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BEFORE THE PUBLIC UTILITIES COMMISSION

OF THE STATE OF CALIFORNIA

Application of Pacific Gas and Electric Company for Authority, Among Other Things, to Increase Rates and Charges for Electric and Gas Service Effective on January 1, 2023. (U 39 M)	Application No. 21-06-021

REPLY BRIEF ON DEPRECIATION OF PACIFIC GAS AND ELECTRIC COMPANY (U39M)

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TABLE OF CONTENTS

Page

TABLE OF CONTENTS
(continued)

Page

TABLE OF AUTHORITIES

Page

10. INTRODUCTION

Pursuant to Administrative Law Judge DeAngelis' *E-Mail Ruling Granting Extension of Time for Depreciation Section of Briefs*, dated November 1, 2022, this reply brief addresses parties' Opening Briefs regarding PG&E's Depreciation and Decommissioning Proposals in our 2023 General Rate Case (GRC). The following parties filed Opening Briefs on these issues on November 10, 2022: the Public Advocates Office at the California Public Utilities Commission (Cal Advocates), The Utility Reform Network (TURN), Indicated Shippers, and PG&E. PG&E's Opening Brief addressed issues in the parties' testimony. To the extent parties are merely repeating their prior arguments, PG&E refers to the discussion in PG&E's Opening Brief.

PG&E responds below to the following issues addressed by the parties in their Opening Briefs: (1) PG&E's forecasts of Depreciation Reserve and Expense, including PG&E's average service lives estimates, survivor curves and weighted-average depreciation reserve; (2) PG&E's use of the Units of Production (UoP) Method to allocate costs over the service lives of assets in proportion to the expected decline in gas demand; and (3) PG&E's forecast of Decommissioning Expense. PG&E's proposals are fully supported by our 2023 GRC Depreciation Study, Opening and Rebuttal testimony, and workpapers, and expert testimony at the hearings and should be approved.

10.1 Depreciation Reserve And Expense

PG&E's Reply Brief first addresses issues raised by Cal Advocates and TURN regarding the service life and net salvage estimates from the depreciation study. PG&E also addresses Cal Advocates' and TURN's different service life and net salvage estimates for several accounts. PG&E then addresses the parties' opposition to PG&E's use of the UoP Method that incorporates expectations for declining throughput resulting from California's goals for net zero carbon emissions by 2045 (referred to as "Net Zero by 2045").

PG&E's Opening Brief summarizes the issues related to service life and net salvage estimates.[1] Both Cal Advocates' and TURN's Opening Briefs discuss their proposed changes to service lives for certain accounts, which in each case would result in longer service lives than PG&E proposes based on its depreciation study.[2] As discussed in detail in PG&E's Opening Brief, their proposals fail to incorporate important factors that must be considered in a depreciation study.[3] Both parties, for example, propose material increases in service lives for overhead electric distribution assets despite efforts to rebuild much of the system to mitigate wildfire risk.[4] Even worse, both propose longer lives than those currently authorized by the Commission for gas distribution assets despite the undisputed fact that Net Zero by 2045 will have an impact on service lives.[5] These issues are distinct from the UoP Method. Considering factors such as obsolescence, changes in demand and the requirements of public authorities is not a depreciation policy change -- rather it is merely adhering to Commission standard practice. The service life and net salvage estimates must, therefore, consider these factors.[6] No party has provided justification for failing to consider how PG&E's electric and gas systems will evolve over time when estimating service lives, which must be done for every depreciation study. The need to address depreciation for gas facilities in a manner that considers the impacts of Net Zero by 2045 should be addressed now rather than deferred to the Gas Planning OIR and the 2027 GRC.

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1 *See* PG&E Depreciation Opening Brief, pp. 6-8, Section 10.1.1.2; pp. 13-16, Section 10.1.1.4 for more discussion on service lives and net salvage.

2 *See* Cal Advocates Depreciation Opening Brief, pp. 2-19, Section 10.1.1; and TURN Depreciation Opening Brief, pp. 1-15, Section 10.1.1.1.1.

3 *See* PG&E Depreciation Opening Brief, pp. 7-8.

4 PG&E-23-E, p. 12-11, line 29 to p. 12-12, line 4, including fn. 13.

5 PG&E-10, p. 12-27, line 31 to p. 12-28, line 27.

6 PG&E-38, p. 6. See also PG&E-23-E, p. 12-4, lines 25-28 and fn. 5, that includes a reference to Standard Practice U-4, p. 6.

While Cal Advocates' and TURN's Opening Briefs propose longer service lives (and in some cases significantly longer lives) than PG&E, both simultaneously propose to restrict needed increases in negative net salvage based on the concept of gradualism, citing the Commission's decision in PG&E's 2014 GRC.[7] However, as described in PG&E's Opening Brief[8] and discussed in more detail below, their application of the concept of gradualism for negative net salvage is not only inconsistent with their approach to service lives but also inconsistent with the Commission's application of gradualism in PG&E's 2014 GRC. Instead, PG&E's proposals, which limit changes to 25 percentage points or less[9] are wholly consistent with the Commission's 2014 GRC decision and Cal Advocates' definition of gradualism in the 2014 GRC. That is, PG&E's proposed net salvage changes are already gradual. As a result, further application of gradualism, as proposed by Cal Advocates and TURN, not only fails to adhere to the Commission's decision in PG&E's 2014 GRC but also fails to balance the intergenerational inequity that arises from negative net salvage estimates that are too low.

10.1.1 Service Lives

10.1.1.1 General

Cal Advocates proposes longer service lives (survivor curves) for three accounts:

1. Account 364, electric distribution poles from PG&E's currently authorized and proposed 44-R2 to a 47-R1.5 survivor curve.[10]

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7 *See* Cal Advocates Depreciation Opening Brief, p. 19; and TURN Opening Brief, pp. 12-15, Section 10.1.1.2.2; *See also* PG&E-23-E, p. 12-108, lines 12-13 (referencing A.12-11-009, DRA-19, p. 1, lines 21-23).

8 PG&E Depreciation Opening Brief, pp. 3-6, 13-16.

9 PG&E notes that Cal Advocates claim that PG&E's proposals represent an average increase in negative net salvage of 19 percentage points. As discussed in this Reply Brief (pp. 18-23, Section 10.1.2.2.1) this is less than those authorized as gradual by the Commission in the 2014 GRC. (Cal Advocates Depreciation Opening Brief, p. 17, including fn. 69.)

10 Cal Advocates Depreciation Opening Brief, p. 5.

2. Account 376, gas distribution mains, from PG&E's currently authorized and proposed 57-R3 to a 6-R3 survivor curve.[11]

3. Account 380, gas distribution services from PG&E's proposed 55-R3 to a 59-R3 survivor curve.[12]

TURN proposes longer service life for nine electric distribution plant accounts, one gas transmission account, and five gas distribution accounts.[13]

TURN further recommends that the Commission reject the use of statistically aged data (also referred to as "STAGE") in the depreciation study for retirements recorded prior to 1999, incorrectly stating that the method to simulate is deemed "confidential" and proprietary to the depreciation study firm, and not able to be tested, and that the use of STAGE data results in a "troubling" pattern of shorter lives than if only recorded data from 1999-2020 was used in the deprecation study.[14] This is despite the fact that statistically aged data has been used by PG&E, Cal Advocates and for the authorized depreciation rates in the last two GRCs as well as by TURN's depreciation consultant in the 2017 GRC. TURN further states that since the 2017 and 2020 GRCs were settled, that PG&E erred in relying on the use of STAGE in the 2023 GRC.[15]

There are, therefore, two primary issues disputed by the parties regarding service lives, both of which were raised in Cal Advocates' and TURN's Opening Briefs.

The first issue is related to the judgment regarding the most reasonable average service lives (ASLs) and survivor curves based on all the data and information normally considered in a

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11 Cal Advocates Depreciation Opening Brief, p. 8.

12 Cal Advocates Depreciation Opening Brief, p. 11.

13 TURN Depreciation Opening Brief, p. 3, Table.

14 TURN Depreciation Opening Brief, p. 5.

15 TURN Depreciation Opening Brief, p. 6. TURN's claim regarding settlements in prior GRCs is undermined by the fact that all parties, including TURN, used statistically aged data in the 2017 GRC. Thus, settlement or no settlement, the authorized depreciation rates in the 2017 GRC logically must have been based on statistically aged data because no party disputed its use and all parties, including TURN, relied on these data. *See* PG&E Depreciation Opening Brief, p. 1.

depreciation study. PG&E's depreciation expert, who has extensive experience in performing depreciation studies across the industry and has performed several previous depreciation studies for PG&E, has incorporated and carefully considered all of the factors that must be considered in a depreciation study.[16] This issue was extensively discussed in PG&E's Opening Brief and will not be addressed further here.

The second issue is TURN's – but not Cal Advocates' – failure to consider pre-1999 data based on its opposition to the use of statistically aged data.[17] TURN essentially proposes to ignore the statistically aged data, the inclusion of which allows for a more comprehensive study of the full experience over the life cycle of PG&E's assets. This issue has the most significant dollar impact of any of the issues specific to service lives.

Below PG&E addresses TURN's arguments on the issue of statistically aged data, before briefly discussing other considerations that have already been addressed in PG&E's Opening Brief and rebuttal testimony.[18]

10.1.1.2 Statistically Aged Data

TURN's Opening Brief has several inaccuracies regarding statistical aging; PG&E's Opening Brief already addressed many of these[19] and they need not be repeated here. However, given the way both TURN's Opening Brief and TURN's witness's testimony have muddied the waters on this issue, it is important to understand the history of the historical database used for PG&E's depreciation studies and how the statistically aged data (or exclusion thereof) impacts the historical life analysis.

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16 *See* PG&E Depreciation Opening Brief, pp. 6-8, Section 10.1.1.2, and p. 17.

17 *See* PG&E Depreciation Opening Brief, pp. 9-12, Section 10.1.1.3.

18 *See* PG&E Depreciation Opening Brief, pp. 6-8; PG&E-23-E, p. 12-54, line 10 to p. 12-105, line 4.

19 *See* PG&E Depreciation Opening Brief, p. 11.

TURN's attempts to downplay the historical acceptance of statistically aged data for PG&E's depreciation rates in its Opening Brief.[20] Statistically aged data was first used in the 2017 GRC and has been relied on by every depreciation witness in a PG&E GRC since the 2017 GRC, with the limited exception of TURN's current depreciation consultant. TURN's description of the past three GRCs[21] is, therefore, incomplete. Cal Advocates has relied on statistically aged data for its recommendations in the 2017, 2020 and 2023 GRCs.[22] TURN's own depreciation witness in the 2017 GRC – the case in which the use of statistically aged data was first proposed – relied on statistically aged data for his recommendations.[23] Not only that, but TURN's current witness has relied on statistically aged data in other proceedings.[24] There was no dispute in PG&E's GRCs about the use of statistically aged data until TURN hired its current witness, who, while having an apparently limited understanding of the method,[25] determined that the exclusion of the more than 80 years of statistically aged data for the years

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20 TURN Depreciation Opening Brief, p. 6.

21 PG&E-23-E, p. 12-72, lines 1-2. *See also* TURN Depreciation Opening Brief, pp. 6-11.

22 *See* PG&E Depreciation Opening Brief, p. 10.

23 *Id.* PG&E notes that TURN argues that "the unfortunate truth is that in a proceeding of the breadth of a PG&E GRC, there are likely numerous issues that are simply missed by intervenors despite their best efforts." (TURN Depreciation Opening Brief, p. 6.) This claim ignores that TURN hired an outside depreciation consultant, James Garren, in the 2017 GRC who only testified on the issue of depreciation and testified on no other issues in the case. It belies belief that TURN's witness "simply missed" the issue of statistically aged data and, further, it is more than reasonable to infer that TURN's witness in that case assented to statistically aged data since his entire analysis relied on statistically aged data. It is only TURN's current depreciation consultant, David Garrett, who has raised an issue with this widely accepted practice and, as discussed, it was clear in hearings that Mr. Garrett does not fully understand the issue of statistically aged data. (PG&E Depreciation Opening Brief, pp. 11-12.)

