% Net Salvage)

This account consists of any salvage and/or removal cost related to small tools used in shop and garages such as air compressors, grinders, and mixers. The current authorized net salvage rate for this account is 0 percent. The three-year, five-year, and 10-year moving averages are 0 for all periods. Based on recent experience and judgment, this study recommends retention of 0 percent net salvage for this account.

Account G394.2 Shop Equipment (0% Net Salvage)

This account consists of any salvage and/or removal cost related to various large items or tools used in shop and garages such as hoists and cranes. The current authorized net salvage rate for this account is 0 percent. The three-year, five-year, and 10-year moving averages are 0 percent for all periods. Based on recent experience and judgment, this study recommends retention of 0 percent net salvage for this account.

Account G397.0 Communication Equipment (0% Net Salvage)

This account consists of any salvage and/or removal cost related to miscellaneous assets such as fiber optics, SCADA equipment, and various upgrades used in general utility service. The current authorized net salvage rate for this account is 0 percent. The three-year, five-year, and 10-year moving averages are 0 percent for each period. Based on recent experience and judgment, this study recommends retention of 0 percent net salvage for this account.

Account G398.0 Miscellaneous Equipment (0% Net Salvage)

This account includes any salvage and/or removal cost related to miscellaneous equipment. The current authorized net salvage rate for this account is 0 percent. No gross salvage or cost of removal has been received in this account over the available history. Based on historic activity and judgment, this study recommends retention of 0 percent net salvage for this account.

APPENDIX A

Depreciation Rate Calculations

SAN DIEGO GAS AND ELECTRIC	ION OF PROPOSED DEPRECIATION ACCRUAL RATES	AT DECEMBER 31, 2021	
SAN	COMPUTATION OF PR	A	

Description	Plant Balance	Depreciation Reserve	Net Salvage %	Future Net Salvage	Unrecovered Balance	Remaining Life	Annual Accrual \$	Annual Accrual %
Production								
E311.00-Struct and Improv -Palomar	61,977,056.49	31,417,072.87	-3.11%	(1,926,247)	32,486,231	14.50	2,240,891	3.62%
E312.00-Boiler Plant Equip -Palomar	107,510,110.58	59,640,046.56	-3.10%	(3,334,916)	51,204,980	14.50	3,531,378	3.28%
E314.00-Turbogenerator Unit-Palomar	115,597,434.64	57,010,539.47	-2.64%	(3,052,089)	61,638,984	14.50	4,250,964	3.68%
E315.00-Access Elect Eq -Palomar	37,257,746.09	19,093,861.15	-1.30%	(484,650)	18,648,535	14.50	1,286,106	3.45%
E316.00-Misc Power Plnt Eq-Palomar	59,537,674.38	19,264,599.62	-0.28%	(165,083)	40,438,158	14.50	2,788,838	4.68%
	381,880,022.18	186,426,119.67		(8,962,985.00)	204,416,887.51		14,098,177.84	
Desert Star Energy Center								
E311.00-Struct and Improv -DSEC	29,453,097.98	24,070,008.53	-12.47%	(3,671,588)	9,054,677	4.30	2,105,739	7.15%
E312.00-Boiler Plant Equip-DSEC	57,546,559.56	40,714,662.08	-3.90%	(2,243,392)	19,075,289	4.30	4,436,114	7.71%
E314.00-Turbogenerator Unit-DSEC	17,142,113.88	11,178,108.85	-7.68%	(1,316,775)	7,280,780	4.30	1,693,205	9.88%
E315.00-Access Elect Eq -DSEC	49,704,144.47	35,349,450.92	-0.83%	(412,082)	14,766,776	4.30	3,434,134	6.91%
E316.00-Misc Power Plnt Eq -DSEC	5,348,504.02	3,420,152.19	-0.73%	(39,201)	1,967,553	4.30	457,570	8.56%
	159,194,419.91	114,732,382.57		(7,683,038.00)	52, 145, 075.34		12,126,761.71	
Palomar Energy Center								
E341.00-Struct and Improv -Palomar	14,820,292.24	7,136,284.79	-4.29%	(636,144)	8,320,151	14.50	573,804	3.87%
E342.00-Fuel Holders P & A-Palomar	14,913,880.46	7,144,205.65	-2.32%	(346,465)	8,116,140	14.50	559,734	3.75%
E344.00-Generators-Palomar	132,145,014.80	49,552,590.31	-1.31%	(1,732,669)	84,325,093	14.50	5,815,524	4.40%
E345.00-Access Elect Eq-Palomar	6,705,845.17	3,314,691.38	-5.02%	(336,407)	3,727,561	14.50	257,073	3.83%
E346.00-Misc Power Plnt Eq -Palomar	28,394,701.17	376,989.81	0.00%	0	28,017,711	14.50	1,932,256	6.80%
Palomar Energy Center	196,979,733.84	67,524,761.94		(3,051,685.00)	132,506,656.90		9,138,390.13	
Miramar Energy Facility								
E341.00-Struct and Improv -Miramar	5,075,863.44	2,841,745.82	-6.45%	(327,239)	2,561,357	10.50	243,939	4.81%
E342.00-Fuel Holders P&A -Miramar	5,232,870.11	2,903,152.88	-4.08%	(213,446)	2,543,163	10.50	242,206	4.63%
E343.00-Prime Movers-Miramar	53,287,153.90	30,011,171.65	0.00%	0	23,275,982	10.50	2,216,760	4.16%
E344.00-Generators-Miramar	19,735,850.40	9,936,244.28	-4.05%	(799,785)	10,599,391	10.50	1,009,466	5.11%
E345.00-Access Elect Eq -Miramar	13,461,480.00	7,603,215.34	-3.22%	(433,251)	6,291,516	10.50	599, 192	4.45%
E346.00-Misc Power Plnt Eq -Miramar	12,924,119.80	2,288,927.04	0.00%	0	10,635,193	10.50	1,012,876	7.84%
Miramar Energy Facility	109,717,337.65	55,584,457.01		(1,773,721.00)	55,906,601.64		5,324,438.25	
L G								
Desert Star Energy Center E344 00 Struct and Improv. DSED	3 005 684 07	1 775 533 13	81 68%	10 466 0761	3 685 227	1 30	857 020	78 E106
	877 751 57	642 908 00	-1 38%	(12,002)	246 936	4 30	57 477	6 54%
E343 00-Prime Movers-DSEC	24 517 648 80	18 276 661 72	%00.0	0	6 240 987	4 30	1 451 302	5,02%
E344 00-Generators-DSFC	113 877 122 33	84 627 579 79	-0.74%	(844 735)	30,094,278	4.30	6 998 669	6.15%
E345 00-Access Flect For -DSFC	9 572 164 47	6 930 263 68	-2 42%	(231 248)	2 873 149	4.30	668 174	6.98%
E346.00-Misc Power Plnt Eg -DSEC	22,382,347.21	17,702,041.36	0.00%	0	4,680,306	4.30	1.088.443	4.86%
Desert Star Energy Center	174,232,719.44	129,954,987.68		(3,543,150.00)	47,820,881.76		11,121,135.29	

Cuyamaca Peak Energy Plant

Appendix A Page 1 of 4

SAN DIEGO GAS AND ELECTRIC COMPUTATION OF PROPOSED DEPRECIATION ACCRUAL RATES AT DECEMBER 31, 2021	
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Description	Plant Balance	Depreciation Reserve	Net Salvage %	Future Net Salvage	Unrecovered Balance	Remaining Life	Annual Accrual \$	Annual Accrual %
E341.00-Struct and Improv -CPEP	1,897,458.04	1,238,570.64	-24.20%	(459,273)	1,118,160	5.50	203,302	10.71%
E342.00-Fuel Holders P&A -CPEP	627,011.61	394,831.71	-11.12%	(69,713)	301,893	5.50	54,890	8.75%
E343.00-Prime Movers-CPEP	16,861,454.53	9,353,872.98	0.00%	0	7,507,582	5.50	1,365,015	8.10%
E344.00-Generators-CPEP	6,125,932.43	2,172,179.07	-5.44%	(333,484)	4,287,237	5.50	779,498	12.72%
E345.00-Access Elect Eq -CPEP	833,676.56	562,440.96	-31.86%	(265,588)	536,824	5.50	97,604	11.71%
E346.00-Misc Power Plnt Eq -CPEP	5,142,925.33	1,827,791.50	0.00%	0	3,315,134	5.50	602,752	11.72%
Cuyamaca Peak Energy Plant	31,488,458.50	15,549,686.86		(1,128,058.00)	17,066,829.64		3,103,059.93	
Renewable / Other								
E341.10 - Struct & Imprv - Solar Total	96,363.93	16,839.70	0.00%	0	79,524	20.50	3,879	4.03%
E344.10-Generators - Solar Total	58,998,687.72	17,078,840.70	-19.22%	(11,340,079)	53,259,926	16.97	3,138,702	5.32%
E345.10-Access Elect Eq -Solar Total	2,444,802.74	1,255,109.67	-13.91%	(339,988)	1,529,681	12.27	124,669	5.10%
E344.20 - Generators - Other Total	5,435,071.01	1,767,848.02	0.00%	0	3,667,223	15.10	242,819	4.47%
Total Renewables	61,443,490.46	18,333,950.37		(11,680,067.00)	54,789,607.09		3,263,371.04	
Total Production and Other Production	961,090,266.09	476,794,115.72		(30,178,867.00)	514,475,017.37		46,506,142.92	
:								
Electric Distribution E361.00-Struct. and Improv. Total	13,264,653.89	2,691,428.26	-150.00%	(19,896,981)	30,470,206	54.13	562,943	4.24%
E362.10-Station Equip -Other Total	661 385 746 51	283.073.035.53	-150.00%	(992.078.620)	1.370.391.331	42.77	32.041.025	4.84%
E363.00-Batteries - Storage Total	182.749.594.02	69.737.860.09	-3.60%	(6.581.305)	119.593.039	11.92	10.029.278	5.49%
E364.00-Poles. Towers & Fxtr Total	1.033.663.057.50	309,969,458.32	-95.00%	(981,979,905)	1,705,673,504	39.97	42,669,770	4.13%
E365.00-Overhead Cond & Dev Total	1,159,382,561.81	262,860,745.98	-95.00%	(1,101,413,434)	1,997,935,250	48.91	40,846,799	3.52%
E366.00-Underground Conduit Total	1,697,241,554.09	614,581,589.24	-75.00%	(1,272,931,166)	2,355,591,130	46.95	50,168,418	2.96%
E367.00-Undergrnd Cond & Dev Total	1,994,588,616.86	1,064,987,854.43	-90.00%	(1,795,129,755)	2,724,730,518	39.50	68,977,182	3.46%
E368.10-Line Transformers Total	760,142,968.73	275,133,948.93	-95.00%	(722,135,820)	1,207,144,840	26.86	44,947,746	5.91%
E368.20-Capacitors Total	35,468,093.92	17,379,989.03	-60.00%	(21,280,856)	39,368,961	8.06	4,881,969	13.76%
E369.10-Services Overhead Total	296,266,703.98	102,990,922.01	-135.00%	(399,960,050)	593,235,832	48.53	12,224,952	4.13%
E369.20-Services Underground Total	409,836,266.07	282,855,156.73	-100.00%	(409,836,266)	536,817,375	37.56	14,291,040	3.49%
E370.10-Meters Total	7,809,702.56	711,675.93	0.00%	0	7,098,027	15.70	452,001	5.79%
E370.11-Meters - Electronic Total	205,722,608.10	140,885,949.57	0.00%	0	64,836,659	4.70	13,781,156	6.70%
E370.20-Meter Installations Total	10,003,134.58	364,823.38	0.00%	0	9,638,311	16.14	597,002	5.97%
E370.21-Meter Instilns-Elctr Total	63,456,279.34	38,438,249.02	0.00%	0	25,018,030	5.87	4,260,162	6.71%
E371.00-Installns -Cust Prem Total	10,539,847.32	11,193,094.85	-115.00%	(12,120,824)	11,467,577	22.57	508,044	4.82%
E371.10 EV Charging Units Total	64,412,624.12	19,674,070.03	-6.00%	(3,864,757)	48,603,312	6.31	7,705,543	11.96%
E373.20-St. Lghtg & Sgnl Sys Total	35,792,500.40	23,884,552.73	-110.00%	(39,371,750)	51,279,698	26.28	1,951,374	5.45%
Total Distribution	8,641,726,513.80	3,521,414,404.06		(7,778,581,490)	12,898,893,600		350,896,403	4.06%

Electric General

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	Plant	Depreciation	Net Salvage	Future Net	Unrecovered	Remaining	Annual	Annual
Description	Balance	Reserve	%	Salvage	Balance	Life	Accrual \$	Accrual %
E390.00-Struct. and Improv.	45,469,034.54	29,716,929.22	-10.00%	(4,546,903)	20,299,009	33.90	598,798	1.32%
E392.20-Transprtn Eq-Trailer	58,145.67	26,359.51	0.00%	0	31,786	12.30	2,584	4.44%
E393.10-Stores EquipOther	46,031.37	6,392.25	0.00%	0	39,639	21.50	1,844	4.01%
E394.11-Portable Tools-Other	40,618,835.97	12,911,167.64	0.00%	0	27,707,668	3.27	8,478,824	20.87%
E394.20-Shop Equipment	278,147.42	234,159.24	0.00%	0	43,988	3.32	13,269	4.77%
E395.10-Laboratory EqOther	5,336,019.09	1,692,658.06	0.00%	0	3,643,361	7.79	467,527	8.76%
E397.10-Commun. EquipOther	389.907.485.04	162.776.503.90	-35.00%	(136,467,620)	363,598,601	10.71	33,962,427	8.71%
E397.20-Commun. EquipSWPL	8.223.999.24	5,691,497.20	-35.00%	(2.878,400)	5,410,902	8.05	672,209	8.17%
E397 60-Commun Equip -SRPI	14 167 520 72	4 739 119 66	-25 00%	(3.541.880)	12 970 281	10.55	1 228 861	8 67%
E307 70-Commun Dev - Telecom	A 105 750 AA	131 400 31	35 00%	(1 444 013)	E 138 266	18.78	280.620	7 0.2%
	4, 123,732.44	101,499.01	% 00.0C-	(010,444,010)	0,420,200 4 0FF 040	0.74	203,020	0/20.1
E398.10-Misc. Equip Other	3,299,080.85	1,443,862.30	0.00%	0	1,855,219	8./4	212,361	6.44%
Total General	511,530,052.35	219,370,148.29		(148,878,816.49)	441,038,720.55		45,928,323.89	
Common General	EEJ E02 E01 03	105 013 888 18		156 260 2601	020 020 172	10 20	677 610 FF	1 000/
	202,000,000	193,013,000.10	- 10.00 -	(20,200,303)	423,930,172	10.10	11,612,11	1.33 /0
C391.10-Offc Furn & Eq-Other	40,037,638.27	14,284,666.65	0.00%	0	25,752,972	10.30	2,499,138	6.24%
C391.20-Offc Furn & Eq-Cmptr	123,080,020.74	60,647,400.51	0.00%	0	62,432,620	1.72	36,236,434	29.44%
C392.10 - Trans Eq - Autos	406,252.33	283,070.59	0.00%	0	123,182	4.33	28,432	7.00%
C392.20-Transprtn Eq-Trailer	107,977.72	19,012.88	0.00%	0	88,965	14.50	6,136	5.68%
C392.30-Transprtn Eg-Aviation	12.139.287.63	4.638.891.48	50.00%	6.069.644	1.430.752	21.53	66.441	0.55%
C393.10-Stores Equip-Other	332,982,68	72,500.17	0.00%	0	260,483	20.29	12,835	3.85%
C304 11-Portable Tools-Other	1 520 840 18	676 248 01	0.00%		844 592	111	759 344	40 93%
	110 750 30	00 01 7 10	0.000		40.040	1 7 5	75 060	17 550/
	142,109.00	90,017.49	0.00%	0	40,042	C/.1	70,001	%CC./I
C394.31-Garage Equip -Other	1,837,003.62	674,883.38	0.00%	0	1,162,120	8.91	130,481	/.10%
C395.10-Laboratory Eq -Other	1,731,094.98	1,017,410.68	0.00%	0	713,684	1.25	571,832	33.03%
C397.10-Commun Equip -Other	353,877,194.16	130,419,383.83	0.00%	0	223,457,810	8.16	27,375,721	7.74%
C398.10-Misc Equip - Other	3,585,062.47	833,853.20	0.00%	0	2,751,209	8.71	315,906	8.81%
Total Common	1,101,481,805.13	408,680,027.05		(50,198,725.29)	743,000,503.37		79,241,533.17	
Gas Storage								
G363.60-LNG Distrib Storg Eq	2,168,803.11	1,495,409.71	-5.00%	(108,440)	781,834	7.31	107,001	4.93%
Gas Transmission								
G366.00-Struct and Land Imp.	23,219,943.30	12,154,359.54	-5.00%	(1,160,997)	12,226,581	33.22	368,096	1.59%
G367.00-Mains	462,339,034.93	103,080,064.01	-25.00%	(115,584,759)	474,843,730	59.71	7,952,371	1.72%
G368.00-Compressor Statn Eq	105,008,385.34	77,017,882.31	-14.00%	(14,701,174)	42,691,677	22.21	1,922,078	1.83%
G369.00-Meas & Red Statn Ed	29,131,175,17	19,267,038.25	-5.00%	(1,456,559)	11,320,696	37.70	300,308	1.03%
G371.00-Other Equipment	2,842,373.52	389,713.45	0.00%	Ò	2,452,660	23.30	105,261	3.70%
Total Transmission	624 709 715 37	213,404,467,27		(133.011.928.76)	544.317.176.86		10.755.116.06	
		~					~	
Gas Distribution	43 446 01	61 253 10	-5 00%	(021-0)	(15 634)	UC &	C	
	1 506 884 604 54	465 598 608 68	-200% -80 00%	(2, 1, 2) (1, 205, 507, 756)	2 246 793 841	0.00 76.51	39 761 672	2.64%
G378.00-Meas & Red Stath Ed	21,185,573,43	10.232.230.83	-25.00%	(5.296.393)	16.249.736	33.63	483,187	2.28%
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SAN DIEGO GAS AND ELECTRIC COMPUTATION OF PROPOSED DEPRECIATION ACCRUAL RATES AT DECEMBER 31, 2021

	Plant	Depreciation	Net Salvage	Future Net	Unrecovered	Remaining	Annual	Annual
Description	Balance	Reserve	%	Salvage	Balance	Life	Accrual \$	Accrual %
G380.00-Services	522,356,359.42	311,142,164.54	-95.00%	(496,238,541)	707,452,736	50.98	13,875,925	2.66%
G381.00-Meters & Regulators	90,354,391.91	32,380,748.87	0.00%	0	57,973,643	22.63	2,561,870	2.84%
G381.01-Meters-Regs-Modules	97,930,454.20	52,824,909.83	0.00%	0	45,105,544	6.72	6,707,871	6.85%
G382.00-Meter & Reg InstIlns	99,535,205.31	31,667,685.03	-5.00%	(4,976,760)	72,844,281	26.75	2,723,553	2.74%
G382.01-Mtr-Reg-Mod Install	26,127,500.46	19,444,866.36	0.00%	0	6,682,634	3.13	2,131,839	8.16%
G385.00-Ind Meas & Reg St Eq	1,516,810.70	1,349,359.91	0.00%	0	167,451	6.20	27,022	1.78%
G387.11-Other Equipment	993,722.26	876,782.24	0.00%	0	116,940	9.37	12,477	1.26%
G387.12-Other EQ -CNG Deprec	9,745,099.31	5,508,814.73	-5.00%	(487,255)	4,723,540	13.68	345,167	3.54%
Total Distribution	2,376,673,258.45	931,087,424.12		(1,712,508,878.02)	3,158,094,712.35		68,630,582.67	
Gae Gonoral								
G394.10-Portable Tools	24.533.281.96	5.295.729.10	0.00%	0	19.237.553	5.89	3.266.120	13.31%
G394.20-Shop Equipment	63,820.21	33,111.88	0.00%	0	30,708	1.88	16,333	25.59%
G397.00-Communication Equip.	2,256,363.98	1,126,597.41	0.00%	0	1,129,767	7.17	157,608	6.99%
G398.00-Misc. Equipment	465,787.29	192,692.54	0.00%	0	273,095	9.85	27,721	5.95%

APPENDIX B

Depreciation Expense Comparison

SAN DIEGO GAS AND ELECTRIC COMPARISION OF EXISTING AND PROPOSED DEPRECIATION RATES AT DECEMBER 31, 2021

			Existing Accrual Rate	Existing Accrual	Proposed Accrual Rate	Proposed Accrual	Difference	
Group No	Account	Plant	%	\$	%	\$	\$	ı
COMMON PLANT								
692-313	C390.10-Struct & Imprv-Other	562,683,691	3.56%	20,047,555	3.56%	20,047,555	0	
723-314	C391.10-Offic Furn & Eq-Other	40,037,638	5.70%	2,281,043	5.70%	2,281,043	0	
645-315	C391.20-Offc Furn & Eq-Cmptr	123,080,021	21.31%	26,232,193	21.31%	26,232,193	0	
589-316	C392.10 - Trans Eq - Autos	406,252	7.00%	28,432	7.00%	28,432	0	
724-286	C392.20-Transprtn Eq-Trailer	107,978	4.93%	5,324	4.93%	5,324	0	
	C392.30-Transprtn Eq-Aviation	12,139,288	9.46%	1,147,885	9.46%	1,147,885	0	
725-317	C393.10-Stores Equip-Other	332,983	4.85%	16,145	4.85%	16,145	0	
617-318	C394.11-Portable Tools-Other	1,520,840	4.09%	62,219	4.09%	62,219	0	
618-319	C394.21-Shop Equip - Other	142,759	1.69%	2,417	1.69%	2,417	0	
619-320	C394.31-Garage Equip -Other	1,837,004	6.22%	114,347	6.22%	114,347	0	
726-282	C395.10-Laboratory Eq -Other	1,731,095	4.37%	75,579	4.37%	75,579	0	
693-322	C397.10-Commun Equip -Other	353,877,194	7.72%	27,333,620	7.72%	27,333,620	0	
590-323	C398.10-Misc Equip - Other	3,585,062	6.40%	229,602	6.40%	229,602	0	
	Total Common	1,101,481,805	7.04%	77,576,360	7.04%	77,576,360	0	
ELECTRIC PLANT								
Production								
r aiurrar Litergy Cerrici 603_330	E311 00-Struct and Improv -Dalomar	61 977 N56	3 56%	2 205 894	3 56%	2 205 894	C	
607 222		107 510 114	2000 C	2 171 017	2/00/0	2 474 047		
09/-333 200 00 2	E312.00-Boller Plant Equip -Palomar	111,010,701	3.23%	3,471,917	3.23%	3,471,917		
728-334	E314.00-Turbogenerator Unit-Palomar	115,597,435	3.59%	4,152,884	3.59%	4,152,884	0	
729-335	E315.00-Access Elect Eq -Palomar	37,257,746	3.38%	1,260,904	3.38%	1,260,904	0	
764-336	E316.00-Misc Power Plnt Eq-Palomar	59,537,674	4.68%	2,787,719	4.68%	2,787,719	0	1
	Total Palomar Energy Center	381,880,022		13,879,317		13,879,317	0	
								1
Desert Star Energy Center								
730-337	E311.00-Struct and Improv -DSEC	29,453,098	6.71%	1,976,564	6.71%	1,976,564	0	
591-338	E312.00-Boiler Plant Equip-DSEC	57,546,560	7.80%	4,485,845	7.80%	4,485,845	0	
731-339	E314.00-Turbogenerator Unit-DSEC	17,142,114	10.53%	1,805,166	10.53%	1,805,166	0	
765-340	E315.00-Access Elect Eq -DSEC	49,704,144	6.73%	3,347,548	6.73%	3,347,548	0	
592-341	E316.00-Misc Power Plnt Eq -DSEC	5,348,504	8.55%	457,161	8.55%	457,161	0	1
	Total Desert Star	159,194,420		12,072,285		12,072,285	0	

