Attachment A

Application No.: A.20-04-XXX
Exhibit No.: SCE-02
Witnesses:

G. Ahn	G. Littman
M. Bennett	C. Louie
K. Blebu	C. Malotte
M. Bushey	J. McCarson
T. Cameron	E. Molnar
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E. Castano	C. Prescott
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S. DiBernardo	G. Sakota
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G. Henry	D. Wong
C. Jacobs	J. Zabasajja
M. Litos	

SOUTHERN CALIFORNIA
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(U 338-E)

Energy Resource Recovery Account (ERRA) Review Of Operations, 2019 Chapters VIII-XV

PUBLIC VERSION

Before the

Public Utilities Commission of the State of California

Rosemead, California
April 1, 2020

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VIII.

NATURAL GAS PROCUREMENT

This section describes the administration of contracts and arrangements SCE used during the Record Period for purchases, sales, transportation, and gas-related financial instruments. During the Record Period, SCE purchased, sold, transported, and hedged natural gas supplies for its natural gas-fueled electric generation resources which include UOG,[1] and units under tolling agreements.

SCE's overall objective is to procure, manage and hedge natural gas supply and required transportation agreements to prudently supply SCE's natural gas-fueled electric generation demand. This ensures operational reliability and flexibility, while maintaining compliance with SCE's AB 57 BPP. SCE's natural gas procurement management activities and overall performance during the Record Period were reasonable and prudent, as all transactions were executed at market prices for required volumes.

A. Natural Gas Procurement for UOG and Tolling Agreements

SCE's Energy Procurement and Management (EPM) department manages natural gas procurement for UOG and tolling agreements, and initiates physical and financial transactions. SCE's natural gas transactions comply with the Commission-approved AB 57 BPP, which specifies the parameters and limits for SCE's natural gas procurement activities.

1. UOG

SCE's natural gas requirements in the Record Period for UOG was for the Mountainview Generating Station, the five SCE Peakers (Mira Loma, Grapeland, Barre, Center, and McGrath), and two fuel cells (UC Santa Barbara and CSU San Bernardino).

2. Tolling Agreements

SCE has tolling agreements that provide the contractual rights to dispatch natural gas-fueled electric generating units, requiring an array of natural gas supply and transportation contracts to

[1] *See* SCE-04 for table of abbreviations and acronyms.

ensure a reliable natural gas fuel supply for the units. SCE-01 Appendix VII-A provides a list of such transactions that were in effect during the Record Period.

3. Physical Transactions

SCE produces monthly, day-ahead, and intraday (same day) natural gas demand forecasts that are reviewed by the energy traders and schedulers to determine the optimal amount of natural gas to supply SCE's natural gas-fueled electric generation UOG and tolling agreements. SCE periodically sold all or a portion of its supply to balance its position within pipeline and distribution constraints. Table VIII-1 below provides a summary of all physical natural gas transactions for the Record Period. The data for all physical transactions reflect the month in which the gas flowed, and not the month the trade was executed.

Table VIII-1
2019 SCE Physical Gas Transactions

Month	Purchases (MMBtu)	Fixed Price	First of Month	Daily Index	WACOG of Purchases ($/MMBtu)	Sales (MMBtu)	WACOG of Sales ($/MMBtu)	Delivered to Plant (MMBtu)
Jan-19	2,183,578	41 09%	0%	58 91%	$3 91	132,279	$4 30	2,105,375
Feb-19	4,080,427	58 95%	0%	41 05%	$9 13	254,599	$13 08	3,865,882
Mar-19	2,774,571	93 64%	0%	6 36%	$5 39	370,695	$4 41	2,403,565
Apr-19	[redacted]							
May-19								
Jun-19								
Jul-19								
Aug-19								
Sep-19								
Oct-19								
Nov-19								
Dec-19								
TOTAL								

4. Financial Transactions

SCE executed financial gas transactions during the Record Period to manage its market sensitive procurement costs, as measured by the 95th percentile Time to Expiration Value-at-Risk metric, which included sales transactions of in-the-money SoCal Border options to monetize SCE's long gas option position. Table VIII-2 below provides a summary of all financial natural gas transactions. The data for all financial transactions reflect the month in which the hedge was effective, and not the month the trade was executed.

Table VIII-2
2019 SCE Financial Gas Transactions (MMBtu)

Month	Basis Swaps		SoCal Fixed-Float		Henry Hub Swaps		Swing Swaps		Option Call Spreads		Option Collars		Outright Call Options		Total
	Purchase	Sale	Purchase	Sale	Purchase	Sale	Purchase	Sale	Purchase	Sale	Purchase	Sale	Purchase	Sale	
Jan-19	-	-			-	-	-	-	-	-	-	-	15,732,500	3,177,500	18,910,000
Feb-19	70,000	-			70,000	-	1,120,000	-	-	-	-	-	3,990,000	-	5,250,000
Mar-19	1 162 500	-			1 162 500	-	465 000	157 500	-	-	-	-	-	-	2 947 500
Apr-19	[redacted]														
May-19	[redacted]														
Jun-19	[redacted]														
Jul-19	[redacted]														
Aug-19	[redacted]														
Sep-19	[redacted]														
Oct-19	[redacted]														
Nov-19	[redacted]														
Dec-19	[redacted]														
	[redacted]														
TOTAL	[redacted]														

B. Natural Gas RFOs

During the Record Period, SCE did not conduct any natural gas RFOs.

C. SCE's Natural Gas Operations

SCE's Trading & Market Operations team includes gas schedulers and traders who manage the natural gas supply requirements. The team considers SCE's natural gas requirements in managing the activities associated with variations in natural gas-fueled generation requirements, while also complying with the balancing rules of the respective LDCs and interstate pipelines.

SCE schedules the required volume of natural gas from the receipt point to the delivery point using each pipeline's electronic bulletin board (EBB). SCE has access to the following pipeline EBBs:

1) SoCalGas Envoy;
2) PG&E INSIDEtracc;
3) Kern River Rapids; and
4) El Paso Dart.

1. SoCalGas Balancing Requirements

During the Record Period, SCE transported natural gas on the SoCalGas system and was therefore subject to SoCalGas' tariffs and rules. Under SoCalGas Schedule G-IMB, SCE is required to balance natural gas supply with monthly consumption.[2] As outlined in the tariff, imbalances that fall

[2] Southern California Gas Company, Schedule G-IMB.

outside of a predetermined tolerance band may be traded to a counterparty to reduce final month-end imbalances.[3] Positive imbalances outside of the tolerance band are subject to a cash-out mechanism. The cash-out is calculated as the lower of: (1) 50% of SoCalGas' Adjusted Core Procurement Charge, G-CPA, or (2) SoCalGas' lowest incremental cost of gas purchased by the utility during the month in which the excess imbalance was incurred.[4] Negative imbalances outside of the tolerance band are subject to a procurement cash-out mechanism based on 150% of the highest daily border price index (plus a brokerage charge) at the Southern California border beginning on the first day of the month that the imbalance is created to five days prior to the start of each corresponding imbalance trading period.[5] The highest daily border index is an average of the highest prices from "NGI's Daily Gas Price Index-Southern California Border Average" and "SNL Energy's Daily Indices-SoCal Border."[6]

Under SoCalGas Tariff Rule 30, SCE may also be required to balance natural gas supply and daily consumption. During system over- or under-pressurization in which SoCalGas declares an Operational Flow Order (OFO), SCE must balance within set tolerance bands or be subject to noncompliance charges. These noncompliance charges for both Low and High OFO declarations are identified by Stage (1-5) and range from $0.25 to $25 per MMBtu for any imbalances outside of 25% to 5% tolerance band set by SoCalGas on a case by case basis, though the tolerance imbalance is mostly set to 5%. Pursuant to D.19-05-030, SoCalGas revised its tariff rules establishing two periods of OFO Noncompliance Charge structures effective June 1, 2019 through October 31, 2021.[7] The first period from June to September changed the noncompliance charge to $5/MMBtu in Stage 4 and $5/MMBtu

[3] Effective May 31, 1997, D.97-04-082 redefined the imbalance trading period as beginning on the 25th calendar day in the month of notification, and ending on the 30th calendar day of the same month.

[4] Southern California Gas Company, Schedule G-IMB, *available at* https://www.socalgas.com/regulatory/tariffs/tm2/pdf/G-IMB.pdf.

[5] *Id.*

[6] *Id.*

[7] Effective June 1, 2019, D.19-05-030 effectuated two OFO Noncompliance Charge structures through October 31, 2021.

plus the daily balancing standby rate in Stage 5.[8] The second period from October to May expanded from five to eight Stages with distinct noncompliance charges between $0.25 and $25 per MMBtu. For the Record Period, OFO imbalance charges were subject to the previous structure January to May, and the new structures June through December. Since 2016, the limitations of SoCalGas' Aliso Canyon gas storage facility have required it to implement more stringent daily balancing requirements for shippers utilizing its system. During the Record Period, SoCalGas typically set the High and Low OFO imbalance tolerance bands at +5% and -5%, respectively. Lastly, shippers on the SoCalGas system are also subject to standby curtailments under SoCalGas Tariff Rule 23. This rule states that SoCalGas can require end use customers to comply with curtailment instructions within a set time period.[9]

Additionally, SoCalGas eliminated the opportunity for shippers, such as SCE, to obtain gas storage rights beyond March of 2016. Historically, SCE has had the opportunity to purchase storage injection and withdrawal rights on SoCalGas' system, which provided SCE the needed flexibility to manage its natural gas position during changing system conditions to mitigate against the potential of incurring imbalance charges. This lack of shipper flexibility, combined with SoCalGas' system constraints, has forced SCE to increase its intraday gas transactions, while managing natural gas flows within the SoCalGas' more restrictive balancing requirements. Balancing gas deliveries with demand on a daily basis is a challenging exercise because most gas supplies must be procured before SCE receives its IFM generation schedules from the CAISO. Additionally, CAISO grid operations may necessitate that CAISO increase or decrease SCE's generation schedules out-of-market in a manner that SCE cannot forecast. Historically, SCE relied on its gas storage capacity and increased shipper flexibility on the SoCalGas system to manage gas demand uncertainty, but the more restrictive gas balancing requirements that have resulted due to operating limitations at Aliso Canyon have caused SCE to occasionally incur gas delivery operating charges.

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8 Southern California Gas Company, Rule No. 30, *available at* https://www2.socalgas.com/regulatory/tariffs/tm2/pdf/30.pdf

9 Southern California Gas Company, Tariff Rule No. 23, *available at* https://www.socalgas.com/regulatory/tariffs/tm2/pdf/23.pdf.

[redacted]

[redacted]

2. El Paso Balancing Requirements

During the Record Period, SCE supplied gas to the Blythe Energy Plant by purchasing and transporting natural gas directly from the El Paso Natural Gas system where SCE was financially responsible for any charges resulting from El Paso Natural Gas' tariffs.

SCE's gas is typically transported on the El Paso Natural Gas system using the Firm Transportation (FT-1) tariff. FT-1 requires that gas be delivered ratably over the 24 hour period (total daily gas/24 hours) and power plants rarely consume natural gas ratably over the course of a day. As a result, during normal operating conditions, power plants that are served with the FT-1 rate expect to receive an Hourly Scheduling Penalty charge equal to the Interruptible Transportation (IT) rate during hours when gas burns exceed the ratable rate. Nonetheless, these penalty charges are only applied to high demand hours and the total annual costs were still lower than the additional cost of transporting gas on the SoCalGas system.

El Paso Natural Gas tariffs also have additional requirements and penalties during Strained Operating Conditions and Critical Operating Conditions (COC). A tolerance or safe harbor of 3% is provided for a COC while the tolerance for a Strained Operating Condition is published with each notice of Strained Operating Condition. During critical conditions, Hourly Scheduling Penalties are twice the IT rate. In addition, during a critical condition, a daily imbalance penalty is charged at a rate that varies with the extent of the variance. The charge during critical conditions is 1.5 times the IT rate for a variance up to 15%. The charge increases to 2.0 times the IT rate for imbalances between 15 and 50%. Daily imbalances greater than 50% are charged 2.5 times the IT rate.

[redacted]

3. PG&E, Kern and El Paso System Transportation

During the Record Period, SCE had parking and lending service agreements with PG&E, Kern, and El Paso to park gas to support balancing requirements of natural gas supplies onto and out of PG&E, Kern, and El Paso gas transportation systems. This activity requires a shipper to arrange for the natural gas to be delivered to (parked) and taken off (unpark) the respective gas transportation system.

During the Record Period, SCE did not utilize PG&E, Kern, or El Paso park and lending services.

IX.

INVENTORY AND GHG CARRYING COST RATES, COLLATERAL COSTS, SECURITY AND PERFORMANCE ASSURANCE

This chapter discusses fuel inventory carrying cost rate information, greenhouse gas compliance carrying cost information, collateral cost activity, as well as performance assurance and development security activities for the Record Period.

A. Fuel Inventory and Greenhouse Gas Compliance Carrying Cost Rates

This section discusses the fuel inventory carrying cost rates recorded by SCE during the Record Period. SCE is authorized to recover actual financing costs associated with maintaining fuel inventories[10] and may use various instruments to finance its fuel inventories. For 2019, SCE's fuel inventories included nuclear for Palo Verde, diesel for Catalina, and natural gas. In 2019, SCE used fixed rate bonds, commercial paper, and balancing accounts over-collections to finance fuel inventories and SCE used balancing account interest rates to finance GHG inventories.

On March 6, 2018, SCE issued Series 2018A, a $450 million fixed rate bond, with $100 million tranche of the proceeds to support fuel inventories. The interest rate on the fixed rate bond is 2.90%. Interest on the bonds was payable on March 1 and September 1 of each year, and the maturity date was March 1, 2021. The 2018 Series A bond incurred a $1,575,000 underwriting discount with $350,000 (3.5 basis points) being attributable to fuel inventories and approximately $160,000 (16 basis points) in expenses.[11] Fuel inventories in excess of $100 million were financed with commercial paper or balancing account over-collections.

The fuel inventory carrying cost rates recorded during the Record Period are shown in Table IX-3 below.

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[10] *See* D.93-01-027, Conclusion of Law (COL) 14.

[11] $100 million fixed rate note interest rate does not include issuance costs (underwriting discount and expenses) of approximately $590,000 which are expensed.

Table IX-3
Total Fuel Inventory Carrying Cost Rates

Line No.	Period	Rate
1	Jan-19	2.94%
2	Feb-19	2.98%
3	Mar-19	2.97%
4	Apr-19	2.99%
5	May-19	2.91%
6	Jun-19	2.90%
7	Jul-19	2.92%
8	Aug-19	2.85%
9	Sep-19	2.79%
10	Oct-19	2.74%
11	Nov-19	2.70%
12	Dec-19	2.75%
2019	**Average**	**2.87%**

This section also discusses the GHG procurement compliance carrying cost rates recorded by SCE during the Record Period. SCE is authorized to recover the actual interest expense associated with the cash outlays to meet GHG procurement compliance costs.[12] In 2019, SCE used the ERRA BA interest rate (90 Day Commercial Paper Rate) to finance GHG procurement compliance carrying costs. The GHG procurement compliance carrying cost rates recorded during the Record Period are shown in Table IX-4 below.

[12] *See* D.14-10-033, Attachment B, Section G - GHG Accounting Procedures for Ratesetting Purposes.

Table IX-4
Total GHG Compliance Carrying Cost Rates

Line No.	Period	Rate
1	Jan-19	2.45%
2	Feb-19	2.52%
3	Mar-19	2.55%
4	Apr-19	2.49%
5	May-19	2.49%
6	Jun-19	2.47%
7	Jul-19	2.44%
8	Aug-19	3.21%
9	Sep-19	2.19%
10	Oct-19	2.07%
11	Nov-19	1.95%
12	Dec-19	1.80%
2019	**Average**	**2.39%**

B. <u>Collateral Costs</u>

SCE is required to post collateral when transactions with generating counterparties exceed its unsecured credit limits. These transactions include transition capacity contracts, inter-utility contracts, bilateral contracts, and those with natural gas suppliers.

SCE negotiates with generating counterparties, natural gas suppliers, and natural gas trading brokers for letters of credit and other facilities that reduce, or in some cases eliminate, the requirement to post cash collateral. However, if SCE is required to post collateral, it utilizes two types of arrangements: (1) letters of credit backed by SCE's revolving credit facility and (2) cash deposited with Macquarie Futures for the mark-to-market (MTM) equity and collateral posting requirements of New York Mercantile Exchange (NYMEX) natural gas swaps and hedging transactions. As of December 31, 2019, SCE had $140 million in power procurement-related letters of credit backed by the revolving credit facility, and $24.1 million deposited with Macquarie Futures.

During the 2019 Record Period, SCE incurred a total of $6,430,516.73 in net collateral fees, as reflected in Table IX-5 below.

Table IX-5
Collateral Fees
January 1, 2019 through December 31, 2019

Letter of Credit Issuance/Amendment Fees	850.00
JPMorgan Chase Bank Revolver Fronting/Issuer Fees	391,836.78
JPMorgan Chase Bank Revolver Commitment/Facility Fees	2,281,875.00
JPMorgan Chase Bank Revolver Commission Fees	2,081,526.06
JPMorgan Chase Annual Administrative Agency Fees	9,000.00
JPMorgan Chase Upfront Fees	810,000.00
JPMorgan Chase Arrangement Fees	30,001.50
JPMorgan Out-of-Pocket Fees	125.73
Legal Fees	2,483.05
Rating Agency Fees	53,471.82
Net Interest Expense on Collateral-Related Short-Term Debt	769,346.80
Total	**6,430,516.73**

Table IX-6 includes the implied net cost of short-term debt related to SCE's collateral requirements. Net interest expenses booked during the Record Period consist of is related to cash held by bilateral contract counterparties, pre-funded incremental collateral postings related to exposure from existing procurement contracts, and forecasted incremental ERRA under-collections. There was no interest income earned on cash held as collateral by bilateral contract counterparties and for natural gas transactions. SCE did not borrow from the credit facility in 2019. On December 22, 2017, SCE borrowed $500 million from its credit facility. The principal and interest were paid on January 26, 2018. On November 16, 2018, SCE borrowed $300 million from its credit facility. The principal and interest were paid back on December 3, 2018. As such, a portion of the interest expense accrued during 2019 is allocated to ERRA, as shown in Table IX-6.

Table IX-6
Interest Income and Interest Expense on Cash Collateral
January 1, 2019 through December 31, 2019

Month	Interest Expense on Collateral Related Short-Term Debt	Other Interest Expense	Total Interest Expense
Jan-19	0.00	0.00	0.00
Feb-19	0.00	0.00	0.00
Mar-19	104,636.10	0.00	104,636.10
Apr-19	11,104.86	0.00	11,104.86
May-19	18,229.31	0.00	18,229.31
Jun-19	72,608.64	0.00	72,608.64
Jul-19	183,442.79	0.00	183,442.79
Aug-19	201,485.48	0.00	201,485.48
Sep-19	0.00	0.00	0.00
Oct-19	79,490.38	0.00	79,490.38
Nov-19	51,203.83	0.00	51,203.83
Dec-19	47,145.41	0.00	47,145.41
Total	**769,346.80**	**0.00**	**769,346.80**

In May 2019, SCE extended its multi-year revolving credit facility to support power procurement and general purpose needs. The credit facility is available for borrowing needs until May 2024 and contains two 1-year extension options. The credit facility may be used to support SCE's commercial paper program and up to $1.5 billion of letter of credit issuances. Letter of credit fees for issuances and amendments are shown in Table IX-7 below.

Table IX-7
JP Morgan Chase/Union Bank LOC Issuance/Amendment Fees
January 1, 2019 through December 31, 2019

Bank LOC Issuance Fees				
Month	**Beneficiary**	**Type of Fee**	**Collateral Refer Num**	**Payment Amount**
Mar	Natural Gas Exchange Inc.	Swift Fees for Amendments	S126587M	[redacted]
Sep	Natural Gas Exchange Inc.	Standby Amendment Fee	S126587M	
Sep	CA Independent System Operator Corp	Standby Amendment Fee	S327305M	
Sep	EDF Trading North America, LLC	Standby Amendment Fee	S327225M	
2019 Total				[redacted]

During the Record Period, SCE also paid issuer fees, commission fees, and facility fees related to the credit facility, on a quarterly basis, as shown in Table IX-8 below.

Table IX-8
Credit Facility: Issuer, Commission, and Facility Fees
January 1, 2019 through December 31, 2019

Fee Type	Name	Start	End	Days	Basis	Balance	Rate	Amount
ERRA Commission Fee	Ca Independent System Operator	01/01/19	03/04/19	63	360	100,000,000	1.000%	175,000.00
ERRA Commission Fee	Ca Independent System Operator	03/05/19	03/31/19	27	360	100,000,000	1.075%	80,625.00
ERRA Commission Fee	Ca Independent System Operator	01/01/19	03/04/19	63	360	45,000,000	1.000%	78,750.00
ERRA Commission Fee	Ca Independent System Operator	03/05/19	03/31/19	27	360	45,000,000	1.075%	36,281.25
ERRA Commission Fee	Ca Independent System Operator	01/01/19	03/04/19	63	360	5,000,000	1.000%	8,750.00
ERRA Commission Fee	Ca Independent System Operator	03/05/19	03/31/19	27	360	5,000,000	1.075%	4,031.25
ERRA Commission Fee	Deutsch Bank National Trust Company	02/06/19	03/04/19	27	360	15,940,000	1.000%	11,955.00
ERRA Commission Fee	Deutsch Bank National Trust Company	03/05/19	03/20/19	16	360	15,940,000	1.075%	7,615.78
ERRA Commission Fee	Natural Gas Exchange	01/01/19	02/11/19	42	360	10,000,000	1.000%	11,666.67
ERRA Commission Fee	Natural Gas Exchange	02/12/19	03/03/19	20	360	20,000,000	1.000%	11,111.11
ERRA Commission Fee	Natural Gas Exchange	03/04/19	03/04/19	1	360	35,000,000	1.000%	972.22
ERRA Commission Fee	Natural Gas Exchange	03/05/19	03/31/19	27	360	35,000,000	1.075%	28,218.75
ERRA Commission Fee	Powerex Corp	01/01/19	03/04/19	63	360	5,000,000	1.000%	8,750.00
ERRA Commission Fee	Powerex Corp	03/05/19	03/20/19	16	360	5,000,000	1.075%	2,388.89
ERRA Commission Fee	Powerex Corp	03/21/19	03/31/19	11	360	1	1.075%	0.00
ERRA Commission Fee	Southern California Gas Company	01/01/19	03/04/19	63	360	12,000,000	1.000%	21,000.00
ERRA Commission Fee	Southern California Gas Company	03/05/19	03/31/19	27	360	12,000,000	1.075%	9,675.00
ERRA Commission Fee	Ca Independent System Operator	04/01/19	06/30/19	91	360	100,000,000	1.075%	271,736.11
ERRA Commission Fee	Ca Independent System Operator	04/01/19	06/30/19	91	360	45,000,000	1.075%	122,281.25
ERRA Commission Fee	Ca Independent System Operator	04/01/19	06/30/19	91	360	5,000,000	1.075%	13,586.81
ERRA Commission Fee	Deutsch Bank National Trust Company	04/26/19	06/12/19	48	360	19,400,000	1.075%	27,806.67
ERRA Commission Fee	Natural Gas Exchange	04/01/19	06/30/19	91	360	35,000,000	1.075%	95,107.64
ERRA Commission Fee	Southern California Gas Company	04/01/19	06/30/19	91	360	12,000,000	1.075%	32,608.33
ERRA Commission Fee	Ca Independent System Operator	07/01/19	09/30/19	92	360	100,000,000	1.075%	274,722.22
ERRA Commission Fee	Ca Independent System Operator	07/01/19	09/30/19	92	360	45,000,000	1.075%	123,625.00
ERRA Commission Fee	Ca Independent System Operator	07/01/19	09/30/19	92	360	5,000,000	1.075%	13,736.11
ERRA Commission Fee	Citigroup Energy Inc	09/03/19	09/30/19	28	360	10,000,000	1.075%	8,361.11
ERRA Commission Fee	Deutsch Bank National Trust Company	08/05/19	09/18/19	45	360	19,700,000	1.075%	26,471.88
ERRA Commission Fee	Natural Gas Exchange	07/01/19	09/30/19	92	360	35,000,000	1.075%	96,152.78
ERRA Commission Fee	Powerex Corp	07/30/19	08/06/19	8	360	2,000,000	1.075%	477.78
ERRA Commission Fee	Powerex Corp	08/07/19	08/08/19	2	360	5,000,000	1.075%	298.61
ERRA Commission Fee	Powerex Corp	08/09/19	09/30/19	53	360	15,000,000	1.075%	23,739.58
ERRA Commission Fee	Southern California Gas Company	07/01/19	08/15/19	46	360	12,000,000	1.075%	16,483.33
ERRA Commission Fee	Ca Independent System Operator	10/01/19	10/16/19	16	360	100,000,000	1.075%	47,777.78
ERRA Commission Fee	Ca Independent System Operator	10/17/19	12/31/19	76	360	30,000,000	1.075%	68,083.33
ERRA Commission Fee	Ca Independent System Operator	10/01/19	12/31/19	92	360	45,000,000	1.075%	123,625.00
ERRA Commission Fee	Ca Independent System Operator	10/01/19	12/31/19	92	360	5,000,000	1.075%	13,736.11
ERRA Commission Fee	Citigroup Energy Inc	10/01/19	12/31/19	92	360	10,000,000	1.075%	27,472.22
ERRA Commission Fee	Deutsch Bank National Trust Company	11/04/19	12/18/19	45	360	14,500,000	1.075%	19,484.38
ERRA Commission Fee	Natural Gas Exchange	10/01/19	12/31/19	92	360	35,000,000	1.075%	96,152.78
ERRA Commission Fee	Powerex Corp	10/01/19	12/31/19	92	360	15,000,000	1.075%	41,208.33
ERRA Commission Fee Total								**2,081,526.06**
ERRA Issuer Fee	Ca Independent System Operator	01/01/19	03/04/19	63	360	100,000,000	0.200%	35,000.00
ERRA Issuer Fee	Ca Independent System Operator	03/05/19	03/31/19	27	360	100,000,000	0.200%	15,000.00
ERRA Issuer Fee	Ca Independent System Operator	01/01/19	03/31/19	90	360	45,000,000	0.200%	22,500.00
ERRA Issuer Fee	Ca Independent System Operator	01/01/19	03/04/19	63	360	5,000,000	0.200%	1,750.00
ERRA Issuer Fee	Ca Independent System Operator	03/05/19	03/31/19	27	360	5,000,000	0.200%	750.00
ERRA Issuer Fee	Deutsch Bank National Trust Company	02/06/19	03/20/19	43	360	15,940,000	0.200%	3,807.89
ERRA Issuer Fee	Natural Gas Exchange	01/01/19	02/11/19	42	360	10,000,000	0.200%	2,333.33
ERRA Issuer Fee	Natural Gas Exchange	02/12/19	03/03/19	20	360	20,000,000	0.200%	2,222.22
ERRA Issuer Fee	Natural Gas Exchange	03/04/19	03/04/19	1	360	35,000,000	0.200%	194.44
ERRA Issuer Fee	Natural Gas Exchange	03/05/19	03/31/19	27	360	35,000,000	0.200%	5,250.00
ERRA Issuer Fee	Powerex Corp	01/01/19	03/20/19	79	360	5,000,000	0.200%	2,194.44
ERRA Issuer Fee	Southern California Gas Company	01/01/19	03/31/19	90	360	12,000,000	0.200%	6,000.00
ERRA Issuer Fee	Ca Independent System Operator	04/01/19	06/30/19	91	360	100,000,000	0.200%	50,555.56
ERRA Issuer Fee	Ca Independent System Operator	04/01/19	06/30/19	91	360	45,000,000	0.200%	22,750.00
ERRA Issuer Fee	Ca Independent System Operator	04/01/19	06/30/19	91	360	5,000,000	0.200%	2,527.78
ERRA Issuer Fee	Deutsch Bank National Trust Company	04/26/19	06/12/19	48	360	19,400,000	0.200%	5,173.33
ERRA Issuer Fee	Natural Gas Exchange	04/01/19	06/30/19	91	360	35,000,000	0.200%	17,694.44
ERRA Issuer Fee	Southern California Gas Company	04/01/19	06/30/19	91	360	12,000,000	0.200%	6,066.67
ERRA Issuer Fee	Ca Independent System Operator	07/01/19	09/30/19	92	360	100,000,000	0.200%	51,111.11
ERRA Issuer Fee	Ca Independent System Operator	07/01/19	09/30/19	92	360	45,000,000	0.200%	23,000.00
ERRA Issuer Fee	Ca Independent System Operator	07/01/19	09/30/19	92	360	5,000,000	0.200%	2,555.56
ERRA Issuer Fee	Citigroup Energy Inc	09/03/19	09/30/19	28	360	10,000,000	0.200%	1,555.56
ERRA Issuer Fee	Deutsch Bank National Trust Company	08/05/19	09/18/19	45	360	19,700,000	0.200%	4,925.00
ERRA Issuer Fee	Natural Gas Exchange	07/01/19	09/30/19	92	360	35,000,000	0.200%	17,888.89
ERRA Issuer Fee	Powerex Corp	07/30/19	08/06/19	8	360	2,000,000	0.200%	88.89
ERRA Issuer Fee	Powerex Corp	08/07/19	08/08/19	2	360	5,000,000	0.200%	55.56
ERRA Issuer Fee	Powerex Corp	08/09/19	09/30/19	53	360	15,000,000	0.200%	4,416.67
ERRA Issuer Fee	Southern California Gas Company	07/01/19	08/15/19	46	360	12,000,000	0.200%	3,066.67
ERRA Issuer Fee	Ca Independent System Operator	10/01/19	10/16/19	16	360	100,000,000	0.200%	8,888.89
ERRA Issuer Fee	Ca Independent System Operator	10/17/19	12/31/19	76	360	30,000,000	0.200%	12,666.67
ERRA Issuer Fee	Ca Independent System Operator	10/01/19	12/31/19	92	360	45,000,000	0.200%	23,000.00
ERRA Issuer Fee	Ca Independent System Operator	10/01/19	12/31/19	92	360	5,000,000	0.200%	2,555.56
ERRA Issuer Fee	Citigroup Energy Inc	10/01/19	12/31/19	92	360	10,000,000	0.200%	5,111.11
ERRA Issuer Fee	Deutsch Bank National Trust Company	11/04/19	12/18/19	45	360	14,500,000	0.200%	3,625.00
ERRA Issuer Fee	Natural Gas Exchange	10/01/19	12/31/19	92	360	35,000,000	0.200%	17,888.89
ERRA Issuer Fee	Powerex Corp	10/01/19	12/31/19	92	360	15,000,000	0.200%	7,666.67
ERRA Issuer Fee Total								**391,836.78**
ERRA Facility Fee	SCE Facility	12/31/18	12/31/18	1	360	3,000,000,000	0.125%	4,687.50
ERRA Facility Fee	SCE Facility	01/01/19	03/04/19	63	360	3,000,000,000	0.125%	295,312.50
ERRA Facility Fee	SCE Facility	03/05/19	03/28/19	24	360	3,000,000,000	0.175%	157,500.00
ERRA Facility Fee	SCE Facility	03/29/19	06/30/19	94	360	3,000,000,000	0.175%	616,875.00
ERRA Facility Fee	SCE Facility	07/01/19	09/30/19	92	360	3,000,000,000	0.175%	603,750.00
ERRA Facility Fee	SCE Facility	10/01/19	12/31/19	92	360	3,000,000,000	0.175%	603,750.00
ERRA Facility Fee Total								**2,281,875.00**
Grand Total								**4,755,237.83**