24 PG&E Depreciation Opening Brief, p. 11; *See also* PG&E-23-E, p. 12-72, lines 3-11 [citing Boston Gas Company (doing business as National Grid) in Mass. D.P.U. 20-120], and fn. 124, (citing Mr. Garrett's testimony in Mass. D.P.U. 20-120, and Mass. D.P.U. 20-120, Exhibit NG-NWA-1, p. 7).

25 Tr. Vol. 10, 1941:27 to 1942:25, TURN/Garrett.

prior to 1999 would support a reduction to depreciation by lengthening service lives. TURN's proposal to ignore these data is inappropriate and unreasonable for the reasons discussed below.

10.1.1.2.1 The Data TURN Proposes To Exclude Has Been Relied On In GRC For Many Years

Given the inaccuracies in both TURN's Opening Brief and expert testimony, it is important to understand the different methods of statistical analysis available for use and their data requirements. Prior to the 2017 GRC, PG&E's depreciation studies were based on the Simulated Plant Record (SPR) method.[26] This method does not require "aged" data (meaning data for which the vintage year of transactions such as retirements is known), nor does it use vintage years in the calculations performed for the SPR analysis.[27] If aged data are available, the preference of depreciation professionals is to use the retirement rate method, in which original life tables are calculated from the available data and to which standard Iowa survivor curves can be fit to assess past retirement experience as a means to forecast future service life expectations.[28] However, if aged data is not sufficiently available, the SPR Method is widely accepted, including by the Commission.[29] As described below, total annual recorded retirements for each year, going back to the early 1900s for many accounts, have been used in PG&E's depreciation studies using the SPR Method. The difference with 1999 and subsequent data used in the retirement rate method is that the annual recorded retirements data for those years includes the vintage (year) that the retired assets were originally placed in service, which provides the age of the retirements.

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26 PG&E-10, p. 12-42, line 18 to p. 12-43, line 2. The SPR method was used by other California utilities as well. See i.e., D.04-07-022, pp. 258-259 (SCE 2003 GRC); D.13-05-010, p. 923 (SDG&E and SoCalGas 2012 GRC); D.12-11-051, pp. 662-664 (SCE 2012 GRC); D.15-11-021, p. 399 (SCE 2015 GRC).

27 PG&E-10, p. 12-42, lines 11-17.

28 PG&E-10, p. 12-40, lines 4-6.

29 Tr. Vol 10, 1900:14 to 1901:7, PG&E/Allis.

No matter the method employed, one must consider the data available and how both the type and range of years available impact the quality of the results of the method of analysis employed.[30] While aged data were not available or used prior to the 2017 GRC, the database for SPR analysis was extensive – for many accounts historical transactions dated to the early 1900s.[31] Thus, the available data provided for the analysis of a long period of time that encompassed the full life cycle of assets studied, which allowed for a more complete analysis of the experience of assets over their historical service lives.[32] The unaged data used for SPR analysis also provided a reasonable basis for numerous depreciation studies, as well as the depreciation rates authorized by the Commission for many GRCs over many decades. Indeed, in the 2014 GRC the Commission adopted all of the service life estimates proposed by PG&E, which were based on the unaged data used for SPR analysis.[33]

In the 2017 GRC, PG&E identified sixteen years of recorded aged data (in which the vintage year of retirements were recorded), ranging in years from 1999 through 2014. While this allowed for actuarial analysis using the retirement rate method, recorded aged data were only available for a relatively short period. Sixteen years is much shorter than the average service lives of most utility assets. Having too short of a period of data presents several problems with the analysis, as PG&E witness Allis explained in testimony and at hearings.[34] The results of the statistical analysis with a short experience band provide a brief and incomplete history of each vintage year of installations, with the overall original life table a composite pieced together from only a small portion of the life cycle of each vintage. While the 2023 GRC allows for six more

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30 PG&E-10, p. 12-40, lines 6-16; PG&E-23-E, p. 12-59, fn. 104; p. 12-67, lines 10-18.

31 *See*, for example, PG&E-23, WP 12-532 and WP 12-548, the experience bands which show data dating to 1909.

32 Tr. Vol. 10, 1902:1-21, PG&E/Allis.

33 *See* PG&E Depreciation Opening Brief, p. 10.

34 Tr. Vol. 10, 1902:1-21, PG&E/Allis.

years of data to be included, there are still significant challenges in interpreting an experience band based on a short period of data as discussed below.

10.1.1.2.2 TURN's Analysis Relies On Too Short A Period Of Data And Produces Unreliable Results

The issues that arise from using too short of a period of data, as is the case with TURN's reliance on a 1999-2020 experience band,[35] are illustrated in Figure 1 below. This figure is the same as in PG&E's workpapers,[36] except for markings have been added to the graph to illustrate how PG&E's data is incorporated into original life tables. The figure shows the original life tables for three different sets of experience bands. The 1909-2020 experience band is the longest range of data, which includes both statistically aged and recorded aged data. The 1999-2020 experience band only includes recorded aged data. The third band includes all of the years of data from 1909-2020 but excludes years in the early 2000s that experienced lower-than-normal retirements.[37]

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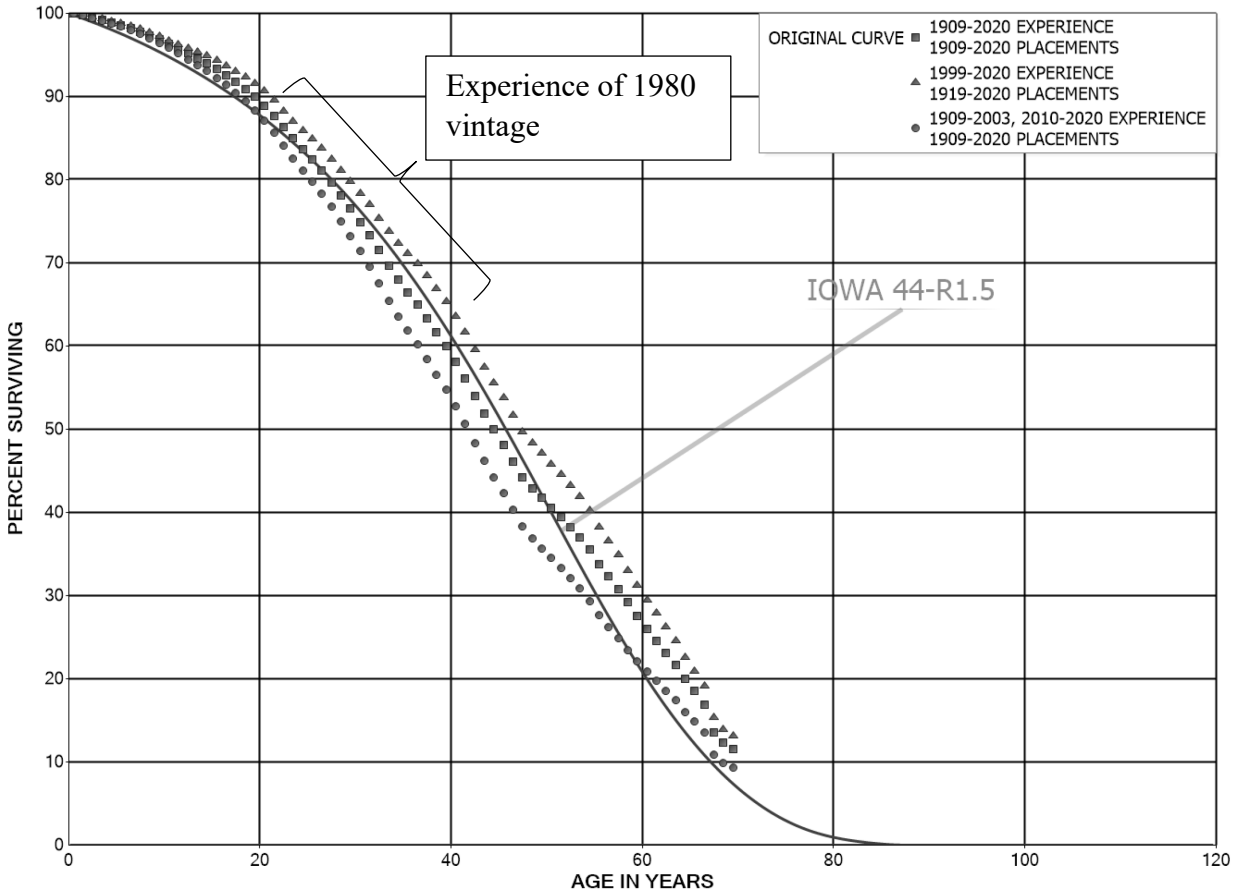
35 As Mr. Allis explained: "The average rate of retirement used in the calculation of the percent surviving for the survivor curve (life table) requires two sets of data: first, the property retired during a period of observation, identified by the property's age at retirement; and second, the property exposed to retirement at the beginning of the age intervals during the same period. The period of observation is referred to as the **experience band,** and the band of years which represent the installation dates of the property exposed to retirement during the experience band is referred to as the placement band." (PGE-10, p. 12-50, lines 11-18 (emphasis added).)

36 *See* PGE-10, WP 12-548.

37 Note that the low retirements in these years would impact the results of the 1999-2020 band much more than the overall band, since these years are a higher percentage of the years included in the experience band.

Figure 1: Original Life Tables for Account 365, Overhead Conductors and Devices



For the 1999-2020 band, which is the experience band TURN's consultant relied on for his estimates, each of the data points (shown as triangles) are based on only 22 years of experience. Thus, for example, the original life table will only incorporate experience for vintage 1980 for the ages 19 through 40, which are the ages of 1980 vintage assets in years 1999 through 2020 (these are illustrated in Figure 1 above). The actual historical experience of vintage is not included for any other age for the 1999-2020 experience band. The same is true for each other vintage. In contrast, for the 1909-2020 experience band, each vintage contributes to significantly more data points. The 1980 vintage contributes to all data points through age 40, the 1960 vintage contributes to all data points through age 60, etc. As a result, TURN's decision to exclude the statistically aged data means that the experience band relied on excludes much

information about the experience of the assets in the account. TURN's approach results in less reliable analyses, in part due to this reason.[38]

Additionally, while TURN provides a graph of Account 364 to support its argument that "with more years of recorded vintage year data, the more the resulting mixed curve with simulated and actual recorded data moves toward the curve reflecting only recorded data,"[39] this is not universally true and instead we can see the opposite effect in similar charts TURN has provided in Exhibit-413. For example, for Account 365, Overhead Conductors (which are shown on pages 13-16 of the exhibit), the experience band starting in 1999 (i.e., the band with recorded aged data) has declined significantly since the 2017 GRC. That is, the 1999-2020 experience band is much closer to the 1909-2020 experience band than was the case with similar bands in the 2017 GRC. This has occurred because retirements have increased for this account as the Company has increased the rate at which it replaces overhead conductors and devices.[40] The shorter 1999-2020 experience band is, therefore, more volatile and less stable than the overall experience band, which provides another reason why results relying on this band are less reliable than data representing a longer period.

TURN argues that there are differences in the results of the analysis when the statistically aged data is included compared to when such data are excluded.[41] However, TURN's entire discussion presupposes that, because the analysis including the statistically aged data results in shorter lives than the analysis that only includes the most recent 22 years of aged data, the inclusion of the statistically aged data must be problematic.[42] However, there is no reason to

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38 *See* PG&E-23-E, p. 12-70, line 1 to p. 12-71, line 24.

39 TURN Depreciation Opening Brief, p. 9.

40 *See* PGE-10, WP 12-558.

41 *See* TURN Depreciation Opening Brief, p. 4.

42 *See* TURN's discussion in its Depreciation Opening Brief at pp. 6-11. TURN does not provide any basis for assuming that an indication of shorter service lives is, in and of itself, problematic. Instead TURN simply assumes, *a priori*, that shorter service lives must be bad.

simply assume that indications of shorter lives are problematic, as the opposite could just as easily be true. Indeed, PG&E's witness identifies several reasons to doubt the results of the short period of data upon which TURN's consultant relies and explains why it is preferable to use the much longer fuller period of data used by PG&E. These include that the analysis with statistically aged data is more consistent with the service lives authorized by the Commission prior to the 2017 GRC, the over-emphasis of unusual events such as the California electricity crisis and the Great Recession in the 1999-2020 band, the unreliability of analyzing a short period of data, and unusually low levels of retirements for some accounts in some of the years in the 2000s.[43] Moreover, there are reasons to expect assets will be replaced at a faster rate in the future than in the past 22-years.[44] Thus, there is no foundation for TURN's argument that there must be something wrong with the inclusion of statistically aged data merely because it produces a result which TURN does not appear to like.