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			Existing Accrual Rate	Existing	Proposed Accrual Rate	Proposed	Difference	
Group No	Account	Plant	%	\$	%	\$	\$	
	Total Production	541,074,442		25,951,602		25,951,602	0	
Other Production								
Palomar Energy Center								
701-149	E341.00-Struct and Improv -Palomar	14,820,292	3.80%	563,549	3.80%	563,549	0	
667-150	E342.00-Fuel Holders P & A-Palomar	14,913,880	3.69%	550,757	3.69%	550,757	0	
595-152	E344.00-Generators-Palomar	132,145,015	4.35%	5,750,710	4.35%	5,750,710	0	
668-153	E345.00-Access Elect Eq-Palomar	6,705,845	3.28%	219,721	3.28%	219,721	0	
556-154	E346.00-Misc Power Plnt Eq -Palomar	28,394,701	6.80%	1,932,256	6.80%	1,932,256	0	
		196,979,734		9,016,993		9,016,993	0	
Miramar Energy Eacility								
TRICALLAR LITERY I ACTILY	E341 00 Strict and Improv. Miramar	E 07E 863	70 V O V	JAE AED	7 DA 0/2	JAE AED	C	
740 464				704,042		704,000		
		0,202,010	0/ 70.4	004:002	0/ 70.4	200,430		
201-020	E343.UU-Prime Movers-Miramar	23,287,154 10 202 020	4.10%	2,210,/0U	4.10%	Z,ZT0,70U		
651-163	E344.UU-Generators-Miramar	19,735,850	4.98%	982,354	4.98%	982,354	0	
627-164	E345.00-Access Elect Eq -Miramar	13,461,480	4.25%	571,776	4.25%	571,776	0	
628-165	E346.00-Misc Power Plnt Eq -Miramar	12,924,120	7.84%	1,012,876	7.84%	1,012,876	0	
	Total Miramar Energy Center	109,717,338		5,265,647		5,265,647	0	
Desert Star Energy Center			10 0 10				c	
650-155	E341.00-Struct and Improv -DSEC	3,005,685	10.67%	500,953	16.67%	500,953	0	
738-156	E342.00-Fuel Holders P&A -DSEC	877,752	11.84%	103,932	11.84%	103,932	0	
557-157	E343.00-Prime Movers-DSEC	24,517,649	5.92%	1,451,392	5.92%	1,451,392	0	
558-158	E344.00-Generators-DSEC	113,877,122	6.07%	6,913,448	6.07%	6,913,448	0	
702-284	E345.00-Access Elect Ea -DSEC	9.572.164	5.32%	509.547	5.32%	509.547	0	
576-159	E346 00-Misc Power Plnt Fg -DSFC	22,382,347	4.86%	1 088 443	4 86%	1.088.443		
	Total Desert Star Energy Center	174 232 719		10 567 716		10 567 716		ı.
		117,404,110		01,100,01		011,000,01		ī
Cuyamaca Peak Energy Plant								
577-166	E341.00-Struct and Improv -CPEP	1,897,458	9.49%	179,999	9.49%	179,999	0	
652-167	E342.00-Fuel Holders P&A -CPEP	627,012	7.65%	47,937	7.65%	47,937	0	
559-168	E343.00-Prime Movers-CPEP	16.861.455	8.10%	1.365.015	8.10%	1.365.015	0	
703-169	E344.00-Generators-CPEP	6,125,932	13.38%	819.886	13.38%	819.886	0	
629-170	E345 00-Access Flect En -CPEP	833.677	8.55%	71 249	8.55%	71 249	C	
653-171	E346 00-Misc Power Plnt Fg -CPFP	5 142 925	11.72%	602,752	11.72%	602,752		
	Total Cilivamaca Deak Energy Plant	31 488 450		3 086 838		3 086 838		ı.
	i otal oujainava i can Envigj i lain	00+'00+'-0		0,000,0		000,000,0		ī
Renewable / Other	E341 10 - Struct & Imprv - Solar Total	96.364	4 03%	3 879	4 03%	3 879	C	
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SAN DIEGO GAS AND ELECTRIC COMPARISION OF EXISTING AND PROPOSED DEPRECIATION RATES AT DECEMBER 31, 2021

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			Existing	Existing	Proposed	Proposed	
			Accrual Rate	Accrual	Accrual Rate	Accrual	Difference
	Account		%	A		A	¢
560-175	E344.10-Generators - Solar Total	58,998,688	4.19%	2,470,407	4.19%	2,470,407	0
741-176	E344.10-Generators - Solar Total	2,444,803	3.97%	96,960	3.97%	96,960	0
562-189	E344.20 - Generators - Other Total	5,435,071	6.13%	332,930	6.13%	332,930	0
	Total Renewables	66,974,925		2,904,177		2,904,177	0
	Total Other Production	579,393,175		30,841,371		30,841,371	0
	Electric Distribution						
564-210	E361.00-Struct. and Improv. Total	13,264,654	3.75%	497,166	3.75%	497,166	0
604-211	E362.10-Station EquipOther Total	661,385,747	4.57%	30,251,363	4.57%	30,251,363	0
565-294	E363.00-Batteries - Storage Total	182,749,594	9.92%	18,120,728	9.92%	18,120,728	0
605-212	E364.00-Poles, Towers & Fxtr Total	1,033,663,058	4.25%	43,962,382	4.25%	43,962,382	0
748-213	E365.00-Overhead Cond & Dev Total	1,159,382,562	3.01%	34,920,760	3.01%	34,920,760	0
749-214	E366.00-Underground Conduit Total	1,697,241,554	2.64%	44,865,718	2.64%	44,865,718	0
708-215	E367.00-Undergrnd Cond & Dev Total	1,994,588,617	3.56%	70,925,094	3.56%	70,925,094	0
566-295	E368.10-Line Transformers Total	760,142,969	5.13%	39,005,564	5.13%	39,005,564	0
675-216	E368.20-Capacitors Total	35,468,094	15.02%	5,326,123	15.02%	5,326,123	0
606-217	E369.10-Services Overhead Total	296,266,704	3.61%	10,698,210	3.61%	10,698,210	0
676-218	E369.20-Services Underground Total	409,836,266	3.11%	12,735,278	3.11%	12,735,278	0
677-219	E370.10-Meters Total	7,809,703	2.06%	160,730	2.06%	160,730	0
709-296	E370.11-Meters - Electronic Total	205,722,608	6.70%	13,781,252	6.70%	13,781,252	0
678-221	E370.20-Meter Installations Total	10,003,135	2.15%	214,648	2.15%	214,648	0
751-222	E370.21-Meter Instilns-Elctr Total	63,456,279	6.72%	4,262,378	6.72%	4,262,378	0
752-223	E371.00-Installns -Cust Prem Total	10,539,847	3.71%	391,317	3.71%	391.317	0
	E371.10 EV Charging Units Total	64,412,624	11.02%	7,097,527	11.02%	7,097,527	0
607-224	E373.20-St. Lghtg & Sgnl Sys Total	35,792,500	4.50%	1,611,220	4.50%	1,611,220	0
	Total Distribution	8,641,726,514		338,827,460		338,827,460	0
	<u>General</u>						
710-226	E390.00-Struct. and Improv.	45,469,035	2.52%	1,144,638	2.52%	1,144,638	0
608-228	E392.20-Transprtn Eq-Trailer	58,146	4.35%	2,531	4.35%	2,531	0
583-229	E393.10-Stores Equip -Other	46,031	4.01%	1,844	4.01%	1,844	0
753-301	E394.11-Portable Tools-Other	40,618,836	3.73%	1,514,552	3.73%	1,514,552	0
637-230	E394.20-Shop Equipment	278,147	2.51%	6,974	2.51%	6,974	0
638-231	E395.10-Laboratory EqOther	5,336,019	4.57%	243,954	4.57%	243,954	0
681-232	E397.10-Commun. EquipOther	389,907,485	4.87%	18,970,015	4.87%	18,970,015	0
754-233	E397.20-Commun. EquipSWPL	8,223,999	4.41%	362,535	4.41%	362,535	0
712-236	E397.60-Commun. EquipSRPL	14,167,521	3.04%	431,379	3.04%	431,379	0
639-237	E397.70-Commun Dev - Telecom	4,125,752	5.08%	209,546	5.08%	209,546	0
640-238	E398.10-Misc. Equip Other	3,299,081	6.29%	207,470	6.29%	207,470	0
	Total General	511,530,052		23,095,438		23,095,438	0

SAN DIEGO GAS AND ELECTRIC COMPARISION OF EXISTING AND PROPOSED DEPRECIATION RATES AT DECEMBER 31, 2021

Appendix B Page 3 of 5

	COMPARISION C	SAN DIEGO GAS AND DF EXISTING AND PROP AT DECEMBER 3) ELECTRIC OSED DEPRECIA 1, 2021	TION RATES			
Group No	Account	Plant	Existing Accrual Rate %	Existing Accrual \$	Proposed Accrual Rate %	Proposed Accrual \$	Difference \$
	Total Electric	10,273,724,183		418,715,871		418,715,871	0
Production / Storage & Processing 658-248 659-249 683-250 570-251	G361.00-Struct. and Improv. G362.10-Gas Holders G363.30-Compressor Equipment G363.60-LNG Distrib Storg Eq Total Processing	2,168,803 2,168,803	4.26%	92,373 92,373	4.93%	107,001 107,001	14,627 14,627
Transmission 660-255 716-256 612-257 586-258 717-259	G366.00-Struct and Land Imp. G367.00-Mains G367.6 Hydo Test G368.00-Compressor Statn Eq G369.00-Meas & Reg Statn Eq G371.00-Other Equipment Total Transmission	23,219,943 462,339,035 0 105,008,385 29,131,175 2,842,374 622,540,912	2.43% 2.89% 0.00% 2.03% 3.70%	564,021 13,345,017 2,134,838 700,790 105,174 16,849,840	1.59% 1.72% 5.88% 1.83% 3.70%	368,096 7,952,371 0 1,922,078 300,308 105,261 10,648,115	(195,925) (5,392,646) 0 (212,760) (400,481) 87 (6,201,724)
Distribution 571-262 757-263 572-265 573-266 587-267 686-268 758-269 588-270 759-271 641-272	G375.00-Struct & Imp G376.00-Mains G376.00-Mains G378.00-Meas & Reg Statn Eq G380.00-Services G381.00-Meters & Regulators G381.01-Meters-Regs-Modules G382.00-Meter & Reg Instilns G382.01-Mit-Reg-Mod Install G385.00-Ind Meas & Reg St Eq G387.11-Other Equipment G387.12-Other EQ -CNG Deprec Total Distribution	43,447 1,506,884,695 21,185,573 522,356,359 90,354,392 97,930,454 99,535,205 26,127,500 1,516,811 993,722 97,376,673,258 2,376,673,258	0.00% 2.20% 2.17% 6.85% 6.68% 1.79% 1.26%	0 33,082,939 483,195 11,311,362 2,077,551 6,707,842 3,863,488 1,745,633 27,115 12,486 391,509 59,703,120	0.00% 2.66% 2.84% 6.85% 8.16% 1.78% 3.54%	0 39,761,672 483,187 13,875,925 2,561,870 6,707,871 2,723,553 2,131,839 27,022 12,477 345,167 345,167 68,630,583	0 6,678,733 2,564,563 484,320 29 (1,139,935) 386,205 (10) (46,342) 8,927,462
<u>General</u> 642-276	G394.10-Portable Tools	24,533,282	4.21%	1,031,692	13.31%	3,266,120	2,234,428

Existing Existing Existing Accrual Rate Accrual Plant % \$
lant % \$

Group No	Account	Plant	%	\$	%	\$	\$
614-277	G394.20-Shop Equipment	63,820	3.96%	2,526	25.59%	16,333	13,807
688-280	G397.00-Communication Equip.	2,256,364	6.98%	157,606	6.99%	157,608	ĉ
662-281	G398.00-Misc. Equipment	465,787	5.24%	24,418	5.95%	27,721	3,303
	Total Gas General'	27,319,253		1,216,242		3,467,783	2,251,541
	Total Gas	3,028,702,227		77,861,576		82,853,482	4,991,906
	TOTAL	14,403,908,215		574,153,807		579,145,713	4,991,906

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APPENDIX C

Depreciation Parameter Comparison

			Present				Proposed	
Acct	Life	Curve	Retirement DateNE	T Salvage%	Life	Curve	Retirement Date NET	Salvage%
E303 Intangible Property	5, 10			%00.0	5, 10			%00.0
Production E311.00-Struct and Improv -Palomar Total	None	None	Jun-36	-2.30%	None	None	Jun-36	-3.11%
E312.00-Boiler Plant Equip -Palomar Total	None	None	Jun-36	-2.30%	None	None	Jun-36	-3.10%
E314.00-Turbogenerator Unit-Palomar Total	None	None	Jun-36	-1.41%	None	None	Jun-36	-2.64%
E315.00-Access Elect Eq -Palomar Total	None	None	Jun-36	-0.32%	None	None	Jun-36	-1.30%
E316.00-Misc Power Plnt Eq-Palomar Total	None	None	Jun-36	-0.25%	None	None	Jun-36	-0.28%
E311 00-Struct and Improv -DSEC Total	None	None	Jun-32	-10.58%	None	None	.lun-32	-12,47%
E312.00-Boiler Plant Equip-DSEC Total	None	None	Jun-32	-4.27%	None	None	Jun-32	-3.90%
E314.00-Turbogenerator Unit-DSEC Total	None	None	Jun-32	-10.49%	None	None	Jun-32	-7.68%
E315.00-Access Elect Eq -DSEC Total	None	None	Jun-32	-0.08%	None	None	Jun-32	-0.83%
E316.00-Misc Power PInt Eq -DSEC Total	None	None	Jun-32	-0.70%	None	None	Jun-32	-0.73%
Other Production								,000 F
E341.00-Struct and Improv -Palomar Total	None	None	00-UNC	-3.23%	None	None	00-UNC	-4.23%
E342.00-Fuel Holders P & A-Palomar Total	None	None	Jun-36	-1.45%	None	None	Jun-36	-2.32%
E344.00-Generators-Palomar Total	None	None	Jun-36	-0.60%	None	None	Jun-36	-1.31%
E345.00-Access Elect Eq-Palomar Total	None	None	Jun-36	3.06%	None	None	Jun-36	-5.02%
E346.00-Misc Power Plnt Eq -Palomar Total	None	None	Jun-36	0.00%	None	None	Jun-36	%00.0
E341.00-Struct and Improv -Miramar Total			Jun-32	-6.76%	None	None	Jun-32	-6.45%
E342.00-Fuel Holders P&A -Miramar Total			Jun-32	-2.92%	None	None	Jun-32	-4.08%
E343.00-Prime Movers-Miramar Total			Jun-32	0.00%	None	None	Jun-32	0.00%
E344.00-Generators-Miramar Total			Jun-32	-2.61%	None	None	Jun-32	-4.05%
E345.00-Access Elect Eq -Miramar Total			Jun-32	-1.08%	None	None	Jun-32	-3.22%
E346.00-Misc Power Plnt Eq -Miramar Total			Jun-32	0.00%	None	None	Jun-32	0.00%

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Proposed Curve Retirement Date NET Salvage%

Life

Present Retirement DateNET Salvage%

Curve

Life

E341.00-Struct and Improv -DSEC Total	None	None	Jun-32	-30.74%	None	None	Jun-32	-81.68%
E342.00-Fuel Holders P&A -DSEC Total	None	None	Jun-32	-24.16%	None	None	Jun-32	-1.38%
E343.00-Prime Movers-DSEC Total	None	None	Jun-32	0.00%	None	None	Jun-32	%00.0
E344.00-Generators-DSEC Total	None	None	Jun-32	-0.42%	None	None	Jun-32	-0.74%
E345.00-Access Elect Eq -DSEC Total	None	None	Jun-32	4.71%	None	None	Jun-32	-2.42%
E346.00-Misc Power Plnt Eq -DSEC Total	None	None	Jun-32	0.00%	None	None	Jun-32	0.00%
E341.00-Struct and Improv -CPEP Total	None	None	Jun-27	-17.45%	None	None	Jun-27	-24.20%
E342.00-Fuel Holders P&A -CPEP Total	None	None	Jun-27	-5.02%	None	None	Jun-27	-11.12%
E343.00-Prime Movers-CPEP Total	None	None	Jun-27	0.00%	None	None	Jun-27	0.00%
E344.00-Generators-CPEP Total	None	None	Jun-27	-9.07%	None	None	Jun-27	-5.44%
E345.00-Access Elect Eq -CPEP Total	None	None	Jun-27	-14.47%	None	None	Jun-27	-31.86%
E346.00-Misc Power Plnt Eq -CPEP Total	None	None	Jun-27	0.00%	None	None	Jun-27	%00.0
E341.1 Structures and Improvements Solar		25 SQ		0.00%	N	5 SQ		0.00%
E344.10-Generators - Solar Total		25 SQ		0.00%	N	5 SQ		-19.22%
E345.10-Access Elect Eq -Solar Total		25 SQ		%00.0	N	5 SQ		-13.91%
E344.20 - Generators Other		20 SQ		0.00%	N	0 R1		%00.0

	age%	
	Date NET Salv	
Present	Retirement	
	Curve	
	Life	

	NET Salvage%
Proposed	Retirement Date
	Curve
	Life

Electric Distribution				
E360.2 Land Rights	45 SQ	0.00%	65 SQ	0.00%
E361.00-Struct. and Improv. Total	63 R2.5	-125.00%	61 R2	-150.00%
E362.10-Station EquipOther Total	51 R1.5	-125.00%	55 R2	-150.00%
E363.00-Batteries - Storage Total	10 SQ	0.00%	15 SQ	-3.60%
E364.00-Poles, Towers & Fxtr Total	47 R0.5	-100.00%	47 R0.5	-95.00%
E365.00-Overhead Cond & Dev Total	55 R0.5	-70.00%	55 R0.5	-95.00%
E366.00-Underground Conduit Total	57 R3	-50.00%	61 R3	-75.00%
E367.00-Undergrnd Cond & Dev Total	45 R3	-65.00%	52 R2	-90.00%
E368.10-Line Transformers Total	34 L0.5	-70.00%	36 L1	-95.00%
E368.20-Capacitors Total	12 L0	-70.00%	12 L0	-60.00%
E369.10-Services Overhead Total	55 R0.5	-110.00%	55 R0.5	-135.00%
E369.20-Services Underground Total	53 L4	-75.00%	57 R5	-100.00%
E370.10-Meters Total	48 R0.5	0.00%	19 L0	0.00%
E370.11-Meters - Electronic Total	15 SQ	0.00%	15 SQ	0.00%
E370.20-Meter Installations Total	48 R0.5	0.00%	19 L0	0.00%
E370.21-Meter Instilns-Elctr Total	15 SQ	0.00%	15 SQ	0.00%
E371.00-Installns -Cust Prem Total	34 R0.5	-90.00%	34 R0.5	-115.00%
E371.10 EV Charging Units Total	10 SQ	0.00%	10 SQ	-6.00%
E373.20-St. Lghtg & Sgnl Sys Total	36 LO	-85.00%	36 LO	-110.00%

Electric General

		Present		Proposed
Acct	Life Curve	Retirement DateNET Salvage%	Life Curve	Retirement Date NET Salvage%
E390.00-Struct. and Improv. Total	34 S4	-10.00%	43 L0	-10.00%
E392.20-Transprtn Eq-Trailer Total	27 S5	0.00%	27 SQ	0.00%
E393.10-Stores EquipOther Total	25 S5	0.00%	25 SQ	0.00%
E394.11-Portable Tools-Other Total	27 S6	0.00%	10 SQ	0.00%
E394.20-Shop Equipment Total	26 L4	0.00%	26 SQ	0.00%
E395.10-Laboratory EqOther Total	22 L3	0.00%	15 SQ	0.00%
E397.10-Commun. EquipOther Total	30 R2	-50.00%	20 SQ	-35.00%
E397.20-Commun. EquipSWPL Total	30 R2	-50.00%	20 SQ	-35.00%
E397.60-Commun. EquipSRPL Total	30 R2	0.00%	20 SQ	-25.00%
E397.70-Commun Dev - Telecom Total	30 R2	-50.00%	20 SQ	-35.00%
E398.10-Misc. Equip Other Total	16 L4	0.00%	16 SQ	0.00%
E398.20-Misc. Equip SRPL			16 SQ	0.00%
C303.10 Cloud Costs Plant	5		5	0.00%
C303-C Misc. Intangible Plant	5, 15		5, 10, 15	0.00%
C389.20 Land Rights	40 SQ	0.00%	45 SQ	0.00%
C390.10-Struct & Imprv-Other Total	30 S1	-15.00%	43 L0	-10.00%
C391.10-Offc Furn & Eq-Other Total	18 S6	0.00%	18 SQ	0.00%
C391.20-Offc Furn & Eq-Cmptr Total	5 S6	0.00%	5 SQ	0.00%
C392.10 - Trans Eq - Autos Total	10 SQ	0.00%	10 SQ	0.00%
C392.20-Transprtn Eq-Trailer Total	20 L0	0.00%	20 SQ	0.00%
C392.30-Transprtn Eq-Aviation Total	10 SQ	0.00%	25 SQ	50.00%
C393.10-Stores Equip-Other Total	19 L0	0.00%	25 SQ	0.00%
C394.11-Portable Tools-Other Total	23 R2.5	0.00%	10 SQ	0.00%
C394.21-Shop Equip - Other Total	35 L1.5	0.00%	26 SQ	00.00
C394.31-Garage Equip -Other Total	19 R3	0.00%	19 SQ	0.00%
C395.10-Laboratory Eq -Other Total	25 R5	0.00%	15 SQ	0.00%
C397.10-Commun Equip -Other Total	13 S6	0.00%	13 SQ	0.00%
C398.10-Misc Equip - Other Total	13 R0.5	10.00%	13 SQ	0.00%

Acct	Life Curve	Retirement DateNET Salvage%	Life Curve	Retirement Date NET Salvage%
<u>Gas Storage</u> G363.60-LNG Distrib Storg Eq Total	20 S4	0.00%	20 S4	-5.00%
Gas Transmission G365.2 Land Rights G366.00-Struct and Land Imp. Total	40 SQ 34 S3	00.00 00.00	70 SQ 47 R2	0.00 -5.00%
G367.6 Hydro Test	45 C4 NA NA	%00 [.] 0	09 K3 17 SQ	%00 [.] 0
G368.00-Compressor Stath Eq Total	35 S3	-10.00%	40 S3	-14.00%
G371.00-Other Equipment Total	31 33 27 SQ	%00.0 %00.0	48 KU.5 27 SQ	%00.0
<u>Gas Distribution</u> G374.2 Land Rights	31 SQ	%00 ^{.0}	70 SQ	%00·0
G375.00-Struct & Imp Total	44 S3	%00.0	44 S3	-5.00%
G376.00-Mains Total	69 R3	-55.00%	69 R3	-80.00%
G378.00-Meas & Reg Statn Eq Total	47 R2	-25.00%	47 R2	-25.00%
G380.00-Services Total	65 R2.5	-70.00%	65 R2.5	-95.00%
G381.00-Meters & Regulators Total	41 L1.5	0.00%	35 L1.5	0.00%
G381.01-Meters-Regs-Modules Total	15 SQ	0.00%	15 SQ	0.00%
G382.00-Meter & Reg Instilns Total	35 L2	-30.00%	35 L1	-5.00%
G382.01-Mtr-Reg-Mod Install Total	15 SQ	0.00%	15 SQ	0.00%
G385.00-Ind Meas & Reg St Eq Total	28 S6	0.00%	28 S6	0.00%
G387.11-Other Equipment Total	16 L0	0.00%	16 L0	0.00%
G387.12-Other EQ -CNG Deprec Total	16 L0	%00.0	20 L0.5	-5.00%