On January 21, 2019, Standard & Poor's downgraded SCE's credit rating from BBB+ to BBB. On March 5, 2019, Moody's downgraded SCE's credit rating from A3 to Baa2. The credit downgrade increased SCE's facility fee rate from 12.5 basis points (bp) to 17.5 bp. The credit downgrade also increased SCE's fees on letters of credit from 120 bp to 127.5 bp. On May 17, 2019, SCE maintained the size of its credit facility at $3 billion and extended the termination date of its existing credit agreement by one year, from May 17, 2023 to June 18, 2024. As a result, SCE paid additional upfront fees, arrangement fees, and legal fees related to the amendment, as well as annual agency fees, rating agency fees, and other fees related to the credit facilities as shown in Table IX-9.

Table IX-9
SCE Fee Payments Related to Credit Facilities
January 1, 2019 through December 31, 2019

Expense	*Paid To*	*Paid Date*	*Amount*	*ERRA Allocation*
Rating Agency Fees	Standard & Poor's	May-19	33,518.49	2,678.37
Rating Agency Fees	Moody's Investor Services	May-19	33,037.00	6,777.73
Rating Agency Fees	Standard & Poor's	Jul-19	55,094.00	24,792.30
Rating Agency Fees	Standard & Poor's	Sep-19	28,264.35	5,348.64
Rating Agency Fees	Moody's Investor Services	Sep-19	31,091.56	3,344.19
Rating Agency Fees	Standard & Poor's	Dec-19	38,527.00	10,244.84
Rating Agency Fees	CUSIP Global Services	Dec-19	635.00	285.75
Total Rating Agency Fees				**53,471.82**
Annual Administrative Agency Fees	JPMorgan Chase	May-19	20,000.00	9,000.00
Upfront Fees	JPMorgan Chase	Jun-19	1,800,000.00	810,000.00
Arrangement Fees	JPMorgan Chase	Jun-16	66,670.00	30,001.50
Legal Fees	Simpson, Thacher & Barlett, LLP	Jun-19	5,517.88	2,483.05
Total Administrative Agency Fees				**851,610.27**
Total Other Expenses				**905,082.09**

X.

CALIFORNIA INDEPENDENT SYSTEM OPERATOR (CAISO) -RELATED COSTS

A. Background

During the Record Period, SCE incurred approximately $1,979 million in CAISO-related costs. As grid manager, the CAISO recovers its costs from SCE and other market participants through tariffs approved by the FERC. CAISO-related costs are numerous and mostly unavoidable. Although the CAISO has billed SCE for costs associated with many different charge types, these costs can be divided into three major groups: (1) grid management and other operating charges; (2) net cost of market-related expenses and revenues (net market costs); and (3) FERC fees.

B. Grid Management Charges

Grid management and other operating charges are assessed to market participants for the purpose of recovering the CAISO's operation and maintenance costs associated with control area services as described in various grid management and other operating charge codes in the CAISO tariff.[13] These charges are levied on a usage basis. SCE incurred approximately $48.8 million of grid management and other operating charges during the Record Period.

C. Net Market Costs

Net market costs are the sum of charges and the revenues received by SCE (excluding FERC-jurisdictional SCE transmission system market revenues) associated with the CAISO's various markets, including: (1) ancillary services; (2) imbalance energy; (3) congestion, including the cost incurred to acquire Congestion Revenue Rights (CRRs); (4) energy; and (5) capacity-related. In this ERRA proceeding, SCE seeks a Commission determination that all of SCE's CAISO-related costs and least-cost dispatch (LCD)-related actions were consistent with SCE's AB 57 Long-Term Procurement Plan

[13] CAISO also annually charges SCE a percentage share of operating costs assessed by the Western Electricity Coordinating Council. This charge is included within the grid management and other operating charges.

(LTPP).[14] Because SCE managed its bundled customer procurement requirements and executed LCD on a portfolio-wide basis, this chapter and Chapter II includes testimony regarding all relevant costs and practices for the Record Period. The net CAISO market costs assessed to SCE for the 2019 Record Period were approximately $1,920.6 million and should be found reasonable.

1. Ancillary Services Costs

Ancillary services (AS) consist of four distinct products: spinning reserve, non-spinning reserve, regulation up, and regulation down. The CAISO determines the amount of AS required to provide for regulation margin and operating reserves in a given CAISO load zone (*e.g.*, the level of AS required in zone SP-15 may be greater than in zone NP-15 due to transmission constraints or differences in loads). LSEs cannot avoid the CAISO's imposition of AS requirements on the LSE's actual load obligation. Because AS obligations assessed by the CAISO are unavoidable, all AS costs that SCE incurred during the Record Period should be found reasonable.

2. Imbalance Energy Costs

Imbalance energy costs are the product of real-time electricity prices and supply/demand energy differences at the CAISO's metering points, either as a result of CAISO instructions (instructed energy) or uninstructed energy imbalances. Uninstructed energy imbalances occur when actual generation levels differ from awarded/instructed generation levels or when actual load differs from awarded load.

During the Record Period, SCE employed a combination of strategic bidding into the CAISO markets and over-the-counter transacting to manage its exposure to the CAISO's real-time energy market. Imbalance energy costs incurred during the Record Period were largely the result of unavoidable forecast errors or normal supply performance deviations and should be found reasonable.

3. Congestion Charges

Congestion charges occur when the energy scheduled over a given transmission path exceeds the delivery capacity of the path (creating congestion), and the CAISO assesses a charge on

[14] Southern California Edison Company's AB 57 Conformed 2014 Bundled Procurement Plan, filed October 3, 2014 (Advice Letter 3349-E; D.15-10-031).

path participants based on the cost incurred to relieve such congestion. However, to the extent a path participant holds CRRs on the congested path, that participant receives an offset to its transmission congestion charge. During the Record Period, SCE acquired CRRs through CAISO allocation processes (at no charge) and auctions (at cleared prices). These acquisitions were designed to reduce net CAISO congestion charges and are discussed in greater detail below.

a) CRR Costs

CRRs entitle the holder to the value associated with the cost to relieve grid congestion between a source (electricity delivered to the CAISO grid) and a sink (electricity taken from the CAISO grid). SCE uses CRRs as an important financial instrument to hedge the risk of congestion associated with its portfolio of resources. The CAISO allocates and auctions CRRs on an annual (in quarterly strips) and a monthly basis. A portion of SCE's annual CRRs may be converted to long-term CRRs with terms of 10 years.

During the Record Period, SCE acquired both near- and long-term CRRs, for which it was assessed certain net costs (*i.e.*, expenses less revenue) by the CAISO. Pursuant to Resolution E-4134, SCE utilized an evaluation and selection process that adhered to the Commission-approved up-front standards for the procurement of CRRs. Key to this evaluation and selection process is the Commission's requirement that CRRs be used as a tool to hedge congestion risk and not to speculate. The Commission approved "only the acquisition of CRRs that closely resemble the LSE's expected grid usage both in the choice of source/sink combinations and in the duration of the CRR with respect to the length of the LSE's energy supply contracts."[15] SCE's review and evaluation process accounted for these requirements and ensured that all nominations were consistent with expected use of the grid.

Resolution E-4134 also requires that SCE utilize methods to value CRRs and quantify the associated risks.[16] SCE performed an internal evaluation and utilized a consultant to value

[15] Resolution E-4134, p. 7.

[16] *See Id.* at 13-15.

the CRRs and quantify the risk of the instrument. These data points were then utilized in SCE's selection process.

Finally, as required by Resolution E-4134, SCE reviewed its CRR nominations with the Commission's Energy Division and SCE's Procurement Review Group.[17] Because SCE followed the Commission's CRR directives, the net ERRA-recordable CRR costs should be found reasonable.

4. Net Energy Bid Award Charges

Throughout the Record Period, SCE submitted energy supply and demand bids to the CAISO that complied with LCD objectives. Through its IFM process, the CAISO awarded bids to SCE and other market participants who offered-in energy at the most competitive prices, subject to market constraints. Details regarding SCE's bid awards are documented in Chapter II. Because costs and revenues associated with these bid awards are the direct result of CAISO actions, net energy bid award charges should be deemed reasonable.

5. Residual Unit Commitment Capacity Bid Award Revenue

Revenues received by SCE during the Record Period, in conjunction with awards for residential unit commitment capacity bids, are included in the Net Market Costs category. Like energy bid awards, these residential unit commitment-related revenues are a direct result of CAISO actions, and should therefore be deemed reasonable.

D. FERC Fees

FERC fees are allocated to CAISO participants in accordance with the CAISO's filed tariffs. During the Record Period, SCE's portion of these FERC fees amounted to approximately $4.7 million.

E. Transmission Loss Charges to Deliver Los Angeles Department of Water & Power (LADWP) Returned Energy

In SCE's existing transmission contract with LADWP, SCE acts as LADWP's scheduling coordinator to deliver LADWP-owned energy through the CAISO-controlled grid to LADWP's control

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[17] *Id.* at 11.

area (also referred to as LADWP wheeling). This contract pre-dates the CAISO market and does not allow SCE to pass CAISO costs through to LADWP.[18] As the scheduling coordinator for this existing transmission contract, SCE submits hourly schedules on LADWP's behalf and is billed by the CAISO for real-time transmission losses at the CAISO rate. During the Record Period, these LADWP-related costs amounted to $4.5 million. To reimburse SCE for these real-time transmission losses, LADWP schedules return energy to SCE according to terms specified in the transmission contract. The return energy value is calculated by SCE as the product of: (1) the energy quantity received from LADWP and (2) the CAISO Day-Ahead price at the Sylmar intertie. This return energy value is credited to ERRA.

F. Reasonableness of SCE's CAISO-Related Costs

The majority of CAISO-related costs incurred during the Record Period were unavoidable. Those costs that SCE had discretion to control were managed consistent with Commission directives and the objective of minimizing costs to bundled customers. Accordingly, all CAISO-related costs that SCE incurred during the Record Period, as shown in Table X-10, are fully recoverable from customers.

Table X-10
CAISO-Related Costs Incurred by SCE during the Record Period
(Million Dollars)

Category	Total Cost in $M	
GMC	$	48.8
Net Market Costs	$	1,920.6
FERC Fees	$	4.7
LADWP Returned Energy	$	4.5
Total CAISO Related Costs	**$**	**1,978.7**

[18] SCE previously requested FERC permission to pass these costs through to LADWP; however, FERC denied the request.

XI.

OPERATION OF RATEMAKING ACCOUNTS

A. Introduction

In this chapter, SCE sets forth for Commission review the operation of various regulatory accounts (*i.e.*, balancing and memorandum accounts).[19] The majority of these accounts, such as the ERRA BA, are audited by the Commission to ensure that recorded entries are accurate and consistent with Commission decisions. These accounts are set forth in Sections B through D of this chapter. In this Application, SCE is not seeking to recover the amounts recorded in these accounts since the review is being performed on an after-the-fact basis (*i.e.*, SCE has already been authorized to recover these expenses). SCE requests the Commission to find that it appropriately operated these accounts during the Record Period, and that its recorded entries in these accounts are appropriate, correctly stated, and in compliance with Commission decisions. For the accounts set forth in Section E of this chapter, upon a Commission finding in this proceeding that the costs recorded in these accounts are reasonable, SCE will recover from customers the net under-collected ending balance.

Collectively, SCE is requesting a revenue requirement increase of $16.065 million in 2021, including FF&U expenses, associated with three accounts. A summary of this requested increase is shown in Table XI-11 below.

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[19] The detailed monthly operation for each account is included in the workpapers supporting this chapter.

Table XI-11
Summary of 2021 Revenue Requirement Change
($000)

Balancing/Memorandum Accounts	Revenue Change
Building Benchmarking Data MA	257
Power Charge Indifference Adjustment MA	48
Residential Rate Implementation MA	15,579
Net Under-Collected Balance:	15,884
FF&U:	181
Total Revenue Requirement Change:	$ 16,065

This chapter is organized as follows:

- Section B sets forth the operation of the following regulatory accounts during the Record Period:[20]
  - ERRA Balancing Account (ERRA BA);
  - Base Revenue Requirement Balancing Account (BRRBA);
  - Nuclear Decommissioning Adjustment Mechanism (NDAM);
  - Public Purpose Programs Adjustment Mechanism (PPPAM);
  - California Alternate Rates for Energy (CARE) Balancing Account (CBA); and
  - New System Generation Balancing Account (NSGBA).
- Section C shows the operation of the following accounts, as required by Decisions 06-05-016, 09-03-025, 12-11-051, 15-11-021, and 19-05-020:
  - Medical Programs Balancing Account (MPBA);
  - Pension Costs Balancing Account (PCBA);
  - Post-Employment Benefits Other Than Pensions Balancing Account (PBOP BA); and
  - Short-Term Incentive Program Memorandum Account (STIPMA).

[20] The Commission reviews these accounts annually in SCE's April ERRA Review proceeding.

- Section D shows the operation of the following accounts as required by the Preliminary Statements associated with these accounts:
  - Statewide Marketing, Education & Outreach Balancing Account (SME&OBA);
  - Energy Settlements Memorandum Account (ESMA) and Litigation Costs Tracking Account (LCTA), as required by Resolution E-3894;
  - Charge Ready Program Balancing Account (CRPBA);
  - Green Tariff Marketing, Education, & Outreach Memorandum Account (GTME&OMA);
  - Enhanced Community Renewable Marketing, Education, & Outreach Memorandum Account (ECRME&OMA);
  - Green Tariff Shared Renewables Administrative Costs Memorandum Account (GTSRACMA);
  - Green Tariff Shared Renewables Balancing Account (GTSRBA);
  - Local Capacity Requirement Products Balancing Account (LCRPBA);
  - Transportation Electrification Portfolio Balancing Account (TEPBA);
  - Aliso Canyon Energy Storage Balancing Account (ACESBA);
  - Clean Energy Optimization Pilot Balancing Account (CEOPBA);
  - Community Solar Green Tariff Balancing Account (CSGTBA);
  - Disadvantaged Communities – Green Tariff Balancing Account (DACGTBA);
  - Disadvantaged Communities – Single-Family Solar Homes Balancing Account (DACSASHBA);
  - Disadvantaged Communities – Single-Family Solar Homes Memorandum Account (DACSASHMA);
  - Portfolio Allocation Balancing Account (PABA);
  - Tree Mortality Non-Bypassable Charge Balancing Account (TMNBCBA).
- Section E shows the operation of the following accounts as required by the Preliminary Statements for these accounts and resulting in a net refund or recovery:

- Building Benchmarking Data Memorandum Account (BBDMA);
- Power Charge Indifference Adjustment Memorandum Account (PCIAMA); and
- Residential Rate Implementation Memorandum Account (RRIMA).

The following Table XI-12 summarizes SCE's requested action associated with the accounts reviewed in this proceeding:

Table XI-12
Summary of SCE's Request for ERRA Review

Line No.	ACCOUNT	REVIEW	RECOVERY/ REFUND	RECOVERY/REFUND AMT 1/
1.	ERRA	YES		
2.	BRRBA	YES		
3.	NDAM	YES		
4.	PPPAM	YES		
5.	CARE BA	YES		
6.	New System Generation BA	YES		
7.	Medical Programs BA	YES		
8.	Pension Costs BA	YES		
9.	PBOP BA	YES		
10.	Short Term Incentive Programs MA	YES		
11.	Statewide Marketing, Education & Outreach BA	YES		
12.	Energy Settlements MA and Litigation Costs Tracking Account	YES		
13.	Charge Ready Program BA	YES		
14.	Green Tariff Marketing, Education & Outreach MA and Enhanced Community Renewable Marketing Education & Outreach MA	YES		
15.	Green Tariff Shared Renewables Administrative Costs MA	YES		
16.	Green Tariff Shared Renewables BA	YES		
17.	Local Capacity Requirement Products BA	YES		
18.	Transportation Electrification Portfolio BA	YES		
19.	Aliso Canyon Energy Storage BA	YES		
20.	Clean Energy Optimization Pilot BA	YES		
21.	Community Solar Green Tariff BA	YES		
22.	Disadvantaged Communities - Green Tariff BA	YES		
23.	Disadvantaged Communities - Single-family Solar Homes BA	YES		
24.	Disadvantaged Communities - Single-family Solar Homes MA	YES		
25.	Portfolio Allocation BA	YES		
26.	Tree Mortality Non-Bypassable Charge BA	YES		
27.	Building Benchmarking Data MA	YES	Recovery	$0.257 million
28.	Power Charge Indifference Adjustment MA	YES	Recovery	$0.048 million
29.	Residential Rate Implementation MA	YES	Recovery	$15.579 million
30.	Pole Loading and Deteriorated Pole Programs BA (Chapter XII)	YES		

1/ Does not include FF&U.

The operation of the Pole Loading and Deteriorated Pole Programs Balancing Account (PLDPBA) is presented in Chapter XII of this exhibit.

In the testimony below, SCE discusses the Commission decisions and significant adjustments (defined as $1 million or greater) impacting the recorded operation of the balancing and memorandum accounts during the Record Period.

B. Operations of Balancing Accounts and Adjustment Mechanisms during the Record Period

1. Operation of the Energy Resource Recovery Account (ERRA) Balancing Account (BA)

The purpose of the ERRA BA is to record the difference between ERRA BA-related revenue and SCE's recorded ERRA BA-related fuel costs and purchased power-related expenses. Pursuant to Ordering Paragraph (OP) 8 of D.18-10-019, in 2019, the ERRA BA was modified to only record the costs associated with SCE's wholesale short-term market purchases (*i.e.,* the costs of meeting remaining bundled service customers' full energy and ancillary services requirements through the CAISO market with contract terms less than one year in duration), the fuel and purchased power costs of any contracted resources that are not eligible for recovery in the PABA or NSGBA, and the imputed costs of the Renewable Energy Credits (RECs) and Resource Adequacy (RA) from the PABA-eligible resources (calculated using the Commission-adopted RPS and RA Adders) used to meet bundled service customer requirements.[21] The responsibility for the costs recorded in the ERRA BA lies solely with then-current bundled service customers. Table XI-13 below summarizes the operation of the ERRA BA during the Record Period.

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[21] *See* Advice 3914-E, pp. 5-6.

Table XI-13
Operation of the ERRA BA 2019

Line No.	Description	($000)
1.	Beginning Balance	815,432
2.	Commission Authorized Transfers:	
3.	Energy Settlements Memorandum Account Balance Transfer (January)	(29,661)
4.	Litigation Costs Tracking Account Transfer (January)	2,043
5.	Total Commission Authorized Transfers	(27,618)
6.	Significant Entries/Adjustments	
7.	Transfer Jan - April 2019 Purchase Power Costs to PABA (May)	(312,964)
8.	Transfer Jan - April 2019 Imputed RA Revenues (May)	97,247
9.	Transfer Jan - April 2019 Imputed REC Revenues (May)	437,710
10.	Reclass Billed Revenue to PABA (June)	66,678
11.	Energy Crisis Credit Reclass to PABA (September)	42,271
12.	ESMA 2018 Balance Transfer to PABA (September)	30,146
13.	LCTA 2018 Balance transferred to PABA (September)	(2,076)
14.	Billed Revenue DA/CCA CTC (September)	6,256
15.	PCIA Jan-May Revenue Reallocation to PABA (September)	7,797
16.	TMNBCBA True-Up (November)	16,718
17.	Total Significant Entries/Adjustments	389,783
18.	Other Entries/Adjustments	
19.	GHG Inventory Adjustment (March)	519
20.	GHG Physical Settlement WACOG Adjustment (March)	0
21.	GHG Carrying Costs (March)	(14)
22.	Interest on PCIA June Revenue Reallocation to PABA (September)	(152)
23.	Disallowance of El Segundo 2017 Start-Up Costs (December)	(168)
24.	Total Other Adjustments	185
25.	Adjusted Beginning Balance (Line 1 + Line 5 + Line 15 + Line 22)	1,177,782
26.	Revenue	(4,189,933)
27.	Expense	2,975,670
28.	(Over)/Under Collection (Line 24 + Line 25)	(1,214,262)
29.	Interest	13,857
30.	Total ERRA Ending Balance (Line 23 + Line 26 + Line 27)	(22,624)

Ordering Paragraph (OP) 2 of D.07-04-020 modified OP 25 of D.04-12-048 such that effective April 12, 2007, SCE shall submit a detailed summary report each month to the Energy Division showing the activity in the ERRA BA. In addition, SCE shall make available for the Commission staff and interested parties all monthly invoices and supporting documentation in conjunction with the reports, upon request, and in lieu of submitting the monthly documentation to the Energy Division.

Below, SCE discusses the Commission decisions and significant adjustments (defined as $1 million or greater) impacting the recorded operation of the ERRA BA during the Record Period, as shown in Table XI-13.[22]

a) Commission-Authorized Transfers

Pursuant to D.15-10-037, the Commission authorizes SCE to transfer the annual ending balances of both the ESMA and the LCTA to the ERRA BA. As such, as shown on Line 3 of Table XI-13, SCE transferred the December 31, 2018 credit balance of $29.661 million, including interest, from the ESMA to the ERRA BA, in January 2019. Also, Line 4 of Table XI-13 from the LCTA to the ERRA BA, in January 2019.

b) Significant Adjustments

SCE recorded the following significant adjustments in the ERRA during the Record Year.

Pursuant to Ordering Paragraph (OP) 7 of D.18-10-019, SCE submitted Advice Letter 3914-E[23] to establish the Portfolio Allocation Balancing Account (PABA) and modify its ERRA BA. Although the advice letter was effective January 1, 2019, SCE did not receive approval until May 2019. For this reason, there are a number of transfers from the ERRA BA to the PABA, beginning May 2019.

As shown on Line 7 of Table XI-13, the credit amount of $312.964 million reflects a transfer related to January to April purchase power costs. The debit amount of $97.247 million on Line 8 of Table XI-13 reflects a transfer related to January to April imputed RA revenues and the debit amount of $437.710 million on Line 9 of Table XI-13 reflects a transfer related to January to April imputed REC revenues; all from the ERRA to the PABA (May 2019).

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22 Although this testimony discusses only significant adjustments, support for the majority of the adjustments during the Record Period is included in SCE's workpapers.

23 Advice 3914-E was approved by the Commission's Energy Division with an effective date of January 1, 2019.

Both the ERRA BA and the PABA include credit entries for billed customer revenues. Due to difference between effective date (January 2019) and approval date (May 2019), SCE made a June 2019 billed revenue allocation "true-up" of $66.678 million (including interest) from the ERRA BA to the PABA, as shown on Line 10 of Table XI-13.

In May 2018, FERC approved settlements resolving claims arising from events and transactions during the California Energy Crisis of 200-2001. Approximately $41.1 million from the 2006 Bonneville Power Administration (BPA) Settlement was recorded directly to ERRA in compliance with D.07-03-005 (2006 BPA Settlement). As shown on Line 11 of Table XI-13, the 2006 BPA Settlement of $42.271 million, including interest, was transferred from the ERRA to the PABA.

Pursuant to D.15-10-037 and as described in Advice Letter 3914-E, the PABA has a One-Time Refunds/Costs subaccount that records the refunds and costs that are shared by both bundled service and departing load customers. This includes, but is not limited to, year-end balances in SCE's ESMA and LCTA. As such, as shown on Line 12 of Table XI-13, SCE transferred ESMA's December 31, 2018 debit balance of $30.146 million, including interest, from the ERRA BA to the PABA, in September 2019. Also, Line 13 of Table XI-13 reflects the transfer of LCTA's December 31, 2018 credit balance of $2.076 million, including interest, from the ERRA BA to the LCTA, in September 2019.

On September 25, 2019, SCE submitted Advice Letter 4077-E[24] to update the allocation of billed customer revenues across the applicable balancing accounts for the period January 2019 through August 2019. These entries are shown on Lines 14 and 15 of Table XI-13.

As shown on Line 16 of Table XI-13, in November 2019, SCE recorded a true-up of $16.718, including interest, related to the TMNBCBA. This entry represents the "REC value true-up" outlined in Advice 3955-E.[25]

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[24] Advice Letter 4077-E was approved by the Commission's Energy Division with an effective date of September 25, 2019.

[25] *See* Advice 3955-E/E-A, pp. 4 and 7.