10.1.1.3 TURN's Complaints About Proprietary Software Are Without Merit

Finally, TURN's claims that data should be excluded due to the proprietary nature of PG&E's consultant's software are wholly without merit and based on a mischaracterization of Mr. Allis's testimony. TURN argues that "[t]he Commission should decline to rely on the results of PG&E's statistical aging process in part because the actual calculations underlying those results are deemed 'confidential' and are the proprietary product of the firm PG&E hired to conduct its depreciation study."[45] This is incorrect. Mr. Allis did not testify that the statistical aging algorithm or specific calculations were proprietary. To the contrary, Mr. Allis testified that the calculations used to statistically age the data in the 2017 GRC followed the algorithm set

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43 PG&E-23, p. 12-71, lines 4-9.

44 PG&E-23, p. 12-2, lines 8-16; p. 12-58, lines 11-21; p. 12-68, lines 21-31.

45 TURN Depreciation Opening Brief, p. 5.

forth in NARUC's *Public Utility Depreciation Practices*.[46] It is not the algorithm that is proprietary, just as algorithms for other aspects of depreciation studies are not proprietary (such as the calculations of original life tables or remaining lives).

Gannett Fleming's software itself is proprietary, which is not a problem. Gannett Fleming clearly has a business interest in maintaining its software as proprietary, and should not be required to waive its intellectual property interests in its depreciation software to conduct the Depreciation Study for PG&E. TURN did not raise any issue with the use of Gannett Fleming's software in testimony and did not raise this issue until its Opening Brief. The Commission's Rules of Practice and Procedure allow for the use of proprietary models in its proceedings. Commission Rule 10.4 of Practice and Procedure (Rules) requires the production of models used in preparation of a proceeding. Such disclosure can be made under the terms of a non-disclosure, which is the process PG&E followed to produce to TURN the proprietary Results of Operations model in this proceeding. There is nothing in the Commission's Rules that requires a party to only use public models to support its analyses. The Commission itself regularly relies on proprietary modeling in its various proceedings, including Self-Generation Incentive Program proceedings, Energy Efficiency Proceedings and Resource Planning Proceedings.[47]

The use of Gannett Fleming's software to perform statistical aging calculations does not impede TURN's ability to analyze the statistically aged data. These data have been used for each of the last three GRC cycles, during which TURN has used two different depreciation

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46 Tr. Vol 10, 1901:8 to 1902:21, PG&E/Allis.

47 *See e.g.*, SGIP GHG Signal Working Group Final Report (Sept. 6, 2018), p. 9 ("The Working Group relied upon five proprietary models and one [] public model."); p. 17 ("each modeler was observed to use a proprietary algorithm."). The Report is available at <SGIP GHG Signal Working Group Final Report (ca.gov)> (as of December 12, 2022). The CARE/FERA propensity models used to support Commission decisions are also proprietary. Since 2012, in its ERRA Forecast Applications, PG&E used the proprietary PG&E developed Procurement Portfolio Planner (P3) model to calculate resource dispatch and open positions that are key components of overall generation resource and supply costs. Each year, in various decisions, CPUC approved PG&E's generation resource and supply costs and the associated rates.

consultants who have had ample opportunity to review the statistically aged data and verify the accuracy of the calculations, including by using their own depreciation software to validate such calculations. However, it was clear at hearings that TURN's witness in the instant case not only did not attempt to do so but lacked even a basic understanding of the method and how it works.[48]

Mr. Allis was clear that statistical aging is one software module in an overall suite of depreciation software owned by Gannett Fleming.[49] Gannett Fleming's depreciation software has other functionality that has been used for other aspects of the depreciation study, such as calculating original life tables, net salvage analyses and calculations of remaining lives and depreciation rates.[50] Indeed, any depreciation witness typically uses proprietary software for depreciation. If PG&E were precluded from hiring an expert who relied on proprietary software, it would severely limit PG&E's ability to retain an expert to produce the Depreciation Study. Gannett Fleming has performed depreciation studies for PG&E since the 2003 GRC, and in the 20-years since, and the Commission has authorized service life estimates, net salvage estimates and depreciation rates based on the calculations performed by this software. PG&E is not aware of any party raising an issue with the proprietary nature of Gannett Fleming's software for any other aspects of depreciation studies. There is no reason why the statistical aging process raises any unique concerns regarding the nature of Gannett Fleming's software that would not also apply to all of the other aspects of a depreciation study. TURN's raising the issue of the proprietary nature of business-sensitive software at this late stage should be viewed for what it appears to be – a last ditch effort to discredit a standard and widely accepted process.

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48 For example, TURN's witness was completely unaware that NARUC discusses statistical aging at length in *Public Utility Depreciation Practices*, despite the fact that (as noted in PG&E Depreciation Opening Brief, p. 12) he cited this text eleven times in his testimony.

49 Tr. Vol 10, 1825:17 to 1826:25, PG&E/Allis.

50 *See* PG&E-10, for the workpapers generated by Gannett Fleming's software.

Finally, PG&E notes yet again that TURN's previous consultant in the 2017 GRC not only raised no objection to the use of statistical aging or Gannett Fleming's software, but also relied on the statistically-aged data for his proposals.[51] TURN's issue is not that statistically aged data is used, nor has it identified any actual issues with the statistical aging calculations (which, again, are based on a standard algorithm). Instead, it was clear from the hearings that TURN's current consultant does not understand the statistical aging process (which, again, he has relied on elsewhere) and his proposal appears to be instead merely due to his not liking the results and instead preferring a means to increase service lives.

10.1.1.4 Other Service Life Considerations

Cal Advocates raises additional considerations, including its witness's interpretation of the historical data and his discounting of factors such as how undergrounding and Net Zero by 2045 will impact service lives.[52] PG&E has addressed these issues in its Opening Brief and more extensively in Mr. Allis's rebuttal testimony.[53] PG&E again emphasizes that, in the context of Net Zero by 2045, it makes little sense to increase service lives for overhead electric distribution or, especially, gas distribution assets, as Cal Advocates proposes.

10.1.2 Net Salvage

The primary difference between Cal Advocates' and TURN's proposals for net salvage relate to the concept of gradualism, and both parties' Opening Briefs primarily focus on this concept.[54] PG&E's reply, therefore, begins with a response on the concept and application of gradualism and, in particular, an explanation of why PG&E's proposal is already gradual and

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51 PG&E Depreciation Opening Brief, p. 11.

52 Cal Advocates Depreciation Opening Brief, pp. 5-13, Section 10.1.1.3.

53 *See*, PG&E's Depreciation Opening Brief, pp. 7-8. PG&E-23-E also includes an extensive and detailed discussion of general considerations as well as those for every account at issue. PG&E-23-E, p. 12-54, line 10 to p. 12-105, line 4, Section C.3.

54 Cal Advocates Depreciation Opening Brief, pp. 14-19, Section 10.1.1.4; TURN Depreciation Opening Brief, pp. 11-15, Section 10.1.1.2.

consistent with the Commission's application of gradualism in the 2014 GRC. PG&E then addresses Cal Advocates' discussion of the accounting for certain transactions,[55] which are based on a misunderstanding of PG&E's accounting rather than any actual issues. However, even if Cal Advocates raised legitimate concerns regarding these transactions, it would not materially change the historical net salvage analysis, and PG&E's data would continue to support estimates at least as negative as those proposed by PG&E.[56]

Before turning to the parties' arguments, it is important to clarify the intent of including net salvage[57] in depreciation rates, as set forth in Standard Practice U-4.[58] Cal Advocates states that "[e]ssentially, the Commission authorizes ratepayers to 'pre-fund' the future decommissioning of PG&E's plant by paying into a depreciation reserve, thereby reducing rate base."[59] This explanation does not fully capture the reason for the inclusion of net salvage in depreciation. Future net salvage is part of the cost of a capital asset, differing from the original cost of the asset only in that net salvage cost occurs at the end of the asset's life rather than the beginning.[60] The intent of depreciation is to equitably allocate the costs of the Company's assets over their service lives. Doing so results in intergenerational equity as customers pay the cost of assets providing service.[61] If, instead, net salvage were not recovered over the life of the asset and instead recovered at or after retirement, this would unfairly burden customers with the full cost of removing assets after they are no longer providing service.

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55 Cal Advocates Depreciation Opening Brief, pp. 15-17.

56 PG&E-23-E, p. 12-113, lines 14-24.

57 Net salvage is equal to gross salvage less cost of removal. Cost of removal includes the cost of decommissioning facilities once they reach the end of their useful life. *See*, for example, PG&E-10, p. 11-32, line 1 to p. 11-37, line 21.

58 CPUC, Standard Practice U-4, Ch. 43, The Remaining Life Depreciation Accrual Determination, Future Net Salvage, No. 6, at 4 and 12.

59 Cal Advocates Depreciation Opening Brief, p. 14.

60 PG&E-10, p. 11-11, lines 23-27.

61 PG&E-23-E, p. 12-18, lines 27-29.

The depreciation rates authorized by the Commission include components of both the original cost of the assets and future net salvage. Depreciation, including depreciation for net salvage, is recorded to the Accumulated Depreciation account and, in turn, is a reduction to rate base.[62] Thus, the inclusion of net salvage in depreciation results in rate base being lower than if net salvage were not included in depreciation. To the extent one considers the recovery of net salvage through depreciation as a "prepayment," customers are compensated for the recovery of net salvage through a lower rate base.

10.1.2.1 PG&E's Proposal Is Most Consistent With Gradualism And Precedent From PG&E's 2014 GRC

Cal Advocates and TURN rely on the concept of gradualism, discussed by the Commission in D.14-08-032[63] and in PG&E's Opening Brief,[64] to support their proposed reductions to PG&E's depreciation proposal. PG&E has explained the context of the 2014 GRC Decision, and why the Commission's considerations in that proceeding do not apply to the 2023 GRC.[65] Both TURN and Cal Advocates discuss the concept in their Opening Briefs, which warrants further discussion here.

First, the application of gradualism should be balanced – otherwise it is just a means to artificially reduce depreciation expense.[66] TURN's unbalanced approach to net salvage was recognized by the Commission in PG&E's 2014 GRC:

> In the interests of balancing potential cost impacts on both current and future customers, we conclude that a cap on removal cost increases is reasonable, and would not unduly shift deferred cost burden risk to customers in future GRC cycles. **We also generally conclude, however that TURN's negative salvage estimates are too low, and could ultimately result in future customers**

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62 PG&E-23-E, p. 12-19, lines 6-14.

63 D.14-08-032, p. 598.

64 *See* PG&E Depreciation Opening Brief, pp. 3-6, Section 10.1.1.1.

65 *See* PG&E Depreciation Opening Brief, pp. 13-16, Section 10.1.1.4.

66 PG&E-23-E, p. 12-110, line 7 to p. 12-111, line 11.

absorbing an inordinate level of deferred removal costs attributable to current cost conditions.[67]

While both TURN and Cal Advocates raise the issue regarding net salvage, it applies similarly to service lives – as the Commission recognized in PG&E's 2014 GRC.[68] TURN's proposal in particular is not gradual regarding service lives and, as discussed previously, TURN discards 90 years of historical data to achieve an outcome of much longer service lives.[69] Applying gradualism only to the parameter that would increase depreciation (more negative net salvage) while casting aside a significant amount of historical data and ignoring the concept of gradualism for the parameter that decreases depreciation (longer service lives) is not a balanced application of gradualism, but rather a means to artificially reduce depreciation.[70] Additionally, as explained by PG&E's depreciation witness, there are strong reasons to expect that the profound changes to the energy industry in California envisioned over the next three decades will result in shorter service lives than previously adopted.[71] While the impacts of Net Zero by 2045 on gas throughput are one aspect of these changes, there are many other potential impacts for both gas and electric assets.[72] One consideration related to gradualism recognized by the Commission is that it is "advisable to be cautious when 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."[73] This is much more likely to be

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67 D.14-08-032, pp. 600 (emphasis added).

