EXHIBIT B

(SCE 2021 GRC Decision)

Date of Issuance 8/20/2021

Decision 21-08-036 August 19, 2021

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Application of Southern California Edison Company (U338E) for Authority to Increase its Authorized Revenues for Electric Service in 2021, among other things, and to Reflect that Increase in Rates.

Application 19-08-013

DECISION ON TEST YEAR 2021 GENERAL RATE CASE FOR SOUTHERN CALIFORNIA EDISON COMPANY

43. Depreciation and Decommissioning

The purpose of depreciation is to recover the original cost of fixed capital assets less the estimated net salvage over the useful life of the property.¹⁶⁷⁸ Depreciation accounting is intended to systematically and rationally allocate the service value over the life of the asset, in a manner that ensures that customers pay for the portion of the asset's cost from which they receive benefit. Depreciation expense is a legitimate cost of service.

The depreciation system SCE uses is the straight-line remaining life method based on the Commission's SP U-4. This method is "designed to ratably recover the cost of plant, less net salvage and less depreciation reserve, over the remaining life of plant."¹⁶⁷⁹ The straight-line remaining life method can be represented by the following formula:¹⁶⁸⁰

Annual Depreciation = <u>Plant Balance - Gross Salvage + Cost of Removal - Depreciation Reserve</u> Accrual Remaining Life of Asset(s)

SCE also uses the broad group, average life procedure to determine depreciation, which groups certain categories of plant and depreciates them as a single group.¹⁶⁸¹

SCE's currently authorized depreciation expense based on year end (YE) 2018 CPUC plant balances is \$1.604 billion.¹⁶⁸² Overall, SCE proposes to increase

¹⁶⁷⁸ Standard Practice (SP) U-4 (Determination of Straight-Line Remaining Life Depreciation Accruals), ch. 1 at 4. All citations to SP U-4 in this decision are to the version available at: <u>https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M042/K177/42177433.PDF</u>, last accessed June 30, 2021.

¹⁶⁷⁹ *Id.*, ch. 2 at 5.

¹⁶⁸⁰ *Id.*, ch. 4 at 11.

¹⁶⁸¹ Ex. SCE-07, Vol. 3 at 10.

¹⁶⁸² Ex. SCE-18, Vol. 3, at 1, Table I-1.

depreciation expense by \$227 million based on 2018 plant balances, which equates to a total proposed depreciation expense of \$1.830 billion.¹⁶⁸³ SCE's requested changes are summarized in the following table:¹⁶⁸⁴

Item	Proposed Change (in \$ millions)
T&D Net Salvage	199
T&D Life	(15)
Small Hydro Decommissioning	30
Other Generation (Decommissioning Escalation, Perris, Palo Verde, Fuel Cells)	2
General and Intangible	12
Total	227

TURN argues that the Commission should not adopt any increases to SCE's depreciation or decommissioning expenses in this GRC as a step toward mitigating the overall revenue requirement increase that is likely to result for TY 2021 and in the following attrition years. TURN argues that depreciation does not affect the utility's ability to provide safe and reliable service. TURN also notes that denying the requested increases would mean that SCE continues to collect approximately \$1.6 billion in annual depreciation and decommissioning expense. If the Commission were to authorize increases, TURN argues that the increases should not exceed the amounts recommended by TURN, consistent with the Commission's commitment to gradualism in this area.

¹⁶⁸³ This amount understates SCE's proposed depreciation expense for 2021 because it is based on YE 2018 plant balances and does not account for subsequent plant growth.

¹⁶⁸⁴ Ex. SCE-18, Vol. 3, at 1, Table I-1. The dollar impacts are based on YE 2018 plant balances.

43.1. T&D Net Salvage

Net salvage is gross salvage less the cost to remove an asset from service at the end of its service life. Net salvage can be expressed either as a dollar amount or as a percent of the original plant cost (the net salvage rate (NSR)). Salvage and removal costs are based on current dollars (when the assets are removed from service), while retirements are based on historical dollars. Often, the net salvage for utility assets is a negative number (or percentage) because the cost of removing the assets from service exceeds any proceeds received from selling the assets.

SCE proposes annual net salvage accruals that would result in a \$199 million increase over currently authorized rates based on current YE 2018 plant balances. SCE's proposals for net salvage accruals are higher (more negative) for 11 accounts, and the same as authorized for 9 accounts. SCE explains that its proposals are based on an account-by-account analysis and are consistent with the straight-line remaining life methodology prescribed in SP U-4. SCE argues that net salvage rates have remained static for two GRC cycles resulting in an increasing gap between authorized and recorded net salvage rates. SCE also argues that failure to address this gap will result in future generations of customers bearing an increasingly higher share of costs to remove assets enjoyed by prior generations of customers.¹⁶⁸⁵

TURN and Cal Advocates argue that SCE's proposed increases do not reflect the principle of gradualism endorsed by the Commission in PG&E's 2014 GRC Decision, D.14-08-032.

¹⁶⁸⁵ SCE OB at 349.

TURN's primary recommendation is that the Commission adopt no change to existing net salvage rates as a step toward mitigating the impact of SCE's overall GRC request. In the alternative, TURN recommends limiting net salvage increases for the 11 accounts at issue to 25 percent of SCE's proposed increase, consistent with the gradualism approach used by the Commission in PG&E's 2014 GRC Decision.

Cal Advocates proposes to limit net salvage increases for FERC Accounts 365, 366, 367, and 368 based on application of the gradualism principle and offers various formulas as the basis of their recommendations. Regarding Accounts 365 and 366, Cal Advocates also notes that the potential for economies of scale or changes in future asset mix may result in declining rates in the future. Cal Advocates has reviewed and does not oppose SCE's net salvage proposals for the other FERC accounts within the Transmission Plant, Distribution Plant, and General Buildings categories.

The following table provides a summary of the currently authorized and parties' proposed accruals for the 11 contested accounts:¹⁶⁸⁶

¹⁶⁸⁶ Ex. SCE-18, Vol. 3 at 4, Table II-2.