2. **Operation of the Base Revenue Requirement Balancing Account (BRRBA)**

The purpose of the BRRBA is to record the difference between BRRBA-related revenue, Commission-authorized base distribution revenue requirements, and other authorized funding amounts and recorded costs authorized by the Commission. The Commission established the BRRBA in SCE's 2003 GRC Phase I decision, D.04-07-022. SCE implemented the BRRBA through Advice Letter 1808-E and the Commission adopted the BRRBA in Resolution E-3895, effective July 1, 2004. The BRRBA includes distribution and generation sub-accounts to track under-collections and over-collections by function.[26] Pursuant to OP 8 of D.18-10-019, in 2019, SCE's BRRBA was modified to move the GRC authorized revenue requirements associated with SCE's utility-owned generation (UOG) from the BRRBA to the PABA. As a result, the generation subaccount of the PABA only records the revenue requirements associated with non-UOG items (*e.g.,* generation-related demand response programs).[27]

Table XI-14 below summarizes the operation of the BRRBA during the Record Period.

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[26] Amounts recorded in the distribution sub-account are recovered from both bundled service and departing load customers, while amounts recorded in the generation sub-account are recovered from bundled service customers only.

[27] *See* Advice 3914-E, p. 7.

Table XI-14
Operation of the BRRBA 2019

Line No.	Description	($000)
1.	Beginning Balance	(521,542)
2.	Commission Authorized Transfers	
3.	2018 Pension Costs Balancing Account Transfer (January)	(51,522)
4.	2018 Post Employment Benefits Other Than Pensions Costs Balancing Account Transfer (January)	(26,561)
5.	2018 Medical Programs Balancing Account Transfer (January)	(32,686)
6.	2018 Purchase Agreement Administrative Costs Balancing Account Balance & Interest Transfer (January)	(37)
7.	2018 Demand Response Program Balancing Account and Interest Transfer (January/October)	(39,827)
8.	Pole Loading Balancing Account Annual Transfer (January)	162,892
9.	Catastrophic Event Memorandum Account (Drought & Fires)	51,045
10.	2018 Results Sharing / Short-Term Incentive Program Transfer (March/May)	(20,932)
11.	Electric Deferred Refund Account Transfer (February)	(7,935)
12.	Hazardous Substance Cleanup & Litigation Cost Balancing Account Transfer (September)	2,239
13.	Aliso Canyon Demands Response Program Balancing Account Interest Transfer	(42)
14.	2018 General Rate Case Decision Transfers & True Ups	(424,594)
15.	Transportation Electrification Portfolio Balancing Account Transfer	3,890
16.	Mobilehome Park Master Meter Balancing Account Transfer	19,895
17.	Purchase Agreement Administrative Costs Balancing Account 2017 Balance Transfer	(375)
18.	Charge Ready Program Balancing Account Transfer	3,353
19.	Base Interruptible Program Aggregator Incentive Payment	3,373
20.	Total Commission Authorized Transfers	(357,823)
21.	Other Entries/Adjustments	
22.	Demand Response Capacity and Demand Response Auction Mechanism	8,561
23.	21st Century Energy Systems (Monthly)	388
24.	Energy Service Provider Interface Award for 2016 and 2017	10,574
25.	Local Capacity Requirements Transfer (Monthly)	7,893
26.	Non-Utility Credits	(4,820)
27.	2017 Tax Accounting Memorandum Account Transfer	(9,075)
28.	Four Corner Clean Air Act Mitigation Project	800
29.	Tehachapi Storage Project Expense	998
30.	External Regulatory Audit	343
31.	Electric PUC Rate Charge Adjustment	688
32.	Other Operating Revenues Adjustment	(2,494)
33.	Total Other Adjustments	13,858
34.	Adjusted Beginning Balance (Line 1 + Line 20 + Line 33)	(865,507)
35.	Revenues	(4,437,593)
36.	Authorized Revenue Requirements	4,985,345
37.	(Over)/Under Collection (Line 35 + Line 36)	547,752
38.	Interest	(10,845)
39.	Ending Balance (Line 34 + Line 37 + Line 38)	(328,600)

The following testimony discusses the Commission decisions and significant adjustments reflected in the BRRBA during the Record Period.

a) Commission-Authorized Transfers

Pursuant to D.09-03-025,[28] Advice Letter 2336-E,[29] and Preliminary Statement Part OO, Pension Costs Balancing Account (PCBA), SCE is authorized to transfer the December 31 balance recorded in the PCBA each year to the BRRBA. As shown on Line 3 of Table XI-14, the January 2019 amount of $51.522 million reflects the year-end 2018 credit balance transfer from the PCBA.

Pursuant to D.09-03-025, Advice Letter 2336-E,[30] and Preliminary Statement Part PP, Post-Employment Benefits Other Than Pensions (PBOP) Costs Balancing Account (PBOP BA), SCE is authorized to transfer the December 31 balance recorded in the PBOP each year to the BRRBA. As shown on Line 4 of Table XI-14, the January 2019 amount of $26.561 million reflects the year-end 2018 credit balance transfer from the PBOP BA.

Pursuant to D.09-03-025 and Advice Letter 2336-E,[31] and Preliminary Statement Part VV, Medical Programs Balancing Account (MPBA), SCE is authorized to transfer the December 31 balance recorded in the MPBA each year to the BRRBA. As shown on Line 5 of Table XI-14, the January 2019 amount of $32.686 million reflects the year-end 2018 credit balance transfer from the MPBA.

Pursuant to Preliminary Statement Part L, Purchase Agreement Administrative Costs Balancing Account (PAACBA), as authorized by D.08-03-017 and Advice Letter 2243-E,[32] annual interest is calculated when the average balance in the PAACBA is an under-expended amount.

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[28] SCE's 2009 GRC Decision (D.09-03-025), effective January 1, 2009.

[29] Advice Letter 2336-E was approved by the Commission's Energy Division with an effective date of March 30, 2009.

[30] *Id.*

[31] *Id.*

[32] Advice Letter 2243-E was approved by the Commission's Energy Division with an effective date of June 13, 2008.

SCE is required to return annual interest to customers by transferring such amounts to the distribution sub-account of the BRRBA. As such, as shown on Line 6 of Table XI-14, SCE transferred $0.037 million of interest recorded in the PAACBA to the distribution sub-account of the BRRBA. In addition, in October 2019, the Commission adopted D.19-10-039 authorizing SCE to transfer the over-collected balance of $0.375 million from the PAACBA to the distribution sub-account of the BRRBA. As shown on Line 17 of Table XI-14, in December 2018, SCE transferred $0.375 million recorded in the PAACBA to the distribution sub-account of the BRRBA.

Pursuant to Preliminary Statement Part Y, Demand Response Program Balancing Account (DRPBA), as authorized by D.06-03-024 and Advice Letter 1985-E,[33] annual interest is calculated when the average balance in the DRPBA is an under-expended amount. SCE is required to return annual interest to customers by transferring such amounts to the distribution and generation sub-account of the BRRBA. SCE transferred interest of $1.284 million to the BRRBA in January 2019. In October 2019, the Commission adopted D.19-10-039 in SCE's 2017 ERRA Review (A.18-03-016) authorizing SCE to refund to customers the overcollection of $17.896 million in unspent, uncommitted funds in the DRPBA. In addition, the incentives sub-account records the difference between actual incentives paid to customers and the authorized customer incentive levels approved by the Commission pursuant to D.17-12-003. SCE recorded $20.647 million for customer incentives in the DRPBA. As shown on Line 7 of Table XI-14, in 2019, SCE transferred a total credit of $39.827 million from the DRPBA to the BRRBA in January, October, and December 2018.

Pursuant to D.15-11-021, Advice Letter 3314-E, and Preliminary Statement Part J, Pole Loading and Deteriorated Pole Programs Balancing Account (PLDPBA), SCE is authorized to transfer the December 31 balance recorded in the PLDPBA each year to the BRRBA. As shown on Line 8 of Table XI-14, the 2019 amount of $162.892 million reflects the year-end 2018 balance transfer from the PLDPBA.

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[33] Advice Letter 1985-E was approved by the Commission's Energy Division with an effective date of April 14, 2006.

On January 10, 2019, the Commission issued D.19-01-006 adopting SCE's cost recovery of incremental expenses and capital expenditures incurred for the 2015-2016 catastrophic drought and the 2016 firestorms (Erskine, Sand, and Blue Cut fires). As shown on Line 9 of Table XI-14, in January 2019, SCE transferred $51.045 million from the CEMA to the BRRBA.

The purpose of the Short Term Incentive Program Memorandum Account (STIPMA) is to annually compare the authorized and actual Results Sharing expenses paid out for 2018 and to record the difference pursuant to D.15-11-021. Any underexpended CPUC Results Sharing balance, as recorded in the STIPMA, will be transferred to the BRRBA annually. As shown on Line 10 of Table XI-14, the 2018 under-expended amount of $20.932 million reflects the credit balance transfer from the STIPMA.

In D.99-09-070, SCE was authorized to transfer the customers' share of its other operating revenue associated with non-tariffed products and services to the Electric Deferred Refund Account on an annual basis.[34] These amounts are initially recorded in the Gross Revenue Sharing Mechanism, Preliminary Statement Part G, and then transferred to the Electric Deferred Refund Account. As shown on Line 11 of Table XI-14, and pursuant to Advice Letter 3945-E,[35] in March 2019 SCE recorded a credit entry of $7.935 million including interest, to reflect the transfer of the December 31, 2018 balance recorded in the Electric Deferred Refund Account.

The Hazardous Substance Cleanup and Litigation Cost (HSCLC) Recovery Mechanism allocates the costs and insurance proceeds associated with cleaning up certain properties contaminated with hazardous substances between SCE customers and shareholders. The Commission established the HSCLC Balancing Account to record customers' share of hazardous substance cleanup costs and insurance recoveries. On June 1 of each year, SCE files a report with the Energy Division identifying the costs and recoveries recorded in the HSCLC Balancing Account for the twelve-month period from April 1 through March 31. Ninety days after filing the annual report, SCE is authorized to

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[34] D.99-09-070, p. 21.

[35] Advice Letter 3945-E was approved by the Commission's Energy Division with an effective date of March 2, 2019.

transfer the HSCLC balance to the appropriate ratemaking account for disposition. Therefore, SCE transfers the reviewed balance in the HSCLC Balancing Account to the distribution sub-account of the BRRBA. As shown on Line 12 of Table XI-14, in September 2019, SCE transferred a debit balance of \$2.239 million recorded in the HSCLC Recovery Mechanism to the BRRBA. The Commission reviewed this amount in SCE's June 2019 Annual Hazardous Waste Report.[36]

The Aliso Canyon Demand Response Program Balancing Account (ACDRPBA) is used to record the difference between the actual costs incurred by SCE for demand response program activities to help mitigate a natural gas leak at the Aliso Canyon Natural Gas Storage Facility (Aliso Canyon) and the authorized Aliso Canyon Demand Response funding level approved by the Commission. The interest expense is calculated annually by applying the interest rate to the average balance of the beginning-of-year and the end-of-year balances in the Distribution sub-account of the ACDRPBA. Since the ACDRPBA is a "one-way" balancing account, interest expense is only calculated when the average balance in the Distribution sub-account of the ACDRPBA is a negative (under-expended) amount. Annual interest amounts are returned to customers by transferring the amounts to the Distribution sub-account of the BRRBA. As shown on Line 13 of Table XI-14, SCE transferred \$0.042 million to the Distribution sub-account of the BRRBA in January 2019.

On May 24, 2019, the Commission issued D.19-05-020 in SCE's 2018 General Rate Case (GRC). Pursuant to D.19-05-020 and Advice Letter 4012-E and 4012-E-A[37], implementing SCE's 2018 GRC Phase I, in May and June 2020, as shown on Line 14 of Table XI-14, SCE recorded the following adjustments/true-ups and transfers, totaling \$424.593 million to the BRRBA:

- Transferred the 2012-2014 CEMA – Bark Beetle ending balance of \$11.037 million to BRRBA

[36] This review period is April 1, 2018 through March 31, 2019.

[37] Advice Letter 4012-E and 4012-E-A were approved by the Commission's Energy Division with an effective date of January 1, 2018.

- Transferred the Energy Data Request Program Memorandum Account (EDRPMA) and Residential Service Disconnection Memorandum Account (RSDMA) ending balances of $0.523 million to BRRBA
- Transferred the Residential Rate Implementation Memorandum Account (RRIMA) ending balance of $18.113 million to BRRBA
- Transferred the 2018 General Rate Case Revenue Requirement Memorandum Account (GRCRRMA) ending credit balance of $591.497 million to BRRBA
- Trued up the GRC Franchise Fees & Uncollectibles (FF&U) resulting in a credit of $2.872 million
- Transferred the Edison SmartConnect Opt-Out Balancing Account (SOBA) ending balance of $11.676 million to BRRBA
- Performed other transfers and true ups pursuant to D.19-05-020, including but not limited to medical, pension, and PBOPs totaling $128.427 million

Pursuant to D.18-01-024, Advice Letter 3734-E, and Preliminary Statement Part NNN, Transportation Electrification Portfolio Balancing Account (TEPBA), SCE is authorized to transfer the year-end TEPBA balance annually to the distribution subaccount of the BRRBA. As shown on Line 15 of Table XI-14, the debit amount of $3.890 million reflects the year-end 2019 balance transfer from the TEPBA.

Pursuant to D.14-03-021, Advice Letter 3072-E,[38] and Preliminary Statement Part MM, Mobilehome Park Master Meter Balancing Account (MMMBA), SCE established the MMMBA to record costs associated with the conversion of master-metered service to direct service. SCE is authorized to transfer the December 31 balance recorded in the MMMBA each year to the BRRBA. On December 27, 2019, SCE submitted Advice Letter 4126-E to transfer the estimated December 31, 2019 balance to the distribution sub-account of the BRRBA to be collected from customers in 2020

[38] Advice Letter 3072-E was approved by the Commission's Energy Division with an effective date of August 8, 2014.

distribution rates. SCE transferred the actual balance in December 2019. As shown on Line 16 of Table XI-14, SCE transferred a debit balance of $19.895 million from the MMMBA to the BRRBA.

Pursuant to D.16-01-023, Advice Letter 3362-E,[39] and Preliminary Statement Part I, Charge Ready Program Balancing Account (CRPBA), SCE established the CRPBA to record the actual incremental operations and maintenance (O&M) expense and capital-related revenue requirements associated with Phase I of the Charge Ready Program and Market Education Program. On a monthly basis, SCE is authorized to transfer the monthly balance in the CRPBA to the BRRBA. As shown on Line 18 of Table XI-14, the 2019 annual amount of $3.353 million reflects the monthly debit balance transfers from the CRPBA.

Pursuant to D. 10-06-034 and Advice Letter 3577-E, the Commission authorized all IOU emergency-triggered DR programs, which are referred to in the Settlement as "emergency-based" or "reliability-based DR programs," and are described as "programs in which customer load reductions are triggered only in response to abnormal and adverse operating conditions, such as imminent operating reserve violations or transmission constraint violations." The Base Interruptible Program (BIP) was included as part of this DR program. As shown on Line 19 of Table XI-14, the 2019 annual amount of $3.373 million reflects BIP Aggregator Incentive Payments.

b) <u>Significant Entries or Adjustments</u>

In D.17-10-017, the Commission authorized the 2019 Demand Response Auction Mechanism (DRAM) and DRAM costs are recovered through the distribution sub-account of the BRRBA. As shown on Line 22 of Table XI-14, during the 2019 Record Period SCE recorded a debit amount of $8.561 million for DRAM costs in the distribution sub-account of the BRRBA.

D.12-12-031 and D.14-03-029, respectively, established and then modified funding levels for the 21st Century Energy Systems (CES-21) Program. The CES-21 Program is a public-private collaborative effort between the Joint Utilities and Lawrence Livermore National Laboratory. Resolution E-4677 approved the CES-21 5-year budget of $35 million, of which $14.350

[39] Advice Letter 3362-E was approved by the Commission's Energy Division with an effective date of February 11, 2016.

million is SCE's share (including FF&U). Pursuant to Preliminary Statement YY, Section 4.18, SCE makes a debit entry to record SCE's share of 21st Century Energy Systems cyber security research project (CES-21) expenses. As shown on Line 23 of Table XI-14, SCE recorded $0.388 million for this project in 2019 in the distribution sub-account of the BRRBA.[40]

On October 10, 2019, the Commission issued Resolution E-5007 regarding the Investor Owned Utilities (IOUs) Efficiency Savings and Performance Incentive (ESPI) awards request for program years 2016 and 2017. Overall, the Resolution awarded SCE a total of $10.574 million. Accordingly, as shown on Line 24 of Table XI-14, in October 2019, SCE recorded a debit of $10.574 million in the distribution sub-account of the BRRBA to be recovered in rates from all customers.

The Local Capacity Requirements Products Balancing Account (LCRPBA) records LCR Request for Offers (RFO) resource costs pursuant to D.15-11-041 and D.16-05-050. The costs for Demand Response and Behind-the-Meter Energy Storage resources are recorded in the LCRPBA and transferred on a monthly basis to the distribution sub-account of BRRBA. As shown on Line 25 of Table XI-14, SCE recorded a debit entry of $7.893 million associated with the LCR RFO costs of resources procured for the Western Los Angeles Basin and Moorpark Sub-Area.

D.88-01-063, D.97-12-088 and all subsequent GRCs have established guidelines and methodologies SCE must follow when incurring expenses to support non-utility affiliates. Under these decisions, such expenses are incurred by the utility and charged to EIX and non-utility affiliates. The payments from EIX and non-utility affiliates for these services are recorded as a credit to SCE's BRRBA and returned to customers through the operation of the BRRBA. As shown on Line 26 of Table XI-14, SCE recorded a credit of $4.820 million to the BRRBA.

On July 16, 2019, SCE submitted Tier 2 Advice 4039-E for additional review of the operation of the 2017 TAMA. This advice filing includes the ratemaking impact effective January 1, 2017 as a result of: 1) A true-up for the net difference in capitalized software tax benefits between tax returns and the year-end recorded amount reflected in Advice 3809-E for 2017; and 2) A true-up for the

[40] From 2015-2019, SCE has recorded $14.049 million of the 14.350 million cost recovery cap.

net difference in non-pole loading tax repair benefits between tax returns and the year-end recorded amount reflected in Advice 3809-E for 2017. As shown on Line 27 of Table XI-14, SCE transferred the net TAMA over-collection of approximately $9 million to BRRBA in September 2019.

On December 22, 2016, SCE submitted Advice Letter 3538-E to modify BRRBA to record revenues associated with the Tehachapi Storage Project (TSP) and the on-going O&M expenses, related to continued operations, in the distribution sub-account of the BRRBA. Per SCE's Preliminary Statement Park YY, BRRBA, SCE records both revenues and expenses related to the continued operation of the Tehachapi Storage Project (TSP) in the BRRBA. As shown on Line 29 of Table XI-14, SCE recorded expenses totaling $0.998 million for the TSP in 2019. On January 10, 2019, the Commission authorized SCE's Advice Letter 3779-E and, thus, the continued operation of the TSP in Resolution E-4954. The Resolution requires SCE to "justify, in the Energy Resource Recovery Account Compliance proceeding for 2017 and future years, its cost recovery of expenses for any time the TSP is offline."[41] The 2019 recorded TSP expenses are discussed in Chapter XII of this exhibit.

In SCE's 2018 General Rate Case (GRC), it included a forecast for Other Operating Revenues (OOR) from transactions not associated with the sale of electric energy. Tariffed OOR is based on CPUC or FERC-approved rates and offsets the revenue requirement SCE would otherwise collect from customers. In compliance with D.19-05-020, SCE adjusted its OOR for both Transmission & Distribution (T&D) and Customer Service. In addition, per Advice Letter 3968-E[42], SCE made an adjustment for five payment office closures to reflect the reduction in OOR as a result. As shown on Line 32 of Table XI-14, SCE included a credit of $2.494 million to reflect the change in OOR.

There were no other significant adjustments or Commission decisions impacting the recorded operation of the BRRBA during the Record Period.

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[41] Resolution E-4954, Ordering Paragraph (OP) 3 at p. 13.

[42] Advice Letter 3968-E was approved by the Commission's Energy Division with an effective date of October 10, 2019, per Resolution E-5005.

3. Operation of the Nuclear Decommissioning Adjustment Mechanism (NDAM)

The NDAM records the difference between NDAM-related revenue and certain authorized and recorded costs associated with SCE's ownership share of SONGS and the Palo Verde Nuclear Generating Station (Palo Verde). For the Record Period, amounts recorded in the NDAM include recorded spent nuclear fuel expenses. Table XI-15 below summarizes the operation of the NDAM during the Record Period.

Table XI-15
Operation of the NDAM
2019

Line No.	Description	($000)
1.	Beginning Balance	(31,711)
2.	Adjustments - DOELMA Transfer to NDAM + Interest	(34,770)
3.	Adjusted Beginning Balance (Line 1 + Line 2)	(66,481)
4.	Revenues	19,958
5.	Expenses	3,448
6.	(Over)/Under Collection (Line 4 + Line 5)	23,406
7.	Interest	(608)
8.	Ending Balance (Line 3 + Line 6 + Line 7)	(43,683)

a) Commission-Authorized Transfers

In October 2019, the Commission adopted D.19-10-039 in SCE's 2017 ERRA Review proceeding (A.18-03-016). In this Decision, SCE's proposed revenue requirement decrease in the Department of Energy Litigation Memorandum Account was approved. The Commission found that the DOELMA costs and proceeds are "reasonable, appropriate, correctly stated, and in compliance with Commission decisions." As such, consistent with D.19-10-039, SCE transferred the DOELMA credit balance of $34.770 million including interest, to the NDAM.[43]

[43] D. 19-10-039, p. 11.

b) Significant Adjustments

There were no significant adjustments impacting the recorded operation of the NDAM during the Record Period.

4. **Operation of the Public Purpose Programs Adjustment Mechanism (PPPAM)**

The PPPAM records the difference between the PPPAM-related revenue and the amounts authorized by the Commission for recovery through the Public Purpose Programs Charge (PPPC). The amounts authorized by the Commission include funding for the Electric Program Investment Charge (EPIC) to fund Research, Development and Demonstration (RD&D) programs, energy efficiency programs, low income energy efficiency and authorized CARE[44] administration programs, statewide marketing, education and outreach activities, as well as intervenor compensation costs. Table XI-16 below summarizes the operation of the PPPAM during the Record Period.

Order Instituting Rulemaking (R.)11-10-003 was issued to address the termination of the legislatively mandated Public Goods Charge, CEC-administered Renewables, and RD&D funding in two phases. The Commission established the EPIC funding mechanism to continue collecting the same level of funds previously authorized for the CEC-related Renewables and RD&D programs through the PPPAM. On May 24, 2012, the Commission adopted D.12-05-037 in Phase 2 of R.11-10-003, which confirmed the continuation of the EPIC funding from 2013 through 2020 and set forth guidelines for the EPIC program through 2020. Authorized revenues were divided between the CEC, SCE, and an administrative fee for the CPUC. SCE filed Advice Letter 2747-E[45] to set forth the new balancing account mechanisms.

In addition, the Commission adopted D.16-11-022 establishing the authorized revenue requirements for the Energy Savings Assistance Program, and CARE Administration program for 2016 - 2020. Commission D.13-04-021 authorized SCE to establish the Statewide Marketing, Education and

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[44] California Alternate Rates for Energy (CARE), a discount program for low income customers.

[45] Advice Letter 2747-E was approved by the Commission's Energy Division with an effective date of June 25, 2012.

Outreach (SME&O) Balancing Account (SME&OBA) to record the difference between authorized SME&O funding and actual costs related to the Flex Alert program and other Statewide ME&O programs and activities. In compliance with D.13-04-021, SCE filed Advice Letter 2896-E[46] establishing Preliminary Statement Part CC, SME&OBA, to record the difference between the authorized SME&O funding and actual expenses.

On February 27, 2019, SCE submitted Advice Letter 3957-E[47], to modify PPPAM, Preliminary Statement Part FF, to record Self-Generation Program Incremental Cost (SGPIC) Memorandum Account funding starting March 1, 2019 in accordance with D.18-11-027.[48]

On December 13, 2018, the Commission issued D.18-12-015, which authorized SCE to establish San Joaquin Valley Disadvantaged Communities Pilot Balancing Account (SJVDACPBA) to record the difference between the Commission-authorized pilot project funding and recorded non-leveraged costs of the pilot projects over a period of three years. In compliance with D.18-12-015, SCE submitted Advice Letter 3946-E/EA/EB establishing Preliminary Statement KK, SJVDACPBA to record the difference between the authorized pilot funding and actual expenses. In addition, AL 3946-E/EA/EB modified PPPAM, Preliminary Statement Part FF, to allow for the recovery of SCE's authorized SJVDAC pilot projects revenue requirement.

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[46] Advice Letter 2896-E was approved by the Commission's Energy Division with an effective date of May 6, 2013.

[47] Advice Letter 3957-E was approved by the Commission's Energy Division with an effective date of March 1, 2019.

[48] On November 29, 2018 the Commission adopted D.18-11-027, which resolved SCE's 2018 General Rate Case (GRC) Phase 2 Application A.17-06-030.

Table XI-16
Operation of the PPPAM
2019

Line No.	Description	($000)
1.	Beginning Balance	(21,800)
	Commission Authorized Transfers and Adjustments	
2.	CARE Balancing Account Transfer (January)	(8,065)
3.	SME&O Authorized Interest Transfer (January)	(46)
4.	PEEBA Authorized Revenue & Interest Adjustment (April & May)	(37,385)
5.	Self Generation Authorized Revenue & Interest Adjustment (May)	9,353
6.	San Joaquin Valley Disadvantaged Communities Authorized Revenue & Interest Adjustment (July)	2,077
7.	Adjusted Beginning Balance (Line 1 + Sum of Lines 2 - 6)	(55,866)
8.	Revenues	(405,804)
9.	Expenses	
10.	Authorized Program Expenses	351,487
11.	Conservation Incentive Adjustment	79,432
12.	Total Expenses	430,919
13.	(Over)/Under Collection (Line 8 + Line 12)	25,115
14.	Interest	(1,132)
15.	Ending Balance (Line 7 + Line 13 + Line 14)	(31,883)

Below SCE discusses Commission decisions and significant adjustments impacting the recorded operation of the PPPAM during the Record Period.

a) Commission-Authorized Transfers

As shown above on Line 2 of Table XI-16, in January 2019 SCE transferred the December 31, 2018 credit balance of $8.065 million (plus interest) recorded in the CARE Balancing Account (CBA) to the PPPAM pursuant to Preliminary Statement Part FF, PPPAM, 3.13. Consistent with D.06-12-038, SCE is authorized to transfer amounts recorded in the CBA to the PPPAM on an annual basis.

Pursuant to Preliminary Statement Part CC, Statewide Marketing, Education and Outreach Balancing Account (SME&OBA), as authorized by D.13-04-021 and Advice Letter 2896-E,[49] annual interest is calculated when the average balance in the SME&OBA is an under-expended amount. SCE is required to return annual interest to customers by transferring such amounts to the distribution sub-account of the BRRBA. As shown on Line 3 of Table XI-16, in 2019, SCE transferred $0.046 million of interest recorded in the SME&OBA to the distribution sub-account of the BRRBA.

b) Significant Adjustments

In compliance with D.18-05-041, SCE filed Advice 3859-E, SCE's 2019 Energy Efficiency Program and Portfolio Annual Budget on April 2, 2019, the Commission approved Advice 3859-E authorizing SCE's 2019 funding request. The Procurement Energy Efficiency Balancing Account tracks the difference between actual incremental procurement-related energy efficiency costs and authorized procurement-related energy efficiency revenues. The Procurement Energy Efficiency Balancing Account (PEEBA) was established in accordance with Ordering Paragraph 21 of D. 03-12-062. As shown on Line 4 of Table XI-16, the credit amount of $37.385 million reflects the 2019 authorized funding true-up, plus interest, for PEEBA.

On February 27, 2019, SCE submitted Advice Letter 3957-E, to modify PPPAM, Preliminary Statement Part FF, to record SGPIC Memorandum Account funding in accordance with D.18-11-027. As shown on Line 5 of Table XI-16, the debit amount of $9.353 million reflects the 2019 authorized revenue requirement true-up, plus interest, for SGPIC.