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Proposed	Retirement Date NET Salvage%	0.00%	0.00%	0.00%	0.00%	0.00%
	Curve	10 SQ	10 SQ	20 SQ	15 SQ	19 SQ
	Life					
Present	Retirement Date NET Salvage%	0.00%	0.00%	0.00%	0.00%	0.00%
	Curve	24 L5	19 L1	20 S6	15 S6	19 R2.5

APPENDIX D

Net Salvage Analysis

9- yr Net Salv. %									-12.04%	-12.04%	-22.03%	-18.22%	-15.24%	-8.35%	-7.07%	-4.06%	-3.11%	-3.95%	-8.72%									/000 20	31.80%	13.31 % 6 5.4%	6.86%	6.12%	5.18%	3.61%	2.07%	1.81%	1.40%	1.42%
8- yr Net Salv. %								-11.66%	-12.04%	-12.29%	-22.17%	-17.51%	-15.24%	-7.31%	-7.83%	-4.13%	-3.06%	-3.95%	-7.89%									40.22%	37.80%	9.00% 6.32%	6.21%	5.29%	3.77%	2.78%	1.89%	1.69%	1.63%	0.84%
7 - yr Net Salv. %							-14.73%	-11.66%	-12.29%	-11.87%	-21.54%	-17.51%	-13.67%	-8.12%	-8.18%	-4.05%	-3.06%	-2.99%	-1.12%								53.47%	40.22%	0% L C: / 7	0.00% 5.62%	5.38%	3.85%	2.90%	2.56%	1.77%	2.10%	1.06%	-0.14%
6- yr Net Salv. %						-19.99%	-14.73%	-11.84%	-11.87%	-8.17%	-21.54%	-15.81%	-16.08%	-8.50%	-8.06%	-4.05%	-1.63%	-2.60%	-7.80%							112.32%	53.47%	34.32%	ZD.33%	0/ 4C. /	3.94%	2.98%	2.69%	2.42%	2.25%	1.59%	-0.08%	-0.06%
5-yr Net Salv. %					-18.38%	-23.30%	-15.89%	-11.37%	-8.17%	-8.17%	-19.20%	-19.14%	-18.10%	-8.38%	-8.06%	-1.86%	-0.96%	-2.55%	-8.81%						106.72%	95.69%	40.31%	32.70%	23.09% 20.00%	0.00% 3.20%	3.07%	2.76%	2.54%	3.73%	1.79%	-0.12%	0.01%	-0.04%
4- yr Net Salv. %				-18.38%	-18.38%	-28.92%	-15.61%	-7.37%	-8.17%	1.64%	-26.87%	-22.33%	-17.97%	-8.38%	-3.88%	-0.78%	-0.83%	-2.75%	-8.91%					105.22%	106.72%	86.58%	38.37%	%09.6Z	0677.8L	0.43%	2.85%	2.61%	4.09%	6.70%	-0.16%	0.02%	0.04%	-0.06%
3- yr Net Salv. %			-12 65%	-18.38%	-24.54%	-30.57%	-10.93%	-7.37%	1.64%	-4.22%	-38.44%	-22.26%	-17.97%	-3.99%	-1.77%	-0.56%	-0.72%	-2.76%	-12.58%				117.57%	105.22%	102.92%	81.08%	34.91%	24.13%	11.30%	1.14%	2.70%	4.29%	10.80%	-1.11%	0.01%	0.06%	0.03%	-0.12%
2- yr Net Salv. %		10 010/	-10.61% -12.65%	-24.54%	-26.50%	-34.34%	-10.93%	3.38%	-4.22%	-25.73%	-39.17%	-22.26%	-9.19%	-1.74%	-1.34%	-0.20%	-0.69%	-3.87%	-21.78%			109.34%	117.57%	94.54%	%06.06	83.83%	28.26%	13./4%	1.43%	1.22.70	4 48%	14.21%	-4.19%	-0.10%	0.05%	0.04%	0.02%	-0.16%
Net Salv. %		0.00%	-10.01% -18.65%	-26.50%	NA	-34.34%	9.28%	-1.68%	-25.73%	AN	-39.17%	-11.65%	-4.40%	-1.27%	-2.09%	-0.10%	-1.23%	-6.01%	NA		NA	109.34%	NA	73.14%	113.64%	72.79%	15.11%	%/L'0L	%60°C	0.0.1.0 %02.0	16.52%	-17.68%	-1.03%	0.23%	0.03%	0.12%	%00.0	-0.48%
Net Salvage		-	(22,762)	(97,327)		(135,938)	42,553	(9,002)	(16,269)		(431,794)	(204,744)	(39,801)	(64,472)	(9,849)	(9,849)	(125,151)	(753,759)	(1,9/8,632)		ı	268,146	20,201	69,030	83,791	144,940	101,840	20,292	23,033	102 384	85 119	(6,596)	(1,640)	1,030	006	200		(5,899)
Cost of Removal		09 112	43, 143 23 262	100,027	0	135,938	-42,453	10,002	17,269	0	439,294	204,744	44,440	66,472	9,849	9,849	125,151	753,759	1,9/8,632		0	0	8,676	0	0	0	0 0	0 0			- C	8.861	2,615	3,470	0	0	0	5,899
Gross Salvage	ç	60	200 2000	2,700	0	0	100	1,000	1,000	0	7,500	0	4,639	2,000	0	0	0 0	0 0	0		0	268,146	28,878	69,030	83,791	144,940	101,840	20,292	23,U33	102 384	85 119	2.266	975	4,500	006	200	0	0
Retirement	c	200 500	122,027	367,319	0	395,802	458,514	535,160	63,219	0	1,102,387	1,757,296	904,092	5,075,756	471,650	9,447,756	10,178,703	12,544,407 ĵ	Ð		0	245,252	0	94,386	73,732	199,109	674,170	208,553	402,209 c	3,003,104 3,667,613	515,336	37.308	159,291	450,151	3,240,000	602,291	2,511,289	1,227,260
Activity Year	uct & Imprv-Other	2002	2003	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	ice Furn and Eq	2002	2003	2004	2005	2006	2007	2008	5010	0102	2010	2012	2014	2015	2016	2017	2018	2019	2020
Acct	C390.10-Str	C390.1	C390.1	C390.1	C390.1	C390.1	C390.1	C390.1	C390.1	C390.1	C390.1	C390.1	C390.1	C390.1	C390.1	C390.1	C390.1	C390.1	C390.1	C391.10 Pffc	C391.1	C391.1	C391.1	C391.1	C391.1	C391.1	C391.1	C391.1	C391.1	C391.1	C391.1	C391.1	C391.1	C391.1	C391.1	C391.1	C391.1	C391.1

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Activity		U	ross	Cost of	Net	Net	2- yr Net	3- yr Net	4- yr Net	5- yr Net	6- yr Net	7- yr Net	8- yr Net	9- yr Net
Acct Year	Retireme	Int Sa	Ivage	Removal	Salvage	Salv. %	Salv.%	Salv. %	Salv. %	Salv. %	Salv. %	Salv. %	Salv. %	Salv. %
C391.20-Offc Furn & .	Eq-Cmptr													
C391.2 2002	1,855,96	92	0	0	I	%00.0								
C391.2 2003	3,317,46	83	0	0		0.00%	0.00%							
C391.2 2004	41,717,25	53	0	0		0.00%	0.00%	0.00%						
C391.2 2005	12,222,21	10	0	0		0.00%	0.00%	0.00%	0.00%					
C391.2 2006	12,241,75	93	0	0		0.00%	0.00%	0.00%	0.00%	0.00%				
C391.2 2007	3,196,42	29	0	0		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%			
C391.2 2008	21.346.02	23	0	0		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%		
C391.2 2009	12,661,54	46	0	0	1	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
C391.2 2010	2,950,51	19	C	0		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
C391.2 2011	4.206.60	03	0	0		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
C391.2 2012	1.282.05	36	0	0	1	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
C391.2 2013	1 822 07	29	0 0	- C		%00 0	000%	0 00%	000%	0.00%	000%	0,00%	0.00%	000%
C301.2 2014	0,110,1	00				%0000 %0000	%0000	0.00 0 %00 0	%0000	%00.0 %00.0	%00.0 %00.0	0.00 0	0.00%	%00.0 0
C201.0 2015	34 600 33	200	112 170		0112120	0.00%	0.22%	0.20070	0.200%	0.0200	0.05%	70000	0.14%	0.00%
		20	- 200	0	113,172	0.00.0	0/0000	0/10/0	0/.00.0	0/. 17.0	0/ 07:0	0.20%	0.1470	0.1470
C391.2 2016	8,974,96	96	5,330	0	5,330	0.06%	0.27%	0.27%	0.26%	0.25%	0.23%	0.22%	0.18%	0.13%
C391.2 2017	25,451,14	44	126,056	0	126,056	0.50%	0.38%	0.35%	0.35%	0.34%	0.34%	0.32%	0.31%	0.27%
C391.2 2018	8,057,80	02	2,555	0	2,555	0.03%	0.38%	0.32%	0.32%	0.32%	0.31%	0.31%	0.29%	0.28%
C391.2 2019	8,671.41	17	0	0	1	0.00%	0.02%	0.30%	0.26%	0.29%	0.29%	0.28%	0.28%	0.27%
C391.2 2020	1 883 24	44	C	C		0 UU%	0 U U	0 01%	%bC U	0 25%	0.28%	0.28%	0 28%	0 27%
C302 10 - Trans Ed -	Autos													
		c	C	c		NIN								
			0				414							
C392.1 2003		0	5	0		NA	NA							
C392.1 2004		0	0	0		NA	NA	NA						
C392.1 2005		0	0	0		NA	NA	NA	NA					
C392.1 2006		0	0	0		AN	AN	ΝA	NA	NA				
C392.1 2007		0	0	0		NA	NA	ΝA	NA	NA	NA			
C392.1 2008		0	0	0		NA	AN	ΝA	NA	NA	NA	NA		
C392.1 2009		0	0	0		AN	AN	ΝA	NA	NA	NA	AN	NA	
C392.1 2010		0	0	0		AN	AN	ΝA	AN	NA	AN	AN	NA	AN
C392.1 2011		0	0	0		NA	ΝA	AN	AN	AN	NA	NA	NA	NA
C392.1 2012		0	0	0	ı	AN	AN	AN	NA	NA	NA	NA	NA	AN
C392.1 2013		C	C	C		AN	AN	٩N	AN	AN	NA	NA	NA	AN
C392 1 2014						NA	NA	NA	NA	NA	NA	NA	NA	NA
C302 1 2015					1	NA	VIV	N	ANA ANA	ANA ANA	NA	VIV VIV	NA NA	NA NA
C002 1 2010														
C002 1 2010			0 0								2000 C			
C392.1 2017	33,94	47	0 0	0 0		%00.0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
C392.1 2018		0	0	0		NA	0.00%	0.00%	%00.0	0.00%	0.00%	0.00%	0.00%	%00.0
C392.1 2019		0	0	0		NA	AN	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
C392.1 2020		0	0	0		NA	NA	ΝA	0.00%	0.00%	0.00%	0.00%	%00.0	0.00%

	1.30% 1.30% 1.30% 1.30% 1.30% 1.30% 1.00% 0.00%	N A A A A A A A A A A A A A A A A A A A	r %
		000000	9- y Net Salv.
	18.30% 18.30% 18.30% 18.30% 18.30% 0.00% 0.00% 0.00% 0.00%	0.000% 0.000% 0.000% 0.000% 0.000% 0.00% 0.00%	8- yr Net Salv. %
	18.30% 18.30% 18.30% 18.30% 0.00% 0.00% 0.00% 0.00%	A A A A A A A A A A A A A A A A A A A	7-yr Net Salv. %
	18.30% 18.30% 18.30% 18.30% NA NA 0.00% 0.00% 0.00%	A N N N N N N N N N N N N N N N N N N N	6- yr Net Salv. %
	NA 18:30% 18:30% 18:30% 18:30% NA NA 0:00% 0:00% 0:00% 0:00%	A A A A A A A A A A A A A A A A A A A	5- yr Net Salv. %
	NA NA 18.30% 18.30% 18.30% 18.30% NA NA NA NA 0.00% 0.00% 0.00%	N N N N N N N N N N N N N N N N N N N	4- yr Net Salv. %
0.05%	N A A A A A A A A A A A A A A A A A A A	A A A A A A A A A A A A A A A A A A A	3- yr Net Salv. %
0.35% 0.05%	NA NA NA NA NA NA NA NA NA NA NA NA NA N	0.00% 0.00%0	2- yr Net Salv. %
0.00% 0.41% 0.00%	4 N N N N N N N N N N N N N N N N N N N	A A A A A A A A A A A A A A A A A A A	Net Salv. %
, 20 ,			Net Salvage
000			Cost of Removal
000			Gross Salvage
2,167 12,239 82,588	8,197 8,197 8,197 0 0 12,173 12,196 12,196 0 0 0 0	utos (SL) 0 0 3,195,776 3,195,776 39,513 39,513 0 0	Retirement
Stores Equip-Other 2002 2004	Traile 2002 2003 2003 2005 2005 2005 2005 2006 2011 2012 2013 2014 2014 2015 2014 2015 2015 2016 2017 2019 2019 2019 2019	Trans Eq-Lease A 2003 2004 2004 2004 2005 2006 2006 2007 2006 2011 2013 2011 2013 2014 2013 2014 2013 2014 2013 2016 2016 2016 2017 2016 2017 2016 2017 2017 2017 2007 2007 2007 2007 2004 2004 2007 2004 2004	Activity Year
C393.10-4 C393.1 C393.1 C393.1 C393.1	C392.2 C3	C392.11 C392.1	Acct

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9- yr Net Salv %	0.09% 0.10% 0.10% 0.10% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00%	%00.0 %00.0 %00.0 %00.0 %00.0 %00.0 %00.0 %00.0 %00.0	
8-yr Net Salv %	0.10% 0.10% 0.06% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00%	0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00%	
7-yr Net Salv %	0.10% 0.10% 0.10% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00%	0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00%	
6- yr Net Salv %	0.10% 0.10% 0.10% 0.21% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00%	0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00%	
5- yr Net Salv %	0.10% 0.10% 0.10% 0.10% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00%	0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00%	%00.0
4- yr Net Salv %	0.11% 0.11% 0.10% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00%	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	%00 [.] 0
3- yr Net Salv %	 2407. 36 0.17% 0.17% 0.07% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 	0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00%	0.00% 0.00% 0.00%
2-yr Net Salv %	0.00% 0.00% 0.00% 0.00% 0.026% 0.026% 0.026% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.000%%	0.000 0.0000 0.0000 0.0000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.000000	%00'0 %00'0 %00'0
Net Salv %	0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00%	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 NA 800.0 NA 0.00.0
Net	Saivage 75		
Cost of Demoval			00000
Gross	2 alge 255 755 0 0 0 0 0 0 0 0 0 0 0 0 0		00000
Dotizament	rentrement 10,189 10,189 1,307 5,315 5,315 5,315 5,315 5,315 11,505 15,170 11,546 11,546 11,546	6,198 21,744 4,595 1,305 1,305 4,003 3,449 23,194 23,194 8,262 8,262 0 0	409 72,298 6,230
Activity	7005 2005 2005 2009 2011 2013 2014 2014 2014 2015 2015 2016 2019 2019 2019	ottable Tools-Other 2002 2003 2005 2005 2006 2007 2011 2011 2015 2015 2015 2015 2016 2015 2016 2016 2016 2016 2017 2019 2019 2020	shop Equip - Other 2002 2004 2004 2005 2006
Acct	Addr C 2393.1 C 2395.1 C 2395.1 C 2395.1 C 2395.1 C 2395.1 C 2395.1 C 2395.1 C 2395.	C394.11-F C394.11-F C394.11-C C394.11	C394.21-S C394.12 C394.12 C394.12 C394.12 C394.12 C394.12

SAN DIEGO GAS AND ELECTRIC DATA ADJUSTED

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SAN DIEGO GAS AND ELECTRIC DATA ADJUSTED

9- yr Net	Salv. %			10000	%00.0 %00.0	0.00%	0.00%	%00.0	0.00%	0.00%	7.05%	7.15%	8.30%	8.45%									0.42%	0.34%	0/07/0/	0.24%	0.11%	0.06%	0.00%	0.00%	%00.0	%00.0								
8- yr Net	Salv. %			0.00%	0.00% 0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	7.15%	8.30%	8.45%	11.37%								0.44%	0.42%	0.31%	0.44%	0.11%	0.14 /0	0.00%	0.00%	0.00%	0.00%	0.00%								
7-yr Net	Salv. %		0.00%	0.00%	%00.0	0.00%	0.00%	0.00%	0.00%	0.00%	8.30%	8.45%	11.37%	13.14%							1.18%	0.44%	0.38%	0.29%	0.11.70	0.14%	0.00%	0.00%	0.00%	%00.0	0.00%	0.00%								0.17%
6-yr Net	Salv. %	%00.0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	8.45%	11.37%	13.14%	14.96%						2.15%	1.19%	0.39%	0.37%	0.20%	0.14%	0.0000 0.0000	% OO 0	0.00%	0.00%	0.00%	%00.0	0.00%							/0000	0.17%
5- yr Net	Salv. %	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	11.37%	13.14%	14.96%	17.07%					1.38%	1.74%	1.09%	0.38%	0.26%	0.17%	% /0.0	%.00.0	%0000	0.00%	0.00%	0.00%	0.00%	0.00%							0.33%	0.21%
4- yr Net	Salv. %	%00.0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	13.14%	14.96%	17.07%	24.68%				1.28%	1.40%	1.56%	1.53%	0.27%	0.21%	0.08%	%0000	%00.0	%0000	0.00%	0.00%	0.00%	%00.0	0.00%						1.18%	0.35%	0.15%
3- yr Net	Salv. %	0.00%	0.00%	0.00%	0.00%	0.00%	0,00%	0.00%	0.00%	0.00%	14.96%	17.07%	24.68%	NA			0.71%	1.31%	1.19%	5.05%	1.11%	0.22%	0.11%	0.00%	%00.0	0.00.0	0.00 0 2000 0	0.00%	0.00%	0.00%	0.00%	0.00%					0.49%	1.40%	0.38%	0.00%
2- yr Net	Salv. %	%00.0	0.00%	0.00%	%00.0 %00.0	0.00%	0.00%	%00.0	0.00%	%00.0	17.07%	24.68%	NA	NA		4.30%	0.73%	1.06%	5.02%	3.63%	0.99%	0.11%	0.00%	%00.0	%.00.0	%00.0	0.00 %	%00.0	0.00%	0.00%	%00.0	%00.0				0.00%	0.78%	2.09%	0.31%	%00.0
Net	Salv. %	%00.0	NA	0.00%	%00.0 %00.0	0.00%	0,00%	0.00%	0.00%	0.00%	24.68%	NA	NA	NA	%00.0	6.04%	0.44%	10.87%	2.23%	5.11%	0.53%	0.00%	0.00%	%00.0 %00.0	%00.0	%00.0		%00.0	0.00%	%00.0	AN	%00.0			0.00%	0.00%	NA	1.70%	0.00%	%00.0 %00.0
Net	Salvage										12,000			,		665	887	1,400	600	1,300	1,234		1						I							,	06	400		
Cost of	Removal	0	0	0 0			0 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0 0	0 0	2 0					0	0	0	0			C	0	0	0	0 0	00
Gross	Salvage	0	0	0 0			0	0	0	0	12,000	0	0	0	0	665	887	1,400	600	1,300	1,234	0 0	0 0					00	0	0	0	0			C	0	06	400	0 0	00
	Retirement	762	0	2,476	23,133	36.545	14.213	11,128	9,901	21,662	48,626	0	0	0	4,470	11,009	202,275	12,875	26,956	25,456	230,923	883,315	45,010	343,890	231,012	110,14		82.862	19.178	108,424	0	16,503			6.607	11,595	0	23,470	104,861	99,048 41,380
Activity	Year	2007	2008	2009	2010	2012	2013	2014	2015	2016	2017	2018	2019	2020	∋arage Equip -Other 2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2102	5013	2015	2016	2017	2018	2019	2020			aboratory Eq -Other 2002	2003	2004	2005	2006	2008
	Acct	C394.12	C394.12	C394.12	C394.12	C394 12	C394.12	C394.31-C C394.31	C394.31	0004.01	0.004.01	C384.31	C394.31	C394.31	C394.31	C394.31	C394.31			C395.10-L C395.1	C395.1	C395.1	C395.1	C395.1	C395.1 C395.1															

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9- yr Net Salv %	Odiv. 70	0670/	%/Q.0-	0.20%	0.10 /0	0.14%	% 60 0-	-0.10%	0.27%	0.66%	0.76%	0.21%									AN	A N	AN AN	NA	NA	NA	AN	A N	AN												%00.0
8-yr Net Salv %	0 0007	0.90%	-0.00%	0.41%	0.010/0	0.00% 0.09%	-0.11%	-0.11%	0.83%	0.76%	0.21%	0.77%								AN	AZ	AN		AZ	AN	AN	AN	NA NA	AN											,000 0	-0.03%
7-yr Net Salv %	00 0.0070	% 76.0-	-0.7.0%	0.19%	0,000/0	0.10%	-0.11%	0.55%	1.00%	0.21%	0.27%	0.29%							NA	AN	AN	AN	AN AN	AN	NA	AN	AN	NA	AN											-0.03%	-0.03% 0.02%
6- yr Net Salv %	00 70 70	-0.93%	-0.1 1% 0 4 0 %	0.12%	0,11.0	0.12%	0.58%	0.71%	0.28%	0.27%	0.29%	%cc.0						NA	NA	AN	A N	A N	AN AN	AN	NA	NA	AN	AN	AN										-0.04%	-0.04%	0.00%
5-yr Net Salv %	Odiv. 70	0/ 0/07-0-	-0.64%	0.13%	0.13/0	0.08%	0.75%	-0.31%	0.38%	0.29%	0.35%	0.77%					NA	NA	NA	AN :	A N	AN N	A N	AN	NA	NA	AN :	NA	AN									-0.05%	-0.05%	0.00%	0.00%
4- yr Net Salv %	2dIV. 70	1.10%	-1.U0%	0.45%	1 220/	1.37%	-0.34%	-0.50%	0.44%	0.35%	0.77%	0.82%				NA	AN	NA	NA	AN :	AN	AN N	AN AN	AN	NA	NA	AN :	NA	AN								%60.0-	-0.07%	%00.0	0.00%	0.00% 0.04%
3- yr Net Salv %	3dIV. 70	1.00%	-1.40%	0.24%	1 00%	%00 U	-0.56%	-0.63%	0.58%	0.77%	0.82%	0.00%				A N	AN	ΝA	ΝA	A N	A N	A Z	A N	AN	NA	ΝA	A N	A N N	NAN							%6U U-	-0.16%	0.00%	0.00%	0.00%	0.06% 0.06%
2-yr Net Salv %	2dIV. 70	1 76%	-1./0% 0.000	2.00%	0/04:7	%00.0	-0.72%	-1.12%	1.53%	0.82%	%00.0	AN			AN	AN NA	AN	NA	AN	NA	A N	AN	AN AN	AN	AN	AN	NA	AN NA	AN							-0.17%	-0.01%	-0.01%	%00.0	0.01%	0.01%
Net Salv %	3dIV. 70	% I 7. 1	0.00%	0.000	0,00,0 200,0	%0000	-1 44%	0.00%	1.76%	%00.0	A N	AN		NA	AN .	AN NA	AN	NA	NA	NA	AN	AN	AN AN	NA	NA	NA	NA	NA NA	AN						0.00%	%0/.0- 0 00%	-0.12%	0.00%	%00.0	0.03%	0.00% 0.16%
Net Salvare		(0,900)		4,300			(1 327)		3,000																										155	(9,946) (58)	(612)			801	- 8,080
Cost of		3,3U0	5 0				1 327	0	0	0	0 0	D		0	0 (5 0	0	0	0	0	0 0	5 0		0	0	0	0		0						2,096	10,700	612	0	0	0 0	00
Gross	oalvage			4,500				0	3,000	0	0 0	D		0	0 0		00	0	0	0	0 0			0	0	0	0		0	I					2,250	888 888	000	0	0	801 ĵ	0 8,080
Defirement		92,131 120 EAA	129,044	20,02 156 676	52 660	92,230	92.257	26,524	170,084	194,255	0 0	D	ment	0	0 0		0	0	0	0	0 0			0	0	0	0		0					ar	4,455,196	1,430,625	501.805	9,600,362	5,982,996	3,182,658	6,208,003 5,173,136
Activity	2000	2010	2010	2011	2012	2013	2015	2016	2017	2018	2019	2020	owerOberated Eduin	2002	2003	2004	2006	2007	2008	2009	2010	1102	2012	2014	2015	2016	2017	2018	2020					Commun Equip -Othe	2002	2003	2005	2006	2007	2008	2010
Acct	C30F 1	C383.1	C385.1	C383.1	0000	C395.1	C395 1	C395.1	C395.1	C395.1	C395.1	C395.1	C39600 P	C396.0	C396.0	C396.0	C396.0	C396.0	C396.0	C396.0	C396.0	C396.0	C.396.0	C396.0	C396.0	C396.0	C396.0	C396.0	C396.0					C397.10-(C397.10	C397.10	C397.10	C397.10	C397.10	C397.10	C397.10 C397.10