FERC Acct No.	Description	Auth. NSR	SCE NSR	SCE Impact (\$M)	TURN NSR	Cal Adv NSR
Transmission Plant						
354	Towers and Fixtures	-60%	-80%	0.3	-65%	-80%
355	Poles and Fixtures	-72%	-90%	3.3	-77%	-90%
356	Overhead Conductors & Devices	-80%	-100%	1.4	-85%	-100%
358	Underground Conductors & Devices	-15%	-30%	1.3	-19%	-30%
Distribution Plant						
361	Structures and Improvements	-25%	-40%	2.2	-29%	-40%
362	Station Equipment	-25%	-40%	7.4	-29%	-40%
365	Overhead Conductors & Devices	-115%	-190%	29.8	-134%	-130%
366	Underground Conduit	-30%	-80%	25.8	-43%	-45%
367	Underground Conductors & Devices	-60%	-100%	68.1	-70%	-70%
368	Line Transformers	-20%	-50%	54.8	-28%	-25%
373	Street Lighting & Signal Systems	-30%	-50%	4.2	-35%	-50%
Total Impact (in millions)				\$199	\$50	\$60

SCE presents an account-by account analysis in support of its NSR proposals. TURN does not dispute SCE's underlying data, TURN's witness testifies that: "[t]he data provided by the Company indicate that the net salvage rates for the 11 accounts at issue should increase."¹⁶⁸⁷ With the exception of Accounts 365 and 366, Cal Advocates also does not dispute SCE's underlying data. However, Cal Advocates acknowledges that some increase to the net salvage rates for Accounts 365 and 366 is warranted. Therefore, the evidentiary record supports that the currently authorized net salvage rates for the identified 11 accounts are insufficient to recover future costs of removal.

¹⁶⁸⁷ Ex. TURN-08 at 42.

We find that some increase to net salvage for these 11 accounts during this GRC cycle is warranted. Although we are concerned about the overall rate impacts of SCE's requests for this GRC cycle, we are also mindful of the need to balance the equities of current and future ratepayers. SCE will ultimately need to recover the cost of removal associated with its capital expenditures. Given the evidence presented by SCE regarding increasingly negative net salvage rates, keeping the rates frozen for another GRC cycle would result in a disproportionate share of these removal costs being shifted to future ratepayers.

As noted by TURN and Cal Advocates, in PG&E's 2014 GRC, the Commission expressed concerns about the growing cost burdens associated with the increasing cost trends for negative net salvage and applied a principle of gradualism to these rates.¹⁶⁸⁸ The Commission explained that:

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, it is advisable to be cautious in making large changes in estimates of service lives and net salvage for property that will be in service for many decades, as future experience may show the current estimates to be incorrect.¹⁶⁸⁹

To balance the customers' respective cost burden between current and subsequent GRC cycles, the Commission found it reasonable in PG&E's 2014

¹⁶⁸⁸ D.14-08-032 at 597.

¹⁶⁸⁹ *Id.* at 598.

GRC to "adopt no more than 25 percent of the estimated net increase from current [net salvage] rates."¹⁶⁹⁰

Citing PG&E's 2014 GRC, the Commission also applied the gradualism principle in adopting net salvage rates in SCE's 2015 GRC.¹⁶⁹¹ We continue to endorse the concept of gradualism with respect to net salvage rates for this rate case cycle given that the overall cost increases at issue in this GRC (for both Track 1 and Track 2) are substantial and ratepayers are facing a great deal of economic uncertainties associated with the global COVID-19 pandemic.¹⁶⁹² Even SCE recognizes that its requested net salvage rate increase is significant.¹⁶⁹³ In consideration of these factors and consistent with past Commission precedent, we find it reasonable to limit any net salvage increases to 25 percent of SCE's requested increases.

Cal Advocates proposes NSRs for Accounts 365, 366, 367, and 368 based on application of the gradualism principle but bases each proposal on a different formula. Cal Advocates fails to justify the appropriateness of using different formulas for each of these accounts. We instead find reasonable the consistent approach set forth in TURN's proposal.

43.2. T&D Average Service Life

SCE proposes to extend the average service lives (ASLs) for four of its T&D accounts: Accounts 361, 367, 373, and 390.¹⁶⁹⁴ SCE proposes to retain the ASL

¹⁶⁹⁰ *Id.* at 600.

¹⁶⁹¹ D.15-11-021 at 413, 421, and 425. The Commission did not apply the gradualism principle to SCE's proposed NSRs in the 2018 GRC because it determined that no increases to NSRs were warranted.

¹⁶⁹² See TURN OB at 19-22; Cal Advocates OB at 281.

¹⁶⁹³ Ex. SCE-18, Vol. 3 at 3.

¹⁶⁹⁴ *Id.* at 15, Table III-6.

adopted in the prior GRC for the remainder of its T&D accounts. SCE's proposals result in a total of \$15.3 million less depreciation expense per year based on 2018 plant balances.¹⁶⁹⁵

TURN proposes service life adjustments to eight of SCE's T&D accounts, which would result in \$58.5 million less per year compared to present accruals based on 2018 plant balances.

The service lives and retirement frequency distributions authorized in the 2018 GRC and parties' proposed service lives and retirement frequency distributions are summarized in the following table:¹⁶⁹⁶

¹⁶⁹⁵ *Id.* at 15, Table III-6.

¹⁶⁹⁶ The first number in the last three columns is the average service life. The L, R, and SC classifications denote whether the mode of the retirement frequency curves to the left, right, or coincident with average service life, respectively. (Ex. TURN-09, Appendix B at 55.) The numbers following each letter represent the variation of life with a lower number indicating a relatively low mode, large variation, and large maximum life; and a higher number indicating a relatively high mode, small variation, and small maximum life. (*Id.* at 57.)