On December 13, 2018, the Commission issued D.18-12-015, approving the San Joaquin Valley Disadvantaged Communities (SJVDAC) Pilot project funding for 2019-2021. SCE submitted Advice Letter 3946-E/EA/EB to modify PPPAM, to allow for the recovery of SCE's authorized SJVDAC pilot projects revenue requirement. As shown on Line 6 of Table XI-16, the debit amount of $2.077 million reflects the 2019 authorized revenue requirement true-up, plus interest, for SJVDACPBA.

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[49] Advice Letter 2896-E was approved by the Commission's Energy Division with an effective date of May 6, 2013.

5. Conservation Incentive Adjustment

SCE's residential rates were steeply tiered as a result of the energy crisis of 2000-2001 so as to comply with the Water Code Section 80110 and to encourage conservation by charging higher rates for higher levels of consumption. At the time, SCE created the tiered rate differential by varying the generation component of the rates. This structure resulted in limiting the mandated conservation signal to bundled residential customers. CCA and DA customers could avoid the conservation incentive by taking generation service from an entity other than the utility. In its 2009 GRC Phase 2 proceeding, SCE restructured its residential rates, moving the tier differential from the generation component to the delivery component of residential rates, by leveling generation charges across tiers and shifting the tiered component to the delivery charges through the creation of the Conservation Incentive Adjustment.[50] This structure is designed to ensure that the Commission's goal of a strong conservation price signal is provided to both bundled service and departing load customers. SCE recorded an undercollection in Conservation Incentive Adjustment revenues totaling $79.432 million as shown on Line 11 Table XI-16 above. The undercollection is a result of a forecast error in the Residential tier level sales distribution. Recorded sales in the lower tiers were higher than forecasted, while the upper tier recorded sales were lower than forecasted. Recovery of the Conservation Incentive Adjustment undercollection is assigned to the Residential customer class in addition to their share of the public purpose program charge revenue requirement.

6. Operation of the CARE Balancing Account (CBA)

The purpose of the CBA is to record: (1) CBA-related revenue; (2) the difference between CARE discounts provided to CARE-eligible customers and CARE surcharges billed to non-exempt customers; (3) the difference between the authorized CARE administration costs and actual incurred CARE administration expenses; (4) costs associated with the CARE automatic enrollment program; and (5) costs associated with the Energy Division's audit of the CBA.

[50] SCE's proposed Conservation Incentive Adjustment rate was approved in D.09-08-028, the Commission's decision approving various Settlement Agreements resolving issues in Phase 2 of SCE's 2009 General Rate Case.

Consistent with D.06-12-038, SCE is authorized to transfer year-end balances recorded in the CBA to the PPPAM.

Table XI-17 below summarizes the operation of the CBA during the Record Period.

Table XI-17
Operation of the CBA
2019

Line No.	Description	($000)
1.	Beginning Balance	(8,065)
	Commission Authorized Transfers	
2.	CBA Annual Transfer to the PPPAM	8,065
3.	Adjusted Beginning Balance (Lines 1-2)	-
	Subaccounts:	
4.	CARE - Surcharge	(375,436)
5.	CARE - Discount	361,168
6.	CARE - Administrative Costs (Net)	(655)
7.	Cooling Center Program Costs	29
8.	System Programming Costs	103
9.	(Over)/Under Collection (Lines 4 - 8)	(14,791)
10.	Interest	(222)
11.	Ending Balance (Line 3 + Line 9 + Line 10)	(15,014)

Below SCE discusses all Commission decisions and significant adjustments impacting the recorded operation of the CBA during the Record Period.

a) Commission-Authorized Transfers

Pursuant to Preliminary Statement Part FF, PPPAM, SCE is authorized to transfer amounts recorded in the CBA to the PPPAM on an annual basis. In January 2019, SCE transferred the December 31, 2018 credit balance of $8.065 million recorded in the CBA to the PPPAM, as shown on Line 2 of Table XI-17.

b) Significant Adjustments

There were no significant adjustments impacting the recorded operation of the CARE Balancing Account during the Record Period.

7. Operation of the New System Generation Balancing Account (NSGBA)

a) Background

OP 2 of D.07-09-044 authorized each IOU to establish a balancing account to record costs and benefits associated with new generation resources. In compliance with D.07-09-044, SCE filed Advice Letter 2284-E to establish the NSGBA.[51] In addition, the Commission issued D.09-03-031 and D.12-11-051 allocating the costs and resource adequacy benefits of SCE's Peakers to all benefitting customers through the New System Generation rate component. Therefore, the authorized revenue requirement associated with the SCE's Peakers is also recorded in the NSGBA. During the Record Period, SCE recorded in the NSGBA the costs associated with its Commission-approved power purchase agreements (PPA). A list of the CAM contracts can be found in SCE-01, Chapter VII.

b) Operation of the NSGBA

The purpose of the NSGBA is to record the difference between NSG retail revenue and the net costs of Commission-approved New Generation Power Purchase Agreements and CHP contracts, and SCE's five UOG Peaker units.

Table XI-18 below summarizes the operation of the NSGBA during the 2019 Record Period.

[51] Advice Letter 2284-E was approved by the Commission's Energy Division with an effective date of January 16, 2009.

Table XI-18
Operation of the NSGBA
2019

Line No.	Description	($000)
1.	Beginning Balance	(74,301)
2.	GHG Adjustment [1/]	(357)
3.	2018 Authorized Revenue and Costs Adjustment [2/]	326
4.	2019 Authorized Revenue Trueup Adjustment [2/]	43
5.	Adjusted Beginning Balance (Sum Lines 1: Lines 4)	(74,290)
6.	Revenues	(429,454)
7.	Authorized Peaker Revenue Requirement	55,959
8.	New Generation Costs	[redacted]
9.	Peaker CAM	
10.	Combined Heat and Power	
11.	Energy Auction Related	
12.	Total Expenses	
13.	(Over)/Under Collection (Line 6 + Line 7 + Line 12)	147,611
14.	Interest	(741)
15.	Aliso Canyon Energy Storage Ending Balance Transfer	12,368
16.	Ending Balance (Line 5 + Line 13 + Line 14 + Line 15)	84,948

1/ GHG Adjustment to correct settlements
2/ Adjustment pursuant to 2018 GRC D.19-05-020

c) Peaker Revenue Requirement

As discussed in Advice Letter 4012-E [52] and consistent with Preliminary Statement Part RR, NSGBA, the Authorized Peaker Generation Revenue Requirement in the NSGBA,

[52] Advice Letter 4012-E implemented ratemaking associated with D.19-05-020, SCE's 2018 Phase 1 GRC.

which is the total of Line 4 and Line 7 in Table XI-18 above, was $56.002 million from January 1, 2019 through December 31, 2019, excluding FF&U.

d) Expenses

The New Generation PPA costs totaled [redacted] for the Record Period, as shown on Line 8 in Table XI-18 above. The Peaker CAM net costs totaled [redacted] as shown on Line 9. The Combined Heat and Power costs totaled [redacted] as shown on Line 10 above. The Energy Auction Related expenses recorded during the record period included energy auction costs associated with the Independent Evaluator responsible for monitoring and overseeing the energy auction process, which totaled [redacted] as shown on Line 11 above.

e) Aliso Canyon Energy Storage Ending Balance Transfer

Pursuant to D.18-06-009,[53] the Commission authorized SCE to establish the Aliso Canyon Energy Storage Balancing Account (ACESBA) to record the Tesla and General Electric Projects' actual revenue requirements, including an initial entry for the transfer of SCE-owned ACES-related recorded activity in the Aliso Canyon Catastrophic Event Memorandum Account (CEMA). The costs activity recorded in the ACESBA shall be recovered through the New System Generation Balancing Account (NSGBA) to be recovered from all benefitting customers. On July 11, 2018, SCE filed Advice Letter 3822-E to establish the Aliso Canyon Energy Storage Balancing Account pursuant to D.18-06-009.[54] As such, as shown on Line 15 in Table XI-18 above, SCE transferred the December 31, 2019 debit balance of $12.368 million, including interest, from the ACESBA to the NSGBA, in December 2019.

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[53] Pursuant to D.18-06-009, OP 4 and 6, pages 44-45.

[54] Advice Letter 3822-E was approved by the Commission's Energy Division with an effective date of August 10, 2018.

C. Review and Disposition of Balancing and Memorandum Accounts Pursuant to Decisions 06-05-016, 09-03-025, 12-11-051, and 15-11-021

1. Medical Programs Balancing Account (MPBA)

a) Introduction

The purpose of this section is to: (1) provide the regulatory background associated with the Medical Programs Balancing Account (MPBA); (2) present the operation of the MPBA during the 2019 Record Period; and (3) request a Commission finding that the entries recorded in the MPBA are appropriate, correctly stated, and in compliance with Commission decisions.

b) Background

In D.09-03-025, the Commission agreed with SCE's medical program cost forecasting methodology and authorized a new two-way balancing account to protect customers from any overestimating of expenses. In compliance with D.09-03-025, SCE filed Advice Letter 2336-E[55] on March 30, 2009 to implement the GRC-authorized revenue requirements for the 2009 Test Year, and to establish the MPBA, Preliminary Statement Part VV. In accordance with D.12-11-051, SCE filed Advice Letter 2826-E on December 19, 2012 to implement the CPUC-authorized GRC revenue requirements for the 2012 Test Year and 2013 Post Test Year,[56] and Advice Letter 2961-E-A on December 2, 2013 for the 2014 Post Test Year operation of the MPBA.[57] SCE filed Advice Letter 3314-E, on November 25, 2015, modifying Preliminary Statement Part VV, MPBA, to reflect the 2015 and 2016 authorized amounts in D.15-11-021,[58] as well as the adopted pension and benefits capitalization rate. In accordance with D.15-11-032, SCE filed Advice Letter 3514-E on November 17,

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[55] Advice Letter 2336-E was approved by the Commission's Energy Division with an effective date of March 30, 2009.

[56] Advice Letter 2826-E was approved by the Commission's Energy Division with an effective date of December 19, 2012.

[57] Advice Letter 2961-E-A was approved by the Commission's Energy Division with an effective of January 1, 2014.

[58] Advice Letter 3314-E was approved by the Commission's Energy Division with an effective date of November 1, 2016.

2016 to implement the CPUC-authorized GRC revenue requirement for the 2017 Post Test Year operation of MPBA.[59] SCE proposed continued use of the MPBA in SCE's 2018 GRC application was uncontested in D.19-05-020. In accordance with D.19-05-020, SCE filed Advice Letter 4012-E on June 13, 2019 to implement the CPUC-authorized GRC revenue requirements for the 2018 Test Year and 2019 Post Test Year.[60]

c) Operation of the MPBA

The purpose of the MPBA is to record the difference between: 1) medical, prescription drug, dental, and vision (health care) plan expenses authorized by the Commission, and 2) actual health care plan expenses, after capitalization.

During the Record Period, SCE recorded health care expenses of $124.682 million in the MPBA as shown on Line 13 of Table XI-19. The difference between the authorized medical programs' revenue requirement and the recorded expenses resulted in a December 31, 2019 ending balance under-collection of $0.357 million, including interest. Consistent with Preliminary Statement Part VV, any year-end over or under-collection is transferred to the distribution and generation sub-accounts of the BRRBA annually, to be returned to or recovered from customers.

Pursuant to D.19-05-020 and Advice Letter 4012-E authorizing SCE'S 2018 GRC, SCE recorded the following adjustments and transfers. SCE recorded an adjustment of $24.796 million to true-up 2018 recorded revenue requirement and expenses to 2018 authorized amounts, and to adjust for the newly adopted 2018 GRC capitalization and jurisdictionalization rates. This adjustment is shown on Line 3 in Table XI-19. SCE transferred the adjustment from MPBA to BRRBA, as shown on Line 4 in Table XI-19.

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[59] Advice Letter 3514-E was approved by the Commission's Energy Division with an effective date of January 1, 2017.

[60] Advice Letter 4012-E was approved by the Commission's Energy Division with an effective date of January 1, 2018.

SCE also recorded an adjustment of $5.669 million to true-up the 2019 recorded revenue requirement for the first four months of the year to the 2019 authorized amount for that period as shown on Line 5 in Table XI-19.

The following table summarizes the recorded operation of the MPBA during the Record Period.

Table XI-19
Operation of the MPBA
2019

Line No.	Description		($000)
1.	Beginning Balance		(32,686)
2.	Authorized 2018 Transfer to BRRBA		32,686
3.	2018 GRC Distribution & Generation Adjustments 1/		24,796
4.	2018 GRC Distribution & Generation Adjustments Transfer to the BRRBA		(24,796)
5.	2019 GRC Distribution & Generation Authorized Revenue Req. True-Up		5,669
6.	Adjusted Beginning Balance (Sum of Lines 1 - Line 3)		5,669
7.	Authorized MPBA Funding (CPUC Jurisdictionalized)		(132,288)
8.	Expenses (CPUC Jurisdictionalized)		
9.	Medical	179,316	
10.	Dental	15,205	
11.	Vision	2,831	
12.	Sub-Total Expenses (Sum of Lines 7 - 9)		197,352
13.	Less: Trust Reimbursement		(63,405)
14.	Less: Pay As You Go		(9,266)
15.	Total Expenses (Sum of Lines 10 - 12)		124,682
16.	(Over)/Under Collection Before Capitalization (Line 5 + Line 13)		(7,606)
17.	(Over)/Under Collection After Capitalization		(5,299)
18.	Interest		(12)
19.	Total (Over)/Under Collected Ending Balance (Sum of Lines 4, 15, 16)		357

1/ Adjustments pursuant to 2018 GRC D.19-05-020.

d) Description of Medical Program Expenses

During the Annual Enrollment period, SCE offers eligible employees and their dependents a variety of health care plan options in which they can enroll. Enrollment in these plans is also offered outside of Annual Enrollment for new hires and those who experience a mid-year change in status, such as a marriage or divorce. For 2019, there were a total of seven medical options and two dental options available. These options vary depending on an employee's geographic location. In addition, beginning in 2017, the company began offering telemedicine services through Teladoc, a company that offers appointments by phone or video with US Board-certified medical doctors who can help diagnose and prescribe medicine, if necessary, for a range of non-emergency conditions 24 hours a day-7 days a week. Teladoc is available at no-cost to any non-represented employee and dependent enrolled in an Edison medical plan. Alternatively, employees can also elect to waive medical coverage if they are covered by another group medical plan. Prescription drug coverage is included with every medical plan option. Finally, all full-time and part-time-plus employees are eligible for vision coverage through Vision Service Plan.

Specific information pertaining to the health care elections for each eligible employee, including their enrolled dependents, is recorded in the record keeping system maintained by the external vendor that administers the company's benefit plans. Once benefit elections are considered final, the record keeper mails a confirmation statement to each employee to review and verify that their elections and covered dependents are correct. Effective with the first 2019 payroll deduction period and continuing for a total of 24 deduction periods throughout that calendar year, full time, part-time-plus, and part-time employees who selected a medical or dental option received a company contribution (or "Flex Dollars"), which SCE applied toward the employee's total cost of health care coverage.[61] An employee's net cost for his or her selected medical and dental options is deducted from his or her paycheck.[62] (The difference between the total cost of the medical and dental options an employee elects

[61] These costs are included in the MPBA as Dental or Medical Flex Dollar Expenses.

[62] These credits are included in the MPBA as Dental or Medical Flex Employee Contributions.

and the Flex Dollars applicable to those options represents the employee's net contribution toward medical and dental coverage.) Employee enrollment elections dictate the amount that they must contribute for health care coverage.

As noted above, SCE offers one vision plan, Vision Service Plan, to eligible employees and their dependents. Since the company pays the full cost of this coverage, no employee contributions are collected.

The external record keeper sends eligibility files to each of the health care plan carriers specifying which employees and dependents are enrolled and which employees or dependents are no longer enrolled, including dates of hire and termination. These eligibility files determine coverage begin and end dates. Periodically, the company retains an external firm knowledgeable in group health care coverage to audit the accuracy of the carriers' eligibility records and compliance with the company's health care plan provisions. The primary objectives of the audit are to: (a) measure the accuracy of health care claims processing; (b) evaluate current controls overseeing the claims processing and customer service operations; (c) assess performance in relation to industry standards; and (d) identify areas for quality improvement, if any.

As employees and/or their dependents terminate their group health care coverage those individuals may be offered the option of continuing their coverage for a limited period of time, as required by federal law, through the Consolidated Omnibus Budget Reconciliation Act (COBRA). For individuals who appropriately elect to extend their coverage, the external record keeper bills and collects any amounts due, and then credits those payments to SCE on a monthly basis.[63]

The company has different arrangements with the health care plan carriers regarding how they are reimbursed for benefit costs:

- The company contracts with some carriers on an insured basis, which means that a fixed premium is due for each covered employee based on the family size enrolled. On a monthly basis, the record keeper determines

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[63] These payments are included in the MPBA as Dental, Medical, or Vision COBRA credits.

the premium due to the insurance carriers based on the number of covered employees and their dependent coverage elections. Once premiums are calculated, the company remits those amounts to the carriers.

- The company contracts with other health care plan carriers on a self-funded or flex-funded basis, which means that actual costs incurred by participants and their dependents, plus an administrative fee, are billed to SCE. These carriers submit invoices based on the contractual agreement.

In both cases, payments include the applicable health care costs of active employees and those on COBRA. The company's Benefits and Wellness organization processes the payments to the various health care plan carriers.[64]

Instead of COBRA, some employees who leave SCE with 10 or more years of service and are at least age 55 may be eligible to continue coverage under the company's retiree health care program (those who leave the company under a separation program for represented or non-represented employees qualify for retiree health care if they are at least age 50 or older with 15 or more years of service).

For eligible retirees who were hired prior to January, 1, 2018, the plans offered and costs of their retiree health care coverage (and their enrolled dependents including surviving dependents) are handled in a manner similar to employees and COBRA participants. The external record keeper maintains a complete database of eligible retirees and their dependents, with effective dates and elected coverage options.[65] As with active and COBRA participants, an eligible retiree hired prior to Jan. 1, 2018 may change or waive health care coverage during Annual Enrollment, when first retired or when a mid-year change in status occurs. In addition, if a retiree moves to an area with different coverage options or if the retiree becomes eligible for Medicare, he or she may also change options at that time. The external record keeper includes the retiree information in the same periodic

[64] The payments to the health plan options are included in the MPBA as Dental, Medical or Vision Plan Payments or Claims Payments.

[65] This same process applies for surviving dependents of a retiree who is deceased.

eligibility updates to each of the health care plan carriers as they do for employees and COBRA participants.

For eligible retirees who were employed on or after January 1, 2018, the company will provide each with a Retiree Health Reimbursement Account (RHRA) equal to $200 per each month of service once they elect to receive that benefit after they leave the company. The retiree can then use his or her HRA to pay for healthcare coverage on the open market. The external record keeper keeps track of all HRA balances for eligible retirees.

For eligible retirees who were employed by the company prior to Jan. 1, 2018, their enrollment elections dictate the amount that they must contribute for retiree health care coverage. On a monthly basis, amounts due are either deducted from a pension annuity benefit or billed directly by the external record keeper. The trustee for the SCE Retirement Plan forwards amounts deducted from pension annuities and the external record keeper credits the retiree contributions received through the billing process to SCE on a monthly basis.[66]

The health care plan carriers utilize the same methods to bill SCE for retirees' coverage costs (for eligible retirees hired before January 1, 2018) as they do for the employee and COBRA populations. However, after these health care expenses have been billed and paid, an additional process takes place to identify and categorize them. First, the record keeper provides data indicating what expenses were incurred for retirees and their dependents for fully-insured plan premium payments as well as self- and flex-funded plan administrative expenses billed on a per-participant basis. Second, for plans that the company contracts under flex- or self-funded arrangements, each health care plan carrier provides specific data indicating what expenses were incurred by enrolled retirees and their dependents, including administrative expenses not billed on a per-participant basis. All of the expenses for retirees, their dependents, and their surviving dependents are identified and categorized by the specific trust from which SCE will be reimbursed, or alternatively, as a "pay-as-you-go" expense, where no trust reimbursement will be provided. SCE has established these trusts to fund PBOP liabilities as

[66] These payments are included in the MPBA as Dental, Medical, or Vision Retiree Contributions.

determined by the company's actuary. Later, SCE receives reimbursement from these trusts for the premiums, claims and administrative fees it incurred for retirees, their dependents, and survivors. Trust reimbursements and retiree-related expenses categorized as "pay-as-you-go," are reversed from the MPBA.[67] In other words, SCE removes all health care expenses for retirees and their dependents; the only remaining costs reported in the MPBA are for the health care expenses for SCE employees and their dependents.

e) Programs for Employees Not Covered by Collective Bargaining Agreements

Under the EIX Severance Plan for Non-represented Employees (ESP), SCE provides a variety of benefits to alleviate the hardships faced by non-executive, non-represented workers who experience a job loss because of a reduction in force, including extended health care benefits.

Under the ESP, extended health care coverage is provided at employee rates based on the employee's years of service. The ESP provides 3 months of coverage for employees who are severed due to a reduction in force with less than 5 years of service, 6 months of coverage for employees with 5-9 years of service, 9 months of coverage for employees with 10-14 years of service, 12 months of coverage for employees with 15-19 years of service, 15 months of coverage for employees with 20-24 years of service, and 18 months of coverage for employees with 25 or more years of service at an EIX company. Extended healthcare coverage is offered during the COBRA period, not in addition to the COBRA period.

2. Pension Costs Balancing Account (PCBA) and Post-Employment Benefits Other than Pensions Balancing Account (PBOP BA)

a) Introduction

The purpose of this section is to: (1) provide the regulatory background associated with the PCBA and PBOP BA; (2) present the entries recorded in the PCBA and PBOP BA during the Record Period for review; and (3) demonstrate that the entries recorded in the PCBA and PBOP BA are appropriate, correctly stated, and in compliance with Commission decisions.

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67 The reversal is shown earlier in Table XI-19 in this section, as "Pay As You Go" on Line 12.

b) Background

The PCBA and the PBOP BA were adopted in SCE's 2006 GRC Decision, D. 06-05-016. In accordance with OP 22 of D.06-05-016,[68] SCE filed Advice Letter 2003-E on May 22, 2006 to establish the PCBA and the PBOP BA, including the establishment of Preliminary Statements Part OO, PCBA, and Part PP, PBOP BA. Pursuant to the preliminary statements, SCE will include the recorded operations of the PCBA and PBOP BA in the ERRA Review proceedings. On June 13, 2019, SCE filed Advice Letter 4012-E[69] which included the implementation of PCBA and PBOP BA 2018 and 2019 GRC-authorized revenue requirements approved in SCE's 2018 GRC Decision, D.19-05-020.

In this ERRA Review proceeding, SCE is presenting the operation of the PCBA and PBOP BA for the 2019 Record Period.

c) Operation of the PCBA and PBOP BA

The purpose of the PCBA and PBOP BA is to record the difference between: (1) CPUC GRC-authorized revenue requirements and (2) recorded costs. The currently authorized Pension and PBOP revenue requirements are the annual amounts authorized in D.19-05-020. The PCBA and PBOP BA both include a distribution sub-account and a generation sub-account since expenses are recovered through both distribution and generation rate levels. Under new accounting rules, which were implemented in 2018, capitalization adjustments are now applied only to the Service Cost portion of Pension and PBOP GRC-authorized revenue requirements and recorded costs, rather than to Service Cost and Non-Service Cost, as was done in prior years. Service Costs are related to the amount of benefit obligation accumulated by active employees in the current year. Non-Service Cost is the difference between the total rate recoverable cost for the current year and the Service Cost for the current year.

SCE's long-standing pension funding policy seeks to provide systematic long-term funding and rate recovery, calculated to remain level as a percentage of payroll over the life of the

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[68] SCE's 2006 GRC decision, D.06-05-016, was effective May 11, 2006.

[69] Advice Letter 4012-E was approved by the Commission's Energy Division with an effective date of January 1, 2018.

plan. SCE contributes the greater of the amount calculated under that funding policy or the legally required minimum pension contribution. Minimum contributions are determined in accordance with the requirements of the Pension Protection Act of 2006, the so-called MAP-21 legislation from 2012, the Highway and Transportation Funding Act of 2014 (HATFA) and the 2015 Bipartisan Budget Act (BBA).

MAP-21 introduced an interest rate floor that temporarily increased pension plan minimum funding interest rates and, thus, lowered pension liabilities and legally required minimum employer contributions. Both HATFA and BBA extended this interest rate floor.

In 2019, the minimum required contribution under PPA, HATFA and BBA was $104.4 million before the application of funding balances, and SCE contributed an amount determined under its long-standing funding policy. This contribution of $53 million was less than the authorized amount of $57.7 million. Positive market performance and workforce reductions have helped constrain Pension costs.

Table XI-20 below shows a comparison of the Actuarial Value of Assets and Funding Liabilities on both the Minimum Funding and Funding Policy bases as of January 1, 2018 and January 1, 2019.

Table XI-20
SCE's Pension Assets and Obligations
($million)

Line No	Description	2018	2019	Change
1	Actuarial Value of Assets (January 1)	3,250	3,285	35
	Minimum Funding	3,183	3,177	(6)
	Funding Policy			
2	Funding Liability			
	Minimum Funding	2,880	2,991	111
	Funding Policy	3,555	3,570	15

Table XI-21 below summarizes the entries recorded in the PCBA during the Record Period.

Table XI-21
Operation of the PCBA
2019

Line No.	Description	($000)
1.	Beginning Balance	(51,522)
2.	2018 Ending Balance Transfer to the BRRBA	51,522
3.	2018 Authorized Revenue and Costs Adjustment 1/	42,115
4.	2018 Authorized Revenue and Costs Adjustment Transfer to BRRBA	(42,115)
5.	2019 Authorized Revenue Trueup Adjustment	14,909
6.	2019 Pensions Costs Trueup Adjustment 2/	(2,152)
7.	Adjustments Associated Interest	54
8.	Total Adjustments	64,333
9.	Adjusted Beginning Balance (Line 1 + Line 8)	12,811
10.	Authorized Pensions Funding	(17,233)
11.	Service Costs	58,435
12.	Non-Service Costs	(54,002)
13.	SONGS Service Costs	(552)
14.	Total Pensions Expenses (Sum Lines 11: Lines 13)	3,882
15.	(Over)/Under Collection (Line 10 + Line 14)	(13,351)
16.	Interest	(134)
17.	Ending Balance (Line 9 + Line 15 + Line 16)	(674)

1/ Adjustments pursuant to 2018 GRC D.19-05-020.
2/ Trueup due to Jursidictional and Capitalization Rates Updated for 2018 GRC D.19-05-020.

d) Significant Adjustments

SCE recorded the following adjustments in the PCBA during the Record Period. Pursuant to Preliminary Statement, Part OO, Pension Costs Balancing Account (PCBA), SCE is authorized to transfer the December 31 balance recorded in the PCBA each year to the BRRBA. As shown on Line 2 in Table XI-21, SCE recorded an adjustment of $51.522 million to reflect the PCBA December 31 balance transfer to BRRBA in January 2019.

Pursuant to D.19-05-020 and Advice Letter 4012-E authorizing SCE'S 2018 GRC, SCE recorded the following adjustments and transfers. SCE recorded an adjustment of $42.115 million to true-up 2018 recorded revenue requirement and expenses to 2018 authorized amounts, and to adjust for the newly adopted 2018 GRC capitalization and jurisdictionalization rates. This adjustment is shown on Line 3 in Table XI-21. SCE transferred the adjustment from PCBA to BRRBA, as shown on Line 4 in Table XI-21.

SCE also recorded an adjustment of $14.909 million to true-up the 2019 recorded revenue requirement for the first four months of the year to the 2019 authorized amount for that period as shown on Line 5 in Table XI-21. In addition, SCE recorded an adjustment of ($2.152) million expenses to true-up the 2019 recorded expenses related to capitalization and jurisdictional rates for the first four months of the year to the 2019 authorized amount for that period, as shown on Line 6 in Table XI-21. SCE also recorded adjustments associated interest of $0.054 million, as shown on Line 7 in Table XI-21.

e) Summary Description of Expenses

In 2019, SCE recorded the CPUC authorized revenue requirement and costs in the PCBA. The pension costs included in PCBA is comprised of service and non-service costs, with an offset for the SONGS service costs.