9- yr Net Salv. %	0.00% 0.07% 0.07% 0.07% 0.07% 0.07% 0.05% 0.04%	0.34% 0.73% 1.18% 1.41% 0.81% 0.99% 0.99% 0.74%	-163.56% -163.03% -162.03%
8- yr Net Salv. %	0.02% 0.08% 0.08% 0.10% 0.07% 0.07% 0.04% 0.04%	0.32% 0.34% 0.73% 1.57% 1.57% 1.57% 1.19% 0.88% 0.74% 0.69%	-163.56% -163.03% -163.03% -163.47%
7- yr Net Salv. %	0.03% 0.09% 0.10% 0.12% 0.08% 0.08% 0.05% 0.05%	0.30% 0.32% 0.328% 0.58% 1.71% 1.11% 1.140% 1.140% 0.75% 0.34%	-164.15% -163.01% -162.49% -168.05% -168.05%
6- yr Net Salv. %	0.03% 0.11% 0.12% 0.10% 0.07% 0.05% 0.05% 0.02%	0.30% 0.32% 0.32% 0.127% 1.25% 1.348% 1.348% 0.570% 0.348% 0.08%	-194.81% -163.31% -162.45% -167.68% -167.178%
5- yr Net Salv. %	0.04% 0.13% 0.15% 0.15% 0.09% 0.09% 0.00% 0.00%	5.00% 5.00% 0.19% 0.19% 0.47% 9.63% 17.07% 0.84% 0.34% 0.34% 0.08%	-153,42% -152,11% -162,45% -163,68% -168,92% -168,92% -168,19%
4- yr Net Salv. %	0.05% 0.15% 0.15% 0.111% 0.00% -0.02% -0.03%	3.51% 5.21% 0.17% 0.17% 0.05% 5.39% 17.30% 1.00% 0.08% 0.08% 0.00%	-148.88% -151.02% -160.28% -164.43% -164.43% -168.19% -165.11% -165.44%
3- yr Net Salv. %	0.05% 0.20% 0.15% 0.22% -0.06% -0.01% 0.01%	34.56% 3.71% 5.21% 0.15% 0.15% 0.03% 8.09% 17.74% 0.52% 0.10% 0.00% 0.00%	-162.28% -145.84% -145.60% -151.88% -151.88% -155.11% -162.55% -163.65% -161.60%
2- yr Net Salv.%	0.07% 0.22% 0.22% 0.28% 0.08% 0.06% 0.01% 0.01%	0.00% 3.71% 2.59% 0.00% 0.00% 6.55% 6.555% 8.4.99% 0.128% 0.100% 0.000% 0.000%	
Net Salv. %	0.02% 0.55% 0.08% 0.08% 0.04% 0.00% 0.13%	0.00% NA 0.00% 0.00% 0.00% 0.00% 8.70% 8.70% 0.00% 0.00% 0.00% 0.00% 0.00%	-193.12% -177.91% -127.24% -130.15% -153.58% -153.68% -163.68% -163.68% -163.57%
Net Salvage	1,467 25,974 8,501 19 (12,397) 4,250 172 (2,586) (5,899)	- - - - - - - - - - - - - - - - - -	(6, 399) (1, 307) (7, 314) (7, 334) (44, 918) (44, 918) (44, 918) (14, 918) (14, 918) (14, 918) (101, 247) (101, 247) (101, 247) (101, 247) (101, 247) (2, 554)
Cost of Removal	0 0 12,397 2,596 5,899		6,399 6,399 11,307 7,314 49,335 49,335 40,989 9,403 9,403 2,554
Gross Salvage	1,467 25,974 8,501 8,501 4,250 4,250 172 0 0	0 1,750 1,750 1,600 1,600 1,500 1,500 1,500 0 0 0 0 0	
Retirement	7,661,412 4,722,404 4,722,404 11,007 23,427 9,729,860 9,729,860 3,754,520 3,754,520 22,5006,282 1,300,688	2,626 0 2,438 2,438 17,094 17,093 320,589 320,589 320,589 320,589 320,589 323,330 193,595 193,595 193,595 193,595 193,595 193,595 237,355 237,355 237,355 237,1183 21,183	3,313 6,355 5,749 34,749 8,281 18,583 18,583 62,325 5,745 5,745 5,745 5,745 5,745 1,901
Activity Year	2011 2012 2013 2015 2016 2016 2019 2019 2019	sc Equip - Other 2002 2003 2005 2005 2006 2006 2009 2011 2011 2011 2011 2011 2013 2013 2013	ruct. and Improv. 2003 2004 2005 2005 2006 2008 2008 2010 2011 2013 2013
Acct	C397.10 C397.10 C397.10 C397.10 C397.10 C397.10 C397.10 C397.10 C397.10 C397.10 C397.10 C397.10 C397.10	C C C C C C C C C C C C C C C C C C C	E361.00-St E361.00-St E361.0 E361.0 E361.0 E361.0 E361.0 E361.0 E361.0 E361.0 E361.0 E361.0 E361.0 E361.0

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9- yr Net Salv, %	-167.66% -164.11%	-143.80% -209.03%	-387.35%	-410.29% -431.44%								-168 95%	-175.05%	-175.38%	-207.72%	-201.05%	-199.21%	-200.19%	-209.69%	~10.181- %270.42%	-180.18%																	-102.68%	-110.52%	-105.03%	-104.92% -104.45%
8- yr Net Salv. %	-167.00% -167.17%	-137.47% -226.69%	-393.83%	-410.29% -466.97%							167 7602	-170 11%	-175.45%	-204.40%	-205.50%	-209.48%	-207.79%	-206.18%	-201.78%	-170 55%	-180.81%							014	M								07 0607	-104.30%	-105.05%	-106.14%	-106.66% -105.38%
7-yr Net Salv.%	-171.78% -159.00%	-128.01% -228.97%	-393.83%	-443.02% -470.18%							-127.41%	-170.41%	-206.17%	-201.62%	-215.24%	-220.96%	-215.04%	-196.02%	-176.91%	- 170 18%	-171.39%							A N N	M							/010 20	0/10.78- 002000	-97.80%	-106.21%	-108.28%	-108.07% -103.35%
6-yr Net Salv.%	-162.28% -155.43%	-126.71% -228.97%	-429.22%	-446.00% -470.18%						-138.99%	-127.25% 462.80%	%00.701-	-203.45%	-211.23%	-228.68%	-230.27%	-207.68%	-165.74%	-162.04%	- 158 18%	-177.78%						NA	A N	AN						/000 000	-126.68%	-90.00% 01 F.2%	-97.73%	-108.47%	-110.16%	-106.11% -116.46%
5- yr Net Salv. %	-161.95% -154.57%	-126.71% -242 03%	-432.52%	-446.00% -519.71%					-121.69%	-127.62%	-125.86%	- 100.22%	-214.24%	-224.89%	-239.44%	-230.41%	-176.05%	-144.07%	-159.77%	- 14-3.10%	-195.90%					NA	NA	AN	AN						-106.12%	-112.04%	-03.1.2%	~ 10:06-	-110.48%	-108.42%	-126.20% -119.19%
4- yr Net Salv, %	-161.60% -154.57%	-119.36% -243.60%	-432.52%	-491.82% -1155.12%				-108.46%	-121.09%	-126.10%	-167.38%	-100.12%	-230.04%	-236.25%	-245.49%	-203.07%	-152.40%	-137.10%	-135.31%	%DC.161-	-213.31%				ΝA	NA	AN	A N	E N					-108.94%	-110.57%	-101.44%	%1C.78-	-99.81%	-108.71%	-137.14%	-133.64% -112.83%
3- yr Net Salv. %	-161.60% -146.10%	-119.14% -243.60%	-484.57%	-1083.74% -912.28%			-56.20%	-106.33%	-118.72%	-173.95%	-147.93% 190.98%	- 103.00 %	-243.33%	-240.90%	-223.11%	-187.58%	-145.20%	-99.40%	-142.52%	- 1/4.40%	-203.73%			NA	AN AN	AN	NA	₹ Z	AN				-115.50%	-115.32%	-94.29%	-102.76%	-0/14-1% 00 50%	-93.41%	-141.41%	-153.94%	-128.48% -96.00%
2-yr Net Salv.%	-134.31% -146.96%	-119.14% -267 90%	-1465.13%	-840.91% -705.03%		7000 111-	-144.20%	-101.48%	-185.57%	-153.08%	-142.72%	-248.63%	-255.47%	-207.32%	-221.64%	-195.68%	-87.49%	-98.57%	-179.16%	-185.01%	-224.69%			AN AN	AN	AN	AN	ΥN Δ	ΥN			-131.80%	-126.56%	-94.20%	-91.29%	-108.02%	260.00%	-123.74%	-164.28%	-162.40%	-98.03% -94.96%
Net Salv.%	-146.96%	-112.14% NA	-1055.03%	-530.02% NA		-130.88%	- 139.33%	-225.63%	-154.73%	-151.26%	-123.38%	%20.062-	-224.57%	-173.86%	-273.29%	-102.18%	-78.72%	-118.37%	-261.68%	%9C.001-	-264.23%		AN S	NA NA	AN	NA	NA	AN N	M		-79.94%	-176.07%	-98.19%	-88.03%	-94.51%	-115.67%	-00.01%	-144.89%	-191.55%	-104.63%	-95.90% -94.39%
Net Salvage	(38,493)	(116,794) (162-226)	(417,350)	(144,411) (47,683)		(645,603)	(091,334) (869,918)	(3,951,145)	(3,519,910)	(3,116,781)	(1,122,325) (00,000,300)	(6,127,060)	(3.611.621)	(1,441,524)	(2,096,306)	(650,613)	(839,073)	(1, 265, 333)	(2,060,480)	(2,301,099)	(2,478,883)					(0)	1	-	(n) -		- (2,528,386)	(6,523,881)	(6, 348, 889)	(3,687,400)	(4,014,456)	(8,670,055)	(5,300,893) (5,652,770)	(6,986,367)	(6,568,942)	(1,810,410)	(5,151,108) (8,440,373)
Cost of Removal	38,493	116,794 162 226	417,350	144,411 47,683		646,065 601 334	880.668	3,951,145	3,519,910	3,116,781	1,122,507 8 020 300	6, 120, 300 6 139 944	3.611.621	1,441,524	2,108,513	650,613	839,073	1,265,333	2,060,480	3 110 262	2,478,883		0 0			0	0	0 0	D		2,536,704	6,556,281	6,372,083	3,717,287	4,043,125	8,710,827	5,333,408 F 073 720	6.987.809	6,595,142	1,810,427	5,312,577 8,631,646
Gross Salvage	000		0	00		462	10.750	0	0	0 00,	182	0 2 875	0	0	12,207	0	0	0	0 0		00		0 0			0	0	0 0	D		8,318	32,400	23,194	29,887	28,669	40,772 20 545	32,315 10.060	1.442	26,200	17	161,469 191,274
Retirement	26,194	104,150 0	39,558	27,246 0		493,282 133 831	2.999.427	1,751,152	2,274,916	2,060,502	909,648 2 486 205	0,400,393	1.608.216	829,129	767,075	636,726	1,065,926	1,068,921	787,403	1,404,007	938,152		0 0			0	0	00	D		3,162,963	3,705,349	6,465,639	4,188,817	4,247,786	7,495,391	0,033,019 4 000 511	4.821.929	3,429,317	1,730,293	5,371,253 8,941,823
Activity Year	2014 2015	2016 2017	2018	2019 2020	ation Equipment	2002	2004	2005	2006	2007	2008	2010	2011	2012	2013	2014	2015	2016	2017	2010	2020	atteries - Storage	2013	2014	2015	2017	2018	2019	0202	vlae Towars & Evtr	2002 2002	2003	2004	2005	2006	1002	2002	2010	2011	2012	2013 2014
Acct	E361.0 E361.0	E361.0 E361.0	E361.0	E361.0 E361.0	E36200-St	E362.0 E362.0	E302.0 E362.0	E362.0	E362.0	E362.0	E362.0 E362.0	E362.0	E362.0	E362.0	E362.0	E362.0	E362.0	E362.0	E362.0	E362.0	E362.0	E36300-Ba	E363.0	E303.0 E363.0	E363.0	E363.0	E363.0	E363.0	E303.U	E364 00-Do	E364.0	E364.0	E364.0	E364.0	E364.0	E364.0	E304.U	E364.0	E364.0	E364.0	E364.0 E364.0

9- yr Net Salv. %	-105.21% -101.79% -101.53% -102.75% -100.55% -90.00%	-69.17% -69.17% -68.055% -68.11% -64.43% -65.27% -0.510% -71.26% -71.26% -134.99%	-51.70% -65.79% -64.94% -64.50% -72.82% -72.82% -72.55%
8- yr Net Salv. %	-103.56% -109.47% -99.28% -95.70% -89.69%	-68,14% -69,73% -68,05% -64,77% -64,77% -64,77% -64,77% -64,77% -137,95%	-48.89% -65.43% -65.41% -65.41% -75.19% -75.19% -112.11%
7- yr Net Salv. %	-113.45% -110.21% -93.53% -95.45% -89.24%	-66.96% -66.96% -66.66% -65.87% -65.87% -62.03% -62.03% -62.03% -10.07% -149.04%	46.31% -59.20% -51.38% -61.38% -68.42% -79.50% -79.50% -103.95%
6- yr Net Salv. %	-114.96% -105.85% -90.19% -93.17% -95.41% -88.53%	-85.74% -85.74% -66.243% -66.19% -66.45% -66.45% -60.76% -60.76% -60.76% -61.13% -10.59% -110.59%	-54.96% -56.47% -56.47% -56.99% -51.51% -69.151% -70.46% -44% -110.02%
5- yr Net Salv. %	-110.02% -97.41% -92.86% -95.59% -85.76%	-63 27% -76.10% -63.08% -63.08% -63.08% -65.74% -65.74% -69.63% -68.77% -58.88% -68.77% -10.86%	43.98% -53.12% -55.38% -56.58% -71.63% -74.57% -97.20% -97.51%
4- yr Net Salv. %	-99.17% -97.04% -92.51% -93.37% -84.45%	-75.33% -63.43% -63.43% -63.43% -63.43% -63.43% -63.12% -62.12% -74.87% -64.31% -74.31% -72.70% -72.70% -72.70% -72.37%	-41.81% -59.18% -59.18% -52.07% -55.00% -58.97% -66.05% -76.65% -92.06% -92.44% -92.44% -92.44% -92.44%
3- yr Net Salv. %	-98.78% -97.26% -87.11% -93.66% -89.76%	-79.69% -57.19% -57.19% -57.19% -60.35% -60.04% -77.04% -61.86% -61.86% -77.14% -57.14% -51.14% -51.14% -51.14% -51.29%	-41.61% -53.83% -53.83% -53.96% -53.96% -59.71% -97.95% -97.95% -102.46% -112.46%
2- yr Net Salv. %	-99.60% -98.62% -78.91% -86.81% -109.87% -82.64%	-78,44% -86.25% -86.25% -42,413% -73.33% -72.63% -51.53% -56.29% -56.29% -60.29% -61.93% -61.93% -61.93% -61.93% -267.36%	
Net Salv. %	-104.39% -92.44% -68.16% -111.20% -108.62% -68.60%	-62.34% -97.11% -81.00% -81.00% -30.98% -30.98% -30.94% -78.58% -78.72% -69.77% -51.79% -69.77% -129.69% -36.77% -129.69% -32.411% -204.111%	-25.26% -67.35% -67.35% -67.32% -58.12% -58.12% -58.12% -58.12% -117.69% -117.69% -54.60% -54.60% -54.60% -114.48% -114.48% -114.48% -113.51%
Net Salvage	(10,153,482) (8,401,153) (7,788,666) (9,714,032) (10,036,326) (11,720,580)	- - - - - - - - - - - - - - - - - - -	
Cost of Removal	10,292,937 8,502,924 7,877,391 9,850,973 10,162,982 11,835,182	1, 358, 869 2, 127, 817 3, 306, 143 3, 306, 143 4, 520, 005 4, 520, 025 2, 568, 278 3, 040, 926 3, 504, 926 3, 504, 926 3, 504, 926 3, 504, 926 2, 253, 692 2, 743, 187 2, 743, 187 2, 743, 187 2, 7658, 574 13, 148, 420 13, 148, 420	4,038,274 4,038,274 1,967,634 1,673,797 1,673,79 1,673,79 2,773,228 3,772,376 833,330 833,330 833,330 833,330 833,330 833,330 833,331 2,909,846 3,475,149 3,475,149 3,421,731
Gross Salvage	139,454 101,770 88,725 136,940 126,656 114,602	118,122 461,449 431,149 431,149 11,1261018 271,550 990,445 600,483 11,000,483 11,000,483 730,459 730,459 730,454 434,532 544,549 730,453 544,549 730,453 544,549 730,453 544,549 730,453 544,549 730,453 544,549 730,453 544,549 730,453 554,549 730,525 554,549 730,453 554,549 730,455 554,549 730,455 554,549 730,455 554,549 556,556 566,549 566,549 566,549 566,549 566,549 566,549 566,549 566,549 566,549 566,556 566,556 566,556 566,567567 566,567 566,567 566,567 566,567567 566,567 566,567567 566,567 566,567567 566,567 566,567567 566,567 566,567567 566,567 566,567567 566,567 566,567567 566,567 566,567567 566,567 566,567567 566,567567 566,567 566,5675	4 6 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7
Retirement	9,726,369 9,088,436 11,427,505 8,735,405 9,240,238 17,085,961	 <	v 15, 971, 337 3, 265, 172 3, 265, 172 4, 730, 745 5, 730, 745 5, 730, 745 5, 730, 745 5, 730, 745 5, 730, 745 3, 491, 607 7, 724, 410 7, 724, 410 2, 249, 332 2, 249, 332 2, 246, 302 2, 266, 302 3, 055 2, 266, 302 2, 366, 302 3, 366, 367 3, 366
Activity Year	2015 2016 2017 2018 2019 2020	Overhead Cond & De 2002 2003 2005 2005 2005 2005 2011 2011 2011 2011	Overhead Cond & De 2003 2003 2004 2005 2005 2005 2005 2005 2011 2011 2011
Acct	E364.0 E364.0 E364.0 E364.0 E364.0 E364.0 E364.0 E364.0	E365.0 E365.0	E366.0 E366.0 E366.0 E366.0 E366.0 E366.0 E366.0 E366.0 E366.0 E366.0 E366.0 E366.0 E366.0 E366.0 E366.0 E366.0 E366.0 E366.0 E366.0 E366.0