FERC Acct	Description	2018 GRC	SCE Proposal	TURN Proposal					
TRANSMISSION PLANT									
352	Structures & Improvements	55 L 1.0	55 L 1.0	58 L 0.5					
353	Station Equipment	45 R 0.5	45 L 0.5						
354	Towers & Fixtures	65 R 5.0	65 R 5.0	69 R 5.0					
355	Poles & Fixtures	65 SC	65 SC						
356	Overhead Conductors & Devices	61 R 3.0	61 R 3.0	65 R 3.0					
357	Underground Conduit	55 R 3.0	55 R 3.0						
358	Underground Conductors & Devices	45 S 1.0	45 S 1.0						
359	Roads & Trails	60 R 5.0	60 R 5.0						
DISTRIBUTION PLANT									
361	Structures & Improvements	50 L 0.5	55 L 0.5	58 L 0					
362	Station Equipment	65 L 0.5	65 S -0.5	67 L 0					
364	Poles, Towers & Fixtures	55 R 1.0	55 R 1.0						
365	Overhead Conductors & Devices	55 R 0.5	55 R 0.5						
366	Underground Conduit	59 R 3.0	59 R 3.0	64 R 2.5					
367	Underground Conductors & Devices	43 R 1.5	47 L 1.0						
368	Line Transformers	33 S 1.5	33 S 1.5						
369	Services	55 R 1.5	55 R 1.5	60 R 1.5					
370	Meters	20 R 3.0	20 R 3.0	30 R 3.0					
371	Install on Customer Premises	55 R 1.5	55 R 1.5						
373	Street Lighting & Signal Systems	48 L 1.0	50 L 0.5						
GENERAL BUILDINGS									
390	Structures & Improvements	45 R 0.5	50 SC						

Both SCE and TURN rely on methodologies that are not readily verifiable or able to be replicated. Both SCE's and TURN's recommendations rely to a large degree on judgment that is not adequately explained or justified.

TURN's analysis relies on a "retirement rate method" and uses aged property data provided by SCE to develop an observed life table (OLT) curve for each T&D plant account, then engages in a curve fitting process to select the

Iowa curve that best fits the OLT curve.¹⁶⁹⁷ However, TURN does not always rely on the best fitting curves but in some instances relies on visual and mathematical techniques in combination with professional judgment, which is not adequately explained or justified. Moreover, to the extent that there is irregular or minimal retirement activity in an account, past retirement activity alone may not be a reliable indicator of future retirements.

On the other hand, there is merit to TURN's criticisms that SCE's study is overly complicated and is not explained with sufficient detail and clarity that would enable the Commissioners or their staff to achieve the necessary level of understanding or ability to replicate. SCE's method statistically estimates population parameters by drawing inferences and predictions based on an analysis of samples drawn from parent populations.¹⁶⁹⁸ Although SCE generally describes the methodology used, SCE does not provide sufficient information that would enable the Commission to replicate or verify the results. Furthermore, the statistical analyses were not conclusive for several accounts, and therefore, the final recommendations for those accounts do not appear to be based on the statistical analyses at all.

Given the above considerations, we do not endorse either methodology as the superior methodology. We evaluate SCE's and TURN's proposals for each contested account in light of observed retirement activity, composition of the

¹⁶⁹⁷ TURN's curve fitting process relies on Iowa curves, which are a set of commonly used survivor curves developed over several decades of extensive analysis of utility and industrial property. A survivor curve is a graph of the percent of units remaining in service expressed as a function of age. (Ex. TURN-08, Appendix B at 52.) TURN provides a detailed description of Iowa curves in Ex. TURN-08, Appendix B and the curve fitting process in Ex. TURN-08, Appendix C.

¹⁶⁹⁸ Ex. SCE-18, Vol. 3 at 19.

accounts, and other available information to determine the reasonableness of the proposals.

43.2.1. Account 352 (Structures and Improvements)

SCE recommends retaining an ASL of 55 years for Account 352, whereas TURN recommends extending the ASL to 58 years. We do not find evidence of any major factors that would change the appropriateness of the ASL adopted in the last GRC, and therefore, retain the previously authorized ASL of 55 years.

We do not find TURN's analysis based on past retirement activity in the account to be persuasive. The amount of weight to be given to past retirement activity is dependent on the extent to which that activity is likely to be descriptive of future retirements. 58.5 percent of total adjusted retirements in this account were associated with a single retirement of equipment at one substation (Sylmar). We agree with SCE that TURN's analysis over-weights what is likely anomalous retirement activity.¹⁶⁹⁹

43.2.2. Account 354 (Towers and Fixtures)

SCE recommends retaining an ASL of 65 years for Account 354, whereas TURN recommends extending the ASL to 69 years. We do not find evidence of any major factors that would change the appropriateness of the ASL adopted in the last GRC, and therefore, retain the previously authorized ASL of 65 years. We do not find TURN's analysis based on past retirement activity to be persuasive given the minimal retirement activity (0.3 percent of derived additions) recorded in this account.¹⁷⁰⁰

¹⁶⁹⁹ *Id.* at 25.

¹⁷⁰⁰ Ex. SCE-07, Vol. 3, Appendix A at A-14.

43.2.3. Account 356 (Overhead Conductors and Devices)

SCE recommends retaining an ASL of 61 years for Account 356, whereas TURN recommends extending the ASL to 65 years. We do not find evidence of any major factors that would change the appropriateness of the ASL adopted in the last GRC, and therefore, retain the previously authorized ASL of 61 years. We do not find TURN's analysis based on past retirement activity to be persuasive given the minimal retirement activity (1.9 percent of derived additions) recorded in this account.¹⁷⁰¹

43.2.4. Account 361 (Distribution Structures and Improvements)

SCE recommends extending the ASL for Account 361 from 50 to 55 years, whereas TURN recommends extending the ASL to 58 years. We adopt an ASL of 56 years based on evidence that the 56-L0 curve falls within the range of the parties' proposals and has the closest mathematical fit to the OLT.

This account contains adequate retirement history with a relatively smooth and well-shaped curve.¹⁷⁰² SCE's testimony supports the conclusion that future forces of retirement are not likely to significantly differ from those observed in the past.¹⁷⁰³ Therefore, we find it appropriate to use past retirement activity to predict the ASL for this account.

Given the lack of clarity regarding SCE's methodology, we find that SCE has failed to adequately justify its use of a 55-year ASL. TURN's proposed curve results in a better mathematical fit to the OLT compared to SCE's proposal. However, SCE presented evidence that the 56-L0 curve provides the best

¹⁷⁰¹ *Id.* at A-18.

¹⁷⁰² Ex. TURN-08 at 23-24.

¹⁷⁰³ Ex. SCE-07, Vol. 3, Appendix A at A-26.

mathematical fit to the OLT¹⁷⁰⁴ and TURN provides no justification as to why its proposed curve would be superior to the one with the best mathematical fit. Given this lack of justification, we find it reasonable to adopt the 56-L0 curve for this account.