(1) Service Costs

Service costs is related to the amount of benefit obligation accumulated by active employees in the current year. SCE's actual service costs was $58.435 million, as shown on Line 11 in Table XI-21 above. These costs, before juridictionalization and capitalization70, was $109.851 million.

(2) Non-Service Costs

Non-Service Cost is the difference between the total rate recoverable cost for the current year and the service cost for the current year. Total rate recoverable cost takes into account both current year service cost and other current year accounting expense components related to

[70] CPUC jurisdictionalization and capitalization rates applied at 93.9% and 54.5%, respectively, as adopted in 2018 GRC D.19-05-020.

the funded status of the plan. Since SCE's pension benefits are relatively well-funded, these other expense components are generally, in aggregate, a negative amount (i.e., a credit against expense). As a result, rate recoverable cost can be lower than service cost alone, and non-service cost can be negative (i.e., a net gain).

SCE's 2019 non-service costs was ($54.002) million (i.e., a net gain), as shown on Line 12 in Table XI-21. This cost, before jurisdictionalization only, was ($57.460) million.

(3) <u>SONGS Service Costs</u>

SONGS pensions service cost related to current year service is removed from PCBA since the cost is recovered from the SONGS Nuclear Decommissioning Trust. SCE's actual SONGS 2019 service cost is ($0.552) million, as shown on Line 13 in Table XI-21. This cost, before jurisdictionalization and capitalization, was ($1.039) million.

Total pension costs of these three components calculated by SCE's pension actuary, Aon Consulting, for 2019 was $1.730 million ($51.352 million before jurisdictionalization and capitalization), which is the total of Line 6 and Line 14 in Table XI-21. Total pension costs of $1.730 million recorded in PCBA after jurisdictionalization and capitalization were significantly lower due to non-service costs not capitalized.

SCE 2019 pensions authorized revenue requirement was ($2.324) million (($57.719) million before jurisdictionalization and capitalization), which is the total of Line 5 and Line 10 in Table XI-21. Total pension authorized revenue requirement ($2.324) million recorded in PCBA after jurisdictionalization and capitalization was significantly reduced due to non-service costs not capitalized.

The resulting over-collected balance in the PCBA as of December 31, 2019 was ($0.674) million, as shown on Line 17 in Table XI-21.

f) <u>Summary Description of PBOP Expenses</u>

Table XI-22 below summarizes the entries recorded in the PBOP BA during the Record Period.

Table XI-22
Operation of the PBOP BA
2019

Line No.	Description	($000)
1.	Beginning Balance	(26,561)
2.	2018 Ending Balance Transfer to the BRRBA	26,561
3.	2018 Authorized Revenue and Costs Adjustment [1/]	37,449
4.	2018 Authorized Revenue and Costs Adjustment Transfer to BRRBA	(37,449)
5.	2019 Authorized Revenue Trueup Adjustment	12,409
6.	2019 PBOPs Costs Trueup Adjustment [2/]	(559)
7.	Adjustments Associated Interest	54
8.	Total Adjustments	38,465
9.	Adjusted Beginning Balance (Line 1 + Line 8)	11,904
10.	Authorized PBOP Funding	(1,862)
11.	Service Costs	15,697
12.	Non-Service Costs	(21,805)
13.	SONGS Service Costs	(271)
14.	Total PBOP Expenses (Sum Lines 11: Lines 13)	(6,380)
15.	(Over)/Under Collection (Line 10 + Line 14)	(8,242)
16.	Interest	116
17.	Ending Balance (Line 9 + Line 15 + Line 16)	3,778

1/ Adjustments pursuant to 2018 GRC D.19-05-020.
2/ Trueup due to Jursidictional and Capitalization Rates Updated for 2018 GRC D.19-05-020.

g) Significant Adjustments

SCE recorded the following adjustments in the PBOP BA during the Record Period. Pursuant to Preliminary Statement, Part PP, Post-Employment Benefits Other Than Pensions (PBOP) Costs Balancing Account, SCE is authorized to transfer the December 31 balance recorded in the PBOP BA each year to the BRRBA. As shown on Line 2 in Table XI-22 SCE recorded an adjustment of $26.561 million to reflect the PBOP BA December 31 balance transfer to BRRBA in January 2019.

Pursuant to D.19-05-020 and Advice Letter 4012-E authorizing SCE's 2018 GRC, SCE recorded the following adjustments and transfers. SCE recorded an adjustment of $37.449 million to trueup the 2018 recorded revenue requirement and expenses to 2018 authorized amounts, and to adjust for the newly adopted 2018 GRC capitalization and jurisdictionalization rates. This adjustment is shown on Line 3 in Table XI-22. SCE transferred the adjustment from PBOP BA to BRRBA, as shown on Line 4 in Table XI-22.

SCE further recorded an adjustment of $12.409 million to trueup the 2019 recorded revenue requirement for the first four months of the year to the 2019 authorized amount for that period, as shown on Line 5 in Table XI-22. In addition, SCE recorded an adjustment of ($0.559) million to trueup the 2019 recorded expenses related to capitalization and jurisdictional rates for the first four months of the year to the 2019 authorized amount for that period, as shown on Line 6 in Table XI-22. SCE also recorded adjustments associated interest of $0.054 million, as shown on Line 7 in Table XI-22.

h) Summary Description of Expenses

In 2019, SCE recorded the CPUC authorized revenue requirement and costs in the PBOP BA. The PBOP cost included in PBOP BA is comprised of service and non-service costs, with an offset for the SONGS service costs.

(1) Service Costs

Service costs is related to the amount of benefit obligation accumulated by active employees in the current year. SCE's actual service costs was $15.697 million, as shown on Line 11 in Table XI-22. This cost, before jurisdictionalization and capitalization[71], was $29.543 million.

(2) Non-Service Costs

Non-Service cost is the difference between the total rate recoverable cost for the current year and the service cost for the current year. Total rate recoverable cost takes into account both current year service cost and other current year accounting expense components related to

[71] CPUC jurisdictionalization and capitalization rates applied at 93.9% and 54.5%, respectively, as adopted in 2018 GRC D.19-05-020.

the funded status of the plan. Since SCE's PBOP benefits are relatively well-funded, these other expense components are generally, in aggregate, a negative amount (i.e., a credit against expense). As a result, rate recoverable cost can be lower than service cost alone, and non-service cost can be negative (i.e., a net gain). SCE's 2019 non-service cost was ($21.805) million (i.e., a net gain), as shown on Line 12 in Table XI-22. This cost, before jurisdictionalization only, was ($23.214) million.

(3) <u>SONGS Service Costs</u>

SONGS PBOPs service cost related to current year service is removed from PBOP BA since the cost is recovered from the SONGS Nuclear Decommissioning Trust. SCE's actual SONGS 2019 service cost is ($0.271) million, as shown on Line 13 in Table XI-22. This cost, before jurisdictionalization and capitalization, was ($0.506) million.

Total PBOP costs of these three components calculated by SCE's actuary, Aon Consulting, for 2019 was ($6.939) million ($5.823 million before jurisdictionalization and capitalization), which is the total of Line 6 and Line 14 in Table XI-22. While the total 2019 PBOP cost before jurisdictionalization and capitalization was positive, the cost after these adjustment as negative. This is because both of these adjustments reduce the (positive) service cost, but only the (relatively small) jurisdictionalization adjustment reduces the (large) negative non-service cost. SCE's 2019 PBOP authorized revenue requirement was $10.547 million (($4.069) million before jurisdictionalization and capitalization), which is the total of Line 5 and Line 10 in Table XI-22. The $10.547 million debit indicates a negative revenue requirement, since the revenue requirement negative non-service portion is reduced by the jurisdictionalization rate which is a relatively small reduction, and the capitalization reduction is no longer applicable to the negative non-service portion. Therefore, a significant portion of the negative non-service revenue requirement reduces the total 2019 authorized revenue requirement resulting in a negative revenue requirement. The resulting under-collected balance in the PBOP BA as of December 31, 2019 was $3.778 million, as shown on Line 17 above.

The annual amount recovered by SCE for PBOPs is the Net Periodic Postretirement Benefits Cost determined by the plan actuary, Aon, under ASC 715-60 (previously Statement of Financial Accounting Standards No. 106). The entire amount must be funded. That is, it must either (1) be used to pay for retiree benefits directly or (2) contributed to irrevocable benefit trusts. Aon determines this funding allocation annually based on various contribution limits. The entire 2018 PBOP recovery amount was used to pay direct benefits (for Pay As You Go retirees) either in 2018, or in 2017 (reflecting Pay As You Go retirees' direct benefits that were not used to fund 2017 PBOP recovery).

In the years prior to 2018, the annual amount recovered for PBOP cost was determined on an aggregate plan basis for all eligible represented and non-represented employees and retirees combined. PBOP cost recovery has been declining in recent years, due primarily to favorable claims experience, positive market performance, government expansion of Medicare prescription drug benefits, and a declining active member population. The amount recovered for PBOP in 2017 was $4.478 million ($2.536 million after jurisdictionalization and capitalization) and would have been zero in 2018 and 2019 if determined on an aggregate basis. The authorized amount for 2018 was $51.5 million (before jurisdictionalization and capitalization).

The aggregate approach to PBOP cost measurement used by the plan actuary in prior years did not take into account the relative funded status of the two (represented and non-represented) plan member groups. The PBOP liability for the represented group has, for many years, been substantially overfunded, and remained overfunded at 12/31/2019 by approximately $690 million. The liability for the non-represented group is substantially underfunded (by approximately $300 million at 12/31/2019).

Without additional contributions to the PBOP trusts set aside for non-represented employees and retirees, the group's funded status is projected to continue to deteriorate in the coming years. SCE is currently seeking ways to address this funding imbalance and improve the funded status of the non-represented plan member group. SCE is hopeful that the results of a recently completed IRS policy review will now provide a path forward to permanently address this funding imbalance problem.

In order to begin addressing this funding imbalance now, the plan actuary was asked to refine the 2019 PBOP cost calculations under 2019 ASC 715-60 by making separate cost determinations for the represented and non-represented member groups. These costs, before Jurisdictionalization and Capitalization, were ($29.719) million for the represented group, $6.329 million for the non-represented group, and ($23.390) million for the total plan population. There is no 2019 recovery for the represented member group, because the cost for that group was negative. The total amount recovered by SCE for PBOP was therefore solely the $6.329 million cost for the non-represented member group (before Jurisdictionalization and Capitalization).

The separate 2019 PBOP cost determinations for the represented and non-represented plan member groups will help limit future ratepayer costs for non-represented employees/retirees by continuing to currently fund their PBOP liabilities and will help ensure that the Company will be able to continue to meet its financial obligations to provide future non-represented retirees with the PBOP benefits for which they will be eligible.

3. Short Term Incentive Programs Memorandum Account (STIPMA)

a) Introduction

The purpose of this section is to: (1) provide the regulatory background associated with the STIPMA; (2) present the entries recorded in the STIPMA during the 2019 Record Period for Commission review; and (3) demonstrate that the entries recorded in the STIPMA are appropriate, correctly stated, and in compliance with prior Commission decisions.

b) Background

Pursuant to OP 21 of D.06-05-016, SCE filed Advice Letter 2003-E to establish the STIPMA[72], including the establishment of Preliminary Statement Part N.8. Pursuant to the preliminary statement, SCE will track the difference between the authorized and the actual amount of results sharing paid to employees.[73] The Short Term Incentive Program is SCE's annual short-term incentive plan (STIP) under which eligible employees, including represented employees, can earn pay

[72] This account was formerly known as the Results Sharing Memorandum Account (RSMA). It was renamed from the RSMA to the STIPMA in Advice Letter 4012-E. Advice Letter 4012-E/EA was approved by the Commission's Energy Division with an effective date of January 1, 2018.

[73] Advice Letter 2003-E was approved by the Commission's Energy Division with an effective date of May 22, 2006.

based on their job performance and SCE's performance on pre-established goals. It is an important component of SCE's overall compensation package that, combined with other forms of compensation, is designed to provide employee compensation amounts at market rates. Each year the results sharing award increases or decreases based on overall SCE business results. If actual results sharing payouts are less than the amount authorized for the year, the over-collected amount is refunded to customers. Since the STIPMA is a one-way account, SCE is not authorized to recover under-collections.

In D.15-11-021, the Commission approved the continued use of the STIPMA to track the difference between the results sharing amounts included in the GRC-authorized revenue requirements. On November 17, 2016, SCE filed Advice Letter 3514-E which included the implementation of the STIPMA 2017 GRC-authorized revenue requirements.[74]

In May 2019, D.19-05-020, SCE's 2018 GRC (A.16-09-001), was approved by the Commission. As such, the 2019 STIPMA reflects amounts based on SCE's 2018 GRC-authorized revenue requirements for the year 2019. This amount was trued up for 2018 and 2019 authorized levels pursuant to D.19-05-020.

In this ERRA Review proceeding, SCE is presenting the operation of the STIPMA for the 2019 Record Period.

c) Operation of the STIPMA

Table XI-23 summarizes the entries recorded in the STIPMA during the Record Period.

[74] Advice Letter 3514-E was approved by the Commission's Energy Division with an effective date of January 1, 2017.

Table XI-23
Operation of the STIPMA
2019

Line No.	Description	($000)
1.	Beginning Balance	(20,932)
2.	2017 Result Sharing True Up Transfer to the BRRBA	20,932
3.	Adjusted Beginning Balance (Sum Lines 1 - 2)	-
4.	2018 GRC Transfer and 2019 Authorized Revenue True-up	11,109
5.	Authorized Results Sharing Amount	(54,949)
6.	Results Sharing Accrual	44,007
7.	(Over)/Under Collection (Line 3 + Line 4 + Line 5 + Line 6)	166
8.	Interest	(10)
9.	End of Period Adjustment	(156)
10.	Ending Balance (Line 7 + Line 8 + Line 9)	0

The ending balance remaining in the STIPMA as of December 31, 2019, was $0, as shown on Line 10 in Table XI-23.

D. <u>Review of Other Miscellaneous Account Balances</u>

1. <u>Statewide Marketing, Education & Outreach Balancing Account (SME&OBA)</u>

a) <u>Introduction</u>

The purpose of this section is to: (1) provide the regulatory background associated with the SME&OBA; (2) present the operation of the SME&OBA during the 2019 Record Period; and (3) request a Commission finding that the entries recorded in the SME&OBA are appropriate, correctly stated, and in compliance with Commission decisions.

b) Background

In May 2012, in D.12-05-015, the Commission provided guidance on policies and programs for EE in the 2013 – 2014 portfolio cycle and requested the filing of applications for Statewide Marketing, Education & Outreach (SME&O) activities for demand-side programs. Applications were filed by PG&E, SCE, and SDG&E on August 3, 2012, requesting Commission approval of their respective Statewide ME&O activities for program years 2013 – 2014, in addition to the proposed ratemaking treatment of the related costs.[75]

On January 18, 2013, the Scoping Memo and Ruling of Assigned Commissioner and Administrative Law Judge divided the proceeding into two phases: Phase 1 related to the budgets for the Flex Alert program for 2013 – 2014; and Phase 2 related to all other aspects of the Statewide ME&O activities and budgets for 2013 – 2014.[76]

On April 18, 2013, the Commission issued D.13-04-021 (Phase 1 Decision) establishing annual utility budgets for the Flex Alert program for 2013 and 2014. The Phase 1 Decision set SCE's annual 2013 and 2014 annual Flex Alert budget at $6 million per year and established the utility cost recovery mechanisms for Statewide ME&O program costs, including Flex Alert expenses. Specifically for SCE, the Phase 1 Decision:

1. Authorized SCE to include the approved Statewide ME&O 2013 and 2014 funding in the Public Purpose Programs Adjustment Mechanism (PPPAM) to be collected in rate levels through the Public Purpose Programs Charge (PPPC);
2. Authorized SCE to establish a one-way SME&OBA to record the difference between the authorized Statewide ME&O funding and the actual recorded Statewide ME&O costs in EE and Demand Response (DR) subaccounts; and

[75] An Administrative Law Judge Ruling on November 8, 2012 consolidated A.12-08-007, A.12-08-008, A.12-08-009, and A.12-08-010.

[76] Scoping Memo and Ruling of Assigned Commissioner and Administrative Law Judge filed on January 18, 2013 in A.12-08-007.

3. Limited reasonableness review of the SME&OBA to a review ensuring that all recorded costs are consistent with the scope of authorized activities and within the total cost estimate level as defined and adopted by the Commission.

SCE filed Advice Letter 2896-E on May 6, 2013, to establish the SME&OBA and to reflect the rate recovery of the Flex Alert funding through the PPPC.[77]

On December 19, 2013, the Commission issued D.13-12-038 (Phase 2 Decision) which addressed all other aspects (other than Flex Alert) of the utilities' Statewide ME&O activities and budgets for 2014 – 2015.[78] The Phase 2 Decision set forth 2014 and 2015 Statewide ME&O funding for SCE of $6.1 million associated with EE activities and $1.6 million associated with DR activities, or $7.7 million each year for 2014 and 2015. In SCE's consolidated January 1, 2014 revenue requirement and rate change Advice Letter 2978-E-A,[79] SCE modified Preliminary Statement Part CC, SME&OBA, to reflect the cost categories and funding amount by year adopted in the Phase 2 Decision.

The Phase 2 Decision, in OP 16, also ordered updated showings from the utilities and the California Center for Sustainable Energy[80] on the total spent on transition activities (the EE Guidance Decision),[81] and website maintenance from January 2013 to December 2013.[82] These total expenditures are to be subtracted from the budgets proposed by the utilities in their 2012 SME&O applications with the revised total to be the amount authorized for 2014-2015 SME&O activities. By letter dated January 10, 2014 to Edward Randolph, Director of the Energy Division, the utilities and the California Center for Sustainable Energy provided revised authorized budgets for the 2014 - 2015

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[77] Advice Letter 2896-E was approved by the Commission's Energy Division with an effective date of May 6, 2013.

[78] D.13-12-038 at p. 67 (changing the cycle for implementing the Statewide ME&O program from 2013 – 2014 to 2014 – 2015).

[79] Advice Letter 2978-E-A was approved by the Commission's Energy Division with an effective of January 1, 2014.

[80] Subsequently renamed the Center for Sustainable Energy (CSE).

[81] D.12-05-015, OP 118.

[82] Assigned Commissioner's Ruling Authorizing Interim Support for Statewide Marketing and Outreach Web Portals, December 18, 2012.

Statewide ME&O program. SCE reduced its EE-related SME&O funding amount of $6.1 million by $1.4 million ((associated with 2012 and 2013 brand transition activities and 2013 maintenance for Engage 360 and Energy Upgrade California (EUC) web portals)) for a revised 2014 and 2015 SME&O EE-related authorized amount of $5.4 million per year.

On July 2, 2014, SCE filed Advice Letter 3070-E to modify Preliminary Statement Part CC, SME&OBA, to reflect the 2014 – 2015 authorized funding reduced by amounts spent in 2012 and 2013 for statewide marketing transition activities and website maintenance.[83] In addition, in Advice Letter 3070-E, SCE informed the Commission that it will use the unspent uncommitted 2010 – 2012 statewide EE marketing funds that have already been collected in rates and the unspent uncommitted 2009 – 2011 DR funds that have already been collected in rates to fund the 2014 – 2015 Statewide ME&O activities authorized in D.13-12-038 (exclusive of Flex Alert funding).[84]

In D.14-12-026, the Commission authorized the continuation of Flex Alert funding at $6 million for 2015. On December 24, 2014, SCE filed Advice Letter 3155-E to include the $6 million in January 1, 2015 consolidated rate levels and to also modify Preliminary Statement Part CC, SME&OBA, to reflect the 2015 authorized Flex Alert funding level.[85]

On December 15, 2016, SCE filed Advice Letter 3508-E-A replacing, in its entirety, SCE's Advice Letter 3508-E filed on November 15, 2016.[86] In Advice Letter 3508-E, SCE inadvertently excluded the 3% allocated for IOU administrative expenses authorized in D.16-09-020. Accordingly, SCE submitted, in Advice Letter 3508-E-A, its revised Statewide ME&O Budget for the continued collection of Statewide ME&O funding from customers for the period of October 1, 2016

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83 Advice Letter 3070-E was approved by the Energy Division with an effective date of July 2, 2014.

84 D.13-12-038, p. 82, gave the utilities the option of returning remaining 2010 - 2012 unspent marketing funds to customers "either by reducing EE balancing accounts, or by using funds that have already been collected to fund new SW ME&O activities for 2013-2014," and the additional budget that the Energy Savings Assistance (ESA) Program provides through D.12-08-044.

85 Advice Letter 3155-E was approved by the Energy Division with an effective date of January 1, 2015.

86 Advice Letter 3508-E-A was approved by the Commission's Energy Division with an effective date of December 15, 2016.

through September 30, 2017. SCE's Statewide ME&O budget of $6.948 million for that period is 32.68% of the total IOU Statewide ME&O budget plus an additional 3% for IOU administrative expenses, which is consistent with the Commission's direction in D.16-09-020.[87] SCE's budget includes $1.444 million for demand response (DR) activities and $5.504 million for EE activities, for a total of $6.948 million. Effective October 1, 2016, SCE included $6.948 million of Statewide ME&O funding in the PPPAM.

On October 16, 2017, SCE filed Advice Letter 3677-E to submit SCE's Statewide ME&O Budget for the continued collection of Statewide ME&O funding from customers for the period of October 1, 2017 through September 30, 2018.[88] Effective October 1, 2017, SCE included $8,653 million of Statewide ME&O funding in the PPPAM to be collected through the Public Purpose Programs Charge (PPPC), as directed in D.16-09-020. SCE's budget includes $1.798 million for DR activities and $6.855 million for EE activities, for a total of $8.653 million.

On September 28, 2018, SCE filed Advice Letter 3869-E to submit SCE's Statewide ME&O Budget for the continued collection of Statewide ME&O funding from customers for the period of October 1, 2018 through September 30, 2019.[89] Effective October 1, 2018, SCE included $8.653 million of Statewide ME&O funding in the PPPAM to be collected through the PPPC, as directed in D.16-09-020. SCE's budget includes $1.798 million for DR activities and $6.854 million for EE activates, for a total of $8.653 million.

On October 3, 2019, SCE filed Advice Letter 4082-E to submit SCE's Statewide ME&O Budget for the continued collection of Statewide ME&O funding from customers for the period of October 1, 2019 through December 31, 2019. On February 4, 2019, SCE requested the withdrawal of Advice Letter 4082-E.

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[87] D.16-09-020, pp. 72-73, OP 5 & 6.

[88] Advice Letter 3677-E was approved by the Commission's Energy Division with an effective date of October 16, 2017.

[89] Advice Letter 3869-E was approved by the Commission's Energy Division with an effective date of September 28, 2018.

On February 4, 2020, SCE filed Advice Letter 4156-E[90] to submit SCE's Statewide ME&O Budget for the continued collection of Statewide ME&O funding from customers for the period of October 1, 2019 through December 31, 2019. Effective October 1, 2019, SCE included $1.996 million of Statewide ME&O funding in the PPPAM. SCE's budget includes $0.415 million for DR activities and $1.581 million for EE activates, for a total of $1.996 million.

c) Operation of the SME&OBA

The purpose of the SME&OBA is to record the difference between the Commission-authorized Statewide ME&O funding and the actual recorded Statewide ME&O costs. The Statewide ME&O recorded costs are to be tracked separately in EE and DR sub-accounts in the SME&OBA. Pursuant to D.13-04-021, the SME&OBA is a one-way balancing account. Therefore, any unspent portion of the authorized Statewide ME&O funding level as of December 31, 2019 can be carried over in the SME&OBA into 2020. Any Statewide ME&O costs recorded as of December 31, 2019 in excess of the authorized Statewide ME&O funding level is carried forward in the SME&OBA into 2020. SCE cannot seek rate recovery of any over-expenditure of the authorized Statewide ME&O funding levels remaining in the SME&OBA at the end of 2019.

During the 2019 Record Period, SCE recorded expenses of $1.764 million in the DR sub-account of the SME&OBA, as shown on Line 10 of Table XI-24. Also, SCE recorded expenses of $6.738 million in the EE sub-account of the SME&OBA, as shown on Line 11 of Table XI-24 below. Total recorded expenses for the 2019 Record Period were $8.501 million, as shown on Line 12 of Table XI-24 below. The difference between the authorized SME&O revenue requirement and the recorded expenses over the 2019 Record Period resulted in a December 31, 2019 over-collected ending balance of $2.348 million, including interest. Consistent with the one-way nature of the SME&OBA, and as stated in Preliminary Statement Part CC, any unspent portion of the authorized State-wide ME&O funding level as of December 31, 2019 can be carried over in the SME&OBA into 2020. Table XI-24 summarizes the recorded operation of the SME&OBA during the Record Period.

[90] Advice Letter 4156-E was approved by the Commission's Energy Division with an effective date of February 4, 2020.

d) SME&OBA Recorded Expenses

The expenditures presented here were incurred to administer and operate the Statewide ME&O program in 2019. Statewide ME&O activities include the management and operation of SCE's portion of activities provided by the DDB Worldwide Communications Group, Inc., the third party designated as the statewide administrator and implementer for the Statewide ME&O program.

For the 2019 Record Period, the $1.764 million debit in the DR sub account is comprised of $1.747 million incurred for expenses associated with Statewide ME&O activities, $4,639 incurred for labor related to Measurement, Evaluation, and Verification activities to determine the effectiveness of SCE's DR program, and $11,737 for program management labor and related expenses.

For the 2019 Record Period, the $6.738 million debit in the EE sub account is comprised of $6.665 million in expenses that were incurred by DDB Worldwide Communications Group, Inc. for strategic development, market research, media and other outreach campaigns and administration of Energy Upgrade California (EUC), $21,555 for labor related to Measurement, Evaluation, and Verification activities to determine the effectiveness of SCE's EE program, and $50,836 for program management labor and related expenses.

Table XI-24
Operation of the SME&OBA
2019

Line No.	Description	($000)
1.	Beginning Balance	(2,363)
2.	Annual Interest	(46)
3.	Transfer Interest to PPPAM	46
4.	Adjusted Beginning Balance (Sum of Line 1 - Line 3)	(2,363)
5.	Authorized Revenue: 1/	
6.	Demand Response Sub-account	(1,764)
7.	Energy Efficiency Sub-account	(6,723)
8.	Total (Line 6 + Line 7)	(8,487)
9.	Recorded Expenses:	
10.	Demand Response	1,764
11.	Energy Efficiency	6,738
12.	Total (Line 10 + Line 11)	8,501
13.	(Over)/Under Collection (Line 8 + Line 12)	15
14.	Ending Balance (Line 4 + Line 13)	(2,348)

1/ Pursuant to D.13-04-021; AL 2896-E; D.13-12-038; AL 3070-E; D.16-09-020; AL 3508-E-A; AL 3677-E; AL 3869-E & D.19-01-005; AL 4082-E.

2. <u>Energy Settlement Memorandum Account (ESMA) and the Litigation Costs Tracking Account (LCTA)</u>

a) <u>Introduction</u>

The purpose of this section is to: (1) provide the regulatory background associated with the ESMA and the LCTA; (2) present the operation of the ESMA and LCTA during the 2019 Record Period; and (3) request a Commission finding that the entries recorded in the ESMA and the LCTA are appropriate, correctly stated, and in compliance with Commission decisions. Pursuant to Settlement Agreement adopted in D.15-10-037, recovery of the LCTA balance will no longer be included in the ERRA Review cost recovery request, and is now included in the ERRA Forecast revenue requirement request, similar to ESMA rate recovery.

b) ESMA and LCTA Overview

(1) Background

The need for the ESMA and LCTA arose from the California Energy Crisis of 2000-2001. SCE provided substantial historical information regarding the origin of the crisis and the events that gave rise to the ESMA and LCTA in its prepared testimony in A.05-04-004.[91] That discussion includes a description of SCE's efforts to secure refunds from suppliers who had overcharged SCE and other California utilities for power purchases in the wholesale markets regulated by the FERC. These refunds have been mostly obtained through extensive settlement discussions to resolve refund claims filed by SCE and other California parties at FERC against certain suppliers, as well as through civil lawsuits against other suppliers. All refunds (as discussed below) received to date by SCE under the settlement agreements have been recorded in the ESMA.