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-74.49% -83.96% -92.22% -119.20% -119.20% -148.90% -159.40%	-54.00% -54.87% -55.61% -64.84% -74.60% -84.17% -95.05% -104.45% -104.45%	9- yr 8- yr 8alv. <u>6</u> -117.18% -115.29% -124.55%
-66.39% -66.39% -75.13% -82.02% -119.37% -143.64% -162.35%	-51.07% -53.14% -53.14% -52.47% -66.31% -79.16% -70.16% -101.657% -114.02%	8-yr 8-yr Net Salv.% -117.12% -116.53% -129.83%
-62.12% -62.12% -66.09% -72.22% -90.13% -114.46% -143.46% -153.36% -162.05%	-47.21% -49.83% -50.34% -55.57% -55.57% -55.57% -104.74% -104.74% -110.45% -110.45% -111.62%	7-yr Net Salv. % -118.00% -138.06%
-71.26% -61.12% -61.12% -61.14% -79.16% -99.55% -120.15% -15.65% -15.65% -157.66% -157.66%	-60.89% -45.35% -53.37% -56.17% -56.17% -107.41% -107.44% -111.66% -111.46% -111.46% -122.80%	6- yr 8- yr Net Salv. % -126,39% -121,36%
	-51.39% -48.67% -48.97% -48.97% -53.71% -59.28% -66.58% -103.09% -114.94% -113.18% -113.18%	5- yr New Salv, % -135.99% -131.73% -147.56%
-58.79% -57.64% -57.64% -53.88% -59.66% -113.81% -168.28% -168.30% -145.41% -157.12%	-54.45% -42.96% -42.96% -42.58% -48.63% -63.395% -63.39% -90.41% -10.24% -10.24% -116.24% -103.37% -103.37% -103.37% -103.37%	4- yr Net Salv. % -136.44% -153.98%
-65, 15% -65, 00% -65, 00% -67, 09% -79, 00% -130, 00% -135, 00% -1467, 57% -1467, 57%-1467, 57% -1467, 57%-1467, 57% -1467, 57%-1467, 57% -1467, 57%-1467, 57% -1467, 57%-1467, 57%-1467, 57% -1467, 57%-1467, 57%-1467, 57%-1467, 57%-1467, 57%-1467, 57%-	-55,45% -51,98% -40,65% -40,65% -40,92% -50,70% -50,70% -92,29% -116,62% -106,64% -106,54% -105,54%-105,54% -105,54% -105,54%-105,54% -105,54%-105,54% -105,54%-105,54% -105,54%-105,54% -105,54%-105,54%-105,54% -105,54%-105,54%-105,54% -105,54%-105,54%-105,54% -105,54%-105,54%-105,54%-105,54%-105,54% -105,54%-1	3- yr ar yr Net -150.72% -140.73% -148.97%
	-70.39% -52.37% -40.58% -40.58% -44.530% -44.530% -90.76% -90.76% -114.06% -114.06% -105.07% -113.43% -105.07% -113.43% -105.07% -113.65% -105.07% -113.65% -105.07% -113.65% -105.07% -105.05%	<mark>2- yr</mark> 2- yr Net Salv. -165.9% -143.09%
-68.72% -100.57% -300.57% -41.89% -62.56% -59.299% -163.01% -182.53% -132.848% -132.848% -132.848% -134.12% -231.22%	-62.73% -77.85% -32.89% -51.05% -47.948% -47.948% -86.55% -96.55% -98.55% -121.78% -121.78% -121.78% -121.78% -121.78% -122.05%	Net Salv. % -162.81% -104.06% -208.23%
(4,699,304) (4,699,304) (5,20,406) (3,570,537) (3,570,537) (5,104,576) (5,104,576) (5,028,433) (7,782,283) (11,628,201) (12,628,201) (12,628,201) (12,628,201) (12,628,201) (12,628,201) (12,628,201) (13,628,201) (14,628,201) (14,628,201) (14,628,201) (14,628,201) (14,628,201) (14,628,201)(14,628,201) (14,628,201)(14,628,201) (14,628,200)(14,628,200) (14,628,208,200)(14,628,200)(14,628,200	(2, 558, 205) (3, 259, 630) (1, 801, 494) (1, 801, 494) (2, 052, 595) (2, 052, 595) (3, 084, 659) (3, 084, 747) (3, 084, 447) (3, 084, 447) (3, 080, 147) (3, 080, 147) (2, 347, 703) (3, 425, 506) (4, 425, 506) (4, 425, 506) (4, 425, 506) (4, 425, 506) (4, 425, 506) (4, 195, 435) (1, 1954, 835) (11, 19	Net Salvege (3.764,961) (3.538,248) (4.241,538)
4, 997, 342 6, 666, 636 6, 496, 156 6, 495, 116 6, 495, 115 6, 311, 580 6, 162, 022 5, 035, 617 12, 745 9, 070, 745 14, 037, 283 12, 664 7, 784, 039 6, 551, 601 9, 115, 433 6, 433, 011 5, 148, 039 6, 143, 031 5, 148, 039 6, 143, 031 6, 143, 031 6	2,805,564 3,725,109 2,223,043 2,223,041 3,220,025 4,507,997 3,907,997 3,907,987 3,907,782 4,487,291 3,148,969 3,148,969 3,148,969 3,148,969 3,148,969 3,148,969 3,148,969 3,1770,663 8,540,520 9,907,885 8,540,520 9,907,885 11,402,649 11,402,643	Cost of Cost of Removal 3,764,961 3,538,248 4,241,538
298,038 376,230 660,129 660,129 660,129 1,057,559 1,057,559 1,057,558 1,021,598 620,597 620,597 620,597 620,597 621,598 620,577 621,598 621,598 621,598 621,598 621,598 621,598 621,598 621,598 621,598 621,598 621,598 621,598 621,598 621,598 621,598 621,598 621,598 621,598 6221,597 6221,597 6221,597 6221,597 6221,597 6221,598 6221,597 6	247,359 465,478 431,149 506,724 1,111,966 1,271,500 879,750 879,750 660,919 660,919 660,919 1,010,515 871,555 872,555 872,555 872,555 872,555 872,555 872,555 872,555 875,5555 875,5555 875,5555 875,5	Gross Salvage 0
6,838,624 6,838,624 6,248,738 9,545,134 8,524,165 6,175,056 6,175,056 6,175,056 6,175,056 6,175,056 6,175,056 6,175,056 6,175,056 6,175,056 6,175,056 6,175,056 6,792,633 7,79,533 5,379,533 6,388,838 5,379,533 5,379,533 6,388,638 6,715,716 6,715,717 6,726 6,727,717 6,727,717 6,727,717 6,727,717 6,727,717 6,727,717 6,727,717 6,727,717 6,727,717 6,727,717 6,727,717 6,727,717 7,727,727 7,727,727 7,727,727 7,727,72	ev 4, 077, 846 4, 1077, 846 5, 4767, 100 5, 4767, 100 5, 4767, 100 5, 4765, 343 6, 756, 583 8, 588, 278 8, 588, 278 2, 897, 997 2, 979, 033 4, 426, 534 6, 190, 117 2, 970, 033 2, 709, 033 8, 965, 657 8, 939, 663 7, 857, 689 8, 939, 663 7, 887, 689	Retirement 2.312,423 3,400,172 2,036,926
ine Transformers 2003 2004 2005 2006 2006 2006 2011 2016 2011 2015 2016 2016 2016 2016 2017 2016 2017 2016 2017 2017	indergrmd Cond & L 2003 2003 2005 2005 2006 2006 2007 2007 2010 2011 2011 2011 2011 2011	Activity Year 2018 2019 2020
E368.0 E368.0	E367.0 E3	Acct E366.0 E366.0 E366.0

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												1		
Acct	Activity Year	Retirement	Gross Salvage	Cost of Removal	Net Salvage	Net Salv. %	2- yr Net Salv.%	3- yr Net Salv. %	4- yr Net Salv. %	5- yr Net Salv. %	6- yr Net Salv. %	7-yr Net Salv. %	8- yr Net Salv. %	9- yr Net Salv. %
E368.0	2020	2,901,019	18,099	5,392,113	(5,374,015)	-185.25%	-204.85%	-188.26%	-201.01%	-180.14%	-167.34%	-159.06%	-164.47%	-167.44%
E3682 Ca	bacitors													
E368.2	2002	2,132,215	0	1,038,013	(1,038,013)	-48.68%								
E368.2	2003	1,612,659	0	1,000,689	(1,000,689)	-62.05%	-54.44%							
E368.2	2004	2,049,833	0	705,681	(705,681)	-34.43%	-46.59%	-47.36%						
E368.2	2005	3,299,151	0	1,473,390	(1,473,390)	-44.66%	-40.74%	-45.68%	-46.38%					
E368.2	2006	3,533,732	0	2,210,543	(2,210,543)	-62.56%	-53.91%	-49.42%	-51.36%	-50.91%				
E368.2	2007	3,298,457	0	1,988,031	(1,988,031)	-60.27%	-61.45%	-55.98%	-52.36%	-53.49%	-66.29%			
E368.2	2008	4,050,715	0	2,141,136	(2,141,136)	-52.86%	-56.19%	-58.25%	-55.09%	-52.48%	-53.35%	-52.85%		
E368.2	2009	2,124,906	0	2,710,748	(2,710,748)	-127.57%	-78.57%	-72.20%	-69.58%	-64.54%	-61.17%	-61.24%	-60.03%	
E368.2	2010	3,178,058	0	2,788,123	(2,788,123)	-87.73%	-103.69%	-81.68%	-76.10%	-73.14%	-68.32%	-65.09%	-64.88%	-63.51%
E368.2	2011	1,999,993	0	2,481,696	(2,481,696)	-124.09%	-101.77%	-109.28%	-89.15%	-82.65%	-78.74%	-73.51%	-70.11%	-69.59%
E368.2	2012	1,106,225	0	2,472,203	(2,472,203)	-223.48%	-159.48%	-123.20%	-124.30%	-101.08%	-92.53%	-87.04%	-80.85%	-76.99%
E368.2	2013	1,183,139	0	1,703,146	(1,703,146)	-143.95%	-182.38%	-155.20%	-126.49%	-126.73%	-104.79%	-96.13%	-90.33%	-83.99%
E368.2	2014	561,685	0	1,057,071	(1,057,071)	-188.20%	-158.19%	-183.53%	-159.02%	-130.80%	-130.13%	-108.09%	-99.08%	-92.94%
E368.2	2015	289,718	0	545,584	(545, 584)	-188.32%	-188.24%	-162.48%	-183.97%	-160.67%	-132.81%	-131.74%	-109.70%	-100.53%
E368.2	2016	197,353	0	368,345	(368,345)	-186.64%	-187.64%	-187.94%	-164.62%	-184.13%	-161.63%	-134.05%	-132.76%	-110.73%
E368.2	2017	289,593	0	675,899	(675,899)	-233.40%	-214.45%	-204.70%	-197.77%	-172.52%	-188.06%	-165.32%	-137.32%	-135.42%
E368.2	2018	2,597,018	0	754,674	(754,674)	-29.06%	-49.56%	-58.33%	-69.49%	-86.44%	-99.73%	-121.72%	-122.30%	-112.66%
E368.2	2019	996,680	0	770,544	(770,544)	-77.31%	-42.44%	-56.68%	-62.97%	-71.28%	-84.59%	-96.08%	-115.59%	-117.44%
E368.2	2020	5,420,774	0	817,691	(817,691)	-15.08%	-24.75%	-25.99%	-32.45%	-35.65%	-40.17%	-48.20%	-58.02%	-72.50%
100 1 Cor	Contraction Contraction													

									-99.74%	-113.21%	-123.46%	-135.34%	-144.73%	-158.14%	-180.81%	-213.96%	-248.95%	-297.09%	-370.13%
								-92.31%	-102.96%	-108.88%	-128.53%	-142.36%	-151.55%	-167.41%	-194.94%	-226.73%	-260.41%	-309.51%	-383.08%
							-89.32%	-95.01%	-96.67%	-112.71%	-135.67%	-149.83%	-161.23%	-181.45%	-206.95%	-236.68%	-269.67%	-316.74%	-410.06%
						-106.95%	-92.01%	-86.45%	-99.29%	-118.52%	-143.31%	-160.85%	-176.53%	-193.22%	-215.36%	-243.61%	-272.37%	-337.39%	-449.71%
					-92.83%	-94.93%	-81.14%	-87.75%	-103.82%	-124.26%	-155.24%	-179.20%	-189.73%	-200.57%	-219.56%	-242.26%	-288.82%	-370.77%	-496.28%
				-94.03%	-97.93%	-81.58%	-81.56%	-90.79%	-107.46%	-134.14%	-176.74%	-196.49%	-198.10%	-202.12%	-212.48%	-255.37%	-319.43%	-409.49%	-546.05%
			-100.72%	-101.34%	-80.76%	-82.30%	-83.75%	-91.55%	-115.06%	-154.31%	-199.21%	-210.11%	-199.36%	-187.51%	-220.38%	-285.10%	-355.33%	-447.73%	-612.30%
		-111.40%	-115.13%	-76.71%	-81.47%	-86.07%	-81.64%	-95.19%	-134.62%	-175.59%	-221.54%	-218.24%	-176.13%	-186.91%	-248.62%	-321.64%	-387.99%	-495.58%	-700.86%
	-72.22%	-151.08%	-79.27%	-74.18%	-88.36%	-83.86%	-79.62%	-112.32%	-157.07%	-194.37%	-251.28%	-188.70%	-163.54%	-210.03%	-287.55%	-353.40%	-425.04%	-559.04%	-858.04%
	(749,689)	(1,548,725)	(814,670)	(772,800)	(974,437)	(956,222)	(1,002,126)	(1,285,279)	(1,785,466)	(2,179,344)	(2,572,625)	(2,160,701)	(1,869,850)	(2,428,230)	(3,294,754)	(4,345,943)	(4,879,643)	(7,133,958)	(9,880,086)
	749,689	1,548,725	814,670	772,800	974,437	956,222	1,002,126	1,285,279	1,785,466	2,179,344	2,572,625	2,160,701	1,869,850	2,428,230	3,294,754	4,345,943	4,879,643	7,133,958	9,880,086
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1,038,081	1,025,086	1,027,682	1,041,822	1,102,830	1,140,214	1,258,686	1,144,298	1,136,733	1,121,215	1,023,796	1,145,022	1,143,357	1,156,130	1,145,814	1,229,739	1,148,055	1,276,119	1,151,468
irvices Overhead	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
E369.1. Se	E369.1	E369.1	E369.1	E369.1	E369.1	E369.1	E369.1	E369.1	E369.1	E369.1	E369.1	E369.1	E369.1	E369.1	E369.1	E369.1	E369.1	E369.1	E369.1

9- yr Net alv. %	-62.55% -69.93% -71.37% -77.45% -33.37% 150.50% 150.50% 239.26% 221.148% 221.148% 221.26%	-0.68 -0.122% -0.19% -0.19% -0.19% -0.18% 0.18%
8- yr Net Salv. % Si	-59.37% -59.37% -66.03% -66.49% -74.55% -79.82% -130.52% -130.55% -253.23% -233.23% -303.97%	-2.32% -0.33% -0.19% -0.19% -0.18% 0.14% 0.11%
7-yr Net Salv. %	-56.59% -62.40% -62.40% -69.20% -76.78% -82.19% -161.5.96% -161.5.96% -263.47% -283.56% -283.56%	-0.178% -0.178% -0.131% -0.19% -0.19% -0.19% 0.04% 0.10% 2.47%
6- yr Net Salv. %	-71.55% -59,24% -57,61% -64,23% -70,71% -70,73% -78,22% -33,24,59% -274,59% -274,59% -274,59% -375,16%	-3.18% 0.129% 0.129% -0.29% 0.109% 0.10% 0.10% 3.06%
5- yr Net Salv. %	-60.60% -60.60% -63.415% -53.415% -65.01% -65.01% -113.42% -113.42% -113.42% -113.42% -113.42% -355.99% -3615.14% -3818.33% -3818.33%	-3.88% 0.17% 0.24% 0.24% 0.24% 0.24% 0.12% 5.93% 5.93% 5.93%
4- yr Net Salv. %	-59.42% -59.45% -57.76% -54.76% -54.76% -54.88% -64.88% -165.09% -115.14% -115.14% -195.33% -301.39% -362.31% -362.31%	4.50% 0.26% 0.19% 0.10% 0.10% 0.24% 0.24% 0.00% 8.323% 6.27%
3- yr Net Salv. %	-59.31% -68.17% -68.17% -57.50% -57.69% -57.69% -57.69% -57.69% -137.02% -137.02% -137.02% -149.65% -383.59% -409.89%	6.13% 0.26% 0.26% 0.16% 0.16% 0.13% 0.00% 0.00% 0.00% 0.00% 0.00% 0.01% 8.177% 8.177%
2- yr Net Salv. %	-64.32% -72.99% -53.11% -62.78% -62.78% -57.33% -57.33% -157.22% -157.22% -157.22% -157.22% -380.398% -325.62% -325.62% -325.62% -325.62% -325.62% -325.62% -325.62% -325.62% -325.62% -325.62% -325.62% -325.62% -325.63% -325.63% -325.63% -325.63% -325.63% -325.63% -332.33% -333.33% -333.33% -333.33% -333.33% -333.53%	-9.90% 0.13% 0.33% 0.33% 0.33% 0.18% 0.18% 0.18% 0.00% 0.00% 0.00% 0.00% 0.00% 0.011% 0.011%
Net Salv. %	-45.71% -106.16% -59.79% -59.79% -59.79% -65.58% -42.98% -42.98% -115.03% -116.09% -169.06% -169.06% -293.47% -206.71% -293.60% -293.60% -293.60% -211.11%	-14.27% 0.00% 0.19% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00%
Net Salvage	(881, 129) (881, 129) (488, 194) (658, 671) (770, 120) (770, 120) (770, 120) (773, 728) (782, 293) (762, 293) (762, 2913, 693) (762, 293) (762, 293) (793)	(197,843)
Cost of Removal	910,648 910,648 489,194 658,671 770,120 859,1307 859,149 859,149 859,149 858,002 745,953 745,953 745,953 745,953 745,953 745,953 745,953 762,237 2,031,568 2,931,568 2,561,52 2,561,528 2,561,558 2,561,558 2,563,558,558,558 2,563,558,558,558,558,558,558,558,558,558,55	199,523 0 0 18,595 18,595 20 2 0 2 0 2 0 0 2 0 0 0 0 0 0 2 0
Gross Salvage	29 54 6 7 7 7 8 7 9 8 9 9 9 9 9 9 9 9 9 9 9 9 9	1, 680 155 155 155 155 155 155 155 155 155 15
Retirement	1,927,631 857,631 857,677 1,005,854 1,101,550 1,174,272 1,1991,098 1,9991,098 643,080 643,080 643,080 643,080 994,560 994,560 994,540 994,550 994,500 904,5000 904,5000 904,500000000000000000000000000000000000	1,385,966 612,799 612,799 1,191,727 1,091,727 1,091,727 841,168 841,168 841,168 50,205,729 15,283,200 15,428 50,205,729 15,323,300 15,428 11,375 163,754 114,506 84,375 184,375 184,375 163,754 114,506 11,4506 11,550
Activity Year	rvices Underground 2003 2003 2004 2005 2006 2006 2006 2011 2011 2011 2013 2013 2013 2013 2013	ters 2002 2003 2005 2006 2006 2006 2006 2011 2011 2011 2011
Acct	E3692 Sei E3692 Sei E3692 E369	E370.1 Me E370.1 Me E370.1 Me E370.1

SAN DIEGO GAS AND ELECTRIC DATA ADJUSTED

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9- yr Net Salv. %	0.00%	-17.93% -11.32% -11.32% -10.48% -9.02% -3.7% -7.64% 0.02% 0.08%	0.00%	-58.98% -66.35% -68.17%
8-yr Net Salv.%	0.00%	-68,13% -16,77% -11,32% -10,93% -9,191% -1,57% 76% 0,09% 0,09%	0.00%	-55.78% -62.28% -61.79% -71.14%
7-yr Net Salv. %	0.00% 0.00% 0.00%	-69.03% -68.24% -15.81% -10.33% -10.33% -1.0.33% -1.21% -3.21% -3.21% -1.68% -0.02% 0.009% 0.18%	0.00% 0.00% 0.00%	-52.75% -58.63% -62.01% -75.03% -84.71%
6- yr Net Salv. %	0.00 0.00% 0.00.0	-78.79% -69.39% -61.84% -15.15% -15.15% -10.33% -6.80% 0.00% 0.00% 0.00% 0.21%	0.00% 0.00% 0.00% 0.00%	-62.70% -62.70% -55.10% -57.85% -64.96% -13.54% -149% -89.49%
5- yr Net Salv. %	0.00% 0.00% 0.00% 0.00% 0.00%	-69.33% -61.44% -61.44% -61.44% -9.61% -7.84% -7.84% 0.00% 0.00% 0.22% 0.22%	0.00% 0.00% 0.00% 0.00% 0.00%	-49,43% -54,89% -53,09% -60,279% -60,31% -80,31% -86,31%
4- yr Net Salv. %	0.00% 0.00% 0.00% 0.00% 0.00%	-65.13% -70.00% -89.76% -8.95% -8.19% -8.95% -6.95% -0.00% 0.00% 0.21% 0.31% 0.31%	0.00% NA 0.00% 0.00% 0.00%	49.39% 51.74% 55.16% 62.74% 62.73% 62.73% -74.02% 104.28%
3- yr Net Salv. %	0.00% 0.00% 0.00% 0.00% 0.03% 0.03%	-68.22% -53.31% -57.14% -57.14% -67.70% -56.1% -12.55% -12.55% -12.55% 0.00% 0.00% 0.00% 0.88% 0.88% 0.68%	0.00 NA NA 0.00 0.00 0.00 0.00 0.00 0.00	-49.48% -52.66% -46.67% -55.23% -57.23% -57.03% -67.03% -103.66% -103.29%
2-yr Net Salv.%	0.00% 0.00% 0.00% 0.00% 0.03% 0.03% 0.03%	-87.45% -68.66% -45.73% -71.6.16% -68.25% -68.25% -1.1.57% -7.26% 0.00% 0.00% 0.00% 0.00% 0.18% 0.18%	0.00% NA NA NA NA 0.00 0.00% 0.00%	-52.15% -64.35% -44.55% -43.33% -60.37% -60.97% -64.9% -102.28% -115.79%
Net Salv.%	0.00% 0.00% 0.00% 0.03% 0.03% 0.03% 0.00% 0.00%	-67.63% -144.66% -57.08% -55.76% -55.76% -51.10% -51.10% -51.10% -0.00% 0.00% 0.00% 0.00% 0.00% 0.01% 0.01%	0.00 NA NA NA NA NA NA NA NA NA NA NA NA NA	43 83% -63.75% -99.10% 49.55% -67.14% -5.33% -5.53% -101.04% -118.32% -118.32%
Net Salvage	2 2 - - 7 - (2)	(566, 638) (473, 710) (272, 555) (385, 3167) (385, 522) (385, 522) (385, 522) (385, 522) (385, 522) (385, 522) (375, 522) (375, 522) (375, 522) (376, 660) (60) (60) (60) (20) (20) (20) (20) (20) (20) (20) (2		(47, 304) (47, 304) (48, 367) (18, 652) (28, 365) (45, 082) (45, 082) (45, 082) (45, 088) (45, 088) (45, 888) (45, 888) (45, 888) (45, 888) (45, 888) (45, 988)
Cost of Removal	0 0 0 7 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	566,638 473,710 272,555 355,167 355,529 355,291 375,532 375,532 375,532 375,532 375,532 375,532 375,532 335,970 0 0 0 0 2 5 31 -531 -531 -26		47,304 47,304 46,52 86,52 45,092 39,310 45,092 39,310 43,004 43,004 29,988 29,988
Gross Salvage				00000000000000000000000000000000000000
Retirement	54,647 37,719 62,424 1,197,736 221,003 21,060 41,060 53,850	837,802 351,782 351,782 633,344 611,273 504,498 611,274 504,498 31,970,440 13,488,997 13,4430 2,050,416 13,443 13,544 13,547 13,547 13,547 14,54714,547 14,547 14,547 14,547 14,54714,547 14,547 14,547 14,547 14,547 14,547 14,547 14,547 14,547 14,547 14,547 14,547 14,547 14,547 14,547 14,54714,547 14,547 14,547 14,547 14,54714,547 14,547 14,547 14,54714,547 14,547 14,54714,547 14,547 14,547 14,54714,547 14,547 14,54714,547 14,547 14,54714,547 14,547 14,54714,547 14,547 14,54714,547 14,547 14,54714,547 14,547 14,54714,547 14,547 14,54714,547 14,54714,547 14,547 14,54714,547 14,547 14,54714,547 14,54714,547 14,54714,547 14,54714,547	stronic 253 0 0 2 813 2 813 50,554 50,554	m 107,921 77,439 77,167 58,589 67,157 82,160 42,583 42,563 42,563 42,563 28,763 42,563 28,763 25,710 25,511
Activity Year	2013 2014 2015 2016 2016 2018 2019 2020	er Installations 2002 2003 2005 2006 2006 2006 2006 2011 2011 2011 2011	ter Institutions Elei 2013 2013 2014 2014 2016 2016 2017 2019 2019 2020	allations - Cust Pre 2002 2004 2005 2005 2006 2006 2006 2010 2011 2011 2011 2012
Acct	E370.11 E370.11 E370.11 E370.11 E370.11 E370.11 E370.11 E370.11 E370.11	E370.2 Metr E370.2 Metr E370.2 E370.2	E370.21 Me E370.21 Me E370.21 E370.21 E370.21 E370.21 E370.21 E370.21 E370.21 E370.21 E370.21	E371.0 Insk 371 371 371 371 371 371 371 371 371 371