68 D.14-08-032, p. 605.

69 The earliest experience band used in the Depreciation Study starts in 1909, while TURN's analysis uses 1999 as the earliest experience band. *See* PG&E-10, WP 12-1004.

70 PG&E-23-E, pp. 12-109, line 25 to 12-110, line 12.

71 PG&E-10, p. 12-27, line 31 to p. 12-28, line 27.

72 *See* PG&E Depreciation Opening Brief, pp. 16-21, Section 10.1.2.1.

73 D.14-08-032, p. 598.

true for service lives, due to the factors discussed above and at length by Mr. Allis,[74] than for net salvage.

While both Cal Advocates and TURN argue that their proposals are consistent with the decision in PG&E's 2014 GRC,[75] further review shows that the opposite is true and, as demonstrated below, it is PG&E's proposal that is most consistent with that decision. First, as noted in PG&E's Opening Brief and oft-cited by other parties, the Commission defined gradualism in the 2014 GRC as:

> The 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, is it advisable to be cautious when 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.[76]

PG&E first observes that the underlined passage is the actual definition of the term, whereas the two sentences which follow describe considerations related to the application of gradualism, which may or may not be applicable in all situations.[77] Because the definition notes a "recognized need to revise depreciation parameters," it logically follows that the Commission's use of gradualism for net salvage estimates in the 2014 GRC incorporated a recognized need for more negative net salvage estimates. This alone should provide an expectation that, if changes to

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74 *See* PG&E-23-E, p. 12-5, line 15 to p. 12-12, line 26.

75 Cal Advocates Depreciation Opening Brief, p. 14; TURN Depreciation Opening Brief, pp. 11-12.

76 D.14-08-032, p. 598 (emphasis added).

77 As evidence that these considerations are not universal, gradualism could be applied in a way to limit either increases or decreases in either depreciation expense or depreciation parameters. For example, gradualism could be used for net salvage to limit either more negative or less negative estimates than otherwise supported by the data. Thus, gradualism cannot logically only apply to increases in depreciation expense.

net salvage were made in a gradual manner in the 2014 GRC, there would be a need for further increases in negative net salvage in future GRCs.

Indeed, PG&E explained in its Opening Brief that not only was there a recognized need for future increases in negative net salvage in the 2014 GRC, but the application of gradualism in that case produced a very different result from the proposals of either Cal Advocates' or TURN in the instant case.[78] TURN cites to the specific language in the Commission's 2014 GRC decision, noting that the Commission stated that "[w]e generally adopt no more than 25% of the estimated net increase from current rates that [would] otherwise result from applying PG&E's net negative salvage rates."[79] However, the Commission's decision in the 2014 GRC produced a very different result than TURN's and Cal Advocates' proposed application of gradualism and, in fact, produced a result that is substantially similar to PG&E's proposal in the instant case (and, for that matter, similar to Cal Advocates' proposal in the 2014 GRC that changes to net salvage should not exceed 25 percentage points). According to Cal Advocates, PG&E's net salvage proposals would be gradual as the Commission defined it in the 2014 GRC decision.
Cal Advocates calculated that PG&E's proposals would "increase the net salvage percentage by more than 19% (on average)",[80] which, as discussed below, is lower than the Commission found gradual in the 2014 decision.

PG&E's Opening Brief explains that PG&E's proposed changes in the 2014 GRC were much larger than in the instant case.[81] Indeed, while one could argue PG&E's proposals for net salvage in the 2014 GRC were not gradual (as some were for changes of well more than 50 percentage points), PG&E's depreciation witnesses have proposed much more modest

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78 PG&E Depreciation Opening Brief, pp. 14-16.

79 TURN Opening Brief, p. 15, citing D.14-08-032, p. 600.

80 Cal Advocates Depreciation Opening Brief, p. 17.

81 *See* PG&E Depreciation Opening Brief, pp. 14-15.

changes in net salvage in subsequent cases.[82] The application of gradualism as Cal Advocates and TURN propose, limiting changes to only a quarter of PG&E's proposal,[83] has a much different effect because PG&E's proposals are already consistent with the Commission Decision in the 2014 GRC. Generally, Cal Advocates' and TURN's proposals to limit changes to 25% ***of what PG&E proposes***, results in changes of no more than 6 percentage points – much smaller changes than those authorized by the Commission in the 2014 GRC.[84]

That Cal Advocates' and TURN's proposals are inconsistent with the Commission's Decision in the 2014 GRC can be illustrated by reviewing the actual results of the 2014 GRC decision. For example, in the 2014 GRC, PG&E proposed to change the estimate for Account 364, Poles, Towers and Fixtures from negative 80 percent to negative 150 percent and for Account 365, Overhead Conductors and Devices from negative 77 percent to negative 200 percent.[85] These represented changes of 70 percentage points for Account 364 and 123 percentage points for Account 365. The Commission's decision limited these changes based on the methodology cited by TURN in its Opening Brief (*i.e.*, so that these changes only resulted in 25% of the increase in depreciation as proposed by PG&E in the 2014 GRC).[86] The result was that the Commission authorized estimates of negative 105 percent for Account 364 and negative 108 percent for Account 365.[87] These represent increases in negative net salvage of 25 percentage points and 31 percentage points, respectively. Thus, changes proposed by PG&E

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82 *See* PG&E Depreciation Opening Brief, p. 15.

83 Cal Advocates Depreciation Opening Brief, p. 15; TURN Depreciation Opening Brief, p. 12. Further, as discussed in PG&E-23-E, at p. 12-108, lines 20-22, Cal Advocates' and TURN's proposals result in increases in negative net salvage of no more than 6 percentage points.

84 Cal Advocates Depreciation Opening Brief, p. 15; TURN Depreciation Opening Brief, p. 12.

85 *See* A.12-11-009, HE-04: (PG&E-2), p. 11-11, Table 11-4; D.14-08-032, Appendix C, Table 13, lines 78 and 79.

86 TURN Depreciation Opening Brief, p. 15.

87 *See* D.14-08-032, Appendix E-1, pp. 6-7.

in the instant case – which are all 25 percentage points or less[88] – are completely consistent with the Commission's application of gradualism in the 2014 GRC. In fact, they are all less than the change authorized by the Commission for Account 365 in that GRC. Cal Advocates and TURN's proposals to make changes of no more than 6 percentage points are, in contrast, much smaller than those authorized in the 2014 GRC.

Finally, as discussed in PG&E's Opening Brief,[89] the Commission's approach in the 2014 GRC was based on specific circumstances which cannot be applied as a general principle because it would be unworkable in other contexts (such as in the instant case). If the Commission were to always limit changes in net salvage to 25 percent of an applicant's proposal no matter the proposal itself, then depreciation would never be correct or reasonable (unless, that is, applicants consistently proposed four times the appropriate increase). Cal Advocates' and TURN's approach cannot, therefore, be applied as a general principle and, as discussed above, their application of further gradualism to already gradual PG&E estimates merely results in insufficient net salvage estimates.

10.1.2.2 Issues Raised By Cal Advocates Regarding PG&E's Data Are Based On A Misunderstanding Of PG&E's Accounting For Certain Transactions.

Cal Advocates raises an additional issue regarding PG&E's accounting.[90] PG&E first takes issue with several baseless allegations made by Cal Advocates, such as that PG&E made entries "duplicating and increasing recorded cost of removal," it has "failed to document the costs for which it now seeks ratepayer funding," that PG&E does not have "journal entries or invoices that record the cost of property," and that it has identified a "likely accounting error."[91] None of these claims are true and instead are based on a misunderstanding of PG&E's

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88 *See* PG&E Depreciation Opening Brief, p. 15.

89 *See* PG&E Depreciation Opening Brief, p. 15.

90 Cal Advocates Depreciation Opening Brief, pp. 16-17.

91 *See* Cal Advocates Depreciation Opening Brief, pp. 16-17.

accounting and the net salvage data used for a depreciation study. Additionally, to support their position that the Commission not adopt PG&E's net salvage recommendations, Cal Advocates cites the Commission's Standard Practice U-4, Chapter 3, par. No. 2 which Cal Advocates states stresses the importance of proper accounting records so that the Commission can check depreciation computations.[92] While PG&E agrees that proper accounting records are important, Cal Advocates has excluded the paragraph number 3 that follows their cited paragraph number 2 of Standard Practice (SP) U-4. Paragraph 3 states that it is desirable to stress the maintenance of proper basic accounting records but adds that the application of the remaining life principle will normally tend to produce equitable results in rate proceedings even if these points (in Paragraph 2) have been incorrectly determined.[93]

Cal Advocates uses a single set of accounting transactions related to the proper implementation of a Commission order to impugn the entirety of PG&E's historical net salvage data, yet Cal Advocates is not even able to accurately describe the transactions that occurred in its example. Cal Advocates asserts that the Commission should not adopt PG&E's net salvage rates when there is a "likely accounting error" and PG&E cannot provide invoices or supporting documents to validate its recorded cost of removal.[94] However, PG&E's data is properly recorded using standard processes and well-documented journal entries.

This misunderstanding is not due to a lack of effort on PG&E's part to explain its accounting records, and opportunities for Cal Advocates to understand the entries. This process was discussed numerous times in meetings between Cal Advocates and PG&E and in PG&E's discovery responses.[95] As detailed in PG&E's rebuttal testimony, PG&E met with

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92 Cal Advocates Depreciation Opening Brief, p. 17 and fn. 68.

93 CPUC, Standard Practice U-4, Determination of Straight-Line Remaining Life Depreciation Accruals, p. 9, par. 3, p. 9.

94 Cal Advocates Depreciation Opening Brief, p. 17.

95 PG&E-23-E, p. 11-18, lines 9-12.

Cal Advocates twice where PG&E explained how cost of removal is recorded and agreement was reached on the documentation to provide to Cal Advocates to support PG&E's cost of removal entries.[96] PG&E provided requested documentation in more than twelve data request responses, including accounting and business process documentation explaining how order costs are recorded in cost of removal, and detailed costs for agreed upon planning orders.[97]

In order to understand the specifics of this issue, it is important to make a distinction between PG&E's accounting records and the historical database used for a depreciation study. PG&E's accounting records are where costs associated with PG&E's utility operations are recorded and provides the book of records for the company. Transactions that record costs are often referred to as "journal entries," which may include everything from additions to plant in service, to cost of removal, to fuel costs, to payroll transactions, to software licenses. PG&E is a very large enterprise, with annual capital expenditures in the billions of dollars. A PG&E data response describes that the invoices and other documentation supporting the actual costs incurred for just one capital planning order included over 17,000 line items.[98] PG&E, like any large enterprise, accounts for an enormous volume of journal entries using sophisticated software applications and, like most utilities, has several different accounting systems that interface with one another. As a result, journal entries are recorded not only for transactions with third parties, but also for entries between accounting systems (e.g., transactions recorded at a higher level may

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96 See PG&E-23-E, p. 11-18, fn. 44, which describes that a review of Cal Advocates questions and requests for PG&E's cost of removal data was accomplished and agreement reached on supporting details to be provided in meetings (8/13/2021 and 1/20/2022) between PG&E and Cal Advocates. PG&E explained the entries and provided the support agreed upon with Cal Advocates in the many discovery responses PG&E provided. See also *id*., p. 11-21, lines 8-15, which describes the two meetings further.

97 PG&E-23-E, p. 11-19, line 10 to p. 11-21, line 7.

98 See PG&E-23-E, PG&E's response to Data Request CalAdvocates_083-Q06, dated 10/22/21, p. AppC-70 to p. AppC-71.

be recorded in more detail to PG&E's detailed property accounting records, resulting in journal entries recording moving from one set of records to another).

The data for a depreciation study uses summarized totals of all journal entries recorded in a given year. For example, annual retirements, cost of removal and gross salvage are summed and used in the net salvage analysis for a depreciation study.[99] However, the depreciation study data is not an official record or ledger for the company, nor should it be. The depreciation study data is used to forecast and make predictions about the future – for example, future service lives and net salvage. For this reason, while it is not uncommon to adjust the depreciation study data so that it is most representative of the future, the same adjustments are not made in the Company's accounting records. For example, if a large piece of equipment had an unexpected failure at an early age, this retirement transaction might be removed from the database so that the statistical life analysis does not indicate too short of service lives. This adjustment to the depreciation study would have no impact on PG&E's books and records and would not change any of PG&E's accounting transactions.[100]

The set of transactions for the issue raised by Cal Advocates relates to disallowances for gas transmission assets and wildfires which resulted from Commission decisions.[101] Some of the confusion comes from the fact that these transactions were not – and should not have been – treated the same in PG&E's accounting ledger as they are in the depreciation study.[102] Additional confusion appears to come from journal entries in which costs moved from one

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99 *See,* for example, PG&E-10, WP 12-542, which shows the summarized net salvage data for the period 2001-2020 used for the net salvage analysis for the depreciation study.