(2) October 2001 Settlement Agreement and Advice Letter 1811-E

On October 2, 2001, SCE and the Commission entered into a settlement agreement (Settlement Agreement) resolving SCE's filed rate doctrine lawsuit. Article 3 of the Settlement Agreement provides for Energy Crisis-era net refunds to be returned to SCE's customers. FERC settlements have been pursued over the years following the Settlement Agreement, as described in SCE's testimony in Exhibit SCE-2 in A.05-04-004.

On July 23, 2004, SCE filed Advice Letter 1811-E requesting authority to establish the ESMA to record:

- Refunds received from energy settlement agreements;
- Actual litigation costs and professional fees;
- Amounts SCE pays to other market participants; and
- 10% of net refunds for SCE's shareholders.

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[91] SCE's April 2005 ERRA Review proceeding, Exhibit SCE-2, pp. 68-71.

(3) Resolution E-3894 and Subsequent Commission Approvals

On November 19, 2004, the Commission issued Resolution E-3894 (Resolution) in response to SCE's Advice Letter 1811-E. In the Resolution, the Commission:

- Adopted SCE's proposal to establish the ESMA to record energy supplier refunds;
- Authorized SCE to recover its actual litigation costs and professional fees associated with the energy supplier settlement agreements;
- Authorized SCE to recover amounts paid to other market participants; and
- Authorized SCE to retain 10% of net refunds for its shareholders.

In compliance with the Resolution, SCE filed Advice Letter 1811-E-A on November 29, 2004 establishing the ESMA and LCTA.[92] The Commission has since approved the operation of the ESMA and LCTA from the 2004 through 2016 ERRA Record Periods in the respective Commission decisions. The 2017 ERRA Record Period is currently being reviewed by the Commission.

(4) SCE's Offer to Forego the Shareholder Incentive

As described in detail in SCE's April 2, 2012 ERRA Application, SCE offered to forego the 10% shareholder incentive for refunds received from FERC non-jurisdictional (*i.e.*, municipal) suppliers and the 10% shareholder incentive for refunds from all suppliers related to what is known as the "Summer Period" of the Energy Crisis for "new" settlements. That offer was prompted by a request from former CPUC General Counsel Frank Lindh, and was predicated on SCE recovering 100% of the balance recorded in the LCTA; *i.e.*, customers will fund 100% of the litigation costs recorded in this account. Beginning in 2012, ongoing litigation costs have predominantly been related to efforts in achieving refunds from municipal suppliers and from all suppliers for the Summer Period (because the Refund Period refunds have largely already been "won" at FERC) and from the two

[92] Advice Letter 1811-E-A was approved by the Energy Division with an effective date of November 29, 2004.

remaining suppliers of the long-term contracts entered into by California Energy Resource Scheduling Division of the California Department of Water Resources that have not settled. Thus, starting with the 2014 Record Period, 100% of litigation costs have been paid by SCE's customers. Previously, customers paid 90% of the litigation costs recorded in this account. Since SCE's shareholders no longer receive 10% of these recoveries, SCE's shareholders no longer pay 10% of the litigation costs incurred to obtain them. SCE has determined that it does not need to amend its tariffs to effectuate this change, SCE's proposal was uncontested, and the Commission has approved SCE's 2012 through 2016 Record Period ERRA Review proceedings that incorporate this change.

c) Operation of the ESMA

Table XI-25 below summarizes the ESMA activity during the Record Period.

Table XI-25
Operation of the ESMA
2019

Line No.	Description	($000)
1.	Beginning Balance	(29,661)
2.	Commission authorized transfer to ERRA (January 2019)	29,661
3.	Adjusted Beginning Balance	-
4.	Energy Supplier Refunds Received	-
5.	Shareholder Incentive Amount	-
6.	Refund to Customers (Line 4 + Line 5)	-
7.	Interest	-
8.	Ending Balance (Line 3 + Line 6 + Line 7)	-

SCE transferred the December 31, 2018 ESMA credit balance of $29.661 million to the ERRA BA in January 2019.

d) Operation of the LCTA

Table XI-26 below summarizes the LCTA Record Period activity to arrive at the December 31, 2019 under-collected balance of $1.742 million. The reasonableness of litigation costs recorded in the LCTA during the Record Period is discussed below.

Table XI-26
Operation of the LCTA
2019

Line No.	Description	($000)
1.	Beginning Balance	2,043
2.	Adjustment - D.15-10-037 Authorized Transfer (January 2019)	(2,043)
3.	Adjusted Beginning Balance	-
4.	Litigation Costs	1,726
5.	Interest	16
6.	Ending Balance	1,742

Pursuant to D.15-10-037, SCE transferred the December 31, 2018 LCTA ending balance (2018 costs) of $2.024 million, plus interest of $0.019 million, to the ERRA BA in January 2019. The ending balance includes current 2019 litigation costs of $1.726 million, including interest, for a total of $1.742 million.

3. Charge Ready Program Balancing Account (CRPBA)

a) Introduction

The purpose of this section is to: (1) provide the regulatory background associated with the CRPBA; (2) present the operation of the CRPBA during the 2019 Record Period; and (3) request a Commission finding that the entries recorded in the CRPBA are appropriate, correctly stated, and in compliance with Commission decisions.

b) Background

On October 30, 2014, SCE filed A.14-10-014 with the CPUC seeking approval of its Charge Ready Program and Market Education Programs. In the application, SCE proposed direct capital and O&M expenditures for the Phase 1 pilot. SCE's cost estimates included capital cost components, such as utility distribution infrastructure-related costs, customer participant site infrastructure-related costs, charging station rebate costs, and other capitalized costs. SCE's cost estimates also included operations and maintenance (O&M) cost components, such as labor, Charge Ready Program-specific education and outreach, and other non-labor O&M.

In D.16-01-023, the Commission authorized SCE to "…establish the CRPBA, using the standard commercial paper interest rate, for the purposes of recording and recovering no more than $22 million."[93] [94] The Decision furthers states, "revenue requirement recorded in the CRPBA shall be transferred to the BRBBA [sic], which will then be reviewed in SCE's annual ERRA proceeding to ensure that all entries are correctly stated and attributed to the Charge Ready and Marketing Education Programs as adopted in this decision."[95] On February 11, 2016, SCE filed Advice Letter 3362-E[96] establishing the Charge Ready Program balancing Account (CRPBA).

On November 7, 2016, SCE submitted Advice Letter 3502-E to implement the 2017 Charge Ready Program Phase 1 revenue requirement in rate levels on January 1, 2017, in accordance with D.16-01-023.[97]

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[93] D.16-01-023, p. 27.

[94] On December 13, 2018, the Commission approved D.18-12-006 granting SCE's Petition for Modification of D.16-01-023. SCE is authorized an additional $22 million (2014$) in funding for Phase 1 of its light-duty vehicle infrastructure pilot and complementary market education programs. The additional spend is expected be incurred in 2019.

[95] *Id.*

[96] Advice Letter 3362-E was approved by the Commission's Energy Division with an effective date of February 11, 2016.

[97] Advice Letter 3502-E was approved by the Energy Division with an effective date of December 23, 2016.

On November 30, 2017, SCE submitted Advice Letter 3709-E to implement the 2018 Charge Ready Program Phase 1 revenue requirement in rate levels on January 1, 2018 in accordance with D.16-01-023.

On November 16, 2018, SCE submitted Advice Letter 3899-E to implement the 2019 Charge Ready Program Phase 1 revenue requirement in rate levels on January 1, 2019 in accordance with D.16-01-023.

c) Operation of the CRPBA

The purpose of the CRPBA is to record the actual incremental O&M expense and capital-related revenue requirements associated with Phase 1 and Bridge Funding of the Charge Ready Program and Market Education Program. Pursuant to D.16-01-023 and D.18-12-006, separate sub-accounts are established in the CRPBA to ensure that SCE will only recover a Phase 1 revenue requirement associated with up to $22 million ($2014) and a Bridge Funding revenue requirement associated with up to $22 million ($2014) in direct capital expenditures and O&M in the CRPBA.

Pursuant to D.19-11-017, SCE is authorized to record the actual incremental O&M expense and capital-related revenue requirements associated with the Charge Ready Schools Pilot up to $9.89 million ($2018, direct costs) and the Charge Ready Parks Pilot programs up to $9.89 million ($2018, direct costs) for a total of no more than $19.77 million ($2018, direct costs), plus CPUC evaluation related expenses capped at 4 percent of the authorized amount.

Table XI-27 below summarizes the entries recorded in the CRPBA during the Record Period.

Table XI-27
Operation of the CRPBA
2019

Line No.	Description	($000)
1.	Beginning Balance	-
2.	Incremental Costs	
3.	Phase I Deployment	
4.	Labor	164
5.	Non-Labor	90
6.	Expenses	1,068
7.	Total Phase I Deployment	1,323
8.	Total Labor Loaders	24
9.	Total Capital-Related Revenue Requirement	2,007
10.	Total Expenses (Line 7 + Line 8 + Line 9)	3,353
11.	(Over)/Under Collection (Line 1 + Line 10)	3,353
12.	Transfer to BRRBA-Distribution	(3,353)
13.	Ending Balance (Line 11 + Line 12)	-

d) CRPBA Recorded Expenses

SCE's 2019 expenditures included capital cost components, such as utility distribution infrastructure-related costs, customer participant site infrastructure-related costs, and other capitalized costs. SCE's 2019 expenditures also included O&M cost components, such as labor, Charge Ready Program-specific education and outreach, rebates, and other non-labor O&M. Table XI-28 below shows CRPBA 2019 expenditures.

Table XI-28
2019 CRPBA (Pilot and Bridge) Expenditures
(Nominal $)

Line No.		$000	$000	$000
	Categories	**Charge Ready Pilot**	**Charge Ready Bridge**	**Total**
1	**Capital**			
2	Utility Side Infrastructure Costs	661	243	903
3	Customer Side Infrastructure Costs	1,531	2,054	3,585
4	Easement	3	26	29
5	Station Testing 1/	-	-	-
6	Business Customer Division Labor 1/	-	-	-
7	Program Management Office Labor 1/	-	-	-
8	***Total Capital (Line 2 to Line 7)***	2,194	2,323	4,518
9	**Operations & Maintenance**			
10	Rebate	87	-	87
11	Business Customer Division Labor	(13)	112	99
12	Transportation Electrification Advisory Services	37	-	37
13	PMO Labor & Non-Labor	122	343	465
14	Charge Ready ME&O	201	69	270
15	EV Awareness	289	75	364
16	Other O&M	-	-	-
17	***Total Operations and Maintenance (Line 10 to Line 16)***	724	599	1,323
18	**Total 2019 CRPBA Expenditures *(Line* 8 + Line 17)**	**2,918**	**2,922**	**5,840**

1/ From 2019 Station Testing cost, Business Customer Division Labor and Program Management office labor allocated across all Capital work orders

Table XI-29 below shows the cumulative CRPBA expenditures in nominal $.

Table XI-29
Cumulative CRPBA (Pilot and Bridge) Expenditures
(Nominal $)

Line No.	Categories	$000 Charge Ready Pilot	$000 Charge Ready Bridge	$000 Total
1	**Capital**			
2	Utility Side Infrastructure Costs	2,834	243	3,076
3	Customer Side Infrastructure Costs	13,137	2,054	15,191
4	Easement	80	26	106
5	Station Testing 1/	-	-	-
6	Business Customer Division Labor 1/	-	-	-
7	Program Management Office Labor 1/	-	-	-
8	***Total Capital (Line 2 to Line 7)***	16,051	2,323	18,374
9	**Operations & Maintenance**			
10	Rebate	1,188	-	1,188
11	Business Customer Division Labor	38	112	150
12	Transportation Electrification Advisory Services	350	-	350
13	PMO Labor & Non-Labor	552	343	895
14	Charge Ready ME&O	788	69	857
15	EV Awareness	2,418	75	2,493
16	Other O&M	852	-	852
17	***Total Operations and Maintenance (Line 10 to Line 16)***	6,186	599	6,785
18	**Total 2019 CRPBA Expenditures *(Line 8 + Line 17)* 2/**	**22,237**	**2,922**	**25,159**

1/ From 2019 Station Testing cost, Business Customer Division Labor and Program Management office labor allocated across all Capital work orders

2/ 2/ 2014 $ de-escalated Cumulative Charge Ready Pilot expenditures are $20.6M and Charge Ready Bridge $2.5M respectively

e) Conclusion

SCE requests the Commission find that all entries are correctly stated and attributed to the Charge Ready and Marketing Education Programs.

4. Green Tariff Marketing, Education, & Outreach Memorandum Account (GTME&OMA) and Enhanced Community Renewables Marketing, Education, and Outreach Memorandum Account (ECRME&OMA)

a) Introduction

The purpose of this section is to: (1) provide the regulatory background associated with the GTME&OMA and ECRME&OMA; (2) present the operation of the GTME&OMA and ECRME&OMA during the 2019 Record Period; and (3) request a Commission finding that the entries recorded in the GTME&OMA and ECRME&OMA are appropriate, correctly stated, and in compliance with Commission decisions.

b) Background

On January 29, 2015, the Commission approved D.15-01-051, Decision Approving Green Tariff Shared Renewables Program For San Diego Gas & Electric Company, Pacific Gas and Electric Company, and Southern California Edison Company Pursuant to Senate Bill (SB) 43. D.15-01-051 implemented SB 43 by adopting program requirements for the investor-owned utilities' (IOUs) Green Tariff Shared Renewables (GTSR) programs. The decision states that the "GTSR Program is intended to (1) expand access 'to all eligible renewable energy resources to all ratepayers who are currently unable to access the benefits of onsite generation,' and (2) 'create a mechanism whereby institutional customers … commercial customers and groups of individuals … can meet their needs with electrical generation from eligible renewable energy resources.'"[98] Furthermore, "the GTSR Program should 'provide support for enhanced community renewables programs to facilitate development of eligible renewable resource projects located close to the source of demand.'"[99] This decision finds that, based on these provisions, the GTSR program will consist of a green tariff option (Green Tariff) (allowing customers to purchase energy with a greater share of renewables) and an enhanced community renewables (ECR) option (allowing customers to purchase renewable energy from community-based projects). Both GTSR Program components are to be administered by the IOUs.

After review of the IOU cost recovery proposals and the record, the Commission determined that for each IOU a balancing account is necessary to track the costs and revenues of the GTSR program. In addition, a memorandum account is necessary to track the program administrative and marketing costs. Because the marketing for the ECR option will be handled by both the IOU and the developer, the Commission concluded that marketing costs for ECR customers should be tracked separately and ECR customers should pay the ECR-specific marketing costs. In Advice Letter 3189-

[98] D.15-01-051, p. 3.

[99] *Ibid.*

E,[100] SCE established administrative and marketing memorandum accounts to prepare for the timely implementation of the GTSR program, without precluding cost recovery at a future date.[101] The initial up-front and on-going incremental administrative and ME&O costs incurred and associated with the GTSR program will be recorded in these memorandum accounts.[102] Since administrative costs are shared by both the Green Tariff and ECR options, a single memorandum account will be set up for administrative costs. However, since marketing for the ECR option will be handled by both the IOU and the developer, separate ME&O memorandum accounts will be set up for the Green Tariff and ECR options, consistent with D.15-01-051.[103]

In compliance with D.15-01-051, on December 22, 2017, SCE submitted Advice Letter 3722-E requesting to terminate SCE's Green Tariff Shared Renewables Program. As stated in D.15-01-051, if the program is terminated, SCE must use an application to seek recovery of outstanding costs. In that advice filing, SCE explained that it would seek Commission approval in 2018 for new programs to replace its GTSR Program. On September 26, 2018, SCE filed Application (A.)18-09-015 seeking Commission approval of five new Green Energy Programs. SCE explained in its application that the proposed Green Energy Programs will replace the existing GTSR programs.

On September 13, 2016, Governor Brown signed SB 840 into law. SB 840 repeals the provision in PU Code § 2834 that terminates the GTSR Program as of January 1, 2019. Accordingly, the GTSR Program statutory termination date no longer applies by operation of law. However, as of November 2018, SCE's GTSR-GR and GTSR-CR tariffs both included a date of January 1, 2019 for the programs to close to new customers. Because A.18-09-015 had not been approved by

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[100] Advice Letter 3189-E was approved by the Commission's Energy Division with an effective date of April 9, 2015.

[101] As stated in D.15-01-051, p. 173, Finding of Fact 146, "A memorandum account will allow the IOU to track administrative and marketing costs, and provide an opportunity for review before these amounts are approved by the Commission."

[102] Once the GTSR program has active customer participants, these memorandum accounts will also track recorded revenues associated with administrative and ME&O charges.

[103] D.15-01-051, p. 115, states "marketing costs for ECR customers should be tracked separately and ECR customers should pay the ECR-specific marketing costs."

January 1, 2019, and because the then current tariffs would require SCE to close the GTSR Program to new customers beginning January 1, 2019, SCE submitted Advice Letter 3898-E proposing to remove the termination date of the GTSR. Advice Letter 3898-E was approved by Energy Division on January 24, 2019 with an effective date of November 20, 2018.

In Decision 19-05-031 (issued June 3, 2019), the Commission dismissed SCE's Application 18-09-015 for approval to replace its existing GTSR Program. The Commission found that "[t]erminating SCE's existing GTSR Program before it reaches the allocated 269 MW program cap would violate Section 2833(d)."[104]

In Resolution E-5028 (dated September 26, 2019), the Commission denied SCE's Advice Letter 3722-E thus extending indefinitely SCE's GTSR Program and rejecting SCE's request to recover GTSR Program costs through ERRA proceedings.

c) Operation of the GTME&OMA and ECRME&OMA

The GTSR program consists of both a Green Tariff option and an ECR option. ME&O costs are tracked separately for the Green Tariff and ECR options. The purpose of the GTME&OMA and ECRME&OMA is to record the difference between the revenues collected through the Green Tariff and ECR ME&O Charges and initial and on-going incremental ME&O costs incurred in order to implement the Commission-adopted GTSR and ECR Programs, pursuant to D.15-01-051.

Table XI-30 below summarizes the entries recorded in the GTME&OMA during the Record Period. Table XI-31 below summarizes the entries recorded in the ECRME&OMA during the Record Period.

[104] D.19-05-031, p. 14 (Conclusion of Law #5).

Table XI-30
Operation of the GTME&OMA
2019

Line No.	Description	$000
1.	Beginning Balance	346
2.	Billed Revenue	(36)
3.	Expenses	2
4.	Under/(Over) Collection (Line 2 + Line 3)	(34)
5.	Interest	8
6.	Ending Balance (Line 1 + Line 4 + Line 5)	319

Table XI-31
Operation of the ECRME&OMA
2019

Line No.	Description	$000
1.	Beginning Balance	26
2.	Billed Revenue	-
3.	Expenses	-
4.	Under/(Over) Collection (Line 2 + Line 3)	-
5.	Interest	1
6.	Ending Balance (Line 1 + Line 4 + Line 5)	26

d) GTME&OMA and ECRME&OMA Recorded Expenses

The GTSR program is comprised of two renewable energy programs: Community Renewables and the Green Rate program.

From January 1, 2019 to December 31, 2019, SCE enrolled a total of 368 customers in the Green Rate program, of which 330 were residential and 38 were non-residential customers. During this period, six accounts changed subscription rate levels. Of those six accounts, four increased subscription rates from 50 percent to 100 percent and two decreased from 100 percent to 50 percent. In 2019, SCE lost 124 customers due to de-enrollments and closed accounts. At the end of 2019, SCE had 1,039 active accounts representing an overall program retention rate of 64 percent since program inception.

SCE had no enrollments in the Community Renewables (CR) Program.

In 2019, SCE continued with its marketing plan designed to drive customer awareness and participation in the GTSR program and encourage behavior changes that save energy, reduce greenhouse gas emissions associated with electricity, and supporting local solar power to create a clean energy future. SCE directed its marketing efforts toward segments more likely to subscribe to the GTSR program through broad based and targeted marketing channels. SCE continued cost-effective marketing tactics to mitigate future impacts for GTSR existing customers. The marketing tactics included email campaigns to residential and business customers, and a social media campaign via the SCE Rate Options Awareness Campaign. In addition, SCE displayed floor type banners throughout SCE facilities, reached out to city partners and community-based organizations, issued bill onserts, and exhibited at conferences and events.

As a result of CR-Renewable Auction Mechanisms (CR-RAM) 3, held in 2017, SCE executed a 20-year PPA for a 3 MW SPV project located in El Mirage, California on July 18, 2018 and filed Advice Letter 3878-E on October 16, 2018. Advice Letter 3878-E obtained CPUC approval on July 9, 2019. October 31, 2020 is the expected Commercial Operation Date.

SCE launched the first of the two required CR-Renewable Auction Mechanisms (CR-RAM 4) on May 23, 2018. SCE received two offers for one project in CR-Renewable Auction 4.

The 3 MW solar photovoltaic project was complete and conforming based on the requirements of the program. As a result of CR-RAM 4, SCE executed a 20-year PPA with 5149 Lancaster Energy LLC and filed Advice Letter 3976-E on March 28, 2019. Advice Letter 3976-E obtained CPUC approval on April 29, 2019. October 31, 2020 is the expected Commercial Operation Date.

The second solicitation, CR-Renewable Auction 5, was delayed until January 14, 2019 due to a filing error. As a result, SCE received multiple offers; however, the solicitation closed the end of 2019 and no PPA was executed.

e) Conclusion

SCE respectfully requests the Commission to find that the costs in the GTME&OMA and ECRME&OMA were properly recorded and consistent with D.15-01-051 and Advice Letter 3189-E.

5. Green Tariff Shared Renewables Administrative Costs Memorandum Account (GTSRACMA)

a) Introduction

The purpose of this section is to: (1) provide the regulatory background associated with the GTSRACMA; (2) present the operation of the GTSRACMA during the 2019 Record Period; and (3) request a Commission finding that the entries recorded in the GTSRACMA are appropriate, correctly stated, and in compliance with Commission decisions.

b) Background

As discussed in Section 4 above, related to GTME&OMA, on March 10, 2015, SCE filed Advice 3189-E to modify Preliminary Statement Part N, Memorandum Accounts, to establish the GTSRACMA.

c) Operation of the GTSRACMA

The purpose of the GTSRACMA is to record the difference between the revenues collected throughout the GTSR Administrative Charge and initial and on-going incremental administrative costs incurred in order to implement the Commission-adopted GTSR program, pursuant to D.15-01-051. The GTSR program consist of both a Green Tariff option and an Enhanced Community Renewables (ECR) option.

Table XI-32 below summarizes the entries recorded in the GTSRACMA during the Record Period.

Table XI-32
Operation of the GTSRACMA
2019

Line No.	Description	$000
1.	Beginning Balance	569
2.	Billed Revenue	(4)
3.	Expenses	32
4.	Under/(Over) Collection (Line 2 + Line 3)	28
5.	Interest	13
6.	Ending Balance (Line 1 + Line 4 + Line 5)	610

d) GTSRACMA Recorded Expenses

The costs reflected in Table XI-32 align with the actual administrative spend recorded. The categories include IT Fees to allow for enrollment and bill calculation of the Green Rate premium; Program Management to verify eligibility; training and job aids for operational staff; and Green-e Certification.

e) Conclusion

SCE respectfully requests the Commission to find that the costs in the GTSRACMA were properly recorded and consistent with D.15-01-051 and Advice Letter 3189-E.

6. **Green Tariff Shared Renewables Balancing Account (GTSRBA)**

a) Introduction

The purpose of this section is to: (1) provide the regulatory background associated with the GTSRBA; (2) present the operation of the GTSRBA during the 2019 Record Period; and (3) request a Commission finding that the entries recorded in the GTSRBA are appropriate, correctly stated, and in compliance with Commission decisions.

b) Background

In compliance with OP 2 of D.15-01-051, SCE filed Advice Letter 3219-E and Advice Letter 3219-E-A,[105] the Customer-Side Implementation Advice Letter, to implement its Green Tariff Shared Renewables (GTSR) Program. In this Customer-Side Implementation Advice Letter, SCE established the GTSR Balancing Account (GTSRBA) to record the difference between the actual revenue requirements, based on recorded GTSR commodity-related costs, and the revenues collected from charges set to collect these costs (on a forecast basis). GTSR Program costs recorded in the GTSRBA include: (1) the weighted average, Time-of-Delivery-adjusted contract costs of all projects in SCE's Interim Green Rate Pool, (2) Western Renewable Energy Generation Information System (WREGIS) and CAISO-related costs (for both Green Rate and Community Renewables customers), and (3) Resource Adequacy (RA)-related costs (for both Green Rate and Community Renewables customers). Sub-accounts are established in the GTSRBA to separately record the distinct cost categories. Similarly, recorded revenues associated with each cost category described above will also be recorded in the GTSRBA.

On October 15, 2018, SCE submitted Advice Letter 3877-E for review and approval of its 2019 GTSR ME&O plan and budget. Advice Letter 3877-E was approved by letter from the Director of the Energy Division dated January 18, 2018 and made effective November 14, 2018.

[105] Advice Letter 3219-E and 3219-E-A were approved by the Commission's Energy Division with an effective date of November 20, 2015.

c) Operation of the GTSRBA

The GTSR program consists of both a Green Rate option and a Community Renewables (CR) option. The GTSRBA records the difference between the actual revenue requirements, based on recorded GTSR commodity-related costs, and the revenues collected from individual customers electing to participate in the GTSR Program through charges set to collect these costs. The revenues collected will be based on a dollar per kWh charged for each kWh of energy delivered per a customer's GTSR Program subscription. GTSR Program administrative and marketing education and outreach (ME&O) costs and revenues are accounted for in separate memorandum accounts and are not in the GTSRBA.

Table XI-33 below summarizes the entries recorded in the GTSRBA during the Record Period.

Table XI-33
Operation of the GTSRBA
2019

Line No.	Description	($000)
1.	Beginning Balance	(8)
2.	Authorized Revenue:	
3.	Renewable Power Rate Sub-account	(504)
4.	Total Authorized Revenue	(504)
5.	Recorded Expenses:	
6.	Renewable Power Rate Sub-account	554
7.	Total Recorded Expenses	554
8.	(Over)/Under Collection (Line 1 + Line 4 + Line 7)	42
9.	Interest	0
10.	GTSRBA Ending Balance (Line 8 + Line 9)	42

d) GTSRBA Recorded Expenses

In 2019, SCE recorded approximately $504,000 in billed revenues, net of franchise fees and uncollectibles (FF&U),[106] from customers served under the ETSR-GR tariff option tariff option. SCE recorded $554,000 in interim pool resources expense to procure power for the Green Rate program. Both the billed revenues and expenses were recorded to SCE's GTSRBA.

e) Conclusion

SCE respectfully requests the Commission to find that the costs in the GTSRBA were properly recorded and consistent with D.15-01-051 and Advice Letter 3219-E.[107]

7. Local Capacity Requirements Products Balancing Account (LCRPBA)

a) Introduction

The purpose of this section is to: (1) provide the regulatory background associated with the Local Capacity Requirements Products Balancing Account (LCRPBA); (2) present the entries recorded in the LCRPBA during the 2019 record period for review; and (3) demonstrate that the entries recorded in the LCRPBA are appropriate, correctly stated, and in compliance with Commission decisions.

b) Background

On February 13, 2013, the Commission issued D.13-02-015 ordering SCE to procure between 1,400 and 1,800 MW of electrical capacity in the Western Los Angeles (LA) Basin and between 215 and 290 MW in the Moorpark sub-area of the Big Creek/Ventura local reliability area (Moorpark Sub-Area); and to procure minimum amounts of Preferred Resources, Energy Storage, and Gas-Fired Generation to meet identified long-term Local Capacity Requirements (LCR) by 2021. Subsequently, on March 13, 2014, the Commission issued D.14-03-004 and ordered SCE to procure an additional 500 to 700 MW by 2021 to meet local capacity needs in the Western LA Basin stemming

[106] These revenues were recorded in Renewable Power Rate (RPR) subaccount in the Green Tariff Shared Renewables Balancing Account (GTSRBA), pursuant to Preliminary Statement Part GG, section 3.a. Administrative and marketing revenues and costs are recorded in stand-alone memorandum accounts.