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9- yr Net Salv. %	-81.36%	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	-193.95%	-258.05%	-311.33%	-387.45%									/001 00	-02.13%	%1/.CQ-	-88.35%	-90.040%	-102.00%	-118.93%	%GC.041-	-203.22%	-208.79%	-236.58%										-50.26%	-50.26%	-50.26%	-48.69%	-67.25%	-14.85%	-3.03%	%10.1- %22.0-	~ 110-	-0 7 Q%	0/ 0/0-			
8- yr Net Salv. %	-88.44%	-90.29% -113.89%	-213.47%	-293.63%	-355.13%	-412.56%								/000 10	-01.22.70	-03.10%	-00.21%	-91.33% 00.000/	-90.00%	-113.32%	-142.56%	-1/3./3%	-202.12%	-224.05%	-247.16% -264 22%	2/ 37:103								-50.26%	-50.26%	-50.26%	-50.48%	-67.25%	-47.91%	-4.24%	-1.59%	-0.17%	-0.77%	-0.70%	0.0.0			
7- yr Net Salv. %	-93.56%	-111.40%	-240.58%	-339.25%	-379.14%	-465.73%							70 07		-02.12%	-02.33%	-09.11%	-90.48%	- 109.11%	- 15/ .51%	-169.16%	-108.95%	-218.47%	-233.91%	-256.91% -273 30%	200							-52.77%	-50.26%	-50.26%	-50.48%	-70.79%	-47.91%	-29.51%	-1.97%	-0./5%	-0.17% -0.77%	~ 1 1.0-	-0 80%	0.00.0-			
6- yr Net Salv. %	-109.24%	-123.18%	-275.01%	-365.38%	-430.93%	-566.74%						1002 007	- 100.070 //000/27	// 00. 1.1-	0/ 07.70-	-00.12%	-94.U3%	- 100.44%	- 133.03%	- 102.91%	-162.96%	- 181.81%	%GN.6ZZ-	-243.14%	-266.12% -280.83%	0.00						-60 20%	-52.77%	-50.26%	-50.48%	-70.79%	-50.43%	-29.52%	-19.49%	-0.57%	-0.75%	-0.17% 2022/07	-0.78%	-0 80%	0/00.0-			
5- yr Net Salv. %	-113.71%	-120.00% -124.81%	-295.57%	-424.39%	-533.54%	-671.93%					/002 00	-00./3%	-02.10%	06 400/	0/ DI .CO-	-90.11%	- 103.07 %	-130.05%	/////01-	- 103.90%	-1/6.89%	-180.98%	-239.37%	-251.89%	-282.90% -316 53%	2000					10 000/	-54 36%	-52.77%	-50.48%	-70.79%	-50.43%	-34.69%	-19.50%	0.04%	-0.57%	-0.75%	-0.78%	-0.78%	-1 11%	0/11.1-			
4- yr Net Salv. %	-118.52%	-127.15%	-342.94%	-553.91%	-647.04%	-835.63%				/000 000	-00.89%	-03.38%	0/07.6C-	0/ 01 0/0	-04.04 70	-99.00%	-120.32%	-154.90%	-140.0U%	-109.61%	-182.01%	%G8.181-	-249.52%	-268.08%	-311.28% -346 35%						-3.97%	-54 36%	-53.02%	-70.79%	-50.43%	-34.69%	-26.85%	%00.0	0.04%	-0.57%	-0./5%	-0.78%	-1.06%	NA NA				
3- yr Net Salv. %	-118.62%	-123.95%	-453.87%	-721.43%	-839.26%	-724.61%			00040	-69.94%	-04.72%	%CQ.10-	-00.23%	/000000	- 33.3370	% GO 707 -	-103.10%	~10.001-	0247.001 -	-1/4./1%	-18/.25%	%18.C61-	-209.84%	-297.23%	-345.26% -318.71%					-0.82%	-3.97%	-54 65%	-77.93%	-50.43%	-34.69%	-26.85%	ΝA	0.00%	0.04%	-0.57%	-0./6%	-0.10%	NDC-1-	AN AN				
2- yr Net Salv. %	-121.04%	-126.33% -135.56%	-615.38%	-1087.07%	-687.88%	-594.71%			%7G.01-	-08.02%	%GG./G-	-04.00%	-00.10%	/000 201	121.0270	%/C.UCI-	150.20%	%60.601-	06 17. 101-	-100.40%	-191.30%	-200.98%	-314.11%	-336.78%	-307.90% -362.02%	2010			NA	-0.82%	-3.97%	-20.00 %	-54 26%	-34.69%	-26.85%	NA	NA	%00.0	0.04%	-0.58%	-0.76%	₩0/1-	AN AN	AN AN				NA
Net Salv. %	-124.35%	-131.60%	-1068.21%	-1123.74%	-463.25%	-819.98%		-72.99%	~00.08-	-52.76%	-00.38%	-00.40%	110.050/02/0	/000 010	105.040/0	% 1 0 COI -	%ZU.201-	-101.09% //20.051	- 1/ 3.40%	- 185.UU %	-196.000	-200.88%	-402.28%	-262.22%	-369.82% -351 86%			NA	NA	-0.82%	-4.01%	200 ZZ-	-41.51%	-26.85%	NA	NA	NA	0.00%	NA	-0.58%	-1.01%	AN AN	AN	AN AN		:	AN N	NA
Net Salvage	(40,548)	(28,300)	(234,263)	(126,761)	(101,393)	(104,734)		(242,961)	(233,893)	(976,975)	(243,410)	(402,242)	(300,000)	(200,003)	(19/,103)	(130,023)	(180,090)	(140,921)	(131,204)	(200,117)	(2/6,454)	(211,307)	(513,917)	(294,223)	(306,099)	(==				(14)	(4,726)	(107,838)	(17,982)	(10,112)			ı		5	(3,838)	(4,533)	(017)		(218)	(017)			
Cost of Removal	40,548	29,000	234,263	126,761	101,393	104,734		242,961	233,893	G16,621	243,410	402,242	000,000 000,610	107 400	191,100	1.00,020	180,090	106,041	101,204	210,091	2/0,454	211,307	113,917	294,223	306,099	14 . 014		0	0	14	4,726 54,966	107 838	17.982	10,112	0	0	0	0	-2	3,838	4,533	017		218	017		0 0	D
Gross Salvage	0		0	0	0 0	0		0 0	0 0	0 0	0 0		⊃ -	- c					000 7	1,030	0 0		0 0	0 0	2 0	>		0	0	0	0 0			0	0	0	0	0	0	0 0	0 0				Þ		0 0	D
Retirement	32,607	20,863	21,930	11,280	21,887	12,773		332,873	230,335	238,753	611,504 007 770	8//'GN9	720 000		92,103	130,440	140,41	761,007	10,000	CAC, / I I	140,641	105,038	797,121	112,206	82,769 63 582	100,00		0	0	1,677	117,816	188 541	43.324	37,658	0	0	0	14,193	0	657,531	449,415				Þ	ilers	0 0	D
Activity Year	2014	2016 2016	2017	2018	2019	2020	ghtg & Signal Sys	2002	2003	2004	9000 GNNZ	2005	2008	0000	5005	2010	1102	21.02	2013	2014	2010	91.02	1102	2018	2019	0	ture and Improve	2002	2003	2004	2005	2002	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2019	2020	0202	sportation Eaq Tra	2013	2U14
Acct	371	371	371	371	371	371	E373.2 St Li	373.2	3/3.2	3/3.2	3/3.2	3/3.2	2.010	1.0.0	7.010	213.2	3/3.2	3/3.2	2.010	3/3.2	3/3.2	3/3.2	3/3.2	373.2	373.2	1.000	E390.0 Struc	E390.0	E390.0	E390.0	E390.0		E390.0	E390.0	E390.0	E390.0	E390.0	E390.0	E390.0	E390.0	E390.0	E390.0	E390.0	E300.0	2000	E392.2 Trans	E392.2	E392.2

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9- yr Net alv. %		%00.0 %00.0 %00.0	0.90% 0.90% 0.87% 0.87% 0.41% 0.37% 0.33%	
8-yr Net Salv.% S	NA N	0.00% 0.00% 0.00% 0.00%	1.12% 0.93% 0.99% 0.128% 0.128% 0.128% 0.128% 0.149% 0.144% 0.03%	
7- yr Net Salv. %	A A A	0.00% 0.00% 0.00% 0.00% 0.00%	0.90% 1.16% 1.16% 1.27% 0.71% 0.83% 0.83% 0.64% 0.54% 0.04%	
6- yr Net Salv. %	A A A	0.00% 0.00% 0.00% 0.00% 0.00% 0.00%	1.10% 0.93% 0.82% 0.85% 1.64% 0.95% 0.71% 0.71% 0.03% 0.03%	-0.37%
5- yr Net Salv. %	A A A A A	%00.0 %00.0 %00.0 %00.0 %00.0 %00.0 %00.0 %00.0 %00.0	9,14% 1,11% 1,05% 0,80% 0,81% 0,07% 0,03% 0,03% 0,03%	-0.37% -0.61%
4- yr Net Salv. %	A A A A A A A A A A A A A A A A A A A	0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00%	1.73% 1.29% 0.77% 1.29% 1.22% 1.65% 0.92% 0.03% 0.05% 0.03% 0.03% 0.03%	-0.77% -0.61%
3- yr Net Salv. %	A A A A A A Z Z Z Z Z	0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00%	1.55% 1.55% 0.74% 0.74% 1.51% 1.51% 0.00% 0.00% 0.00% 0.00% 0.00%	0.00% -4.14% -0.61%
2- yr Net Salv. %	N N N N N N N N N N N N N N N N N N N	A COCO 0000000000000000000000000000000000	0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00%	0.00% NA -0.61% 0.00%
Net Salv. %	A A A A A A	0.000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.000000	0.22% 0.22% 0.00%	0.00% NA 4.14% 0.00% NA
Net Salvage			81 	
Cost of Removal				
Gross Salvage	000000		81 60 28,039 25,000 275 2,737 2,737 2,737 2,737 2,737 2,737 2,737 2,737 2,737 2,737 2,737 2,737 2,737 2,750 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Retirement	000000	1,498 33,683 1,684 1,745 7,174 7,174 7,174 2,940 2,940	37,147 74,230 0 227,349 227,349 230,011 127,711 107,057 217,139 217,139 217,139 217,139 217,139 217,139 217,139 217,139 253,201 452,204 452,204 452,204 489,164 330,233	4,731 0 1,088 6,330
Activity Year	2015 2016 2018 2018 2019 2020	s Equip- Other 2009 - Other 2011 - 2012 2012 - 2012 2015 - 2015 2016 - 2015 2018 - 2018 - 2018 2019 - 2018	table Tools- Other 2003 2003 2005 2006 2006 2006 2006 2016 2011 2011 2011	p Equipment 2002 2003 2004 2005 2005 2007
Acct	E392.2 E392.2 E392.2 E392.2 E392.2 E392.2	E393.1 Store 333.1 Store 333.1	E394.11 Port E394.11 Port E394.11 E E394.11 E E394.11 E394.11 E394.11 E394.11 E394.11 E394.11 E394.11 E394.11 E394.11 E394.11 E394.11 E394.11 E394.11 E394.11 E394.11 E394.11	E394.20 Sho 394.2 394.2 394.2 394.2 394.2 394.2

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9- yr Net Salv. %	-0.02% -0.02% -0.02% -0.02% 0.00% 0.00% 0.00% 0.00% 0.00%	0000 0000 00000 00000 00000 00000 00000 0000	
8- yr Net Salv. %	0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00%	0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00%	-60.13%
7-yr Net Salv. %	-0.02% -0.02% -0.02% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00%	0.00 0.00	-51.31% -60.50%
6- yr Net Salv. %	-0.02% -0.02% -0.02% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00%	0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00%	-69.18% -51.52% -60.57%
5-yr Net Salv.%	-0.02% -0.02% -0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00%	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	-54.87% -56.94% -48.91% -58.58%
4-yr Net Salv.%	-0.02% 0.00% 0.00% 0.00% 0.00% AN NO.0 0.00% 0.00% 0.00% 0.00%	0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00%	-52.64% -55.37% -55.45% -65.16%
3- yr Net Salv. %	0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00%	0.00% 0.0	-64.41% -53.13% -52.57% -49.70% -65.39%
2- yr Net Salv. %	0.00% 0.00% 0.00% 0.00% A A X X A A A X X A A A X A X A A A X A X	0.00% 0.00%	-58.38% -66.29% -47.04% -65.09% -65.02%
Net Salv.%	0.00% 0.00%0	00000 00000 00000 00000 00000 00000 0000	44.51% -60.20% -81.94% -63.99% -66.25% -36.55% -91.89%
Net Salvage			(39,460) (407,751) (407,751) (215,899) (153,256) (153,256) (285,228) (285,528) (271,639)
Cost of Removal		~~~~~~~~~~~~	39,460 407,751 215,899 153,256 243,207 206,173 285,328 285,328
Gross Salvage			
Retirement	199,507 22,072 22,072 13,782 8,078 8,078 6,2,988 62,988 62,988 0 0	55,502 2,830 2,830 2,830 182,195 182,195 182,195 138,317 8,014 18,618 18,618 18,618 18,618 25,227 25,227 25,227 0 0 0	- Other 88,662 677,367 677,367 521,313 380,088 380,088 311,217 780,557 839,756
Activity Year	2008 2009 2011 2013 2015 2015 2015 2016 2016 2016 2019 2019 2019	oratory Contery 2002 2003 2004 2005 2005 2005 2005 2014 2011 2011 2011 2011 2011 2011 2011	mmunication Equip- 2003 2003 2005 2005 2006 2006 2009 2009
Acct	394.2 394.2 394.2 394.2 394.2 394.2 394.2 394.2 394.2 394.2 394.2 394.2	E395.1 La ^b 395.1 L 395.1 L 395.1 S 395.1 S 3	E397.1 Corr E397.1 E397.1 E397.1 E397.1 E397.1 E397.1 E397.1 E397.1 E397.1

SAN DIEGO GAS AND ELECTRIC DATA ADJUSTED

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9- yr Net Salv. %	-65.49% -71.56%	-85.26%	-89.86%	-92.19%	-98.32%	-126.00%	-40.80% -50.84%	-46.86%																								0.00%	%00.0 %00.0	%00.0 %00.0	-2.41%	-2.41%	-2.41% -2.41%	-5.23%
8- yr Net Salv. %	-65.96% -73.51%	-85.48%	-94.33%	-94.62%	-116.26%	-141.41%	-37.36% -45 80%	-39.10%							0.00%							ΝΔ									0.00%	0.00%	0.00%	0.00%	-2.41%	-2.41%	-2.41% -2.41%	-5.23%
7- yr Net Salv. %	-67.14% -72.90%	-94.13%	-95.42%	-112.38%	-127.33%	-138.85%	-31.06% -37 70%	-38.02%							%00.0 0.00%							AN NA								0.00%	0.00%	0.00%	0.00 00.00	0.00%	-2.41%	-2.41%	-2.41%	-9.80%
6- yr Net Salv. %	-65.86% -80.08%	-97.96%	-102.42%	-122.44%	-122.88%	-158.67%	-22.42% -36.55%	-38.20%					70000	%_DD.D	%00.0 %00.0						NA	NA NA							%UU U	0.00%	0.00%	NA NA	%00.0 %00.0	0.00%	-2.41%	-2.41%	-2.41%	-9.80%
5- yr Net Salv. %	-73.38% -82.28%	-101.63%	-128.70%	-116.87%	-132.88%	-120.54%	-21.07% -36.66%	-36.46%					NA NO	%.00.0	0.00%					NA	NA	AN AN						/800.0	%00.0	0.00%	NA	NA NA	%00.0	0.00%	-2.41%	-2.41%	4.52%	NA
4- yr Net Salv. %	-75.04% -84.31%	-128.28%	-134.70% -123.15%	-124.07%	-86.94%	-119.75%	-20.41% -34 79%	-33.15%				AN 3	AN O	%0000	%00.0 %00.0				NA	A A	NA	AN NA						0.00%	%00.0	NA	NA	NA NA	%00.0 %00.0	0.00% 0.00%	-2.41%	4.52%	%ZC:₽-	AN AN
3- yr Net Salv. %	-76.53% -106.40%	-156.93%	-139.48%	-65.40%	-81.98%	-189.29%	-17.88% -31 29%	-28.79%			NA	A N	NA NA	%00.0	0.00%			212	A N	V V V	NA	A N					0.00%	0.00%	%00.0	NA	NA	AN 2000	0.00%	0.00%	-4.52%	-4.52%	A N	AN NA
2- yr Net Salv. %	-106.04% -120.79%	-155.96%	-54.08%	-55.90%	-122.00%	-359.79%	-13.96% -26.74%	-397.17%		AN	NA	AN	NA NA	%0000	NA NA			₹ Z	AN AN	A A	NA	AN AM				NA	0.00%	0.00%	AN	AN	ΝA	NA NA	%00.0 %00.0	0.00%	-4.52%	A N	AN AN	AN
Net Salv. %	-160.72% -107.01%	-296.72%	-127.09%	-84.31%	-188.52%	-2338.41%	-9.34% -2185 98%	-75.00%		AN AN	NA	AN	NA NA	%/00/00	AN		NA	A N N	AN AN	A A	NA	AN NA			AN	NA	00.00%	A N N		AN	NA	AN NA	0.00%	%00.0	NA	AN N	NA NA	AN
Net Salvage	(349,395) (674,143)	(650,138)	(108,323) (108,848)	(203,507)	(257,863)	(276,855)	(555,508) (1 047 793)	(199,607)		(15)														884											(335)			(391)
Cost of Removal	349,395 674,143	650,138 400,225	108.848	203,507	257,863	276,855	555,508 1 047 793	199,607	c	15	0	0	0 0		00		0	0 0		0 0	0	00	Þ	-884	0	0	0	0 0		00	0	0 0		0	335	0 0		391
Gross Salvage	00	0 0	00	0	0	0 0		0	c	0	0	0	0 0		00		0	00		00	0	00	5	0	0	0	0	00		0	0	0 0		0	0	0 0		00
Retirement	217,387 630,006	219,106	317.399	241,376	136,782	11,840	5,948,668 47 932	266,139	p- SWPL	00	0	0	0	1,144,232	00	P- SRPL	0	00			0	0 0	þ	scom 0	0	0	41,572	00		0	0	0 0	0,493	7.412	0	0 0		00
Activity Year	2010 2011	2012	2013	2015	2016	2017	2018 2019	2020	nmunication Equi	2013	2015	2016	2017	20102	2020	nmunication Equip	2013	2014	610Z	2010	2018	2019 2020	0707	ommun Dev - Tele 2020	c Equip- Other 2002	2003	2004	2005	2002	2008	2009	2010	2012	2013	2014	2015	2016	2018
Acct	E397.1 E397.1	E397.1	E397.1 E397.1	E397.1	E397.1	E397.1	E397.1 E397.1	E397.1	E397.2 Con	397.2	397.2	397.2	397.2	2.180	397.2 397.2	E397.6 Con	397.6	397.6 207.6	397.6 207.6	397.6 397.6	397.6	397.6 307.6	0.160	E397.70-Cc 397.7	E398.1 Mis 398.1	398.1	398.1	398.1	308.1	398.1	398.1	398.1	396.1	398.1	398.1	398.1	398.1 308.1	398.1

9- yr Net Salv. %	-1.00% -0.26%	0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00%	
8- yr Net Salv. %	-1.09% -0.26%	0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00%	
7- yr Net Salv. %	-1.09%	0.00% 0.00%0	
6- yr Net Salv. %	-1.23% -0.15%	0.000% 00	
5- yr Net Salv. %	-0.66% -0.15%	A N N N N N N N N N N N N N N N N N N N	
4- yr Net Salv. %	-0.66% -0.15%	0.000% NAA NAA NAA NAA NAA NAA NAA NAA NAA NA	
3- yr Net Salv. %	-0.66% -0.15%	0.0.0 0.00 0.00 0.00 0.00 0.00 0.00 0.	
2-yr Net alv.%	0.00%	A X X X X X X X X X X X X X X X X X X X	
0			
Net Salv.%	0.00% 0.00%	o N N N N N N N N N N N N N	NA
Net Net Salvade Salv.% S	%00'0 		-
Cost of Net Net Salvage Salv.% S			- NA
Gross Cost of Net Net Salvade Salv.% S			, NA
Gross Cost of Net Net Net Salvage Salv.% S		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 133000 0 0 0 0 0 0 0 133000 0 0 0 0 0 0 0 13300 0 0 0 0 0 0 0 0 0 13300 0	- 0 0
Activity Gross Cost of Net Net Year Retirement Salvade Removal Salvade Salv.% S		uctures and improv 2002 2003 2004 2005 2005 2006 2006 2006 2006 2006 2006 2006 2006 2013 2013 2013 2013 2014 2015 2013 2014 2015 2015 2015 2016 2015 2016	uctures and Improv 0 0 0 0 - NA

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9- yr Net Salv. %						-0.02%	-0.02%	-0.02%	-563.09%	-1090.90%	-537.48%	-538.17%	-587.22%	-632.51%	-633.52%									NA	NA	NA	-41.61%	-41.61%	-44.14%	-702 F0%	-1183.44%	-1296.69%	-295.88%								
8- yr Net Salv. %					-0.02%	-0.02%	-0.02%	-0.02%	-563.09%	-1090.90% -521.15%	-537.48%	-579.92%	-587.22%	-632.51%	-633.52%								NA	NA	NA	NA	-41.61%	-41.61%	-44.14%	-722 50%	-1183.44%	-1296.69%	-295.88%								-67.57%
7- yr Net Salv. %				-0.03%	-0.02%	-0.02%	-0.02%	-0.02%	-563.09%	-1641./9% -52115%	-579.18%	-579.92%	-587.22%	-632.51%	-510.95%							AN	NA	NA	NA	AN	-41.61%	-41.61%	-44.14%	%02 CC-	-1183.44%	-1296.69%	-320.74%							-67 57%	-74.73%
6- yr Net Salv. %			/060 0	-0.03%	-0.02%	-0.02%	-0.02%	-0.02%	-950.67%	-1641.79% -56158%	-579.18%	-579.92%	-587.22%	-509.81%	-321.89%						NA	NA	NA	NA	NA	NA	-41.61%	-41.61%	-44.14%	-707 F0%	-122.33%	-2100.32%	-320.74%						67 F70/	-74 73%	-74.73%
5- yr Net Salv. %			NA 0.03%	-0.03%	-0.02%	-0.02%	-0.02%	0.00%	-950.67%	-3128./0% -56158%	-579.18%	-579.92%	-458.86%	-320.75%	NA					MA	AN	NA	NA	NA	NA	NA	-41.61%	-41.61%	-44.14% EE EO%	-777 F0%	-1914.56%	-2100.32%	-349.59%						-67.57%	-74.73%	NA
4- yr Net Salv. %		AN	AN 0.03%	-0.03%	-0.02%	-0.02%	%00.0	%00.0 %00.0	-1614.96%	-3128.70% -561 58%	-579.18%	-450.66%	-269.81%	AN	NA				MA		AN	NA	NA	NA	NA	NA	-41.61%	-41.61%	-44.14%	-1158 62%	-11914.56%	-5507.04%	-366.90%					-67.57%	-74.73%	NA NA	AN
3- yr Net Salv. %	ΨN	NA	AN 0	-0.03%	-0.02%	0.00%	%00.0	AN NA	-1614.96%	-3128.70% -56158%	-449.82%	-261.60%	NA	AN N	NA			414	AN AN		A N	NA	NA	NA	NA	NA	-41.61%	-41.61%	-44.14% 64 54%	-04.04 %	-1100.02 %	NA	-169.77%				-67.57%	-74.73%	-74.73% NA	A N	AN
2- yr Net Salv. %	A N A N	NA	NA NA	-0.03%	0.00%	0.00%	AN	NA	-1614.96%	-3128.70% -430.02%	-260.76%	NA	NA	AN N	NA			A N	AN N	ΦN	AN AN	NA	AN	NA	NA	NA	-41.61%	-41.61%	-40./3% 64 54%	-04.04 %	NA NA	NA	-33.56%			-65.51%	-74.73%	-74.73%	AN NA	ΨN N	NA
Net Salv. %	AN NA	ΝA	AN 0.03%	-0.03% NA	0.00%	NA	NA	NAN	-1614.96%	NA -240 96%	NAN NA	AN	NA	AN N	NA		AN S	A N	AN NA	AN AN	Ϋ́́	NA	NA	NA	NA	NA	-41.61%	AN - 5	-40./3%	0/ 60:46- NA	Z Z	NA	%60.0-		-65.51%	NA	-74.73%	AN S	A A	AN	NA
Net Salvage			-	(c) -					(153,786)	(144, 152) (183-724)	(15.101)	(636)	(6,257)	(38,845)	(871)												(60,998)		(00,700)	(01,010) (2 504 872)	(1.730.715)	(425,303)	(1,145)		(29,450)		(9,650)				
Cost of Removal	00	0	0 0	00	0	0	0	0	153,786	183 724	15,101	636	6,257	38,845	871		0 0	0 0			0	0	1,560	0	0	0	63,883	0	00,700	01,010 2 504 872	2,304,012	425,303	1,145		30,150	0	13,650	0 0	5 0		0
Gross Salvage	00	0	0 0	0 0	0	0	0	0 0	2 0			0	0	0 0	0		0 0	0 0			00	0	1,560	0	0	0	2,885	0 0	- -		00	0	0		200	0	4,000	0 0	00		0
Retirement	00	0	11110	11,135	6,654	0	0	0 100	9,523	0 76 247	0	0	0	0 0	0		0 0	0 0			0	0	0	0	0	0	146,595	0	142,843 oc 106	00,100	00	0	1,270,660		44,954	0	12,914	0 0	0 0		0
Activity Year	2003 2004	2005	2006	2008	2009	2010	2011	2012	2013	2015	2016	2017	2018	2019	2020	lains	2002	2003	2004	2005	2007	2008	2009	2010	2011	2012	2013	2014	GLU2	2010	2018	2019	2020		ompressor Station Eq 2002	2003	2004	2005	2006	2008	2009
Acct	G366.0 G366.0	G366.0	G366.0	G366.0	G366.0	G366.0	G366.0	G366.0	G366.0	G366.0	G366.0	G366.0	G366.0	G366.0	G366.0	G367.0 M	G367.0	6367.0	G367.0	G367.0	G367.0	G367.0	G367.0	G367.0	G367.0	G367.0	G367.0	G367.0	G30/.U	0.7000	G367.0	G367.0	G367.0		G368.0 C G368	G368	G368	G368	G368	G368	G368