100 PG&E-23-E, p. 12-114, lines 23-30.

101 Cal Advocates Depreciation Opening Brief, pp. 15-16.

102 PG&E-23-E, p. 12-114, line 22 to p. 12-116, line 8.

accounting system to another (more specifically, from a higher level to a more detailed accounting system), which sum to zero and have no impact on PG&E's accounting balances.[103]

In rebuttal testimony, PG&E provided additional detail explaining that PG&E's cost of removal (COR) records are accurate, that Cal Advocates' description of PG&E's COR entries and records as inadequate appear to be based on an incomplete understanding of PG&E's accounting procedures for COR, that PG&E's COR and journal entries related to D.16-06-056 (2015 GT&S disallowance) and D.20-05-109 (Wildfire OII disallowance) were properly recorded in PG&E's books and records, and that the depreciation study properly excluded these disallowances in order to avoid distorting net salvage ratios used in the study.[104]

Mr. Allis' rebuttal testimony explains these transactions in more detail. The COR journal entries related to D.16-06-056 (2015 GT&S disallowance) and D.20-05-109 (Wildfire OII disallowance) were initially recorded at a high level (i.e., not associated with specific assets or transactions) in order to reflect these amounts in total for PG&E's financial records. Later, after PG&E determined the more precise accounting and recorded these costs in greater detail in its subledger. As a result, there are four transactions related to each of these, which are as follows:

1. The original cost of removal transaction.
2. The disallowance of this cost of removal amount, recorded at a high level.
3. The reversal of the high-level amount in #2.
4. The disallowance of the cost of removal at a more detailed level.

Transactions #1 and #3 are positive cost of removal amounts and #2 and #4 are negative amounts. Transactions #2 and #3 offset each other and have net effect of zero, meaning that the Company's current rate base reflects the original transaction, and the write off amount, producing a net cost of zero (or, in the case of a partial write off, the partially written

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103 PG&E-23-E, p. 12-114, lines 4-6.

104 PG&E-23-E, p. 11-17, line 13 to p.11-19, line 2.

off amount). Thus, the net effect is that the disallowances are not included in rate base, which is reflected on PG&E's books for ratemaking purposes.[105]

PG&E's accounting for these transactions is correct and produces the results set forth in the Commission decisions resulting in these disallowances. PG&E further explained that the treatment of COR disallowances for the depreciation study should be different and specifically that the disallowances should not be included in the net salvage analysis because inclusion would distort the results.[106]

The purpose of the net salvage analysis is to analyze what it actually costs to retire assets compared to the retirement amounts in order to estimate future net salvage. Because we should not expect future cost of removal to incorporate disallowances, the recorded disallowances should be treated as abnormal activity and excluded from the net salvage analysis. Reviewing data and excluding abnormal activity is a typical and accepted practice for depreciation studies, as the intent of the study is to develop a database for the analysis that is most reflective of future experience.

For this reason, transactions #2, #3 and #4 have not been included in the 2023 GRC net salvage analysis (nor in the previous depreciation study). The net effect is that the total cost of removal reflects the actual amount it cost to retire the related assets. Cal Advocates appears to misunderstand how these transactions were treated, as Mr. Burns incorrectly claims that "PG&E not only did not reduce the costs in 2016 cost of removal recorded data, but also added it back again as 'reversal entry' in 2020 which duplicated and increased recorded cost of removal."[107] It is incorrect that the cost of removal was duplicated – because transactions #3 and #4 offset one another, the net effect is zero. By excluding transaction #2, the net effect is that the cost of

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105 *See* PG&E-23-E, p. 12-114, lines 2-21.

106 PG&E-23-E, p. 12-114, line 22 to p. 12-116, line 8.

107 CalPA-15, p. 20, lines 14-16.

removal reflected in the data is the actual cost incurred (because #2 is excluded and #3 and #4 sum to zero, the total is equal to transaction #1). This is the appropriate level of net salvage to reflect in the net salvage analysis (and appropriately different from what is reflected in rate base).[108]

PG&E further explained why the disallowance should be excluded:

Consider an example where we have two assets that have been retired, both with an original cost of $1,000, a cost of removal of $500 and no gross salvage. For the net salvage analysis, the total net salvage would be negative $1,000 (since the net salvage for each is negative $500) and the total retirement would be $2000. The negative net salvage percentage would then be ($1,000)/$2,000 = (50%). Absent major changes to cost of removal, this negative 50 percent would be reflective of what we can expect for future net salvage for the assets still in service.

If the net salvage costs of one of these assets were disallowed, then this should not affect our expectations for future net salvage – future cost of removal is not likely to be disallowed for the vast majority of assets – and so our expectation of negative 50 percent net salvage would be unchanged. If, however, we include the disallowance in the net salvage analysis then the resultant net salvage percentage would be ($500)/$2,000=(25%). Including the disallowance in the net salvage analysis would therefore produce an incorrect and misleading result, in this case resulting in an estimate that is half what it should be. For this reason, the disallowance, while reflected in rate base, should not be included in the net salvage analysis.[109]

PG&E has not made accounting errors, has supported its accounting, and has explained the accounting treatment for these disallowances at length. PG&E has further explained the difference between its accounting ledger and the depreciation study data and why the depreciation study data is also accurate and correct. Cal Advocates provides no legitimate

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108 *See* PG&E-23-E, p. 12-114, line 2 to p. 12-115, line 11.

109 *See* PG&E-23-E, p. 12-115, lines 12-32.

reason to doubt PG&E's accounting records or net salvage data and the issue Cal Advocates has erroneously raised should have no impact on the Commission's decisions regarding the most reasonable net salvage estimates.

10.1.3 PG&E's Units Of Production Proposal For Gas Distribution Plant

The parties each oppose PG&E's use of the UoP Method for depreciation of PG&E's Gas Distribution Assets. Below we address the following arguments regarding the UoP Method: (1) parties' arguments that the Commission should delay a decision on the need to accelerate depreciation due to reduction in throughput; (2) TURN's assertion that the recovery of capital costs for gas infrastructure should be borne, in part, by shareholders rather than customers;[110] (3) Cal Advocates' and TURN's contradictory arguments that the cost of deferring the implementation of UoP is relatively minor[111] while also asserting that similar cost impacts today are "substantial" or "considerable";[112] (4) Cal Advocates' argument that in order to increase depreciation, utilities show offsetting reductions to costs for capital spending and operations and maintenance (O&M);[113] (5) TURN's and Indicated Shippers' criticisms of the gas throughput forecast used for the UoP calculation;[114] (6) TURN's factually incorrect assertion that PG&E's UoP calculations are proprietary,[115] and (7) Other incorrect statements by Indicated Shippers.

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110 TURN Depreciation Opening Brief, pp. 15-17.

111 Cal Advocate's Opening Brief, p. 23; TURN states that "a difference of this magnitude does not warrant any extraordinary effort on the Commission's part to achieve an accelerated recovery pattern starting in 2023 rather than 2027 … ." (TURN Depreciation Opening Brief, p. 20.)

112 Cal Advocates Depreciation Opening Brief, p. 20; TURN Depreciation Opening Brief, p. 24.

113 Cal Advocates Depreciation Opening Brief, p. 22.

114 TURN Depreciation Opening Brief, p. 27; Indicated Shippers Opening Brief, pp. 4-5.

115 TURN Depreciation Opening Brief, p. 27.

10.1.3.1 The Commission Should Adopt PG&E's Units Of Production Methodology Now Rather Than Delay To The 2027 GRC.

Cal Advocates, TURN and Indicated Shippers each assert that the Commission should reject the UoP Method in this GRC.[116] These parties assert that the issue should be considered in the Commission's ongoing rulemaking addressing long term gas planning.[117] PG&E's Opening Brief addresses the appropriateness of and need for the UoP Method, and many of the issues raised by other parties are already addressed in PG&E's Opening Brief and will not be repeated here.[118] PG&E respectfully disagrees with parties that a delay is in customers' interest as discussed below and in its Opening Brief.[119]

While deferring consideration of the UoP Method to the Gas Planning OIR may be facially appealing, the future use of PG&E's gas facilities must be considered when estimating service lives and net salvage. As discussed in PG&E's Opening Depreciation Brief,[120] depreciation authorities (including the Commission's Standard Practice U-4) clearly require consideration of factors such as obsolescence, changes in demand and requirements of public authorities. In other words, the results of a depreciation study must comport with the realities of a utility's operating environment and expectations about the future state of its business. Cal Advocates and TURN have not done so in their service life estimates. As even TURN admits,[121] there are reasons to expect that service lives for many accounts will be shorter in the

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116 Cal Advocates Depreciation Opening Brief, p. 20; TURN Depreciation Opening Brief, p. 15; Indicated Shippers Opening Brief, p. 2.

117 R.20-01-007, *Order Instituting Rulemaking to Establish Policies, Processes, and Rules to Ensure Safe and Reliable Gas Systems in California and Perform Long-Term Gas System Planning* (Jan. 27, 2020) (Gas Planning OIR).

118 PG&E Depreciation Opening Brief, pp. 16-36.

119 PG&E Depreciation Opening Brief, pp. 31-34.

120 *See* PG&E Depreciation Opening Brief, p. 17.

121 PG&E Depreciation Opening Brief, p. 5, fn. 10 (citing to PG&E-23-E, TURN's responses to Data Requests PG&E_TURN006-Q07 and Q08, dated 6/27/22, p. AppC-11.).

future than have historically been experienced.[122] This knowledge must be incorporated into a depreciation study regardless of whether there is a separate Gas Planning OIR where broader policy issues will be considered. Thus, even if the UoP Method is not adopted in this GRC, the future status of the gas distribution infrastructure must still be considered when estimating service lives and net salvage. Cal Advocates and TURN fail to consider the reduction in lives of the gas assets, and even propose increasing service lives for accounts to a degree that belies even a basic acknowledgement of the profound changes underway for PG&E's electric and gas systems.

While PG&E recognizes that increasing depreciation rates will impact its current customers, PG&E's depreciation rates are too low today and need to increase.[123] An increase is necessary not only because there will be significant operational changes that will impact PG&E's electric and gas systems but also because the past application of gradualism has resulted in depreciation rates that were lower than they otherwise would have been.[124] PG&E is fully cognizant of the Commission's need to balance the interest of current and future ratepayers and recognizes that the Commission may differ from PG&E on how exactly to strike that balance.[125] However, even excluding the UoP proposal, depreciation will need to increase significantly and the proposals of Cal Advocates and TURN do not consider this balance and would instead, if approved, result in the subsidization of current customers at the expense of future customers.

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122 PG&E-23-E, p. 12-14, lines 28-29, including fn. 17 (citing to TURN's responses to Data Requests PG&E_TURN006-Q07 and Q08, dated 6/27/22, p. AppC-11).

123 This brief addresses the parties' positions regarding the issues discussed in PG&E's Opening and Rebuttal testimony in the following exhibits: PG&E-10, Chapters 11, 12 and 12A; and PG&E-23-E, Chapters 11, 12 and 12A.

124 *See* PG&E Depreciation Opening Brief, pp. 3-6, Section 10.1.1.1 for more discussion on gradualism and the need for higher depreciation.

125 PG&E has discussed considerations regarding current and future ratepayers in more detail in its Depreciation Opening Brief, pp. 20-21, and further responds to considerations balancing the interests of ratepayers and shareholders in this Reply Brief, pp. 32-33, Section 10.1.3.1.2.