[107] Advice Letter 3219-E and 3219-E-A were approved by the Energy Division with an effective date of November 20, 2015.

from the retirement of the San Onofre Nuclear Generating Station (SONGS). On November 21, 2014, SCE filed A. 14-11-012 for Local Capacity Requirements Request for Offers (LCR RFO) for the Western LA Basin seeking CPUC approval of the 63 contracts selected through the LCR RFO process. The CPUC issued D.15-11-041 on November 24, 2015, approving all contracts except for the six NRG DG contracts. OP 3 of D.15-11-041 authorizes SCE to establish the Local Capacity Requirements Products Balancing Account (LCRPBA). OP 2 of D.15-11-041 approved SCE's cost recovery methodology of recovering the LCR RFO resource costs in three rate components: the New System Generation (NSG) rate component; (2) the Distribution rate component; and (3) the Public Purpose Programs (PPP) Charge. SCE submitted AL 3354-E on January 27, 2016 to establish the LCRPBA, which includes the recorded operation of the account. The Energy Division approved AL 3354-E on March 23, 2016.

On November 26, 2014, SCE filed A. 14-11-016 LCR RFO for the Moorpark Sub-Area seeking CPUC approval of the 11 contracts selected through the LCR RFO process. The CPUC issued D.16-05-050 on May 26, 2016 approving all contracts except for one, authorizing SCE to establish a LCRPBA, and approving SCE's cost recovery methodology for the LCR RFO resource costs in three rate components: NSG, Distribution and PPP Charge. SCE submitted AL 3440-E on July 26, 2016 requesting to modify the LCRPBA to include LCR RFO resource costs associated with the Moorpark Sub-Area. The Energy Division approved AL 3440-E on September 15, 2016.

Table XI-34 below summarizes the operation of the LCRPBA for 2019.

Table XI-34
Local Capacity Requirements Products Balancing Account (LCRPBA)
2019
($000)

Line No.	Description	2019
1	**LCRPBA Total Beginning Balance**	-
2	**New System Generation Sub-account**	
3	**Western LA Basin**	
4	Gas-Fired Generation (GFG)	-
5	In-Front-Of-the-Meter Energy Storage (IFOM ES)	-
6	Net Market Revenues	-
7	**Moorpark**	
8	Gas-Fired Generation (GFG)	-
9	In-Front-Of-the-Meter Energy Storage (IFOM ES)	-
10	Net Market Revenues	-
11	Monthly Tranfer to NSGBA	-
12	Total New System Generation Sub-account (Sum Lines 4 - 11)	-
13	**Distribution Sub-Account**	
14	**Western LA Basin**	
15	Demand Response	[redacted]
16	Behind-the-Meter Energy Storage (BTM ES)	-
17	Net Market Revenues	-
18	Monthly Tranfer to BRRBA-Distribution	[redacted]
19	Total Distribution Sub-Account (Sum Lines 15 -18)	-
20	**Public Purpose Program Sub-Account**	
21	**Western LA Basin**	
22	Energy Efficiency (EE)	[redacted]
23	Renewable Distributed Generation Behind-the-Meter (DG BTM)	
24	Behind–the-Meter Energy Storage Permanent Load Shift (BTM ES PLS)	
25	**Moorpark**	
26	Energy Efficiency (EE)	-
27	Renewable Distributed Generation Behind-the-Meter (DG BTM)	[redacted]
28	Monthly Tranfer to PPPAM	[redacted]
29	Total Public Purpose Program Sub-Account (Sum Lines 22 - 28)	-
30	**LCRPBA Total Ending Balance**	-

c) Operation of the LCRPBA

The purpose of the LCRPBA is to record the costs of resources procured in the LCR RFO for the Western Los Angeles Basin and Moorpark Sub-Area. The LCRPBA includes three sub-accounts as follows:

(1) NSG sub-account: records costs associated with the Gas-Fired Generation and In-Front-Of-the-Meter Energy Storage resources. These costs transfer monthly to the New System Generation Balancing Account (NSGBA) and are included in the NSG rate component the following year;

(2) Distribution sub-account: records costs associated with the Demand Response and Behind-the-Meter Energy Storage (BTM ES) resources. These costs transfer monthly to the Base Revenue Requirement Balancing Account (BRRBA) Distribution Sub-Account and are included in the Distribution rate component the following year; and

(3) PPP sub-account: records costs associated with the Energy Efficiency (EE), Renewable Distributed Generation Behind-the-Meter (DG BTM), and Behind–the-Meter Energy Storage Permanent Load Shift (BTM ES PLS) resources. These costs transfer monthly to the Public Purpose Programs Adjustment Mechanism (PPPAM) and are included in the PPP rate component the following year.

During 2019, SCE recorded in the LCRPBA costs associated with its LCR RFO contracts.

d) Expenses

For 2019, the actual costs of LCR RFO resources procured for the Western LA Basin are recorded in the following sub-accounts.

In the LCRPBA Distribution Sub-Account, SCE recorded Demand Response resource costs totaling [redacted] as shown on Line 15 in Table XI-34 above. In the LCRPBA PPP Sub-Account, SCE recorded Energy Efficiency resource costs totaling [redacted] as shown on Line 22, Renewable Distributed Generation Behind-the-Meter resource costs totaling [redacted], as shown on Line 23, and Behind–the-Meter Energy Storage Permanent Load Shift resource costs totaling [redacted] as shown on Line 24 in Table XI-34 above. For 2019, the actual costs of LCR RFO resources procured for the Moorpark Sub-Area are included in the LCRPBA PPP Sub-Account, in which SCE recorded Renewable Distributed Generation Behind-the-Meter resource costs totaling [redacted] as shown on Line 27 in Table XI-34 above.

The total LCR RFO resource costs incurred in 2019 was [redacted] which is the sum of Lines 15, 22-24 and 27 as shown in Table XI-34 above.

8. Transportation Electrification Program Balancing Account (TEPBA)

a) Introduction

The purpose of this section is to: (1) provide the regulatory background associated with the TEPBA, (2) present the operation of the TEPBA during the Record Period and, (3) request a Commission finding that the entries recorded in the TEPBA are appropriate, correctly stated, and in compliance with Commission decisions.

b) Background

In 2015, Senate Bill (SB) 350 was enacted into law which added new sections to the Public Utilities Code regarding Transportation Electrification (TE). On September 14, 2016, an Assigned Commissioner's Ruling was issued in Rulemaking (R.) 13-11-007 directing SCE to file a TE application. On January 20, 2017, SCE filed Application (A.) 17-01-021 to propose six Priority Review Projects (PRPs) totaling $19.450 million. On January 11, 2018, the Commission issued D.18-01-024 adopting five of SCE's six proposed projects totaling $16.063 million. SCE is also authorized to recover $617,800 for evaluation of the projects upon their completion. On January 26, 2018, SCE submitted Advice Letter 3734-E to establish the Transportation Electrification Portfolio Balancing Account (TEPBA). SCE may only recover the revenue requirements in the TEPBA associated with up to the total capped level of funding for each of the individual PRPs and their evaluation. On June 15, 2018, in compliance with D.18-05-040, SCE submitted Advice Letter 3815-E to modify the TEPBA, to add a subaccount to record the actual Operation and Maintenance (O&M) expense and capital-related revenue requirements associated with the approved Standard Review Project (SRP). SCE may only recover the revenue requirements associated with up to the authorized total capped level of SRP funding in the TEPBA.

On November 16, 2018, SCE submitted Advice Letter 3899-E to implement the 2019 Transportation Electrification Phase 1 revenue requirement in rate levels on January 1, 2019 in accordance with D.18-05-040 for Standard Review Projects and D.18-01-024 for Priority Review Projects.[108]

c) Operation of the TEPBA

The purpose of the TEPBA is to record the actual O&M expenses and capital-related revenue requirements associated with the approved Transportation Electrification Priority Review Projects and SRP. Separate subaccounts established in the TEPBA ensure that SCE will only recover the revenue requirements associated with up to the total capped level of authorized funding for each of the individual PRPs, the SRP, and SCE's share of evaluation costs.

Table XI-35 below summarizes the entries recorded in the TEPBA during the Record Period.

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108 Advice Letter 4116-E-A, SCE's Consolidated Revenue Requirement and Rate Change Advice Letter, was approved by the Energy Division with an effective date of January 1, 2020.

Table XI-35
Operation of the TEPBA
2019

Line No.	Description	($000)
1.	Beginning Balance	-
2.	General Rate Case Adjustments	(5)
3.	Expenses	3,640
4.	Total Labor Loaders	130
5.	Total Capital-Related Revenue Requirement	85
6.	Total Expenditures (Line 2 + Line 3 + Line 4+ Line 5)	3,850
7.	(Over)/Under Collection (Line 1 + Line 6)	3,850
8.	Interest	40
9.	Ending Balance (Before Transfer to BRRBA)	3,890
10.	Transfer to BRRBA-Distribution	(3,890)
11.	Ending Balance (Line 9 + Line 10)	0

d) Recorded Expenses in the TEPBA

SCE's 2019 cumulative expenditures included capital cost components, such as utility distribution infrastructure-related costs, customer participant site infrastructure-related costs, and other capitalized costs. SCE's 2019 cumulative expenditures also included O&M cost components, such as labor, Transportation Electrification-specific education and outreach, rebates, and other non-labor O&M. See Table XI-36 and Table XI-37 below for 2019 cumulative PRPs, SRP and SCE Evaluation expenditures.

Table XI-36
Priority Review Projects – 2019

	Priority Review Projects							
Line No.	**Categories**	**Urban Direct Current Fast Charge (DCFC) Program**	**Electric Transit Bus Make-Ready Program**	**Residential Make-Ready Rebate**	**POLB Rubber Tire Gantry Crane Electrification Project**	**POLB ITS Terminal Yard Tractor Project**	**3rd Party Evaluation**	**Total**
		(000)	**(000)**	**(000)**	**(000)**	**(000)**	**(000)**	**(000)**
1	**Capital**							
2	Utility Side Cost	274	718	-	1,942	450	-	3,384
3	Customer Side Cost	623	606	-	-	-	-	1,230
4	Easement	-	-	-	-	-	-	-
5	***Total Capital (Line 2 to Line 4)***	**897**	**1,324**	**-**	**1,942**	**450**	**-**	**4,613**
6	**Operations & Maintenance**							
7	Business Customer Division Labor	3	2	-	-	-	-	5
8	Labor and Employee Expenses	40	37	31	-	-	-	107
9	Material and Contract (Marketing)*	-	(67)	251	-	-	-	183
10	Rebate	372	140	1,011	-	-	-	1,523
11	Project Management Expense	-	-	-	-	-	-	-
12	3rd Party Evaluation Cost	-	-	-	-	-	115	115
13	***Total O&M (Line 7 to Line 12)***	**415**	**111**	**1,292**	**-**	**-**	**115**	**1,933**
14	**Total PRPs Expenditures *(Line* 5 + Line 14)**	**1,312**	**1,435**	**1,292**	**1,942**	**450**	**115**	**6,547**

Table XI-37
Priority Review Projects – Cumulative Balance (Nominal)

	Priority Review Projects							
Line No.	**Categories**	**Urban Direct Current Fast Charge (DCFC) Program**	**Electric Transit Bus Make-Ready Program**	**Residential Make-Ready Rebate**	**POLB Rubber Tire Gantry Crane Electrification Project**	**POLB ITS Terminal Yard Tractor Project**	**3rd Party Evaluation**	**Total**
		(000)	**(000)**	**(000)**	**(000)**	**(000)**	**(000)**	**(000)**
1	**Capital**							
2	Utility Side Cost	274	718	-	2,468	450	-	3,910
3	Customer Side Cost	623	606	-	-	-	-	1,230
4	Easement	-	-	-	-	-	-	-
5	***Total Capital (Line 2 to Line 4)***	**897**	**1,325**	**-**	**2,468**	**450**	**-**	**5,140**
6	**Operations & Maintenance**							
7	Business Customer Division Labor	11	19	-	-	-	-	29
8	Labor and Employee Expenses	40	37	63	-	-	-	139
9	Material and Contract (Marketing)*	9	58	612	-	-	-	679
10	Rebate	372	140	1,400	-	-	-	1,912
11	Project Management Expense	-	-	-	-	-	-	-
12	3rd Party Evaluation Cost	-	-	-	-	-	185	185
13	***Total O&M (Line 7 to Line 12)***	**431**	**253**	**2,075**	**-**	**-**	**185**	**2,945**
14	**Total PRPs Expenditures *(Line* 5 + Line 14)**	**1,329**	**1,578**	**2,075**	**2,468**	**450**	**185**	**8,085**
15	**Authorized**	**3,980**	**3,978**	**3,999**	**3,038**	**450**	**618**	**16,063**
16	**(Over) / Under (Line 15 - Line 14)**	**2,651**	**2,400**	**1,924**	**570**	**-**	**432**	**7,978**

Table XI-38
Standard Review Project – 2019 Balance
(Nominal)

Standard Review Project		
Line No.	Categories	Medium and Heavy-Duty Vehicle Charging Infrastructure Program
		(000)
1	<u>**Capital**</u>	
2	Utility Side Cost	-
3	Customer Side Cost	111
4	Easement	-
5	***Total Capital (Line 2 to Line 4)***	**111**
6	<u>**O&M**</u>	
7	Business Customer Division Labor	157
8	Labor and Employee Expenses	637
9	Material and Contract (Marketing)	845
10	Rebate	-
11	Project Management Expense	68
12	***Total O&M (Line 7 to Line 11)***	**1,707**
13	**Total SRP Expenditures *(Line* 5 + Line 12)**	**1,818**

Table XI-39
Standard Review Project – Cumulative Balance
(Nominal)

Standard Review Project		
Line No.	Categories	Medium and Heavy-Duty Vehicle Charging Infrastructure Program
		(000)
1	**Capital**	
2	Utility Side Cost	-
3	Customer Side Cost	111
4	Easement	-
5	***Total Capital (Line 2 to Line 4)***	**111**
6	**O&M**	
7	Business Customer Division Labor	158
8	Labor and Employee Expenses	649
9	Material and Contract (Marketing)	852
10	Rebate	-
11	Project Management Expense	68
12	***Total O&M (Line 7 to Line 11)***	**1,728**
13	**Total SRP Expenditures *(Line* 5 + Line 12)**	**1,839**
14	**Authorized**	**356,362**
15	**(Over) / Under (Line 14 - Line 13)**	**354,524**

e) Conclusion

SCE requests that the Commission find the cumulative amounts recorded in the TEPBA through the 2019 Record Period were appropriate, correctly stated, and in compliance with Commission decisions.

9. Aliso Canyon Energy Storage Balancing Account (ACESBA)

a) Introduction

The purpose of this section is to: (1) provide the regulatory background associated with the Aliso Canyon Energy Storage Balancing Account (ACESBA); (2) present the entries recorded in the ACESBA during the 2019 record period for review; and (3) demonstrate that the entries recorded in the ACESBA are appropriate, correctly stated, and in compliance with Commission decisions.

b) Background

On May 31, 2015, the Commission issued Resolution E-4791 (Resolution) in response to Former Governor Brown's January 6, 2016 proclamation of a state of emergency in Los Angeles County due to the Aliso Canyon Natural Gas Storage Facility well failure, which occurred in the third quarter of 2015, and subsequent moratorium imposed on gas injections into the Aliso Canyon facility. The Resolution authorized SCE to hold a solicitation (the Aliso Canyon Energy Storage (ACES) Request for Offers (RFO) and seek Commission approval and obtain cost recovery treatment for any contracts resulting from the ACES RFO through a Tier 3 Advice Letter.[109] The Resolution also directed SCE to file an application for a reasonableness review for procurement of any utility-owned energy storage facilities developed pursuant to the Resolution.

In response to the Resolution, SCE procured two energy storage systems from Tesla Motors sited adjacent to the Mira Loma substation in Ontario, California and two energy storage systems from General Electric (GE) for Enhanced Gas Turbines (EGTs) located at SCE's Peaker Generating Stations in Norwalk and Rancho Cucamonga, California. On May 10, 2016,[110] SCE had activated its Catastrophic Event Memorandum Account (CEMA) to record and track its costs incurred to mitigate electric reliability issues. SCE recorded actual O&M expenses and capital-related revenue requirements for the Tesla and GE Projects in the Aliso Canyon CEMA. On March 30, 2017, SCE filed A.17-03-020 for authority to recover Aliso Canyon CEMA costs associated with the solicitation, site assessment, and construction of the Tesla and GE energy storage projects.

On June 21, 2018, the Commission issued D.18-06-009, which concluded the four energy storage projects procured by SCE satisfy Resolution E-4791 requirements and authorized cost recovery for recover Aliso Canyon CEMA costs. D.18-06-009 authorized SCE to establish ACESBA to record the Tesla and General Electric projects' actual revenue requirements and recovery cost. The

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[109] On August 15, 2016, SCE submitted Tier 3 Advice Letters seeking approval of the third-party contracts that resulted from its ACES RFO. The Commission approved those contracts in Resolution E-4804 on September 15, 2016.

[110] On May 10, 2016 SCE sent a letter to the Commission's Executive Director informing SCE activated its CEMA.

ACESBA shall be used until the remaining cost recovery can be transitioned to SCE's 2021 GRC. The costs activity recorded in the ACESBA shall be recovered through the New System Generation rates to be recovered from all benefitting customers. SCE will transfer the December 31st balance of the ACESBA to the New System Generation Balancing Account. On July 11, 2018, SCE submitted Advice Letter 3822-E to establish the Aliso Canyon Energy Storage Balancing Account Pursuant to Decision 18-06-009. The Energy Division approved AL 3822-E on December 10, 2018.

c) Operation of the ACESBA

This section sets forth the operation of the ACESBA for the 2019 Record Period for Commission review. The ACESBA records each month (1) operating expenses and (2) recorded capital-related revenue requirement (book depreciation, authorized return on recorded rate base, and applicable taxes).

Table XI-40 below summarizes the operation of the ACESBA for the 2019 Record Period.

Table XI-40
Aliso Canyon Energy Storage Balancing Account (ACESBA) 2019

Line No.	Description	($000)
1.	Beginning Balance	-
2.	2018 and 2019 GRC Income Tax Adjustment	0
3.	Adjusted Beginning Balance Lines 1 + Line 2)	0
4.	ACESBA Expenses	1,202
5.	Capital-Related Revenue Requirement	
6.	- Depreciation	6,394
7.	- Income Taxes	972
8.	- Property Taxes	590
9.	- Return	3,069
10.	Total Capital-Related Revenue Requirement	11,025
11.	(Over)/Under Collection (Line 4 + Line 10)	12,227
12.	Interest	142
13.	Ending Balance (Line 3 + Line 11 + Line 12)	12,369

d) Recorded Expenses in the ACESBA

SCE's ACESBA recorded revenue requirement from January 1, 2019 to December 31, 2019 was $12.369 million. SCE incurred $1.202 million of O&M expenses and $11.025 million in capital-related revenue requirement.

(1) Capital Cost

Table XI-41 below sets forth the capital expenditures over the 2019 time period.

Table XI-41
2019 ACESBA Capital Expenditures

Line No.	Description	($000)
1	Mira Loma Interconnection Facilities Refund	(1,507)
2	EGT Protection Relay Coordination Study Refund	(322)
3	Customer Deposit Credit	(421)
4	Other	11
5	Total Capital Expenditures	(2,238)

In 2019, the ACESBA recorded a capital expenditure credit balance of $(2.238) million. This credit balance was comprised primarily of credits from SCE to SCE Generation, pursuant to the Generator Interconnection Agreement (GIA), for the overpayment of Interconnection Facilities payments associated with the construction of Mira Loma Tesla Batteries A and B, of $1.507 million, and credits for overpayment of the Protection Relay Coordination Studies for the Grapeland and Center EGTs of $0.322 million, both projects constructed as a result of the ACES Commission mandate. The final cost notifications with details supporting the refund for these capital projects are included in the workpapers.[111] Please see a summary of the credit transaction summarized in Table XI-42 below. In addition to the above credits, the ACESBA also received a credit of $0.4 million for customer advances in excess of actuals included in the work order.

[111] Workpaper ACESBA – Final Cost Notifications (WDT1425, WDT1426, WDT1429 and 1430).pdf

Table XI-42
Capital Refund Summary
2019 ($000)

Line No.	**Tesla Battery Projects** Wholesale Distribution Access Tarrif (WDT) #	**Mira Loma A** 1425	**Mira Loma B** 1426	**Total Tesla**
1	Interconnection Facilities Payments	1,549	1,728	3,277
2	Actual Recorded Cost	863	907	1,770
3	**Subtotal Refund Amount**	**(685)**	**(821)**	**(1,507)**
4				
5				
6	**EGT Projects** Wholesale Distribution Access Tarrif (WDT) #	**Center EGT** 1429	**Grapeland EGT** 1430	**Total EGT**
7	Protection Relay Coordination Study	173	173	346
8	Actual Recorded Cost	10	14	24
9	**Subtotal Refund Amount**	**(163)**	**(159)**	**(322)**

(2) Operating Expense

In 2019 the ACESBA recorded O&M expenses of $1.2 million. The O&M expenses are comprised of maintenance and operating expenses recorded in 2019. Table XI-43 below shows a summary of these costs.

Table XI-43
2019 ACESBA O&M Expenses

Line No.	Description	($000)
1	Maintenance Costs	954
2	Operating Costs	248
3	Total O&M Costs	1,202

The 2019 O&M expenses consist of Tesla Energy Storage and EGT expenses. The Tesla Energy Storage expense is made up of contractual fixed fees (5-year contract with Tesla), to perform standard annual maintenance of the systems, as well as variable fees driven by established performance (generation) thresholds. The EGT expenses are comprised of the contractual fees paid to General Electric to perform standard annual maintenance of the systems. The operating expenses include transmission interconnection fees, which are payments paid to T&D for interconnection services to the grid. In 2019, interconnection fees of $0.172, not previously billed for 2016-2018, were processed and are included in the Operating Costs in Table XI-43 above.

e) Conclusion

SCE respectfully requests the Commission to find that the costs recorded in the ACESBA were properly recorded and consistent with D.18-06-009 and Advice Letter 3822-E.

10. Clean Energy Optimization Pilot Balancing Account (CEOPBA)

a) Introduction

The purpose of this section is to: (1) provide the regulatory background associated with the Clean Energy Optimization Pilot (CEOP), (2) present the operation of the CEOP during the 2019 Record Period, and (3) request a Commission finding that the entries recorded in the CEOP are appropriate, correctly stated, and in compliance with Commission decisions.

b) Background

On May 15, 2018, SCE filed Application (A.)18-05-015 requesting authority to use $20.4 million from its Cap-and-Trade allowance revenues to conduct its CEOP and proposed to establish a CEOP balancing account to record project costs. SCE's Application was filed with support from the University of California (UC) and California State University (CSU), who are the participants in SCE's proposed CEOP.

On April 25, 2019, the Commission adopted D.19-04-010 approving CEOP and authorizing $20.4 million over the pilot's four-year duration. D.19-04-014 also adopted the December 4, 2018 Settlement Agreement between SCE, the Public Advocates Office, the Natural Resources Defense Council, UC and CSU and resolved all remaining issues. On May 2, 2019, SCE submitted Advice Letter 3997-E, establishing the CEOPBA. Advice Letter 3997-E was approved by the Commission on May 30, 2019.

c) Operation of the CEOPBA

The purpose of the CEOPBA is to record the difference between recorded CEOP project costs, including CEOP performance payments and administrative costs, and the funds transferred from the Green House Gas Revenue Balancing Account (GHGRBA), as authorized in D.19-04-010. Table XI-44 below summarizes the operation of the CEOPBA during the Record Period.

Table XI-44
Clean Energy Optimization Pilot Balancing Account
2019

Line No.	Description	($000)
1.	Beginning Balance	-
2.	Adjustments	-
3.	Adjusted Beginning Balance	-
4.	Operation & Maintenance Expenses	
5.	Labor	66
6.	Non-Labor	21
7.	Total O&M Expenses	87
8.	Monthly Under/(Over) Collection	87
9.	Interest	0
10.	Ending Balance (Line 3 + Line 8 + Line 9)	88

d) Recorded Expenses in the CEOPBA

In 2019, SCE's recorded costs were approximately $0.088 million. This includes labor and non-labor O&M expenses required to begin implementation of CEOP.

SCE's labor expenses were related to program management and pilot evaluation. Program management work included the development of a program manual, participant agreement, training for participants, solicitation for program evaluation, internal and external stakeholder engagement, and other activities necessary for the ramp up of implementation of CEOP. The pilot evaluation work included the stakeholder engagement, and the development of an RFP, solicitation, and contract negotiations for a contractor to perform CEOP pilot evaluation.

SCE's non-labor expenses included travel expenses and external contractor work for both pilot implementation and pilot evaluation. The travel expenses incurred were for presentations of CEOP to relevant stakeholder meetings, including pilot participants and other key external stakeholders (ex. CPUC Energy Division, CA Public Advocates, NRDC, other IOUs). The external contractor work for pilot implementation involved the refinement of the performance payment tool to incorporate changes from D.19-04-010 and the development of an incentive estimator tool for pilot participants. The external contractor work for the pilot evaluation involved initial kickoff, development of a pilot evaluation plan, meetings with pilot participants and external stakeholders, and the initial data collection and mapping.

e) Conclusion

SCE respectfully requests the Commission to find that the costs in the CEOPBA were properly recorded and consistent with D.19-04-010 and Advice Letter 3997-E.

11. Community Solar Green Tariff Balancing Account (CSGTBA)

a) Introduction

The purpose of this section is to: (1) provide the regulatory background associated with the Community Solar Green Tariff Balancing Account (CSGTBA); (2) present the entries recorded in the CSGTBA during the 2019 Record Period for review; and (3) demonstrate that the entries recorded in the CSGTBA are appropriate, correctly stated, and in compliance with Commission decisions.

b) Background

On June 21, 2018, the Commission issued D.18-06-027, which adopts alternatives to promote solar distributed generation in disadvantaged communities including the Disadvantaged Communities – Green Tariff program (DAC-GT) and the Community Solar Green Tariff program (CSGT). OP 15 of D.18-06-027 directed SCE to submit a Tier 2 Advice Letter to establish two-way balancing accounts to record: (1) the costs related to the implementation and operation of these programs, including a 20 percent discount for participating customers consistent with Schedule DAC-

Green Tariff and the costs of any unsubscribed energy, and (2) the funding available through GHG allowance revenues and/or a transfer to the Public Purpose Programs charge.

SCE filed Advice Letter 3841-E on August 6, 2018 to establish the Disadvantaged Communities - Green Tariff Balancing Account and the Community Solar Green Tariff Balancing Account and later filed supplemental Advice Letters 3841-E-A and 3841-E-B. SCE received approval of these Advice Letters on July, 12, 2019 with an effective date of September 5, 2018.

c) Operation of the CSGTBA

The purpose of the two-way Community Solar Green Tariff Balancing Account (CSGTBA) is to record the difference between 1) the costs related to the implementation and operation of the Community Solar Green Tariff (CSGT) program, including a 20 percent discount for participating customers consistent with Schedule CS-Green Tariff and the costs of any unsubscribed energy, and 2) the funding available through GHG allowance revenues and/or a transfer to the Public Purpose Programs charge, as authorized in D.18-06-027 and modified by Resolution E-4999. Table XI-45 below summarizes the operation of the CSGTBA during the Record Period.

Table XI-45
Community Solar Green Tariff Balancing Account
2019

Line No.	Description	($000)
1.	Beginning Balance	-
2.	Adjustments	-
3.	Adjusted Beginning Balance	-
4.	Operation & Maintenance Expenses	
5.	ME&O Funding	95
6.	Total O&M Expenses	95
7.	Monthly Under/(Over) Collection	95
8.	Interest	0
9.	Ending Balance (Line 3 + Line 7 + Line 8)	95

d) Recorded Expenses in the CSGTBA

SCE recorded approximately $0.095 million in the CSGTBA for ME&O activities for 2019. These expenses include costs for market research conducted to determine customer-friendly and informative names for the two new programs and development of an interim online enrollment and eligibility tool. The interim tool will enable SCE to enroll customers or add them to the waitlists for the programs. Additionally, the tool will also include the capability to send confirmation emails to communicate key actions to a customer.

e) Conclusion

SCE requests that the Commission find that the amounts recorded in the CSGTBA are stated correctly and consistent with D.18-06-027 and Advice Letter 3841-E/E-A/E-B.