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9- yr Net Salv. %	-67.41% 27.01%	27.01% -28.22%	-23.24%	-14.31%	-55.51%	-59.40% -81.53%	-132.47%												NA	-0.82%	-0.89%	-2.36%	-2.97%	-6.57%	-13.18%	-03.92%	-122.05%	-205.53%										AN	AN	ζN VN	ζ M	NAN	NA	NA
8- yr Net Salv. %	-73.95% 27.01%	41.46% -28.22%	-23.24%	-14.31%	-55.51%	-59.41% -90.38%	-132.47%											ΝA	NA	-0.82%	-0.41%	-2.36%	-2.97%	-6.57%	-13.18%	-03.8U%	-122.33%	-206.25%									AN	AN	AN	AN AN	ΔN AN	AN AN	AN	AN
7- yr Net Salv. %	-73.95% 41.46%	41.46% -28.22%	-23.24%	- 14.31%	-55.51%	-67.07% -90.38%	-139.90%										NA	NA	NA	-0.33%	-0.41%	-2.36%	-2.97%	-6.57%	-13.06%	-03.80%	-205 91%	-241.25%								AN 2	AN	NA	AN	AN AN	AN AN	AN NA	NAN	AN
6- yr Net Salv. %	0.00% 41.46%	41.46% -28.22%	-23.24%	-14.31%	-62.88%	-67.07%	-146.52%									NA	NA	NA	NA	-0.33%	-0.41%	-2.36%	-2.97%	-6.45%	-13.06%	-99.14% 400.75%	-240.85%	-240.74%							NA	AN 2	AN	AN	AN	AN	AN AN	NAN AN	NA	AN
5- yr Net Salv. %	0.00% 41.46%	41.46% -28.22%	-23.24%	- 14.55%	-62.88%	-66.25% -96.89%	-2163.81%								NA	NA	NA	NA	NA	-0.33%	-0.41%	-2.36%	-2.71%	-6.45%	-20.29%	-99.47%	-240 34%	NA						NA	NA	A N	AN	AN	AN	AN AN	AN AN	UN NA	NA	NA
4- yr Net Salv. %	0.00% 41.46%	41.46% -28.22%	-23.25%	-18.55%	-61.50%	-69.58% -1371 15%	-2163.81%							NA	NA	NA	NA	NA	NA	-0.33%	-0.41%	-2.10%	-2.71%	-10.02%	-20.32%	0/04/011-	0/04:222-	AN					NA	NA	NA	A N	AN	NA	AN		ΔN AN	UAN NA	NAN	NA
3- yr Net Salv. %	0.00% 41.46%	41.46% -28.23%	-53.94%	-11.25%	-64.59%	-1371 15%	-1373.29%						NA	NA	AN	NA	NA	NA	NA	-0.33%	-0.08%	-2.10%	-12.44%	-10.01%	-22.23%	0/06.41.1-		A N				NA	ΝA	AN	AN	A Z	AN	NA	AN	4N AN	AN AN	NAN AN	AN	NA
2- yr Net Salv. %	0.00% 41.46%	41.52% -73.22%	-53.94%	-11.80%	AN S	NA -580.63%	-1298.63%					NA	NA	NA	AN	AN	NA	NA	NA	0.00%	-0.08%	-9.65%	-12.47%	-10.09%	%7J.LZ-	AN N		AN NA			NA	NA	AN	AN	ΝA	A Z	A N	AN 1	A N	AN AN	ΔN AN	NA N	AN	NA
Net Salv. %	0.00% 41.52%	NA -73.22%	-0.56%	NA NA	NA	NA -505.97%	NA				ΝA	AN	AN	AN	AN	AN	AN	NA	AN	0.00%	-11.39%	-9.61%	AN 1	-9.58%	AN N	AN N		AN		AN	AN	AN	NA	AN	AN	AN 2	AN .	AN	AN 1			NA N	AN	AN
Net Salvage	37,700	- (103,081)	(283)	-	(530, 165)	(50,075) (339-329)	(531,605)						(288)				,	(196)			(45)	(1,542)	(460)	(8,636)	(10,950)	(04,U/0)	(16,100)	(363)						I			I	I	I	- 2 885	- '000'z			
Cost of Removal	60,050 -37,700	0 103,081	283	0	530,165	50,075 339.329	531,605				C	0	288	0	0	0	0	196	0	0	45	1,542	460	8,636	10,951	04,U/8 06 070	30,37.0 16 100	363		0	0	0	0	0	0	0	0 0	0 0	0 0	> <		, o	0 0) O
Gross Salvage	60,050 0	00	00	00	0 (0				C	0	0	0	0	0	0	0	0	0	0	0	0	0 0				0		0	0	0	0	0	0	0 0	0 0	0 0	0 0	0 2 885	0 0	0	0 0	0
Retirement	136 90,803	0 140,784	50,860	0	0 (0 67 066	0			ation Equip		0	0	0	0	0	0	0	0	59,054	399	16,049	0	90,183 î	0 0			00	20	0	0	0	0	0	0	0	0 0	0 0	0 0	2 0		0		0
Activity Year	2010 2011	2012 2013	2014	2015	2017	2018 2019	2020			asuring & Red Ct.	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	9102	1102	2010	2020	uctures and Impro	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2014	2015	2016	2017
Acct	G368 G368 C108	G368 G368	G368	G368	G368	G368 G368	G368			6360 0 Me	G369.0	G369.0	G369.0	G369.0	G369.0	G309.U	6369.0	G369.0	G375.0 Str	G375.0	G3/5.0	63/5.0	G3/5.0	G3750	G375.0	G375.0	G375.0	G375.0																

- yr let lv. %	NA NA	70.58% 57.458% 69.1467% 80.38% 80.38% 83.38% 80.38% 83.38% 80.88% 83.38% 83.38% 83.38% 83.38% 84.24% 87.54%	-18.55% -18.55% -39.31% -39.31% -39.31% -59.39% -5.9.39% -5.0.08%
- yr 9 Net Nat	NA NA	-70.71% -55.66% -72.15% -77.52% -77.52% -71.62% -71.62% -71.65% -71.65% -71.65% -71.61% -71.61% -71.61% -71.61% -72.51% -73.51	
7-yr 8 Net 1 Salv. % Sa	A A N A N A	-78.87% -65.47% -65.47% -55.25% -76.04% -76.12% -194.32% -206.64% -2026.64%	-7,45% -35,36% -35,36% -54,27% -54,27% -39,31% -52,98% -53,09% -53,09% NN
6- yr Net Salv. %	NA NA N		-15.64% -14.22% -35.36% -35.36% -39.31% -40.49% -40.49% -52.21% -11% NA
5- yr Net Salv. %	A A N A N A	-70.79% -70.79% -74.10% -53.67% -53.67% -51.01% -120.34% -120.34% -255.24% -255.24%	0.00% NA -14.22% -35.38% -54.27% -40.49% -40.49% -34.92% NA NA NA
4- yr Net Salv. %	NA NA	-66.11% -66.11% -63.22% -63.22% -23.23% -70.33% -70.33% -79.01% -109.62% -109.62% -210.67% -210.67% -210.68%	0.00% NA NA 25.36% -35.36% -35.36% -40.49% 0.09% 0.09% NA NA NA
3- yr Net Salv. %	A A A A A A A A A	-72,71% -55,90% -55,90% -59,40% -96,11% -96,11% -916,71% -116,71% -116,71% -211,14% -211,14% -211,14% -345,25%	0.00% NA NA -14.22% -35.36% -35.36% -40.49% 0.00% NA NA NA NA
2- yr Net Salv. %	A N N N N N		0.00% NA NA NA NA 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00%
Net Salv. %	NA NA	-109,70% -79,01% -79,01% -54,46% -54,46% -33,08% -33,08% -33,23% -161,68% -161,68% -161,68% -161,68% -267,90% -267,90%	0.00% 0.00%0
Net Salvage		(366, 928) (366, 928) (264, 771) (186, 675) (346, 775) (346, 775) (346, 775) (346, 775) (346, 775) (123, 164) (123, 164) (124, 177) (126, 923) (126, 922) (1, 000, 246) (1, 000, 246) (1, 000, 246) (1, 000, 246) (1, 000, 246) (2, 554, 197) (3, 554, 197) (3, 554, 197) (3, 566) (6, 706, 502) (6, 706, 502)	- - - - - - (1,906) (2,335) (2,335) (1,906) (1,906) (1,904) (1,804) (1,804)
Cost of Removal	000	372,292 372,292 300,236 300,236 372,804 372,804 372,804 372,804 155,679 155,679 155,679 155,679 1,036,535 959,390 959,390 1,102,259 959,359 1,102,259 2,292,359 2,292,359 6,861,578 6,861,578 6,861,578 6,861,105	0 0 1,906 2,835 2,835 1,906 0 1,805 1,805 1,864
Gross Salvage	000	5,364 5,364 5,364 5,364 25,002 25,003 115,503 32,515 115,503 115,196 115,503 1125,196 1125,196 1125,196 1125,500 1122,010 1122,010 1126,656 114,602	
Retirement	000	334,492 335,105 455,696 636,698 636,698 636,698 636,698 291,576 713,737 713,737 713,737 713,737 713,737 713,737 713,737 713,737 713,737 713,737 713,737 713,737 713,688 713,688 71,136,976 713,688 71,136,976 71,264,066	12,190 0 13,408 13,408 16,097 16,097 0 0 0 0 0
Activity Year	2018 2019 2020	ains 2002 2004 2005 2005 2014 2011 2011 2011 2011 2011 2011 2012 2019 2019	leas & Reg Station 2002 2003 2005 2005 2005 2005 2005 2016 2011 2014 2015 2015 2015 2016 2017 2019 2019
Acct	G375.0 G375.0 G375.0	G376.0 M∉ G376.0 M∉ G376.0 M€ G376.0 G3776.0 G37	G378.0-M G378.0-M G378.0 G3778.0 G378

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	-69.38% -71.19% -79.13% -81.78% -116.15% -116.15% -116.48% -262.59% -265.56%	-200,00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00%
-70 17%	-72.04% -68.39% -68.39% -10.31% -139.53% -139.53% -142.84% -184.87% -275.06%	0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.03% 0.03%
-68.65% -73.09%	-69.18% -65.47% -65.47% -82.48% -135.02% -149.83% -149.83% -194.12% -289.74% -289.74%	0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.04% 0.04%
-79.84% -71.65% -70.185	-66.112% -66.112% -68.80% -88.91% -114.05% -137.65% -152.02% -152.02% -301.70% -302.71% -283.41%	0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00%
-65.33% -61.47% -63.17%	-89.89% -89.89% -72.51% -112.99% -147.89% -165.01% -170.96% -304.33% -304.33%	0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00%
-68.67% -69.74% -65.11% -64.34%	-74.138% -74.138% -92.32% -106.95% -115.57% -167.36% -167.36% -225.37% -336.13% -315.67% -315.67%	5
-77.05% -76.08% -62.34% -47.70% -68.64%	-100.01% -69.22% -69.22% -114.19% -188.81% -188.71% -183.71% -364.98% -364.98% -364.98%	0.100% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00%
-70.16% -92.92% -67.10% -51.54% -74.01% -74.32%	-741.52% -55.85% -55.85% -150.52% -150.52% -220.97% -220.97% -227.33% -227.33% -227.33% -230.10%	0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00%
45.29% -92.26% -93.76% -46.80% -45.43% -125.87% -88.34%	-54.72% -56.92% -187.42% -118.30% -118.30% -118.30% -118.30% -118.30% -1281.33% -1281.53% -285.53% -285.57% -2185.41%	0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00%
(174, 188) (399, 465) (316, 297) (207, 297) (298, 341) (597, 299) (557, 299)	(108, 228) (108, 228) (108, 280) (118, 280) (118, 280) (135, 301) (748, 598) (744, 598) (757, 167) (757, 167) (733, 3643, 2245) (3, 667, 133) (3, 667, 133) (3, 667, 133)	(1. vo. 1 2. 001 6. 68 1. 001
174,188 399,465 316,216 207,297 298,341 233,2426 597,299 597,495	108,258 118,280 118,280 437,954 748,598 553,301 553,301 555,501 555,50	
0000000C		2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
384,621 337,2965 337,2965 442,918 538,198 777,818 777,818 283,543	197,853 207,786 3207,786 320,211 266,021 266,021 286,021 529,985 529,985 514,750 1,360,409 1,360,409	609,873 509,873 772,563 1,148,293 1,148,293 1,148,294 1,901,672 3,167,579 2,417,672 3,167,593 2,417,672 3,167,593 2,417,672 2,417,672 2,614,771 2,614,771 2,614,771 2,614,773 2,614,771 2,614,773 2,714,773 2,714,774 2,714,774 2,714,774 2,714,774 2,714,774 2,714,774 2,714,774 2,714,774 2,714,774 2,714,774 2,714,774 2,714,774 2,714,774 2,714,774 2,714,774 2,714,774 2,714,77474 2,714,77474 2,714,77474 2,714,77474 2,71
vices 2002 2003 2004 2005 2006 2006 2007 2007	2010 2011 2012 2015 2015 2016 2016 2017 2016	2020 ters and Regulators 2002 2004 2005 2005 2005 2005 2011 2011 2011 2011
G380.0 Set G380.0 Set G380.0 G380.0 G380.0 G380.0 G380.0 G380.0 G380.0 G380.0 G380.0	6 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	G381.0 Me G381.0 Me G381.0 C G381.0 C G381.0 G G381.0 G G

9- yr Net Salv. %	0.00%	-51.57% -53.05% -63.05% -41.36% -37.35% -31.35% -31.35% -31.35% -31.56% -31.56% -31.56% -31.56% -20.025% -2.0.05% -2.0.05%		A A A Z Z Z
8- yr Net Salv. %	0.00% 0.00%	-51.65% -52.51% -53.13% -39.55% -35.73% -28.56% -2.13.89% -2.06%	0.00%	A A A A A A A A
7-yr Net Salv. %	%00'0 %00'0	-54.97% -52.83% -52.59% -52.05% -43.01% -33.46% -33.46% -17.26% -1.04% -3.34%	%00.0 %00.0	4 4 4 4 4 Z Z Z Z Z
6- yr Net Salv. %	%00.0 %00.0 %00.0	-75.45% -56.73% -51.24% -51.24% -41.70% -31.8,54% -31.8,54% -31.64% -3.164% -1.64%	0.00% 0.00% 0.00%	4 4 4 4 4 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
5- yr Net Salv. %	0.00% 0.00% 0.00% 0.00% 0.00%	-58.81% -57.18% -57.18% -57.18% -49.81% -49.81% -3.388% -3.388% -3.388% -1.25% -1.66% -1.66%	0.00% 0.00% 0.00% 0.00%	4 4 4 4 4 4 4 2 2 2 2 2 2 2 2 2 2 2 2 2
4- yr Net Salv. %	0.00% 0.00% 0.00% 0.00% 0.00% 0.00%	-61.06% -62.75% -61.87% -61.87% -55.31% -48.71% -38.28% -3.1.55% -	0.00% 0.00% 0.00% NA	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$
3- yr Net Salv. %	0.00% 0.00% 0.00% 0.00% 0.00% NA	-53.75% -68.09% -64.69% -59.91% -51.96% -47.106% -5.30% -5.30% -2.419% -2.48% -2.48% -2.48%	0.00% 0.00% 0.00% 0.00% NA	4 4 4 4 4 4 4 4 4 4 2 2 2 2 2 2 2 2 2 2
2- yr Net Salv. %	0.00% 0.00% 0.00% 0.00% 0.00% NA	-37,99% -37,99% -62,33% -62,33% -62,33% -62,33% -62,16% -4,21% -1,16% -1,6% -1,17% -1,11%	0.00% 0.00% 0.00% NA NA NA	<u> </u>
Net Salv. %	0.00% NA NA NA NA 0.00% 0.00% NA NA NA NA 0.00%	-21.43% -72.05% -74.50% -54.59% -56.29% -6.58% -51.28% -5.346% -2.346% -2.346% -1.28% -1.28% -1.28% -1.28% -1.28% -1.28% -1.28% -1.28%	0.00% N N N N N N N N N N N N N N N N N N N	
Net Salvage		(75,484) (233,978) (505,039) (505,039) (505,039) (74,4,226) (74,4,226) (74,4,27) (884,177) (884,177) (884,177) (889,414) (1,155,028) (1,178,096) (1,178,096) (1,178,096) (1,178,096) (7,848) (
Cost of Removal		75,484 233,978 505,039 613,427 743,427 821,390 824,177 9894,177 9894,177 15,028 177,917 75,917 7,848 7,848 7,848 7,848 7,848 25,055 23,055 23,055 23,055 23,055 23,055 23,055 23,055 25,025 25,025		
Gross Salvage				
Retirement	2,896 0 5,365,349 138,474 0 0 63	352,290 462,194 700,930 700,930 825,102 1,353,986 1,919,230 1,919,230 1,919,230 1,919,230 1,917,431 1,919,230 1,917,431 1,919,230 1,917,433 1,917,433 1,917,433 1,917,433 1,453,980 736,448 660,370 736,448 612,856 613,70 7,856 7,937 612,8566 612,856 612,856 612,8566 612,8566 612,8566 612	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	
Activity Year	eters -Regs-Modules 2013 2013 2014 2016 2016 2017 2019 2019 2019	ter & Reg Installations 2002 2003 2005 2006 2006 2006 2010 2011 2013 2013 2013 2016 2013 2016 2013 2016 2016 2016 2017 2017 2018 2019 2019	eters -Regs-Mod Insta 2013 2014 2016 2016 2017 2019 2019 2019 2020	Meas & Reg St Eqp 2003 2004 2005 2006 2006 2007 2009 2010 2011 2011 2012
Acct	G381.01 M G381.01 G381.01 G381.01 G381.01 G381.01 G381.01 G381.01 G381.01 G381.01 G381.01 G381.01	G382.0 Me G382.0 Me G382.0 G38	G382.01 M 382.01 382.01 382.01 382.01 382.01 382.01 382.01 382.01 382.01	G385.0 Ind G385.0 Ind G385.0 G385.0 G385.0 G385.0 G385.0 G385.0 G385.0 G385.0 G385.0 G385.0 G385.0 G385.0 G385.0 G385.0 G385.0 G385.0 G385.0 G385.0

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9- yr Net Salv. %	AN	NA	AN	A N	A N	ΦN	NA									0.30%	0.00%	0.03%	0.13%	0.13%	0.00%	0.00%	0.00%	0.00%	NA																	%00.0	0.00%	0.00%	0.00%	
8- yr Net Salv. %	NA	NA	AN	AN	A N	ΔN N	AN								0.30%	0.00%	0.03%	0.13%	0.13%	0.1.3%	0.00 00.00	0.00 0	0.00%	NA	AN								0.00%								0.00%	0.00%	0.00%	0.00%	0.00 NA	
7-yr Net Salv. %	NA	AN	AN	A N	A N		AN							0.30%	0.00%	0.04%	0.13%	0.13%	0.13%	%0000	0.00 M	0.00 n	NA	AN	AN							0.00%	0.00%							0 U 00%	0.00%	0.00%	0.00%	0.00%	A N	
6- yr Net Salv. %	NA	NA	NA	AN N	AN N	ΦN	NA						0.30%	0.00%	0.04%	NA	0.13%	0.13%	0.00%	0.00.0 7000.0	0.00 M	NA NA	NA	NA	NA						0.00%	0.00%	0.00%						/0000	%00.0	0.00%	0.00%	0.00%	AN	A N	
5- yr Net Salv. %	NA	NA	A N	N N	A N	ΨN V	NA					%bC U	0.00%	0.04%	NA	AN	0.13%	0.00%	0.00%	%00.0	NA NA	AN AN	AN	NA	AN					0.00%	0.00%	%00.0	0.00%					2000 0	0.00%	%00.0	0.00%	0.00%	AN	AN	A N	
4- yr Net Salv. %	NA	NA	AN	AN	A N	ΔN N	NA				/000 0	%0000	0.04%	NA	NA	NA	0.00%	0.00%	%00.0 0	%00.0		ΔN	AN	AN	NA				ΝΔ	0.00%	0.00%	0.00%	0.00%					NA 0.000	0.00%	%00.0	0.00%	AN	ΝA	AN	A N	
3- yr Net Salv. %	NA	ΝA	A N	A N	¥ Z	A N	AN			,000 o	%RZ.0	0.00% 0.00%	NA	AN	ΝA	AN	0.00%	0.00%	0.0U%	A N		AN AN	AN	NA	AN			VIV		0.00%	0.00%	0.00%	ΝA				ΝA	NA	0.00%	0.00% 0.00%	AN NA	ΑN	ΝA	ΥZ	α α Ζ	
2- yr Net Salv.%	AN	NA	AN .	AN	A N		AN			0.32%	%00.0	0.00 M∆	AN	AN	AN	AN	0.00%	%00.0	AN N			ΔN	AN	AN	AN		414			0.00%	0.00%	NA	AN			AN	AN	NA NA	%00.0 0	%00.0 NA	AN	NA	NA	AN	A N	
Net Salv. %	ΝA	NA	AN	AN	A N	ΨN V	NA		1.42%	0.00% %0000	%00.0 %14	AN NA	AN	NA	NA	AN	%00.0	A N	A N	AN N		ΔN	AN	NA	NA		AN N	AN N		%00.0	NA	NA	AN		NA	NA	NA	AN 0	%nn.n	AN NA	AN	NA	ΝA	AN	A N	
Net Salvage									24,408				300												·		•																			
Cost of Removal	0	0	0	0 0			0		0	0 0			0	0	0	0	0 0	0 0					0	0	0	c				0	0	0	0		0	0	0	0 0	0 0		0	0	0	0 0	0 0	1
Gross Salvage	0	0	0	5 0			0		24,408	0 0			300	0	0	0	0 0	- 0					0	0 0	0	c	- 0			0	0	0	0		0	0	0	0 0	0 0		0	0	0	0 0	0 0	
Retirement	0	0	0	0 0	5 0		0		1,716,151	5,823,427	/84,884		0	0	0	0	234,041 ĵ						0	0	0	ip				0	0	0	0	lor	0	0	0	0 1	1,709		0	0	0	0 0		
Activity Year	2013	2014	2015	2016	2010	2010	2020	ther Equip	2002	2003	2005	2005 2006	2007	2008	2009	2010	2011	2102	2013	2014	2015	2012	2018	2019	2020	other Equip CNG Equ	2013	2014	2015	2017	2018	2019	2020	usportation Edn Tra	ansportation Eqp 116 2002	2003	2004	2005	2005	2007	2009	2010	2011	2012	2013 2014	
Acct	G385.0	G385.0	G385.0	G385.0	G385.U	G385.0	G385.0	G387.11 O	G387.11	G387.11	0387.11	G387.11 G387.11	G387.11	G387.11	G387.11	G387.11	G387.11	0207 11	0387.11	G30/.11	G387 11	G387 11	G387.11	G387.11	G387.11	G387.12 C	0007 10	G307.12	G387 12	G387.12	G387.12	G387.12	G387.12	G302.2 Tre	G392.2	G392.2	G392.2	G392.2	G392.2	G392.2 G392.2	G392.2	G392.2	G392.2	G392.2	G392.2 G392.2	