PG&E proposed a method of depreciation that most closely aligns with the long-term outlook for gas consumption in the state of California. The UoP Method, which uses as an input long-term gas throughput estimates based on the California Gas Report and other forecasts, allocates depreciation in proportion to gas throughput on PG&E's gas system. The UoP Method uses the same service life and net salvage estimates as the straight line method, but allocates costs in proportion to production or consumption rather than on a straight line basis.[126] In doing so, when gas throughput is expected to decline, the UoP Method best matches revenues to expenses, most equitably allocates capital costs across different generations of customers benefiting from the utility's plant (i.e., produces intergenerational equity), and sends proper price signals to the market and to investors.[127] It is also an issue of fundamental fairness that benefiting customer pay for the plant used to provide service to them rather than delay cost recovery for later generations of customers. The Commission recognized in the 2020 GRC that it is important to maintain the equity of intergenerational ratepayers when establishing depreciation rates:

> Because utility assets generally have service lives that span several generations of ratepayers, a systematic and fair apportionment of the asset costs, through an appropriate amount of depreciation expense every year, is important for maintaining the equity of intergenerational ratepayers. A systematic and fair apportionment of the utility asset costs allows each generation of ratepayers to pay their fair share of depreciation expenses for the use of the assets, so that one generation of ratepayers does not have to bear substantively more of the asset costs than others.[128]

PG&E further notes that no party has attempted to incorporate any impacts of Net Zero by 2045 into their depreciation proposals. Thus, even if the Commission declines to address the

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126 PG&E-10, p. 12-29, lines 7-19; *See also* PG&E-10, p. 12-5 to p. 12-8, Table 12-2 which shows that the same service life and net salvage estimates are used for the calculation of both straight line and UoP depreciation rates.

127 PG&E Depreciation Opening Brief, pp. 21-31, Section 10.1.2.1.1.

128 D.20-12-005, p. 279.

UoP Method, none of the other parties' proposals take into consideration in any meaningful way the impact of Net Zero by 2045.

10.1.3.2 Despite Cal Advocates', TURN's And Indicated Shippers' Claims To The Contrary, Deferring Implementing The UoP Method Will Be Costly To Customers

Both Cal Advocates' and TURN's Opening Briefs surprisingly downplay the impacts on future customers from waiting to implement the UoP Method. For example, Cal Advocates states: "the customer impact appears minimal if the issue is resolved by 2026."[129] TURN states that "a difference of this magnitude does not warrant any extraordinary effort on the Commission's part … ."[130] Indicated Shippers, for its part, claims that "the potential cost of rejecting PG&E's proposal in this GRC appears minimal."[131] Cal Advocates refers to the impact of PG&E's UoP proposal in the instant case as having a "considerable dollar impact."[132] TURN includes an entire section of its Opening Brief entitled "The Revenue Requirement and Depreciation Rate Impacts of PG&E's proposal are Substantial and Not at All Gradual."[133] Indicated Shippers claims that PG&E's UoP Method will result in a substantial increase in cost to its customers.[134]

The "substantial" impacts TURN references are increases in depreciation expense of "$46.7 million in 2023, $93.4 million in 2024, $139.5 million in 2025, and $186.1 million

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129 *See* Cal Advocate Depreciation Opening Brief, p. 23.

130 TURN Depreciation Opening Brief, p. 20.

131 Indicated Shippers Opening Brief, p. 6.

132 Cal Advocates Depreciation Opening Brief, p. 20.

133 TURN Depreciation Opening Brief, pp. 24-26, Section 10.1.2.2.

134 Indicated Shippers Opening Brief, p. 5. PG&E notes that on p. 3, lines 22-23 of Indicated Shippers Opening Brief (citing to IS/NCGC-01, p. 3, lines 9-27), Indicated Shippers incorrectly states that PG&E UoP method would add $187 million per year to PG&E's rates, and fails to recognize that PG&E has proposed to phase in the UoP method depreciation expense 25% per year from 2023 through 2026.

in 2026."[135] PG&E has 4.5 million customers, and while depreciation does not perfectly flow through revenue requirements on a one-to-one basis, we can reasonably infer that these depreciation increases translate to revenue requirement impacts that are in the order of $10 to $40 per customer, per year, and following the same method, $0.83 to $3.33 per month.[136]

Again, Cal Advocates considers these amounts to be a "considerable dollar impact" and TURN considers these to be "substantial." PG&E's analysis provided in PG&E-23-E shows that if the implementation of UoP is deferred until 2027, then the annual revenue requirement on a per-customer basis would be approximately $39 more per customer in 2027 than if UoP were implemented in 2023.[137] Additionally, the annual revenue requirement increase resulting from changing from straight line depreciation to UoP in 2027 would be $89 per customer – approximately twice the amount Cal Advocates refers to as "considerable" and TURN refers to as "substantial." PG&E submits that Cal Advocates and TURN cannot simultaneously complain that the impacts of UoP in the instant case are "considerable" or "substantial," while downplaying similar (or, in fact, larger) impacts of deferring the implementation of UoP to a future case. Similarly, Cal Advocates cannot argue that the impact of deferring implementing UoP will have a "minimal" impact while simultaneously characterizing a similar or even smaller dollar impact in this GRC as "considerable."[138]

Additionally, while TURN and Cal Advocates attempt to point to PG&E's increases in depreciation rates for gas distribution plant and overall rate increases in the instant case compared to the 2014 GRC as the reason to not implement the UoP Method in

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135 TURN Depreciation Opening Brief, p. 24.

136 $46.7 million divided by 4.5 million approximates $10 per customer and $186.1 million divided by 4.5 million customers approximates $40 per customer.

137 *See* PG&E-23-E, p. 12-17, lines 7-21, and p. 12-8, Figure 12-1; *See* also, TURN-410, p. 7. The difference between $791 shown in the 2027 column for 2027 and $752 shown in the 2023 column is $39.

138 Cal Advocates Depreciation Opening Brief, pp. 20-23.

PG&E's 2023 GRC,[139] these arguments effectively ignore the impact that plant has on depreciation expense compared to depreciation rate changes.

Following Cal Advocates' example of comparing the 2014 GRC to the 2023 GRC, the numbers show that the increase in depreciation expense from PG&E's 2014 GRC to the 2023 GRC is largely driven by the increase in PG&E's plant balance, not an increase in depreciation rates. PG&E's 2014 GRC WAVG plant balances for gas distribution (GD) and total GRC were $9.2 billion and $48.7 billion, respectively.[140] PG&E's 2023 GRC proposed 2023 WAVG plant balances for GD and total GRC are $17.8 billion and $92.2 billion,[141] respectively. These balances show an increase in plant of 94% for GD and 90% for total GRC from the 2014 to 2023 GRC. Depreciation expense in the 2014 GRC for GD and total GRC was $0.392 billion[142] and $1.881 billion,[143] respectively. PG&E's 2023 GRC proposed depreciation expense for GD and total GRC is $0.741 billion and $3.809 billion[144], respectively. Importantly, these amounts show that depreciation expense as a percentage of WAVG plant has remained at a relatively constant range of 3.9% to 4.3% for GD and total GRC for both the 2014 and 2023 GRCs. Thus, intervenors' attempts to sway the Commission by arguing that PG&E's depreciation request is too large to accommodate changes in this GRC ignore the fact that it is plant balances, and not changes in depreciation rates, that are the main driver of increases in PG&E's depreciation expense. It is unreasonable and impractical to try to offset increases in plant with decreases in needed depreciation rates.

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139 TURN Depreciation Opening Brief, p. 25; Cal Advocates Depreciation Opening Brief, p. 19 compares PG&E 2014 GRC to 2023 GRC overall rate increases.

140 D.14-08-032, Appendix C: Table 10, line 3.

141 PG&E-10, WP 17-6, line 3, GD column (B), Total GRC column (E).

142 D.14-08-032, Appendix C: Table 3-B, line 27.

143 D.14-08-032, Appendix C: Table 3, line 27.

144 PG&E-10, WP 17-2, line 27, Columns (B) and (E).

10.1.3.3 Shareholders Should Not Have To Pay The Costs Of Prudent Investments Needed To Provide Gas Service To Customers

TURN discusses alternatives to traditional customer funding of depreciation expense.[145] PG&E appreciates suggestions by parties that there could be alternative regulatory approaches to mitigate the potential for stranded costs and unjust and unreasonable rates for future customers if capital is not recovered more quickly via some sort of mechanism (depreciation or otherwise). While the Gas Planning OIR may be a reasonable venue to consider all approaches, none will eliminate the reality that, if gas throughput declines by material amounts, then either costs will need to be recovered more quickly – meaning higher bills for someone today – or deferred to future generations who receive no or limited benefit – meaning higher bills for someone in the future (even if, as TURN suggests, electric customers or taxpayers pay these costs). Alternative approaches do not change the fundamental dynamics, only the timing and collection of individuals who pay the costs of a fundamental public service of providing safe, reliable gas service that provides valuable and critical energy across the state.

PG&E is also concerned with suggested alternatives, such as TURN's suggestion that shareholders could or should "share costs",[146] which is simply a euphemism for denying appropriate cost recovery.[147] It is beyond reasonable dispute that depreciation is a recognized cost of service that the utility lawfully has a right to fully recover in rates.[148] TURN's various arguments in this proceeding to deny PG&E its reasonable costs of service are discussed at length in PG&E witness David Thomason's rebuttal testimony. As Mr. Thomason discusses,

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145 TURN Depreciation Opening Brief, pp. 17-18.

146 TURN Depreciation Opening Brief, pp. 17-18.

147 PG&E-23-E, p. 12-19, lines 19-31, citing NARUC's *Public Utility Depreciation Practices* (1996), p. 23. See also fn. 28 on the same page. The depreciation at issue in this case is for assets currently in service that are used and useful. PG&E should have an opportunity to earn a return of and on these investments and TURN's suggestion that shareholders share in higher depreciation expense while these assets are used and useful would not allow such an opportunity.

148 See i.e., *Board of Utility Comrs. v. New York Tel Co*. (1926) 271 U.S. 23, 31. The Commission has consistently included depreciation in cost of service ratemaking.

denying the utility an opportunity to recover reasonable costs of service over the long term is bad for customers and would increase the costs of capital available to fund new projects.[149] The utility has a right to recover its reasonable costs of service and earn a reasonable rate of return on the value of property devoted to public use.[150] Refusing cost recovery for legitimate costs of service as TURN urges for many of PG&E's operating costs in this proceeding would deny the utility its full rate of return and be confiscatory.[151] One of the fundamental pillars of regulation is the need to attract capital to the enterprise to fund the significant investments needed to provide safe, reliable and affordable electric, gas and other utility service.[152] Utility investors in California and across the country expect an opportunity for a return of and on their investment, with the latter commensurate with the risk of similar companies.[153] If the Commission, as a policy decision, decides that state goals – requirements of public authorities to which PG&E, by law, must abide – mean that shareholders will not have an opportunity for a return of their investments, then PG&E submits that utilities will face challenges raising the significant capital that will be needed to invest in both electric and gas infrastructure. Further, denying an opportunity for a return of investments would increase the risk profile of utilities, increasing the cost of capital.[154]

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149 PG&E-14, p. 3-10, line 8 to p. 3-12, line 19.

150 *Southern Cal. Edison Co. v. Public Utilities Com.* (1978) 20 Cal.3d 813, 818-819.

151 *Bluefield Waterworks and Imp. Co. v. Public Service Commission of W. Va.* (1923) 262 U.S. 679, 690 ("Rates which are not sufficient to yield a reasonable return on the value of the property used at the time it is being used to render the service are unjust, unreasonable and confiscatory, and their enforcement deprives the public utility company of its property in violation of the Fourteenth Amendment. This is so well settled by numerous decisions of this court that citation of the cases is scarcely necessary.").

152 PG&E-23-E, p. 12-12, lines 5-16.

153 See also discussion of Regulatory Compact in Section 1.4.2.1.1 of PG&E's Opening Brief, pp. 14-15.

154 TURN also suggests that the Commission could also reduce the return on investment due to Net Zero by 2045. TURN Depreciation Opening Brief, p. 17. If, however, the Commission prescribes depreciation that is too low the opposite would be true. Because too low of

10.1.3.4 Cal Advocates' Proposal To Make Increases In Depreciation Contingent On Other Cost Reductions Is Unreasonable And Unfair To PG&E And To Future Customers

Cal Advocates asserts that "[i]n the R.20-01-007, the Commission can request that utilities show they are undertaking (1) active measures and actions to reduce and/or control the rate of investment in gas assets and infrastructure, and (2) steps to manage, control, and reduce its O&M and A&G costs and how these measures and reductions are reflected in GRC."[155] PG&E is concerned with the implication that a utility must make offsetting cost reductions in order to increase depreciation expense, especially when the need for an increase in depreciation is outside of the utility's control and when it is not feasible to make cost reductions today based on future operating conditions that are not relevant to today's needs.