43.2.5. Account 362 (Station Equipment)

SCE recommends retaining an ASL of 65 years for Account 362 but recommends a projection-life curve of 65-S-.5 as opposed to the currently authorized 65-L0.5 curve. TURN recommends an ASL of 67 years. TURN argues that the OLT curve for Account 362 is relatively smooth and complete, which makes selection of a close-fitting Iowa curve a straightforward process.¹⁷⁰⁵

This account contains adequate retirement history with a relatively smooth and well-shaped curve. SCE's testimony supports the conclusion that future forces of retirement are not likely to significantly differ from those observed in the past.¹⁷⁰⁶ Therefore, we find it appropriate to use past retirement activity to predict the ASL for this account.

Given the lack of clarity regarding SCE's methodology, we find that SCE has failed to adequately justify its recommendation of a projection-life curve of 65-S-.5. Therefore, we adopt TURN's proposed curve, which results in a better mathematical fit to the OLT compared to SCE's proposal.¹⁷⁰⁷

¹⁷⁰⁴ Ex. SCE-18, Vol. 3 at 23, Table III-8.

¹⁷⁰⁵ Ex. TURN-08 at 28.

¹⁷⁰⁶ Ex. SCE-07, Vol. 3, Appendix A at A-28.

¹⁷⁰⁷ SCE presents evidence that the curve with the best mathematical fit would be the 68-L0 curve. (Ex. SCE-18, Vol. 3 at 23, Table III-8.) However, we decline to adopt this curve given that it falls outside the range of both parties' recommendations.

43.2.6. Account 366 (Underground Conduit)

SCE recommends retaining a service life of 59 years for Account 366, whereas TURN recommends extending the service life to 64 years. Due to the minimal retirements recorded in this account (2.4 percent of derived additions) and the unreliable service-life indications, SCE's expert deferred to SCE staff in recommending retention of the currently approved service-life parameters.¹⁷⁰⁸ TURN argues that its recommended curve has a better visual and mathematical fit to the OLT curve. TURN also argues that an ASL in excess of 60 years is strongly indicated given that the OLT shows that over 70 percent of the assets in this account are surviving at age 60.

We do not find TURN's analysis to be persuasive given that it is based on minimal retirements recorded in this account and an OLT curve that does not appear well-suited to the curve fitting process.¹⁷⁰⁹

Although SCE's statistical study was not determinative, we find that SCE has adequately supported its proposal to retain the previously authorized service life of 59 years. This account is comprised of conduit (44 percent), pull and slab boxes (23 percent), vaults (21 percent), and other various equipment.¹⁷¹⁰ SCE presents an engineering survey that indicates an expected or design life of 45-60 years for conduit, 20 years for pull and slab boxes, and 50 years for vaults.¹⁷¹¹ The engineers state that retirement factors are largely related to deterioration-related factors, but that other factors will reduce the expected life of these assets, such as mechanical damage from excavation, drilling crews

¹⁷⁰⁸ Ex. SCE-07, Vol. 3, Appendix A at A-34.

¹⁷⁰⁹ See Ex. TURN-08 at 31.

¹⁷¹⁰ Ex. SCE-07, Vol. 3, Appendix A at A-33.

¹⁷¹¹ Ex. SCE-07, Vol. 3, WP Bk A at 224.

inadvertently digging into conduit, or conductor failure. In the absence of compelling statistical analyses from either party, we find that this uncontroverted evidence supports the reasonableness of retaining the 59-year ASL for this account.

43.2.7. Account 369 (Services)

SCE recommends retaining a service life of 55 years for Account 369, whereas TURN recommends extending the service life to 60 years. SCE argues that there is minimal retirement experience (2.6 percent of derived additions) from which to draw conclusions about the ASL for this account and that TURN's proposal, which goes beyond the industry average of 50 years, is unreasonable based on such limited data.

TURN notes that selecting an Iowa curve that provides a very close fit to the OLT curve would result in an ASL that is notably longer than those observed in the industry for this account.¹⁷¹² However, TURN argues that the OLT strongly indicates an ASL going forward of longer than 55 years and that its proposal is a better mathematical fit than SCE's proposal and represents a good balance between the current indications of ASL and the possibility that the ASL may decline going forward.¹⁷¹³

We do not find TURN's analysis based on curve fitting to the OLT to be persuasive. TURN acknowledges that the retirement history in this account is not ideal for conventional Iowa curve fitting techniques.¹⁷¹⁴ Moreover, TURN's proposed curve is not the curve with the best mathematical or visual fit,¹⁷¹⁵ and is

¹⁷¹² Ex. TURN-08 at 34.

¹⁷¹³ *Id.* at 35.

¹⁷¹⁴ *Id.* at 34.

¹⁷¹⁵ *See* Ex. SCE-18, Vol. 3 at 23, Table III-8.

based largely on the judgment of TURN's expert. The basis for the expert's judgment that TURN's proposed curve represents a good balance between current indications of ASL and the possibility that the ASL may decline going forward is not adequately explained or justified. Therefore, we find that there is a lack of justification for TURN's proposed ASL of 60 years.

We do not find evidence of any major factors that would change the appropriateness of the ASL adopted in the last GRC, and therefore, retain the previously authorized ASL of 55 years.

43.2.8. Account 370 (Meters)

SCE recommends retaining a service life of 20 years for Account 370, whereas TURN recommends extending the service life to 30 years. The evidentiary record does not support concluding that the previously adopted service life of 20 years should be modified, and therefore, we retain a 20-year service life for this account.

We do not find compelling justification for TURN's proposed 30-year ASL. TURN itself acknowledges that this account does not have adequate retirement history for conventional Iowa curve fitting techniques.¹⁷¹⁶ TURN argues that 99 percent of the assets in this account that have reached beyond 30 years are still surviving, which indicates that the ASL will be longer than SCE has proposed going forward. However, SCE notes that this portion of the account makes up only 1.8 percent of the account and that the vast majority of the account consists of recently deployed Advanced Metering Infrastructure (AMI) meters.¹⁷¹⁷

¹⁷¹⁶ Ex. TURN-08 at 37.

¹⁷¹⁷ Ex. SCE-07, Vol. 3, Appendix A at A-41; Ex. SCE-18, Vol. 3 at 27; Ex. TURN-08, Ex. DJG-14 at 30-32.

Evidence presented by SCE that TURN's proposal would place SCE above the industry average and the ASLs adopted for SDG&E and PG&E of 16 years and 20 years, respectively, for the same account further supports the reasonableness of retaining the 20-year ASL for this account.¹⁷¹⁸

43.2.9. Uncontested Accounts

SCE's proposals to extend the service lives for Accounts 367, 373, and 390 are not contested. We find that SCE has made a *prima facie* showing of the reasonableness of these proposals and approve the service life extensions.