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9- yr Net Salv %	NA NA	NA	0.00%	%00.0 0	0.00%	%00.0										2 R4%	1 85%	/0707	0/ 10.1	1.01%	0.95%	0.81%	0.64%	0 39%	0.000	0.1370	0.02%	%00.0										0.00%	0.00%	%00.0	%00.0	%00.0	%00.0	0.00%	%00.0	%00.0	0.00%	0.00%
8-yr Net Salv %	NA NA	NA	0.00%	0.00%	0.0U%	0.00%									3.94%	2 26%	1 5.4%	/000 1	0/27.1	1.04%	0.85%	0.80%	0.55%	0 13%	0.000	0/00/0	0.00%	0.00%									0.00%	0.00%	0.00%	0.00%	%00.0	0.00%	%00.0	0.00%	0.00%	%00.0	0.00%	0.00%
7-yr Net Salv %	NA NA	NA	0.00%	0.00%	0.00%	0.00%								4.08%	3.08%	1 92%	1 12%	0/0±.1	0/_ / 7.1	0.92%	0.84%	0.70%	0.19%	0.03%	20000	0.00%	0.00%	0.00%								0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
6-yr Net Salv %	NA NA	NA	0.00%	0.00%	0.00%	0.00%							6.18%	2.87%	2.68%	1 82%	1 48%	0/01-1	1.1470	0.92%	0.73%	0.26%	0.04%	000 U	20000	0.00%	0.00%	0.00%							0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	%00.0	0.00%	0.00%
5-yr Net Salv %	NA	NA	0.00%	0.00%	0.00%	0.00%						5.68%	3.50%	2.18%	2.65%	1 91%	1 3/1%	/007	0/.01.1	0.81%	0.27%	0.06%	0.00%	%UU U	0.000	0.00%	0.00%	0.00%						0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
4-yr Net Salv %	NA NA	NA	0.00%	0.00%	0.00%	0.00%					5.69%	3.73%	2.57%	1.96%	2.88%	1 73%	1 3.4%	/040/	1.04.70	0.30%	0.07%	0.00%	0.00%	0 00 W	20000	0/ 00/ 0	0.00%	0.00%					0.00%	0.00%	0.00%	NA	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	NA	0.00%	%00.0	0.00%	0.00%
3- yr Net Salv %	NA NA	NA	0.00%	0.00%	0.00%	0.00%				6.67%	3.44%	2.79%	2.35%	2.27%	2.63%	1 75%	1 26%	0/ 07-1	0.4170	0.08%	0.00%	0.00%	0.00%	00 U	0.0000	0.00.0	0.00%	0.00%				0.00%	0.00%	0.00%	ΝA	ΝA	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	NA	ΝA	0.00%	0.00%	0.00%	0.00%
2-yr Net Salv %	NA NA	NA	0.00%	0.00%	%00.0	NA			9.46%	4.09%	2.00%	2.76%	3.72%	1.65%	2.73%	1 76%	0.53%	0.00.0	0.1370	0.00%	0.00%	0.00%	0.00%	%UU U	20000	0.00.0	0.00%	0.00%			NA	0.00%	0.00%	NA	NA	NA	0.00%	0.00%	NA	0.00%	%00.0	NA	NA	NA	%00.0	%00.0	NA	0.00%
Net Salv %	NA NA	NA	%00.0 0	%00.0	NA	NA		32.87%	5.18%	2.82%	%00.0	5.62%	1.30%	1.71%	3.60%	0 75%	0.01%	0/1-7:0	0.00.0	0.00%	%00.0	0.00%	0.00%	2000 U		2000 0	0.00%	0.00%		NA	NA	%00.0	NA	NA	NA	NA	0.00%	NA	NA	0.00%	NA	NA	NA	NA	%00.0	NA	NA	0.00%
Net Salvare	carvaye -							4,380	3,776	1,762	,	1,375	250	1.921	4,783	1.841	375	000		,	·		ı												,									,				
Cost of Removal	0	0	0	0 0	0 0	0		0	0	0	0	0	0	0	0			0 0	5	0	0	0	0			5 0	0 0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gross Salvado	Jaivage 0	0	0	0 0	5	D		4,380	3,776	1,762	0	1,375	250	1.921	4.783	1 841	375	5		0	0	0	0			5 0	0 0	D		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Refirement		0	29,873	44,627		D		13,327	72,879	62,534	25,439	24,468	19,228	112.207	132.948	244 422	177 /65	001, 11	140,121	184,337	92,117	46,532	274.786	503 361			696,579	284,158		0	0	567	0	0	0	0	416	0	0	7,317	0	0	0	0	23,826	0	0	1,063
Activity Vear	2015	2016	2017	2018	6102	0707	0	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011		2112	2013	2014	2015	2016	2017	0100	2010	2019	2020	o Equipment	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Acct	G392.2	G392.2	G392.2	G392.2	G392.2	G392.2	G394.10 P	G394.1	G394.1	6304 1	C304 1	1 1000	G044.	G394.1	G394.1	G394.1	G394.1	G304 1	1 1000	0004.1	G394.1	G394.1	G394.2 Shot	G394.2																								

9- yr Net Salv. %	0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00%	0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00%
8- yr Net Salv. %	0000 0000 0000 0000 0000 0000 0000 0000 0000	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0
7-yr Net Salv. %	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	00.00 00
6. yr Net Salv. %	0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00%	0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00%
5- yr Net Salv. %	0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00%	0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00%
4- yr Net Salv. %	00.00 00	AN AN AN 00.00 AN AN AN AN AN AN AN AN AN AN AN AN AN
3- yr Net Salv. %	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	N N N N N N N N N N N N N N N N N N N
2- yr Net Salv.%	0.000 0.00%0	A N N N N N N N N N N N N N N N N N N N
Net Salv. %	0.00% 0.00% 0.000% 0.000% 0.0%	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0
Net Salvage		
Cost of Removal		
Gross Salvage		
Retirement	f 710 0 207,527 57,613 318,796 318,796 29,064 0 0 0 283,094 283,094 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 84,655 0 146,122 16,162 0 16,162 0 0 0
Activity Year	2014 Equipmen 2003 2003 2005 2005 2005 2006 2007 2011 2011 2013 2011 2015 2015 2016 2015 2016 2016 2017 2016 2017 2018	wer Operated Eq 2003 2004 2005 2006 2006 2006 2007 2011 2013 2011 2013 2014 2013 2014 2013 2016 2013 2016 2017 2018 2017 2018
Acct	G395.0 Lat G395.0 Lat G395.0 C335.0 G395.0 G395.0 G395.0 G395.0 G395.0 G395.0 G395.0 G395.0 G395.0 G395.0 G395.0 G395.0 G395.0 G395.0 G395.0 G395.0 G395.0 G395.0	$ \begin{array}{c} \mathbf{S}_{0} \\ \mathbf{S}_{$

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9- yr Net Salv. %	-0.05% -0.05% -0.05% -0.05% -0.05% -0.06% -0.06% -0.06% -0.08% -0.08% -0.08%	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0
8- yr Net Salv. %	-0.86% 0.00% 0.00% -0.05% -0.06% -0.06% -0.06% -0.08% -0.08%	0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00%
7-yr Net Salv. %	-1.13% 0.00% 0.00% 0.00% 0.06% 0.06% 0.08% 0.09% 0.04%	0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00%
6- yr Net Salv. %	-1.88% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00%	00.0 %00.0 %00.0 %00.0 %00.0 %00.0 %00.0 %00.0 %00.0 %00.0 %00.0 %00.0
5- yr Net Salv. %		0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00%
4- yr Net Salv. %	-3.38% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00%	A COLOR COLO
3- yr Net Salv. %		0.00% 0.00%
2- yr Net Salv. %	-1.94% 0.00% 0.00% 0.00% 0.00% 0.00% 0.14% 0.14% 0.00% 0.00% 0.00%	A A A A A A A A A A A A A A A A A A A
Net Salv. %	-1483% 0.00% 0.00% 0.000% 0.000% 0.000% 0.000% 0.000% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00%	Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z
Net Salvage	(12.574) - - - - - - (701) (524) - -	(6.375)
Cost of Removal	12,574 0 0 0 0 0 524 0 0 0 0 0 0 0 0	2 3 3 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9
Gross Salvage		
Retirement	ooment 84,765 20,560 20,560 32224 1,764 414,586 351,923 351,923 357,893 357,893 357,237 387,733 191,852 191,852 191,852 191,852 100,730 120,545	0 19,996 19,996 10,043 9,630 9,630 2,161 11,553 11,553 11,553 11,553 26,270 0 13,847 7,342 7,342 0 0 0 0 0 0 0 0 0 0 0 0 0
Activity Year	mmunication Equip 2002 Equip 2004 2005 2003 2005 2006 2006 2007 2006 2001 2011 2011 2011 2011 2011 2011 2011	sc Equipment 2002 2003 2005 2005 2006 2006 2006 2011 2011 2011 2011 2011
Acct	 (G397.0 Cc (G397.0 Cc	G398.0 Mi G398.0 Mi G398.0 C G398.0 C C G398.0 C G398.0 C C G398.0 C C G398

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Activity Year Struct and Improv -Palc	Retirement	Gross Salvage	Cost of Removal	Net Salvage	Net Salv. %	2- yr Net Salv. %	3- yr Net Salv. %	4- yr Net Salv. %	5- yr Net Salv. %	6- yr Net Salv. %	7-yr Net Salv.%	8- yr Net Salv. %	9- yr Net Salv. %
)17)18)19)20	0000	0000	0 0 1,570	- - (1,570)	N N N N N N N N N N N N N N N N N N N	A N N N	A A N	AN					
nd Improv -SG 2017 2018 2019 2020	0 7,861,341 0 0	0000	0000		0.00% NA NA	00.00% 000.0	0.00%	0.00%					
Plant Equip - Palı 2017 2018 2019 2020	o 0 0	0000	0000		A A A A A A A A A A A A A A A A A A A	A A A A A A A A A	A N N A	NA					
Plant Equip -SG 2017 2018 2019 2020	0 10,633,963 0	0000	0000		NA 0.00% NA	0.00% 0.00% NA	0.00%	0.00%					
Plant Equip-DSE 2017 2018 2019 2020	C 0 148,389	0000	192,662 7,404 6,201 1,570	(192,662) (7,404) (6,201) (1,570)	NA NA NA 1.06%	NA NA -5.24%	-10.23%	-140.06%					
Jenerator Unit-D 2017 2018 2019 2020	0 0 0 0 U	0000	10,914 0 148,827	(10,914) - (148,827)	A A A A A A A A A A A A A A A A A A A	N N N N N N N N N N N N N N N N N N N	A A A	NA					
jenerator Unit-P. 2017 2018 2019 2020	alomar 0 0 0	0000	0 0 1,575	- - (1,575)	A A A A A A A A A A A A A A A A A A A	A A A N N N	NA	NA					

E314.00-Turbogenerator Unit-SG
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Activity Acct Year	Retirement	Gross Salvage	Cost of Removal	Net Salvage	Net Salv. %	2- yr Net Salv. %	3- yr Net Salv. %	4- yr Net Salv. %	5- yr Net Salv. %	6- yr Net Salv. %	7-yr Net Salv. %	8- yr Net Salv. %	9- yr Net Salv. %
2017 2018 2019 2020	0 7,484,308 0	0000	0000		NA 0.00% NA NA	0.00% 0.00% NA	0.00% 0.00%	0.00%					
E315.00-Access Elect Eq -DSE 2017 2018 2019 2019 2020	50 12,560	0000	0 8,316 40,143	- - (8,316) (40,143)	NA NA NA -319.61%	NA NA -385.82%	NA -385.82%	-385.82%					
E315.00-Access Elect Eq -Palc 2017 2018 2019 2020	mar 0 0	0000	0 0 1,566	- - (1,566)	A A A A X X X X	A N N N N N N N N N N N N N N N N N N N	N N NA	NA					
E315.00-Access Elect Eq -SG 2017 2018 2019 2020	0 2,172,934 0	0000	0000		0.00% NA NA	0.00% 0.00% NA	0.00% 0.00%	0.00%					
E316.00-Misc Power Pint Eq -L 2017 2018 2019 2019	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0000	2,984 0 6,751	(2.984) (4.848) (6.751)	A A	A A A A A A	A N NA	ΥN					
E316.00-Misc Power Plnt Eq-P 2017 2019 2019 2020	alomar 0 0	0000	-81 -81 -81	83 83.	A A	A A A	N A N	NA					
E316.00-Misc Power Pint Eq-S 2017 2018 2019 2019 2020	G 239,053 0 0	0000	0000		0.00% 0.00% 0.00%	0.00% 0.00% NA	0.00%	0.00%					
E341.00-Struct and Improv -CF 2017 2018 2019	0 0 0	000	000		A A A Z Z Z	NA	NA						

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Activity Acct Year Retire	nent	Gross Salvage	Cost of Removal	Net Salvage	Net Salv. %	2- yr Net Salv. %	3- yr Net Salv. %	4- yr Net Salv. %	5-yr Net Salv. %	6- yr Net Salv. %	7-yr Net Salv. %	8- yr Net Salv. %	9- yr Net Salv. %
2020	0	0	0	,	NA	NA	NA	NA					
E341.00-Struct and Improv -DSEC 2017 2018 2019 2020	0000	0000	0 25,667 33,839	- - (25,667) (33,839)	A A A A A A A A A A A A	AN NA NA	A N N A	A N					
E341.00-Struct and Improv -Miramar 2017 2018 2019 2020	0000	0000	0000		A A	A N N N N N N N N N N N N N N N N N N N	A N A N	Ϋ́Ζ					
E341.00-Struct and Improv -Palomar 2017 2018 2019 2020	0000	0000	0000		N N N N N N N N N N N N N N N N N N N	A A A A A A	N N N A	A					
E341.10 - Struct & Impry - Solar 2017 2018 2019 2020	0000	0000			A A A A A A A A A A A A A A A A A A A	A N N N N N	Y Y Z Z	NA					
E341.20 - Struct & Imprv - Wind 2018 2018 2019 2020	0000	0000	0000		A N N N N N N N N N N N N N N N N N N N	A A A Z Z Z Z	A A N A	A					
E342.00-Fuel Holders P & A-Palomar 2017 2018 2019 2020	0000	0000	0000		A A	A A A A A A A A A A A A A A A A A A A	A N N A	NA					
E342.00-Fuel Holders P&A -CPEP 2017 2018 2019	000	000	000		A A A A A A A A A A A A A A A A A A A	A N N	NA						

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Activity	Datiramont	Gross	Cost of Demoval	Net Selvero	Net Salv %	2- yr Net Salv %	3- yr Net Salv %	4- yr Net Salv %	5- yr Net Salv %	6- yr Net Salv %	7-yr Net Salv %	8-yr Net Salv %	9- yr Net Salv %
2020	0	0	0	5	NA	NA	NA	NA					
E342.00-Fuel Holders P&A -DSE 2017 2018 2019 2020	0000	0000	0000		A A	A A A A A A	A A Z Z	Å					
E342.00-Fuel Holders P&A -Mira 2017 2018 2019 2020	mar 0 0	0000	0000		A A A A	A A A Z Z Z	۷ ۷ ۷ ۷	Ч Ч					
E342.10 - Fuel Holders - Solar 2017 2018 2019 2020	0000	0000	0000		N N N N N N N N N N N N N N N N N N N	A A A N N N N N N	N N N	NA					
E342.20 - Fuel Holders - Wind 2017 2018 2019 2020	0000	0000	0000		A A A A A A A A A A A A A A A A A A A	A A	A A A A A A A A A A A A A A A A A A A A	A N					
E343.00-Prime Movers-CPEP 2017 2018 2019 2019	0000	0000	0000		A A A A	A A A Z Z Z	4 4 Z Z	Ч И И					
E343.00-Prime Movers-DSEC 2017 2019 2019 2020	0000	0000	0000		A A A A A A A A A A A A	4 4 4 Z Z Z	∀ ∀ Z Z	٩					
E343.00-Prime Movers-Miramar 2017 2019 2019 2019	0 0 833,067	0000	0000		A N N N N N N N N N N N N N N N N N N N	NA NA 0.00%	NA 0.00%	0.00%					
E343.00-Prime Movers-Palomar													

Activity		Gross	Cost of	Net	Net	2- yr Net	3- yr Net	4- yr Net	5-yr Net	6-yr Net	7-yr Net	8- yr Net	9- yr Net
Acct Year	Retirement	Salvage	Removal	Salvage	Salv. %	Salv. %	Salv. %	Salv. %	Salv. %	Salv. %	Salv. %	Salv. %	Salv. %
2017 2018	00	00	00		A N	AN							
2019	0	0	0		NA	AN	ΝA						
2020	0	0	0		NA	NA	NA	NA					
		C	C		ΝΔ								
2018			- C		AN	NA							
2019	0	0	0		NA	AN	ΝA						
2020	0	0	0	ı	NA	NA	NA	NA					
	-												
E343.20 - Prime Movers Wi		C	C		ΝA								
2018	0	0	0		NA	NA							
2019	0	0	0		NA	NA	NA						
2020	0	0	0		NA	AN	ΝA	NA					
E344.00-Generators-CPEP													
2017	0	0	0		NA								
2018	0	0	0		NA	AN							
2019	0	0	0		NA	ΝA	AN						
2020	0	0	0		NA	NA	AN	AN					
E344.00-Generators-DSEC													
2017	0	0	0		NA								
2018	0	0	0		NA	ΝA							
2019	0 0	00	00		AN N	A N	₹ X	44					
2020	D	D	D										
E344.00-Generators-Miram	ar												
2017	0	0	0		NA								
2018	0	0	0		NA	NA							
2019	0	0	0		NA	AN	ΝA						
2020	0	0	0		NA	NA	AN	NA					
E344.00-Generators-Palom	ar												
2017	0	0	0		NA								
2018	0	0	0		NA	NA							
2019	0	0	0		NA	AN	AN						
2020	0	0	0	,	NA	NA	AN	AN					
E344.10-Generators - Solar													
2017	1,704,315	0	0		%00.0								
2018	0	0	0	•	NA	%00.0							
2019	0	0	0		NA	AN	0.00%						
2020	0	0	0		NA	NA	NA	%00.0					
E344.20 - Generators - Win	7												
2017	0	0	0		NA								
2018	0	0	0		NA	AN							

Activity		Gross	Cost of	Net	Net	2- yr Net S-1-5 %	3- yr Net	4- yr Net S-1- %	5-yr Net Celis v	6- yr Net	7-yr Net	8-yr Net	9- yr Net
Acct Year	Ketirement	Salvage	Kemoval	Salvage	Salv. %	Salv. %	Salv. %	Salv. %	Salv. %	Salv. %	Salv. %	Salv. %	Salv. %
2019 2020	00	00	0 0		A A	A A A	A A Z	AN					
E345.00-Access Elect Eq -CPEP	¢	¢	c		:								
2017	0 0	0 0	0 0		AN	4							
2018	- c	- C	5 0		AN N	A V							
2020	00	00	00		A N	ΝN	ΑN	NA					
E0+0.00-Access Elect E4 -D0E0	C	C	C		NA								
2018	0	0	0		AN	NA							
2019	0	0	8,316	(8,316)	NA	NA	ΝA						
2020	38,932	0	24,384	(24,384)	-62.63%	-83.99%	-83.99%	-83.99%					
E345.00-Access Elect Eq -Mirama	-												
2017	0 0	0 0	0 0		AN								
2018	0 0	0 0	0 0		AN N	A N							
2019					AN	A N	A N	NA					
010	þ	þ	>										
E345.00-Access Elect Eq-Palomar		¢			::								
2017	0 0	0 0	0 0		AN	VIV							
2018			5 0		AN NA	A N	NIA						
2013	00	00	00		AN AN	A A	A A A	NA					
E345.10-Access Elect Eg -Solar													
2017	0	0	0		AN								
2018	0	0	0	,	AN	ΝA							
2019	0	0	0		NA	NA	AN						
2020	0	0	0		NA	NA	NA	NA					
E31E 20 Accord Floot Ec. Wind													
E343.20-Access Elect E4 - WIIIU	C	C	C	,	NA								
0102						VIV							
0102							V IV						
2019	0 0	0 0	0 0		AN 1	AN 1	AN .						
2020	0	0	0		NA	NA	AN	NA					
E346.00-Misc Power Plnt Eq -CPE	Ŀ,												
2017	0	0	6,542	(6,542)	NA								
2018	0	0	0		AN 3	AN							
2019	0	0	0	1	AN :	A S	A N						
2020	0	0	0		NA	NA	NA	NA					
E346.00-Misc Power Plnt Eq -DSE	<u>o</u>												
2017	0	0	0		A N								
2018	0	0	0		NA	NA							

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irement 0	Gross Cost of Salvage Removal 0 0	Net Salvage	Net Salv. % 8	2- yr Net Salv. % NA	3- yr Net Salv. % NA	4- yr Net Salv. %	5- yr Net Salv. %	6- yr Net Salv. %	7 - yr Net Salv. %	8- yr Net Salv. %	9- yr Net Salv. %
0			MA	NA	NA	NA					
			A A A A A A A A A A A A	A N N N N N	A A A A	Ϋ́					
7 0 0 0 -2,382 -2,382		2,382		A A A A A A A A A	A A Z Z	И					
			A A A A A A A A A A A A	A A A A A A A A A	Ч И И И	AN					
			A N N N N N N N N N N N N N N N N N N N	N N N N N N N N N N N N N N N N N N N	A A N N	AN					

Exhibit	Witness	Page	Line or Table	Revision Detail
SDG&E-36	Dane A. Watson	DAW-2	Table SDG&E- DW-1	Revised table

SDG&E 2024 GRC Testimony Revision Log –August 2022