To understand why Cal Advocates' proposal here is unworkable and harmful to both the utility and customers, it is first important to clarify Cal Advocates' misleading citations to PG&E's rebuttal testimony. Cal Advocates claims that "PG&E also recognizes that as its gas distribution system gets smaller over time, there will likely be reductions to gas distribution costs, at least on an inflation-adjusted basis."[156] The citation paraphrased in Cal Advocates' Opening Brief is to the rebuttal testimony of PG&E witness Ned Allis. However, this citation does not support what Cal Advocates implies it does, as it lacks important context. Mr. Allis' rebuttal testimony includes extensive modeling of short and long-term impacts of Net Zero by 2045 on depreciation, including a thorough discussion of the short- and long-term tradeoffs that the Commission will need to consider.[157] The statement citated by Cal Advocates is actually made in this context, rather than as Cal Advocates implies.

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depreciation increases the risk of the return of capital, investors would need to be compensated with a higher return on rate base, not a lower return as TURN suggests.

155 Cal Advocates Depreciation Opening Brief, p. 22.

156 Cal Advocates Depreciation Opening Brief, p. 22.

157 *See* PG&E-23-E, p. 12-27, line 13 to p. 12-40, line 12.

Cal Advocates fails to recognize the temporal element of depreciation, capital expenditures and O&M costs. PG&E must invest capital today and expend O&M today in order to meet the needs of the system today. These costs are shared by the 4.5 million customers who receive gas service from PG&E today. Importantly, these costs are necessary for PG&E to meet its mandate to provide safe and reliable service to PG&E's current customers. PG&E cannot cut its capital or O&M spending to a level below what is necessary for safety and reliability.

While we do not know the future, it is possible that in the future there could be "reductions to gas distribution costs, at least on an inflation-adjusted basis."[158] This could occur if PG&E's gas system is smaller in the future, either due to reduced throughput, fewer customers, or both. However, this does not reduce the needed investments and O&M to meet the needs of today's gas system. Further, to the extent there are future cost reductions, these are the result of actions of the State of California and various municipalities imposed on PG&E, rather than PG&E decisions. While PG&E is supportive of addressing climate change, if PG&E's gas system is smaller in the future as a result of Net Zero by 2045 policies (and this in turn results in reductions in capital and O&M requirements), then this smaller system will be primarily the result of external factors (rather a unilateral decision by PG&E). Further, these reductions will be because PG&E's system is smaller – and there will be fewer customers or customers will receive less service from PG&E (if throughput declines on a per-customer basis) – meaning that there will be fewer customers or lower sales to bear the capital and O&M requirements in the future. These cost reductions cannot be temporally shifted to today's customers because they would only be appropriate for a future, smaller system – not for today's gas system. Further, it would be inequitable to even attempt to do so, creating a mismatch between the timing of expenses and effectively pushing costs caused by the needs to service today's customers onto future customers.

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158 *Id*. *See also*, PG&E-23-E, p. 12-44, lines 28-28.

Cal Advocates appears to imply that PG&E has control over its depreciation expense. However, the increase in depreciation expense is the result of PG&E's current and future operating environment, and more specifically due to California policy and other factors beyond PG&E's control. It is not a unilateral decision by PG&E. To the contrary, PG&E hired a third-party expert in depreciation to perform a depreciation study. No other depreciation expert testifies on the impact of Net Zero by 2045, neither on depreciation parameters, nor consideration of how to address cost recovery given forecast gas throughput decline[159] and Mr. Allis brings expertise not only in depreciation but also in addressing similar issues in other jurisdictions, such as New York and Massachusetts.[160] Mr. Allis's third-party analysis and conclusions support that depreciation expense for PG&E is too low and needs to be significantly higher as a result of Net Zero by 2045. These circumstances are outside of PG&E's control and, given participants' comments in the Gas Planning OIR, are not in dispute.[161]

10.1.3.5 UoP Is Appropriate For Gas Distribution Assets If Gas Throughput Declines

Both TURN and Indicated Shippers argue that, because there is not a precedent for UoP for gas distribution assets, it is not appropriate for PG&E's gas distribution assets.[162] However, as discussed in PG&E's Depreciation Opening Brief,[163] and as Mr. Allis explained in detail in rebuttal testimony,[164] PG&E faces unprecedented circumstances. TURN, for example, argues

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159 TURN acknowledges that it directed its depreciation expert, who is the only other Certified Depreciation Professional involved in this proceeding, not to consider Net Zero by 2045. Further, while PG&E does not dispute the qualifications of Cal Advocates' witness Truman Burns, to PG&E's knowledge his expertise is not in utility depreciation as Mr. Burns is not a Certified Depreciation Professional. The only depreciation expert to testify on the impacts of Net Zero by 2045 is, therefore, Mr. Allis.

160 *See* PG&E-23-E, p. 12-38, fn. 53.

161 PG&E Depreciation Opening Brief, pp. 17-19.

162 TURN Depreciation Opening Brief, p. 23; Indicated Shippers Opening Brief, p. 8.

163 PG&E Depreciation Opening Brief, pp. 21-24.

164 PG&E-23-E, p. 12-14, lines 1-16.

that, because PG&E does not have an example of UoP being used for gas distribution assets in the years 2001 through 2021, this casts doubt on UoP as an "accepted approach."[165] This argument misses the important point. There had not traditionally been a reason to use UoP for gas distribution assets because gas throughput has historically been expected to grow or at least remain relatively constant. However, this is no longer true. PG&E has demonstrated that, given the circumstances PG&E currently faces, UoP provides the most equitable allocation of costs and, further, continuing to use the straight-line method will cause significant harm to future gas customers.[166] PG&E has shown that UoP has been used previously for other companies, including for gas production assets, and that UoP is supported by depreciation textbooks.[167] Further, the only depreciation expert to testify on the issue of UoP, Mr. Allis, supports its use.[168] There should be little doubt that UoP is an acceptable method in the right circumstances, such as is the case today for PG&E.[169]

Indicated Shippers also discusses a FERC case PG&E had provided in discovery -- *South Dakota Public Utilities Com. v. Federal Energy Regulatory Com.* (1981) 668 F.2d 333 -- which it incorrectly implies establishes a precedent that UoP is not an accepted method.[170] Its discussion of this decision is incorrect for multiple reasons.

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165 TURN Depreciation Opening Brief, pp. 23-24.

166 PG&E Depreciation Opening Brief, pp. 16-24.

167 PG&E Opening Depreciation Brief, pp. 30-33.

168 PG&E-10, p. 12-33, line 3 to p. 12-34, line 11.

169 TURN also argues that UoP was "not adopted by the only regulatory agency to address it in the context of gas distribution plant." (TURN Depreciation Opening Brief, p. 23.) However, UoP was not proposed in the Massachusetts case cited by TURN and instead the proposal in that case was for shorter service lives due to a Massachusetts decarbonization law. *See* PG&E-23-E, p. 12-17, lines 18-23.

170 Indicated Shippers Opening Brief, pp. 8-11 (citing to *S. Dakota Pub. Utilities Comm'n v. FERC, supra,* 668 F.2d 333, 335) (IS-NCGC-04).

Indicated Shippers claims that PG&E provided an earlier decision (not the rehearing decision reversing the first) in discovery, stating: "PG&E pointed to the initial decision . . . . "[171] And: "It is not clear to the Indicated Shippers why such an important adverse precedent was omitted by PG&E."[172] The Court of Appeals' original decision in this case, which affirmed FERC's approval of a settlement was *South Dakota v. Public Utilities Commission* (1981) 643 F.2d 504. The decision that PG&E provided in discovery was the Court of Appeals' rehearing decision, *South Dakota Public Utilities Com. v. Federal Energy Regulatory Com.,* (1981) 668 F.2d 333, which reversed the first decision on a factual basis. Thus Indicated Shipper's claim that PG&E provided the earlier decision and not the rehearing decision is wrong.

More importantly, however, Indicated Shippers' implication that the Court of Appeals categorically disapproved of the UoP Method for depreciation is also wrong.[173] The Court of Appeal simply disagreed that the evidence indicated a sharp reduction in use of the pipeline that would merit the rates approved in the earlier decision.[174] In its rehearing decision, the Court of Appeal stated:

> There are, generally, two methods to determine depreciation cost. The straight line method which evenly distributes the cost of an asset over the full physical life. The second is based upon units of production. This method places emphasis on the total units to be produced and the rate of production. It takes into consideration the service life of an asset and thereby permits exhaustion of natural resources to be taken into account. The unit of production is prescribed by the Commission in its regulations. 18 C.F.R. Part. 201-404.1(B), 404.2(B) (1979).

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171 Indicated Shippers' Opening Brief, p. 10.

172 Indicated Shippers Opening Brief, p. 10.

173 Indicated Shippers Opening Brief, p. 10.

174 *S. Dakota Pub. Utilities Comm'n v. FERC, supra,* 668 F.2d 333, 344-345.

> The FERC used the unit of production method to determine the settlement rates in question here. We find no error in this decision.[175]

Further, as the Court of Appeals noted, the FERC Uniform System of Accounts makes clear that UoP is acceptable.[176] Indicated Shippers conflates that, because UoP was not eventually adopted in the case due to the specific facts and circumstances on the record in the cited case, UoP is not accepted by FERC or the Court of Appeals. This is incorrect, it was merely a specific proposal that was not accepted in a particular case due to specific facts and circumstances in that case. This does not establish precedent that UoP is unacceptable. Indicated Shippers also ignores other examples PG&E had provided of UoP's use for gas pipelines, freight rail and other industries.[177]

Finally, Mr. Allis has responded to Indicated Shippers' witness, Maurice Brubaker's (who, unlike Mr. Allis, is not a depreciation expert) arguments, cited in Indicated Shippers' Opening Brief, differentiating gas distribution systems from undersea gathering systems. As Mr. Allis explains:

Mr. Brubaker's argument fails to recognize that, in the context of significant declines in gas demand due to climate policies, the forces impacting depreciation for gas distribution assets will be similar to those he describes for gas gathering assets. The physical characteristics of each system are not the most relevant consideration when determining the appropriate depreciation method in these circumstances. Instead, it is other forces of retirement and depreciation that should be considered. For a gas gathering system, Mr. Brubaker is correct that the exhaustion of supply renders the physical assets obsolete. UoP is appropriate in such situations. However, he

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175 *S. Dakota Pub. Utilities Comm'n v. FERC, supra,* 668 F.2d 333, 334, fn. 3. This is the footnote that Indicated Shippers incorrectly states is in the Court's "initial decision." Indicated Shippers Opening Brief, p. 10.

176 PG&E-23-E, p. 12-15, line 28 to p. 12-16, line 12, citing the FERC Uniform System of Accounts for gas utilities.

177 PG&E-10, p. 12-33, lines 26-30.

does not acknowledge that a significant decline in gas demand will similarly render gas distribution assets – such as services, meters and even mains – obsolete in a similar way. In other words, just as with gathering systems, obsolescence and declines in utilization for PG&E's gas distribution system will have a more pronounced impact than physical characteristics and, just as UoP can be appropriate for gas gathering systems, the same is true for gas distribution systems that face the specific circumstances of PG&E's system.[178]

10.1.3.6 TURN's And Indicated Shippers' Criticisms Of PG&E's Gas Throughput Forecasts Are Inaccurate

Both TURN and Indicated Shippers criticize the gas throughput forecast PG&E used for the UoP Method.[179] However, as with many of their other criticisms, both mischaracterize PG&E's actual approach and development of the UoP inputs. Indicated Shippers discusses gas throughput forecasts in the most detail and is the only party other than PG&E to provide any testimony on gas throughput forecasts. However, Indicated Shippers only discusses the forecasts developed by Energy and Environmental Economics, Inc. (E3), which they claim are "hypothetical" or "what-if" scenarios.[180] As a result, Indicated Shippers mischaracterizes what PG&E actually did to develop a gas throughput forecast for the UoP calculations.