SCE's proposals to retain the service lives for the remainder of the T&D accounts are uncontested and are approved. There is no evidence that there have been any major changes since the last GRC that would warrant changes to these previously adopted parameters.

43.3. Small Hydro Decommissioning

SCE requests \$27.4 million in annual accruals for future decommissioning of the 22 small hydro plants in its hydro portfolio.¹⁷¹⁹ SCE uses the U.S. Bureau of Reclamation's Risk Management Best Practices and Risk Methodology to assign each small hydro plant a decommissioning probability of 1 percent (for virtually impossible), 10 percent (for very unlikely), 50 percent (for equally likely), 90 percent (for very likely) or 99 percent (for virtually certain). SCE calculates the requested annual accrual by multiplying each facility's decommissioning cost estimate by its decommissioning probability, escalating the probability-adjusted estimate to the average year decommissioning activities

¹⁷¹⁸ Ex. SCE-18, Vol. 3 at 28-29; Ex. TURN-74.

¹⁷¹⁹ Ex. SCE-54 at 252. SCE's original request was for \$29.6 million. SCE subsequently adjusted the original request to \$27.4 by applying \$31 million of anticipated cash contributions from the Army Corps of Engineers (ACOE) as a reduction to the total cost of decommissioning.

are expected to take place, and then dividing the escalated estimate by the estimated remaining time to decommissioning.¹⁷²⁰

SCE argues that it is reasonable to begin collecting these costs in 2021 because the continued cost effectiveness of small hydro is uncertain and decommissioning costs will likely be significant. SCE argue that its proposal is designed to address intergenerational equity by collecting costs associated with an asset from the customers who benefit from the asset, and to avoid a rate shock effect associated with collecting high future costs within a compressed period.

The intervenor parties do not dispute the appropriateness of permitting SCE to begin accruing funds for the potential future decommissioning of some of its small hydro facilities. However, TURN and Cal Advocates both propose to limit SCE's requested increase to plants with the highest probability of decommissioning: Borel Powerhouse (99 percent probability) and Rush Creek (Agnew Lake and Rush Meadows, 90 percent probability). TURN recommends an annual accrual of \$10.1 million for these plants.¹⁷²¹ Cal Advocates recommends an annual accrual of \$6.1 million¹⁷²² for Borel and \$2.6 million for Agnew Lake and Rush Meadows dams.

TURN and Cal Advocates do not dispute SCE's probability-adjusted decommissioning cost estimates for Agnew Lake and Rush Meadows. Moreover, there is no longer a dispute regarding the decommissioning cost

¹⁷²⁰ Ex. SCE-07, Vol. 3 at 81 and 82, Table V-31.

¹⁷²¹ Ex. SCE-54 at 252.

¹⁷²² Cal Advocates initially recommended that the Commission reduce SCE's cost estimate for Borel by 50 percent and authorize an annual accrual of \$4.1 million given uncertainty regarding the ACOE's contributions to decommissioning. Based on more recent information that the ACOE's contributions will be \$31 million, Cal Advocates now recommends a \$31 million reduction to SCE's requested costs for Borel, which results in an annual accrual of \$6.1 million in present dollars. (Cal Advocates OB at 290.)

estimate for Borel because SCE, TURN, and Cal Advocates all agree that SCE's original cost estimate should be adjusted by \$31 million to account for anticipated contributions from the ACOE.¹⁷²³ The difference in TURN's and Cal Advocates' recommendations stem from the fact that TURN's calculations are based on the use of 2023 dollars whereas Cal Advocates' calculations are based on the use of present dollars.

We find it reasonable for SCE to begin recovery for the Borel Powerhouse, Agnew Lake Dam, and Rush Meadows Dam given the high probability that decommissioning of these plants will take place within the next 10 years and the significant costs of decommissioning. SCE estimates a 99 percent probability that it will initiate decommissioning of Borel within the next 5 years and a 90 percent probability that it will initiate decommissioning of Rush Meadows and Agnew Lake within the next 5-10 years. We approve the undisputed probability-adjusted decommissioning cost estimates of \$85.2 million (\$2018)¹⁷²⁴ for Borel and \$41.7 million (\$2018) for Agnew Lake and Rush Meadows.¹⁷²⁵ For the reasons discussed below, we adopt an escalation rate of 4 percent through 2024 for these costs. We do not find any basis for Cal Advocates' recommendation that present dollars be used to calculate these costs. SCE shall also continue to use the broad group depreciation procedure for the removal costs.

¹⁷²³ SCE OB at 373; TURN OB at 310; Cal Advocates OB at 290.

¹⁷²⁴ This figure accounts for the \$31 million contribution from ACOE. (Original cost estimate of \$117.1 million - \$31 million = \$86.1 million. \$86.1 million x decommissioning probability of 99 percent = \$85.2 million.)

¹⁷²⁵ Ex. SCE-05 at 117, Table II-38.

SCE estimates a 50 percent probability of decommissioning for 3 plants (Gem Lake, Kaweah 3, and Tule) and a 10 percent probability of decommissioning for the remainder of its small hydro plants.¹⁷²⁶ With regard to the plants assigned a 50 percent probability, SCE explains that the financial and economic analyses of the costs to decommission versus the costs to continue operations do not point strongly in either direction.¹⁷²⁷ With regard to the plants assigned a 10 percent probability, "SCE generally anticipates that relicensing will be economically preferable to decommissioning."¹⁷²⁸ Given the degree of uncertainty regarding when SCE may initiate decommissioning of these plants, the Commission finds that SCE does not present sufficient justification to begin recovery of decommissioning costs for these plants at this time.

43.4. Decommissioning Escalation

SCE proposes to escalate generation decommissioning estimates to the estimated end of the service life using Handy-Whitman escalation factors for both historical and future periods. SCE argues that its proposal is consistent with SP U-4, which recognizes that straight-line recovery assumes that accruals are pinned to the date of retirement. SCE recognizes that the Commission reached a different conclusion about escalation in the last GRC decision, D.19-05-020, but argues that the last GRC's outcome is not consistent with SP U-4 and was a departure from prior Commission precedent.

TURN argues that, consistent with the treatment adopted in D.19-05-020, the Commission should calculate future generation decommissioning expense in

¹⁷²⁶ Ibid.

¹⁷²⁷ *Id.* at 119-120.

¹⁷²⁸ *Id.* at 120.

2023 dollars, the original end of the GRC cycle.¹⁷²⁹ Alternatively, should the Commission choose not to follow the approach adopted in D.19-05-020, TURN argues that the Handy-Whitman escalation rate is not appropriate for purposes of escalating plant demolition and removal costs because it was developed as a construction cost index for gas turbine peaker plants and historically is much higher than general inflation. TURN instead recommends that the Commission use a 4 percent rate for the 2003-2019 escalation.

We agree with TURN that the approach adopted in D.19-05-020 for calculating generation decommissioning costs should be retained. Given that the rate case cycle is now extended through 2024, we find it appropriate to calculate future generation decommissioning expense in 2024 dollars. In contrast to SCE's proposal, the approach adopted in D.19-05-020 appropriately accounts for the time value of money and avoids the result of current ratepayers paying on a vastly overinflated expense.

SCE's arguments that this approach would result in exponential growth and excessive deferral to future customers are not persuasive. In its rebuttal testimony, SCE provides an illustrative example of what it claims is its straightline proposal versus TURN's inflation-deferred proposal.¹⁷³⁰ Although the example may be an accurate representation of SCE's straight-line proposal, it is not an accurate representation of TURN's inflation-deferred proposal.

In SCE's example, costs totaling \$100,000 are collected over a 20-year period. Under SCE's straight-line proposal, these costs are equally spread over the 20-year period with customers in each year paying \$5,000. However, since

 $^{^{1729}\,}$ In D.20-01-002, the Commission extended the GRC cycle for large energy utilities from 3 to 4 years.

¹⁷³⁰ Ex. SCE-18 at 36, Table V-11.

each year's costs are in nominal dollars, the value of the \$5,000 paid by customers in Year 1 would be much higher than the value of the \$5,000 paid in Year 20 with cheaper nominal dollars.

In providing an illustration of TURN's proposal, SCE assumes that the utility will also collect costs totaling \$100,000 over a 20-year period. SCE then presents a calculation in which \$2,373 is collected in Year 1 with the amount continuing to grow each year until \$14,081 is collected in Year 20. SCE incorrectly assumes that the total amount to be collected over a 20-year period under TURN's method would be the same as under the straight-line method. The \$100,000 is an overinflated figure because it is based on escalating costs through to Year 20 whereas under TURN's proposal, costs would only be escalated through the end of the GRC cycle. SCE's illustration of TURN's proposal also does not account for the fact that the Commission recalculates the accrual every GRC cycle.

Accounting for the time value of money over the course of the 20-year period would result in costs totaling significantly less than \$100,000. Therefore, although we would expect to see increased deferrals to future customers under TURN's proposal, we would expect these increases to be much more modest than presented in SCE's example. It is reasonable to require future ratepayers who will be paying in cheaper nominal dollars to pay more than current ratepayers paying in 2021-2024 dollars in order to account for the time value of money. For example, TURN's testimony notes that for Mountainview, a dollar in the expected retirement year of 2040 is worth about 68 cents in 2021 dollars.¹⁷³¹

¹⁷³¹ Ex. TURN-09 at 34.

TURN recommends that the Commission use a 4 percent rate of escalation only if the Commission rejects the approach adopted in D.19-05-020. Although we retain the approach adopted in D.19-05-020, we adopt a 4 percent rate of escalation because we find that SCE has not justified use of the Handy-Whitman escalation rate for decommissioning costs. TURN's testimony notes that the Handy-Whitman index includes escalation for the cost of materials in addition to costs for labor and other ancillary construction equipment required for demolition.¹⁷³² The Commission finds TURN's recommendation of 4 percent escalation, which is based on data regarding national construction wages, to be more appropriate for escalation, except for SCE's small hydro assets,¹⁷³³ as well as for future escalation through 2024.

TURN also recommends that SCE conduct fresh decommissioning studies for Mountainview, a representative peaker, and a representative solar plant for its next GRC given that it is has been 10-18 years since the most recent studies. SCE agrees to undertake these additional studies.¹⁷³⁴

43.5. Perris Decommissioning

SCE owns and operates 25 solar generating plants with a total capacity of 91.4 MW DC as part of the Solar Photovoltaic Program (SPVP) authorized in D.09-06-049.¹⁷³⁵ The largest project in the SPVP is the Perris solar project (10.2 MW DC), which was installed by SCE in 2012 at an investment of

¹⁷³² *Id.* at 35.

¹⁷³³ Parties did not address historical escalation for SCE's small hydro assets because SCE provided its decommissioning estimates in 2018 dollars.

¹⁷³⁴ SCE OB at 375, fn. 2114.

¹⁷³⁵ Ex. SCE-05, Vol. 1 at 164-165.

\$39.8 million. SCE negotiated a 20-year lease for the project but decommissioned the facility after seven years because SCE determined that it was uneconomic to reinstall the assets after the building owner decided to replace the rooftop. In past GRCs, the Commission has authorized SCE's use of group accounting for the 25 solar projects in the SPVP.

SCE proposes to continue group accounting treatment for all 25 SPVP assets consistent with SP U-4 and to recover the decommissioning costs and undepreciated costs of the Perris investment, plus a full rate of return, over the 10.7-year remaining life of the overall group of solar assets.¹⁷³⁶

TURN argues that SCE's proposed ratemaking treatment of Perris unreasonably assigns the full costs of the prematurely retired facility to ratepayers. TURN argues that it was uncertain whether the rooftop was expected to last 20 years without replacement or major repair and that it was unreasonable for SCE to execute a 20-year lease that gave the building owner the right to unilaterally require removal of the project at SCE's sole expense if the building owner desired repairs or replacement of the roof. TURN recommends that the Commission: (1) limit the recovery of decommissioning costs to those incurred to date (\$3.81 million as opposed to the \$6.5 million forecasted by SCE); (2) deny mass property treatment to Perris and authorize recovery of the remaining net plant over six years with no return on equity or debt, and (3) direct SCE to pursue any legitimate damage claims against the building owner with 95 percent of the proceeds credited to ratepayers.