First, Indicated Shippers states that "PG&E talks in broad generalities about energy efficiency measures, demand response measures, and building electrification, but has not provided a detailed forecast to represent its own projections."[181] This is incorrect. As discussed in PG&E witness David Sawaya's opening testimony, PG&E selected an E3 scenario that was the most closely[182] aligned with the 2020 California Gas Report (CGR), which PG&E produces in collaboration with the State's other gas IOUs. The 2020 CGR examines, in detail, a variety

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178 PG&E-23-E, p. 12-53, lines 10-26.

179 TURN Depreciation Opening Brief, p. 27; Indicated Shippers Opening Brief, p. 11.

180 Indicated Shippers Opening Brief, pp. 11, 15; TURN Depreciation Opening Brief, p. 27.

181 Indicated Shippers Opening Brief, p. 11, citing to IS/NCGC-01, p. 4, lines 22-26.

182 PG&E-10, p. 12A-2, line 2 to p. 12A-3, line 7.

[of] drivers of gas throughput including energy efficiency, building electrification resulting from fuel switching from natural gas appliances to electric, an increase in greenhouse gas (GHG)-free electric generation resources, and warming temperatures due to climate change.[183]

Second, Indicated Shippers asserts that the E3 scenario that was selected for use by PG&E is "not specific to PG&E's service territory."[184] This too is incorrect and is addressed in Mr. Sawaya's opening testimony where he states, "E3 developed PG&E-specific gas demand scenarios by adapting statewide gas demand scenarios produced for [a] project for the California Energy Commission called, 'The Challenge of Retail Gas in California' which it then scaled to the demand needs of PG&E's service territory."[185]

Finally, Indicted Shippers quote Witness Brubaker who states: "PG&E simply adopts one of the report's scenarios without analysis, discussion or questioning."[186] This statement simply ignores the testimony from PG&E's Witness Mr. Sawaya who describes in both opening testimony and reply testimony the analysis and considerations that PG&E undertook to ultimately identify the E3 " 'medium-high electrification' scenario as the most appropriate estimate for the UoP model based on current information."[187] In summary, "Due to its intended use in informing long-term gas system planning, PG&E considered the 2020 CGR 'average year demand' forecast as the primary source of throughput assumptions to be used in the UoP model."[188] However the CGR forecasts time horizon, which goes to 2035, was insufficient for the UoP Method which required a forecast which extends to 2050. As a result, PG&E conducted

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183 PG&E-23-E, p. 12A-2, lines 14-18.

184 Indicated Shippers Opening Brief, p. 11 (emphasis in original).

185 Citing to fn. 5, "CEC, The Challenge of Retail Gas in California's Low-Carbon Future, Pub. No. CEC–500-2019-055-F (Apr. 2020) (CEC Report). The Project was paid with Electric Program Investment Charge funds."

186 Indicated Shippers Opening Brief, p. 11, fn. 51 (*see*, IS/NCGC-01, p. 5, lines 9-10).

187 PG&E-10, p. 12A-1, lines 19-20.

188 PG&E-10, p. 12A-4, lines 5-7.

analysis to determine which of the E3 scenarios were most closely correlated to the CGR "average demand year" forecast. Based upon this analysis, the E3 "medium-high electrification" scenario was selected as it has a positive correlation of 0.994 with the CGR "average demand year" forecast during the comparable time frame.[189]

Ultimately, however, for reasons discussed in Exhibit (PG&E-23-E), Chapter 12, PG&E recommended using E3's "medium electrification" scenario in this proceeding for the depreciation of GD assets.[190]

10.1.3.7 PG&E's UoP Production Calculations Are Not Proprietary And Have Been Available To All Parties Since August 6, 2021.

TURN's Opening Brief states that "PG&E's UoP proposal is based on a model designated as confidential because the utility's consultant claims to have a proprietary interest."[191] This statement is false. PG&E's UoP calculations are not proprietary. Further, they were provided in discovery in workpapers, with working formulas for the UoP calculations, on August 6, 2021. TURN has had these calculations for over a year, did not raise the issue in testimony, instead waiting until its Opening Brief to make these incorrect allegations. TURN's only citations for this claim are from the hearing transcript.[192] However, for the cited portion of the transcript, Mr. Allis was ***not*** asked whether the UoP calculations provided in his direct testimony were proprietary (which is what TURN alleges). Instead, Mr. Allis was asked about calculations and graphs in his rebuttal testimony used to analyze the long-term revenue requirement impact of different depreciation approaches. It is true that the model used to show these impacts in Mr. Allis's rebuttal testimony were designated as confidential, because they are

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189 PG&E-10, p. 12A-4, lines 21-24.

190 PG&E-23-E, p. 12-34, lines 19-25, and fn. 52, "See [PG&E-10], p. 11-27, lines 3-25." .

191 TURN Depreciation Opening Brief, p. 27.

192 More specifically, TURN Depreciation Opening Brief (at p. 27, fn. 59) cites to Tr. Vol. 10, 1853:12 to 1855:2, PG&E/Allis.

proprietary to Mr. Allis's firm, Gannett Fleming.[193] However, the model TURN asked Mr. Allis about in rebuttal testimony was ***not*** the UoP model used to calculate PG&E's proposed depreciation rates. Instead, that model is ***not*** proprietary and had been in TURN's possession for more than a year. TURN's criticisms are factually incorrect.

PG&E also notes that in response to PG&E's rebuttal testimony that TURN's testimony and recommendations ignore the potential impacts of California's long-term carbon neutrality goal, TURN devotes a section in its Opening Brief to complain about what it purports to be unfair "rhetoric" from PG&E.[194] TURN mischaracterizes PG&E's argument. TURN did not merely disagree with the UoP Method, it also seems to ignore the reality of the State's climate goals by proposing to increase service lives and to decrease depreciation expense for gas distribution plant.[195] TURN complains that PG&E has not fully presented TURN's response to a data request (despite that PG&E included the entire response as part of PG&E-23-E), but the entirety of the response does not change the fact that TURN has stated that it "believes that state goals for carbon neutrality are likely to result in service lives for gas mains [and services] being shorter by some as yet undetermined amount" and that TURN's proposals in this case to increase service lives and reduce depreciation for gas distribution assets directly contradict TURN's beliefs regarding the impacts of carbon neutrality goals. PG&E submits that, if TURN's statement is true, then it logically follows that, at a minimum, service lives should remain the same and not be increased. Yet TURN did not do so, and rather instructed its depreciation consultant to not consider the impacts of Net Zero by 2045 and instead TURN's consultant proposes to decrease depreciation expense for gas distribution assets. Given this set of facts, it is

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193 These calculations were provided in discovery on a confidential basis.

194 TURN Depreciation Opening Brief, pp. 20-23, Section 10.1.2.1.3, with reference to "rhetoric" on p. 20.

195 PG&E-23-E, p. 12-43, lines 1-7; p. 12-64, lines 12-29.

hard to come to a conclusion other than that TURN has proposed to ignore the issue of Net Zero by 2045, at least for the purposes of this GRC.

10.1.3.8 PG&E's UoP Proposal Does Not Anticipate Full Decommissioning Of PG&E's System And Is Consistent With Comments PG&E Has Made In The Gas Planning Proceeding

Finally, Indicated Shippers argues that "PG&E's own decommissioning plans" are inconsistent with its UoP proposal.[196] Indicated Shippers' support for this argument is a citation from PG&E comments in the Gas Planning OIR that PG&E expects "decommissioning most of the natural gas system will require somewhere between 50 and 100 years to complete."[197] However, as discussed in PG&E's Opening Brief, PG&E's UoP proposal does not anticipate decommissioning most of the natural gas system and instead anticipates a decline in gas throughput of 31% - much less than a 100% decline that would require full decommissioning.[198] As a result, there is nothing contradictory between PG&E's comments in the Gas Planning Proceeding and PG&E's UoP proposal and, to the contrary, both are consistent with one another.

10.1.4 Decommissioning Expense

10.1.4.1 Hydro Decommissioning

PG&E, Cal Advocates, CalTrout, Friends of the Eel River, and Trout Unlimited reached a stipulation on the amount of PG&E's hydro decommissioning accrual.[199] The stipulation, which is discussed in Section 5.8.1 of PG&E's Opening Brief, reduces PG&E's test year 2023 hydro decommissioning accrual from $62.2 to $48.0 million. For the reasons stated in that discussion, the stipulation should be approved in full.

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196 Indicated Shippers Opening Brief, p. 12.

197 Indicated Shippers Opening Brief, p. 12, including fn. 53, citing to R.20-01-007, Exhibit IS/NCGC-05 (PG&E's Response to Administrative Law Judges' Ruling Issuing Draft Workshop Report and Seeking Comments (Mar. 15, 2022), p. 3), p. 6.

198 *See*, PG&E Depreciation Opening Brief, pp. 27-28.

199 PG&E-30.

10.1.4.2 Pleasant Creek Gas Storage Field Depreciation And Decommissioning

TURN argues that there is no reason why ratepayers should continue to pay $4.3 million in depreciation expense and $12.2 million ($3.04 million per year) for the decommissioning of Pleasant Creek during this rate case period.[200] TURN recommends that the $4.3 million in Pleasant Creek 2023 depreciation expense and the $3.04 million per year for decommissioning be subtracted from PG&E's forecast for this rate case period and dealt with in a section 851 proceeding instead. TURN argues that is does not make sense to charge customers then refund amounts later, if the field sells.

As presented in PG&E's Opening Brief,[201] PG&E is attempting to sell the Pleasant Creek facility. There is currently no signed purchase and sale agreement. In these circumstances, it is appropriate for the commission to adopt PG&E's proposed depreciation and decommissioning, as there is no final sale. As the commission noted in the 2020 GRC, "[t]he amount of the decommissioning reserve is based on the assets that PG&E currently has and it is not reasonable to assume that assets will be sold absent more concrete evidence."[202] The Commission should address the calculation of gains or losses, and any refund or collection from customers, including depreciation and decommissioning, in the section 851 filing, which is an appropriate and efficient process for handling these adjustments, consistent with historical practices and the Commission's direction in the 2020 GRC.

10.1.4.3 Los Medanos Gas Storage Field Depreciation And Decommissioning Refund

TURN recommends against retaining Los Medanos.[203] TURN proposes that if Los Medanos is not retained by PG&E, it should be sold like Pleasant Creek and the disposition

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200 TURN Depreciation Opening Brief, pp. 28-29, Section 10.1.3.

201 PG&E Depreciation Opening Brief, pp. 37-38.

202 D.20-12-005, p. 363, Finding of Fact (FOF) 155.

203 TURN Depreciation Opening Brief, pp. 29-30.

of the accrued depreciation and decommissioning dollars should be addressed in a Public Utilities Code, § 851 application to sell the field, similar to the treatment of Pleasant Creek.

As described in PG&E's Opening Brief,[204] if PG&Es request to retain Los Medanos is not approved by the Commission, then PG&E may be required to either decommission or sell the facility. If PG&E decommissions Los Medanos, the decommissioning amount that PG&E has recommended to return to customers should not be returned, as it will be needed for the decommissioning of the facility. If the Commission orders PG&E to sell Los Medanos, the disposition of the decommissioning funds would be addressed in the Section 851 filing for the facility. The depreciation amount that PG&E has recommended to return to customers should not be returned as the 5-year cost recovery period approved by the Commission in the 2019 GT&S decision (D.19-09-025) will continue to apply. PG&E should only be required to reimburse the decommissioning and a portion of the depreciation expense in this 2023 GRC if Los Medanos remains in operation.

CONCLUSION

For the reasons stated in PG&E's Opening Brief and this Reply Brief and its opening and rebuttal testimony, PG&E respectfully requests the Commission to approve as just and reasonable: (1) PG&E's forecasts of Depreciation Reserve and Expense, including PG&E's average service lives estimates, survivor curves and weighted-average depreciation reserve; (2) PG&E's use of the Units of Production Method to estimate remaining service to avoid burdening future generations with unrecovered depreciation expense; (3) PG&E's Depreciation Rates; and (4) PG&E's forecasts of Decommissioning expense.

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204 PG&E Depreciation Opening Brief, pp. 38-39.

Respectfully submitted,

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