Based on SCE's requested decommissioning costs of \$6.5 million, SCE's proposal would result in a total annual revenue requirement of \$5.081 million

¹⁷³⁶ Ex. SCE-18, Vol. 3 at 39.

consisting of \$2.537 million proposed depreciation expense and \$2.544 million pre-tax return on rate base. TURN's proposal would result in a total annual revenue requirement of \$4.507 million for proposed depreciation expense with no return on tax base.¹⁷³⁷

43.5.1. Decommissioning Costs

TURN argues that SCE's forecasted decommissioning cost of \$6.5 million for the Perris facility appears to be well in excess of the expected cost of decommissioning. TURN notes that project decommissioning was complete at the end of June 2020, and SCE had incurred \$3.81 million in decommissioning costs. TURN argues that it is unclear what additional work will be required and that SCE has failed to provide an estimate of remaining costs.

SCE bears the burden of establishing that its requested costs are justified. Here, SCE has failed to provide justification for the \$6.5 million forecast. The latest information in the record regarding the decommissioning costs indicates that SCE recorded \$3.81 million in costs through June 24, 2020.¹⁷³⁸ In data request responses to TURN in May and June 2020, SCE stated that it had completed physical decommissioning of the Perris facility but that the recorded costs are not final because SCE is addressing building restoration issues with the lessor.¹⁷³⁹ In the responses, SCE was unable to identify what additional work would be required or any estimates for the remaining work.¹⁷⁴⁰ During hearings, SCE's witnesses testified that the decommissioning work was essentially

¹⁷³⁷ *Id.* at 40, Table VI-12.

¹⁷³⁸ Ex. TURN-46, SCE response to data request TURN-SCE 91, Q14.

 ¹⁷³⁹ Ex. TURN-46, SCE responses to data requests TURN-SCE 75, Q3 and TURN-SCE 91, Q14.
¹⁷⁴⁰ *Ibid*.

complete and that they were unaware of any additional restoration work that would be required.¹⁷⁴¹

Because SCE has failed to provide an estimate of what additional decommissioning costs will be incurred, we find that SCE has failed to justify its requested decommissioning costs of \$6.5 million. Therefore, we authorize recovery of the recorded decommissioning costs of \$3.81 million. If SCE incurs additional costs, it may present updated decommissioning costs in its next GRC.

43.5.2. Ratemaking Treatment

We agree with TURN that it is inappropriate for SCE to continue to receive a return on the Perris investment because it has been decommissioned and is no longer used and useful. It is a "longstanding regulatory principle that shareholders should earn a return only on used and useful plant."¹⁷⁴² TURN cites to a long line of Commission precedent in which we have denied any return on unrecovered capital of prematurely retired plant.¹⁷⁴³ The Commission has explained:

[I]n the case of a premature retirement, the ratepayer typically still pays for all of the plant's direct cost even though the plant did not operate as long as was expected. The shareholder recovers his investment but should not receive any return on the undepreciated plant. This is a fair division of risks and benefits.¹⁷⁴⁴

The Commission has on occasion made exceptions to this general policy. In making such exceptions, the Commission has emphasized that the specific

¹⁷⁴¹ RT, Vol. 5 at 713: 11-14, 18-24; RT, Vol 9 at 988: 21-23.

¹⁷⁴² D.92-12-057, 1992 Cal. PUC LEXIS 971 at *83.

¹⁷⁴³ TURN OB at 323-324.

¹⁷⁴⁴ D.85-08-046, 1985 Cal. PUC LEXIS 687 at *22.

circumstances of each situation must be evaluated.¹⁷⁴⁵ As explained by the Commission: "It would be poor public policy to include large amounts of plant that is not used and useful in rate base without a full analysis and consideration of the specific facts and circumstances."¹⁷⁴⁶

SCE argues that Perris has always been part of a larger depreciable group and that it is inconsistent with group depreciation principles to disallow earlier than average retirement and otherwise leave the group intact. SP U-4 states that under group accounting, "A deficiency due to early retirement of a particular unit is made up through greater accruals on a unit which outlives the average."¹⁷⁴⁷ SCE argues that midstream changes would change the way group depreciation works.

We reject the notion that prior group accounting treatment of plant is alone sufficient to justify an exception to the general policy that utilities should only earn a return on plant that is used and useful, particularly in cases involving a large standalone project or large amounts of plant. Such a notion is not consistent with Commission precedent. The Commission has stated that the specific circumstances must be evaluated and that it is appropriate for the Commission to "critically review the use of group accounting and its alternatives" in instances where it appears that the undepreciated balances of premature plant retirements would not be offset to a large degree by plant assets that exceed their expected lives.¹⁷⁴⁸ TURN cites to Commission precedent in which the Commission endorsed the used and useful principle over the

¹⁷⁴⁵ D.11-05-018 at 55.

¹⁷⁴⁶ *Id.* at 66-67.

¹⁷⁴⁷ SP U-4, ch. 3 at 8.

¹⁷⁴⁸ D.11-05-018 at 64.

importance of maintaining group depreciation.¹⁷⁴⁹ Therefore, the fact that Perris was previously afforded group accounting treatment is not controlling.

With respect to the Perris facility, SCE fails to justify an exception from the general policy that only used and useful plant should earn a return. In prior decisions, the Commission considered factors such as the causes of the premature retirement and the burdens and benefits of the plant items in question in determining appropriate ratemaking treatment. Consideration of these factors does not weigh in favor of authorizing a continued return on the no longer used and useful Perris facility.

The Commission has found it appropriate to authorize a return on prematurely retired plant in instances where the retirement was due to Commission desires or actions, and to deny a return on rate base when the impetus for the non-used and useful status was utility actions rather than Commission desires or actions.¹⁷⁵⁰ In this case, the impetus for the decommissioning of the Perris facility was not due to Commission desires or actions.

The Commission has also found it appropriate to authorize a return on prematurely retired plant in instances where the abandonment results in a net benefit to ratepayers.¹⁷⁵¹ In this case, there is no demonstration that the premature retirement results in net benefits to ratepayers. Ratepayers will continue to pay for the plant's direct costs although they are not receiving any benefits from the plant. In addition, Perris is a large stand-alone solar project and it is unlikely that the undepreciated balance of Perris would be offset to a

¹⁷⁴⁹ TURN RB at 159-160 citing D.85-12-108 and D.92-12-057.

¹⁷⁵⁰ D.11-05-018 at 55-57.

¹⁷⁵¹ D.11-05-018 at 57.

large degree by the other SPVP assets that exceed their expected lives since the ASL for these assets is based largely on the lease terms for the rooftops.¹⁷⁵²

Under these circumstances, we do not find it consistent with Commission precedent or a fair division of risks and benefits for ratepayers to also pay for the return on the undepreciated plant balance of \$20.54 million and decommissioning costs of \$3.81 million for over a decade.¹⁷⁵³ Therefore, we adopt TURN's proposal to deny mass property treatment to Perris and authorize recovery of the remaining net plant over six years with no return on equity or debt. Such ratemaking treatment is consistent with past treatment the Commission has adopted for similar circumstances.¹⁷⁵⁴

Given that the mass property treatment of the other 24 solar PV assets is not disputed, we find it reasonable for SCE to continue the use of group accounting for these assets. We also find that the early retirement of the Perris facility should not impact the ASL for the other solar PV assets since the ASL is based largely on the lease terms for the rooftops.¹⁷⁵⁵

43.5.3. Future Damage Claims

TURN argues that SCE should aggressively pursue any legitimate claims against the facility owner and credit 95 percent of any proceeds to ratepayers.

¹⁷⁵² Ex. SCE-07, Vol. 3 at 85.

¹⁷⁵³ Ex. SCE-18, Vol. 3 at 40, Table VI-12.

¹⁷⁵⁴ For example, in both D.85-12-108 and D.92-12-057, the Commission removed the undepreciated balance of prematurely retired plants from rate base and amortized the recovery of the balance over five years with no return or interest earned. (D.85-12-108, 1985 Cal. PUC LEXIS 1112 at *57-*58; D.92-12-057, 1992 Cal. PUC LEXIS 971 at *74, *83-*84.)

¹⁷⁵⁵ Ex. SCE-07, Vol. 3 at 85.

SCE agrees to return 100 percent of all proceeds that may be recovered from legal action to customers if SCE's proposals for the Perris facility are adopted.

As discussed above, we do not adopt SCE's ratemaking proposals for the Perris facility. Under the ratemaking treatment adopted in this decision, the project risks are being shared between ratepayers and shareholders. Therefore, in the event that SCE recovers any proceeds from legal action related to the Perris facility, we determine that a reasonable division would be a 50/50 allocation between ratepayers and shareholders.

43.6. Palo Verde Interim Retirements

SCE proposes to increase the interim retirement net salvage rates for Palo Verde based on a 10-year average (2009-2018) of retirements and net salvage experience. SCE's proposal results in an interim retirement rate of 0.55 percent, an interim net salvage rate of -24 percent, and an annual accrual of \$19.8 million.

TURN recommends using a 7-year average (2012-2018) that excludes zero values in 2009-2010 and an unusually high value in 2011 for a major capital project (reactor head replacements) that is unlikely to repeat in the near future. TURN's proposal would result in an interim retirement rate of 0.20 percent, an interim net salvage rate of -40 percent, and an annual accrual of \$18.0 million.

We find reasonable and adopt TURN's proposal to base the interim retirement net salvage rate on the 7-year average. SCE does not provide sufficient evidence to support that the high level of interim retirements recorded in 2011 are likely to recur in the future. In rebuttal testimony, SCE asserts that: "APS indicates that in the next ten years three evaporative pond liners will

require replacement at a cost of approximately \$30 million each."¹⁷⁵⁶ SCE does not provide any additional information in support of this assertion. Therefore, there is insufficient information for the Commission to evaluate the likelihood that such replacements will occur at the cost estimate provided. SCE's capital cost forecast has not identified costs for any major projects that would occur during this GRC cycle.

43.7. Fuel Cell Generation

SCE seeks to recover \$3.0 million of future decommissioning expense for two fuel cells it owns and operates located at California State University, San Bernardino and University of California, Santa Barbara. SCE is obligated to remove the facilities if the universities choose not to retain ownership of the facilities at the end of the lease terms in 2023. Until this rate case, SCE assumed that it would transfer ownership of the fuel cells to the host sites, but SCE now believes that assumption may prove incorrect. SCE states that any unspent removal costs would be returned to customers.

TURN recommends reducing SCE's forecasted decommissioning cost by 50 percent given the uncertainty about whether SCE will be required to remove the fuel cells. TURN also recommends reducing the contingency associated with these jobs from 25 percent to 15 percent, which is comparable to approaches used by PG&E and SDG&E. Adoption of TURN's recommendations would result in recovery of \$1.36 million.

SCE states that it has not received any formal communications from the universities regarding their plans but that "other considerations lead SCE to

¹⁷⁵⁶ Ex. SCE-18, Vol. 3 at 49.

believe that decommissioning will be required at the end of the leases."¹⁷⁵⁷ Based on the information provided by SCE, the likelihood of decommissioning at both locations is uncertain. Given this uncertainty, we find reasonable TURN's proposal for recovery of 50 percent of SCE's requested decommissioning costs during this GRC cycle. We also find that SCE has failed to justify use of a 25 percent contingency for removal of a small fuel cell installation and find TURN's recommendation of a 15 percent contingency to be more reasonable. Although the expense is a relatively small amount and any unspent funds would be returned to ratepayers, we also consider the cumulative impact of all the rate requests during this GRC cycle.

44. Taxes

SCE's proposed methodologies for forecasting tax expense were unopposed with the exception of the California property tax forecast disputed by Cal Advocates. We approve use of the uncontested methodologies for calculating tax expense set forth in Exhibit SCE-7, Volume 2A, Chapter IV.

With respect to the California property tax forecast, SCE initially proposed using a simple average method for the basis of the forecast. Cal Advocates proposes relying on a trend method based on the five prior recorded fiscal years, which is the method used in prior GRCs. SCE's proposal results in a forecast of \$407.73 million, whereas Cal Advocates' proposal results in a forecast of \$403.94 million.¹⁷⁵⁸ SCE states that it is willing to accept Cal Advocates' proposal if Cal Advocates' second proposal to establish a new memorandum account just for California property taxes is rejected.¹⁷⁵⁹ In its reply brief, Cal Advocates

¹⁷⁵⁷ Ex. SCE-18, Vol. 3 at 51.

¹⁷⁵⁸ Ex. SCE-18, Vol. 2E3 at 43.

¹⁷⁵⁹ SCE OB at 386.