12. <u>Disadvantaged Communities – Green Tariff Balancing Account (DAC-GTBA)</u>

a) Introduction

The purpose of this section is to: (1) provide the regulatory background associated with the Disadvantaged Communities – Green Tariff Balancing Account (DAC-GTBA); (2) present the entries recorded in the DAC-GTBA during the 2019 Record Period for review; and (3) demonstrate that the entries recorded in the DAC-GTBA are appropriate, correctly stated, and in compliance with Commission decisions.

b) Background

On June 21, 2018, the Commission issued D.18-06-027, which adopts alternatives to promote solar distributed generation in disadvantaged communities including the Disadvantaged Communities – Green Tariff program (DAC-GT) and the Community Solar Green Tariff program (CSGT). OP 15 of D.18-06-027 directed SCE to submit a Tier 2 Advice Letter to establish two-way balancing accounts to record: (1) the costs related to the implementation and operation of these programs, including a 20 percent discount for participating customers consistent with Schedule DAC-Green Tariff and the costs of any unsubscribed energy, and (2) the funding available through GHG allowance revenues and/or a transfer to the Public Purpose Programs charge.

SCE filed Advice Letter 3841-E on August 6, 2018, to establish the Disadvantaged Communities - Green Tariff Balancing Account and the Community Solar Green Tariff Balancing Account and later filed supplemental Advice Letters 3841-E-A and 3841-E-B. SCE received approval of these Advice Letters on July, 12, 2019 with an effective date of September 5, 2018.

c) Operation of the DAC-GTBA

The purpose of the two-way Disadvantaged Communities-Green Tariff Balancing Account (DACGTBA) is to record the difference between: (1) the costs related to the implementation and operation of the Disadvantaged Communities-Green Tariff (DACGT) program, including a 20 percent discount for participating customers consistent with Schedule DAC-Green Tariff and the costs of any unsubscribed energy, and (2) the funding available through GHG allowance revenues and/or a transfer to the Public Purpose Programs charge, as authorized in D.18-06-027 and modified by

Resolution E-4999. Table XI-46 below summarizes the operation of the DACGTBA during the Record Period.

Table XI-46
Disadvantaged Communities Green Tariff Balancing Account
2019

Line No.	Description	($000)
1.	Beginning Balance	-
2.	Adjustments	-
3.	Adjusted Beginning Balance	-
4.	Operation & Maintenance Expenses	
5.	ME&O Funding	95
6.	Total O&M Expenses	95
7.	Monthly Under/(Over) Collection	95
8.	Interest	0
9.	Ending Balance (Line 3 + Line 7 + Line 8)	95

d) Recorded Expenses in the DAC-GTBA

SCE recorded approximately $0.095 million in the DACGTBA for ME&O activities for 2019. These expenses include costs for conducted market research to determine customer-friendly and informative names for the two new programs and development of an interim online enrollment and eligibility tool. The interim tool will enable SCE to enroll customers or add them to the waitlists for the programs. Additionally, the tool will also include the capability to send confirmation emails to communicate key actions to a customer.

e) Conclusion

SCE requests that the Commission find that the amounts recorded in the DACGTBA are stated correctly and consistent with D.18-06-027 and Advice Letter 3841-E/E-A/E-B.

13. **<u>Disadvantaged Communities – Single-Family Solar Homes Balancing Account (DACSASHBA)</u>**

a) <u>Introduction</u>

The purpose of this section is to: (1) provide the regulatory background associated with the DACSASHBA; (2) present the entries recorded in the DACSASHBA during the 2019 Record Period for Commission review; and (3) request a Commission finding that the entries recorded in the DACSASHBA are appropriate, correctly stated, and in compliance with prior Commission decisions.

b) <u>Background</u>

Assembly Bill (AB) 327 (Perea), Stats. 2013, Ch. 611, directed the Commission to develop a standard contract or tariff applicable to customer-generators with renewable electrical generation, as a successor to then-existing Net Energy Metering (NEM) tariffs. As a part of this mandate, the Commission was required to develop "specific alternatives designed for growth [in adoption of renewable generation] among residential customers in disadvantaged communities."

On June 21, 2018, the Commission approved D.18-06-027, Alternate Decision Adopting *Alternatives To Promote Solar Distributed Generation In Disadvantaged Communities* which implemented three new programs to promote solar energy in disadvantaged communities: 1) the Disadvantaged Communities - Green Tariff (DAC-GT) program, 2) the Community Solar - Green Tariff (CSGT) program, [112] and 3) the Disadvantaged Communities – Single-family Affordable Solar Homes (DAC-SASH) program.

The DAC-SASH program is modeled after the Single-family Affordable Solar Homes (SASH) program and provides assistance in the form of financial incentives towards the installation of solar generating systems on the homes of low-income homeowners.

OP 8 of D.18-06-027 directed the IOUs to submit a Tier 2 advice letter to establish a balancing account to collect its proportionate share of the $10 million per year DAC-SASH

[112] SCE submitted Tier 2 Advice 3841-E on August 6, 2018 which implemented the DAC-GT and CSGT balancing accounts.

budget starting in 2019. Accordingly, on August 20, 2018, SCE submitted Advice Letter 3850-E to comply with the Commission's direction in OP 8, establishing the balancing account for the DAC-SASH program.[113]

Similarly, OP 10 of D.18-06-027 directed the IOUs to submit a Tier 1 advice letter to establish a memorandum account to track the start-up costs for the DAC-SASH program. Accordingly, on August 20, 2018, SCE filed Advice Letter 3849-E to establish the DAC-SASH program memorandum account to track the start-up costs in accordance with OP 10.[114]

In D.18-06-027, the Commission directed the IOUs to establish a DAC-SASH balancing account to collect its proportionate share of the $10 million per year DAC-SASH budget starting in 2019. Through the operation of the DACSASHBA, SCE will record the difference between SCE's proportionate share of the $10 million per year DAC-SASH budget starting in 2019 and the actual costs related to the operation of the DAC-SASH program. The costs that may be recorded in the DAC-SASH balancing account include, but are not limited to:

- Customer incentive payments submitted by the DAC-SASH program administrator,
- Ongoing program administrator costs, and
- Energy Division reimbursements for activities related to implementation and oversight of the DAC-SASH program.

The DAC-SASH program will have an annual budget of $10 million per year beginning on January 1, 2019, and continuing through the end of 2030. Each participating utility will contribute its proportionate share of this budget based on its relative percentage of retail electric revenue.

The DAC-SASH program is to be funded first through GHG allowance proceeds. If such funds are exhausted, the programs will be funded through public purpose programs funds

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[113] Advice 3850-E was approved by the Commission's Energy Division, with an effective date of September 19, 2018.

[114] Advice 3849-E was approved by the Commission's Energy Division, with an effective date of August 22, 2018.

through the conclusion of the program in 2030. SCE's proportionate share of the $10 million annual budget starting in 2019 through the end of the program in 2030 is 46% per Appendix A of D.18-06-027. Funds not allocated to specific projects or program expenses will be returned to customers at the conclusion of the program (December 31, 2030).

Total available GHG allowance funds are defined in Section 748.5(c) of the Public Utilities Code which reserves up to 15 percent of GHG allowance proceeds for use in clean energy and energy efficiency projects, with the remaining proceeds returned to customers. As the Commission recognizes in D.18-06-027, about two-thirds of the GHG allowance revenues set-aside for renewable energy projects have been allocated towards the Solar on Multifamily Affordable Housing (SOMAH) program adopted in D.17-12-022.

Since the DAC-SASH program costs should be funded first through available GHG allowance proceeds, SCE will demonstrate each year the availability of such funds in its annual ERRA Forecast proceeding. If GHG allowance funds are not available, either partially or in whole, SCE will collect the remaining balance(s) through the public purpose programs funds.

c) <u>Operation of the DACSASHBA</u>

The purpose of the DACSASHBA is to record the difference between SCE's proportionate share of the $10 million per year DAC-SASH budget starting in 2019 and the actual costs related to the operation of the DAC-SASH program, as authorized in Ordering Paragraph 8 of D.18-06-027. Per Appendix A of D.18-06-027, SCE's proportionate share is 46% of the $10 million per year DAC-SASH budget.

Table XI-47 below summarizes the operation of the DACSASHBA during the Record Period. Line 2 of Table XI-47 shows SCE's 2019 AB327 allocation of GHG revenues for the DAC-SASH Program in the amount of $4.6 million (*i.e.*, 46% of $10 million), transferred from the GHGRBA to the DACSASHBA.

Table XI-47
Operation of the DACSASHBA
2019

Line No.	Description	($000)
1.	Beginning Balance	-
2.	GHG Transfer	(4,600)
3.	Adjusted Beginning Balance	(4,600)
4.	Operation & Maintenance Expenses	
5.	Labor	60
6.	Non-Labor	756
7.	Total O&M Expenses (Line 5 + Line 6)	817
8.	Capital Revenue Requirement	
9.	Depreciation	-
10.	Property Taxes	-
11.	Income Taxes	-
12.	Return	-
13.	Total Capital Revenue Requirement (Sum of Lines 9-12)	-
14.	Monthly Under/(Over) Collection (Line 7 + Line 13)	817
15.	Interest	(91)
16.	Ending Balance (Line 3 + Line 8 + Line 9)	(3,875)

d) Recorded Expenses in the DACSASHBA

On April 2, 2019, pursuant to D.18-06-027, SCE entered into a contract with Grid Alternatives (GRID) for the administration of the DAC-SASH program. GRID filed Advice Letter 13-E on May 10, 2019, with the proposed DAC-SASH Handbook as Attachment A and the proposed Program Implementation Plan (PIP). On June 18, 2019, GRID filed supplemental Advice Letter 13-E-A with a revised DAC-SASH Handbook and PIP.[115]

The DACSASHBA records the difference between SCE's proportionate share of the DAC-SASH budget and the actual costs related to the operation of the DAC-SASH program. The

[115] On September 12, 2019, the Commission adopted Resolution E-5020, approving GRID's Advice Letter 13-E/13-E-A.

DACSASH Memorandum Account (DACSASHMA) records the start-up costs of the DAC-SASH program.

SCE originally interpreted costs it incurred prior to April 2, 2019, which was the date SCE entered into the contract with GRID, to be 'start up' costs and thus recorded in the DACSASHMA. Costs incurred after April 2, 2019, were deemed to be operational costs and thus recorded in DACSASHBA. In early 2020, SCE amended its interpretation of the 'start-up costs' as those activities performed prior to the Commission's approval of the program's handbook, which occurred on September 12, 2019.

Line 5 of Table XI-47 shows $0.060 million for SCE labor supporting the DAC-SASH program during 2019, which includes administration of the contract between SCE and GRID, payment of invoices and incentives submitted by GRID, and other internal administrative functions. Given SCE's new interpretation of 'start up costs', approximately $0.020 million of the $0.060 million should have been recorded in the DACSASHMA in 2019, because the costs were incurred prior to September 12, 2019. As such, in March 2020, SCE transferred $0.020 million from the DACSASHBA to the DACSASHMA to appropriately reflect that these costs were related to 'start up' activities. Given that these costs were not transferred until 2020, the $0.020 million in SCE labor that should have been recorded in the DACSASHMA is reflected in the DACSASHBA for the 2019 period.

Line 6 of Table XI-47 shows the total payments for invoices and incentives submitted by the DAC-SASH program administrator (which included $0.521 million for GRID's program administration and $0.235 million for GRID's incentive payments). During 2019, GRID, as the DAC-SASH program administrator, sent an invoice to SCE for activities related to DAC-SASH program administration. SCE's share of the administration costs totaled $0.521 million. SCE recorded the entirety of GRID's administrative costs in the DACSASHBA. Approximately $0.129 million of the $0.521 million was incurred prior to September 12, 2019. Given SCE's amended interpretation of 'start up costs', in March 2020, SCE transferred $0.129 million from DACSASHBA to DACSASHMA to appropriately reflect GRID's start-up program costs. Given that the costs were not transferred until

2020, the $0.129 million in GRID program administration costs that should have been recorded in the DACSASHMA is reflected in DACSASHBA for the record period.

In addition, GRID, as the DAC-SASH program administrator, submitted "incentive claim forms" (ICFs) totaling $234,939. These amounts are for incentives paid directly to projects participating in the DAC-SASH program. This entry is properly reflected in the DACSASHBA as they were issued after September 12, 2019, the official start-up day of the program.

e) Conclusion

With the corrections explained above (i.e., transferring $0.020 million and $0.129 million, respectively, from DACSASHBA to DACSASHMA for costs incurred prior to the launch of the DAC-SASH program) due to a clarification of the start-up period for the DAC-SASH program, SCE requests that the Commission find the entries recorded in DACSASHBA as well as the costs that should have been recorded in the DACSASHMA are appropriate, correctly stated and in compliance with Commission decisions, and reasonable.

14. Disadvantaged Communities – Single-Family Solar Homes Memorandum Account (DACSASHMA)

a) Introduction

The purpose of this section is to: (1) provide the regulatory background associated with the DACSASHMA; (2) present the entries recorded in the DACSASHMA during the 2019 Record Period for Commission review; and (3) request a Commission finding that the entries recorded in the DACSASHMA are appropriate, correctly stated, and in compliance with prior Commission decisions.

b) Background

In Section 13.b, SCE described Commission Decision D.18-06-027, Alternate Decision Adopting Alternatives To Promote Solar Distributed Generation In Disadvantaged Communities, which implemented three new programs to promote solar energy in disadvantaged communities including the Disadvantaged Communities – Single-family Affordable Solar Homes (DAC-SASH) program.

OP 10 of D.18-06-027 directed the IOUs to submit a Tier 1 advice letter to create a memorandum account to track the start-up costs for the DAC-SASH program. Accordingly, on August 20, 2018, SCE filed advice letter 3849-E to establish the DAC-SASH program memorandum account (DACSASHMA) to track the start-up costs in accordance with OP 10.[116]

c) Operation of the DACSASHMA

The purpose of the DACSASHMA is to track the start-up costs for the DAC-SASH program, as authorized in Ordering Paragraph 10 of D.18-06-027.

As shown in Table XI-48 below, no activity was recorded in the DACSASHMA for the Record Period. See Section D.13 of this testimony.

Table XI-48
Operation of the DACSASHMA
2019

Line No.	Description	($000)
1.	Beginning Balance	-
2.	Operation & Maintenance Expenses	
3.	Labor	-
4.	Non-Labor	-
5.	Total O&M Expenses (Line 3 + Line 4)	-
6.	Capital Revenue Requirement	
7.	Depreciation	-
8.	Property Taxes	-
9.	Income Taxes	-
10.	Return	-
11.	Total Capital Revenue Requirement (Sum of Lines 7-10)	-
12.	Monthly Under/(Over) Collection (Line 5 + Line 11)	-
13.	Interest	-
14.	Ending Balance (Line 1 + Line 12 + Line 13)	-

[116] Advice 3849-E was approved by the Commission's Energy Division, with an effective date of August 22, 2018.

d) Recorded Expenses in the DACSASHMA

No activity was recorded in the DACSASHMA for the Record Period.

e) Conclusion

With the corrections explained above (i.e., transferring $0.020 million and $0.129 million, respectively, from DACSASHBA to DACSASHMA for costs incurred prior to the launch of the DAC-SASH program) due to a clarification of the start-up period for the DAC-SASH program, SCE requests that the Commission find the entries recorded in DACSASHBA that should have been recorded in the DACSASHMA are appropriate, correctly stated and in compliance with Commission decisions, and reasonable.

Upon finding that the costs that should have recorded in the DACSASHMA in 2019 are reasonable, SCE will transfer the 2020 balance in the DACSASHMA to the DACSASHBA. In addition, SCE proposes to eliminate the DACSASHMA effective January 1, 2021 and Preliminary Statement Part N.22, DACSASHMA, be eliminated from SCE's tariffs.

15. Portfolio Allocation Balancing Account (PABA)

a) Introduction

This section presents the accounting entries made to SCE's Portfolio Allocation Balancing Account (PABA) for Record Period. The purpose of the PABA is to determine and pro-ratably recover from responsible bundled service and departing load customers the "above-market" costs of all generation resources that are eligible for cost recovery through the Competition Transition Charge (CTC) and the Power Charge Indifference Adjustment (PCIA) rates. The above-market costs of the eligible resources are forecast annually in SCE's ERRA Forecast proceeding and recovered, on a forecast basis, from bundled service customers through their generation rates and from departing load customers through their CTC and PCIA rates. Billed customer revenues, actual resource costs, market revenues realized in the CAISO markets and bilateral transactions, and imputed Resource Adequacy (RA) and Renewable Energy Credit (REC) revenues (determined using applicable market price benchmarks (MPBs))[117] are then recorded (and trued-up) in the PABA – with any year-end under- or over-collected balance amortized in customer rates the following year.

b) Background

On October 11, 2018, the Commission approved D.18-10-019, which adopted modifications to the "indifference" methodology used to set CTC and PCIA rates. Pursuant to Ordering Paragraph (OP) 7 of D.18-10-019, on December 10, 2018, SCE submitted Advice 3914-E to establish the PABA,[118] with subaccounts for each vintaged portfolio, to record the costs, market revenues, actual retained RA and RPS values, and billed customer revenues associated with its CTC- and PCIA-eligible resources. The Commission further refined the method to develop and true up the MPBs used in the PABA with the adoption of D.19-10-001 on October 10, 2019. In accordance with OP 8 of D.19-10-001, SCE submitted Advice 4098-E on October 30, 2019 to conform its generation-related balancing accounts, including the PABA, to reflect the forecast and true-up of the MPBs adopted in D.19-10-001.[119] In Exhibit SCE-6 (November Update) of SCE's 2020 ERRA Forecast proceeding, SCE included a true-up of the PABA for 2019, using the methodology adopted by the Commission in D.18-10-019 and D.19-10-001.

c) Operation of the PABA

The PABA is a new two-way balancing account that is comprised of subaccounts for each vintaged portfolio that records the costs (debits), market revenues (credits), and imputed market revenues (credits) of all generation resources (contracted and utility owned) executed or approved by the Commission for cost recovery for the subject portfolio.[120] The billed revenues collected from bundled

[117] In accordance with the terminology used in D.19-10-001, imputed RA and REC revenues are now referred to as "Actual Retained RA Value" and "Actual Retained RPS Value," respectively. *See* Advice 4098-E.

[118] Advice 3914-E was approved by the Commission's Energy Division with an effective date of January 1, 2019.

[119] Advice 4098-E was approved by the Commission's Energy Division, with an effective date of October 30, 2019.

[120] The PABA has the following subaccounts: CTC-Eligible, One-Time Refunds and Costs, Legacy Utility-Owned Generation (UOG) (*i.e.,* UOG installed before 2002), 2004-2009, and individual subaccounts for each calendar year after 2009. The PABA also has a Department of Water Resources (DWR) Energy Credit

service and departing load customers (credits) are also recorded in the PABA subaccounts on a vintaged basis using a Billed Revenue Allocation Table (BRAT), which is updated and submitted via advice letter to the Commission whenever there is a change to the PABA, ERRA or BRRBA-Generation revenue requirements. The Authorized Generation Base Revenue Requirement (AGBRR) associated with SCE's UOG is also included in the PABA for recovery.[121]

Table XI-49 below, summarizes the entries recorded in the PABA during the Record Period. Although the establishment of the PABA has a January 1, 2019 effective date, SCE did not receive this approval until May 2019. For that reason, there are a number of transfers into the PABA from other accounts beginning in May 2019, as shown in the "Beginning Balance" portion of Table XI-49 and further discussed below.

(continued from previous page)
subaccount that records the DWR Energy Credit revenue distributed to departing load customers through a cent-per-kilowatt-hour reduction to their PCIA rate (*i.e., See* D.11-12-005).

[121] *See* Advice 3914-E, p. 7.

Table XI-49
Portfolio Allocation Balancing Account
2019

Line No.	Description	($000)
1.	Beginning Balance	-
2.	Transfer Jan-Apr 2019 purchased power costs from ERRA + Interest	312,964
3.	Transfer Jan-Apr 2019 Imputed RA Revenues	(97,247)
4.	Transfer Jan-Apr 2019 Imputed REC Revenues	(437,710)
5.	Transfer BRRBA-Gen auth rev Jan-May 2019 + Interest	199,197
6.	Transfer billed revenue Jan-May 2019 + Interest	(292,863)
7.	Transfer 2016 ERRA Proceeding from BRRBA + Interest	(7,936)
8.	Transfer 2018 ESMA bal from ERRA + Interest	(30,146)
9.	Transfer 2018 LCTA bal from ERRA + Interest	2,076
10.	Transfer BPA Settlement from ERRA + Interest	(42,271)
11.	Adjusted billed revenue (CTC) Jan-Aug 2019 + Interest	(6,256)
12.	Adjusted billed rev DL Jun thru Aug 2019-Interest	112
13.	Adjusted billed revenue DL Jan-May 2019 + Interest	(7,943)
14.	Transfer 2017 ERRA Proceeding - PDDMA + Interest	(2,863)
15.	Transfer 2017 ERRA Proceeding - DPRBA-G	(5)
16.	Adjusted 2018 ESMA BPA Settlement + Interest	(23)
17.	Adjusted Beginning Balance	(410,913)
18.	Revenues - Bundled & Departing Load	(630,675)
19.	Authorized Revenue	460,219
20.	Expenses	
21.	UOG Expenses	117,934
22.	Contract Expenses	1,932,257
23.	Resource Revenues	
24.	CAISO Market	(645,038)
25.	Generation Resources	(40,808)
26.	Imputed RA Revenues	(228,336)
27.	Imputed REC Revenues	123,801
28.	Common & Indirect Costs & Revenues	225
29.	Total Expenses	1,260,036
30.	Total Over/Under Collection (Line 18 + Line 19 + Line 29)	1,089,580
31.	Interest	2,886
32.	End of Month Transfers/Adjustment	
33.	2018 BRRBA Transfer (GRCMA Auth Rev change)	(144,063)
34.	Ending Balance (Line 17 + Line 30 + Line 31 + Line 33)	537,490

d) Recorded Amounts in the PABA (Including Significant Transfers and Adjustments)

(1) Billed Customer Revenues

The PABA includes credit entries for billed customer revenues from both bundled service and departing load customers. Billed customer revenues are allocated in accordance with the applicable BRATs[122] based on the system average rate associated with each customer vintage, as outlined in Section 2.d of Preliminary Statement Part WW. In addition, as required by Generally Accepted Accounting Principles, SCE recognizes customer revenue for any balancing account based on when the revenue is earned, not when it is billed to customers. As a result, the customer revenues recorded to the PABA in any given month include revenues billed to customers for usage during the current month and an estimate of revenue earned from providing electricity to customers that has not yet been billed, which is referred to as "unbilled revenue." PABA unbilled revenue is allocated using the same percentages that are used to determine billed revenue.

Due to the difference between the effective date (January 2019) and approval date (May 2019) of the PABA, SCE had to make adjustments to billed customers revenues – as reflected in the monthly Beginning Balance section of Table XI-49. These include an initial $291,365,596 credit transfer adjustment in June 2019, with a corresponding interest transfer credit ($1,497,784). Additionally, on September 25, 2019, SCE submitted Advice 4077-E to update the allocation of billed customer revenues across the applicable balancing accounts for the period January 1, 2019 through May 31, 2019.[123] The implementation of this advice letter is reflected in September 2019 as a Beginning Balance credit adjustment of $7,845,948, with two corresponding interest transfers (debit of $15,048). Additionally, a transfer of CTC billed revenues is reflected in a separate September 2019 Beginning Balance transfer of $6,213,226, with a corresponding interest credit ($42,600).

[122] *See* Advice 4006-E, 4043-E, 4072-E and 4077-E.

[123] On October 30, 2019, the Commission's Energy Division approved Advice 4077-E, with a September 25, 2019 effective date.

(2) Authorized Revenues

In accordance with Advice 4012-E and Section 3.b of Preliminary Statement Part WW, SCE's authorized revenue (referred to as the "Authorized Generation Base Revenue Requirement" or "AGBRR") for 2019 in the PABA was $658,395,769. SCE's authorized revenues are recorded in the Legacy UOG and 2004-2009 subaccounts of the PABA. Prior to 2019 and the establishment of the PABA, this authorized revenue requirement was recorded in the Generation subaccount of the BRRBA. This amount is reflected in the PABA for the record period as a $460,218,643 entry in the Authorized Revenue line item and a debit transfer of $198,177,196 (plus interest) from BRRBA-Generation in June 2019 due to the difference in the PABA approval date (May 2019) and the PABA effective date (January 2019).

(3) Resource Revenues and Expenses

Section 3 of Preliminary Statement Part WW outlines the monthly resource-related debit and credit entries applicable to the PABA. Accordingly, SCE has recorded actual costs, realized market revenues, and imputed revenues of all eligible resources executed (contracts) or approved by the Commission for cost recovery (UOG) for each subaccount (resource vintage) within the PABA, as documented in the accompanying workpapers.[124]

(a) Energy Value

For the Record Period, SCE received [redacted] in CAISO market revenues from its PABA portfolio, from [redacted] generated.[125] This equates to an average price of approximately $31/MWh. This is significantly lower than the $41.97/MWh MPB ("Energy Index") that SCE was required to use when setting the 2019 forecast rates. This final result is consistent with data presented in SCE's Reply Brief in A.19-06-002 showing the weighted-average day-ahead

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[124] *See* Advice 3914-E, pp. 3-4, for a description of the debits and credits applicable to each subaccount.

[125] Note, this amount differs from what is shown in the table above for CAISO market revenues since the market revenues generated in January through May of 2019 are included (netted) in the purchased power beginning balance transfer reflected on Line 2.

market revenues from its PABA portfolio of resources to be approximately $30.50/MWh.[126] The difference between the forecast market value based on the Commission-prescribed MPB and forecast volumes[127] and the market value based on actual revenues and volumes is approximately $477 million.

(b) RA Value

In accordance with D.18-10-019 and D.19-10-001, SCE calculates the market value of RA from the PABA-eligible resources based on the Forecast RA Adders provided by the Commission for "forecast retained" system, local and flexible RA. This amount is then trued-up by applying the Final RA Adders provided by the Commission in November of each year to the Actual Retained RA. SCE also trues up the amount of Actual Sold and Actual Unsold RA. In total, the RA Value is the sum of the Actual Retained RA, Actual Sold RA and Actual Unsold RA (with the latter having a $0 value).

The actual retained RA value (imputed RA revenues) recorded in PABA for 2019, less the true-up for Actual Unsold RA, is $325,582,955.[128] This includes a $97,247,000 credit transfer from ERRA shown in the May 2019 Beginning Balance section of Table XI-49, which resulted from the delayed approval of the PABA, and a $228,335,955 credit value for the remainder of 2019. In November 2019, in accordance with D.19-10-001,[129] SCE completed a true-up of the RA value, which is why the amount recorded in November 2019 reflects a debit.[130] The true-up resulted in a $33,696,480 reduction to the RA value after applying the final System RA Adder,[131] and a $20,528,690 reduction after valuing Actual Unsold RA at $0.

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[126] *See* Reply Brief of SCE in A.19-06-002, p. 7.

[127] This includes a required line loss adjustment that erroneously inflates the forecast market value.

[128] The RA volumes associated with SCE's recorded amounts are provided in workpapers. When compiling the workpapers, SCE identified corrections to certain amounts that will be recorded in 2020.

[129] D.19-10-001, OPs 3 and 4.

[130] *See* D.20-01-022, Section 5.3.3, pp. 31-33.

[131] SCE's 2019 ERRA forecast rates used a system RA MPB of $37.08/kW-yr. The final system RA MPB published by the Commission's Energy Division on November 1, 2019 was $33.24/kW-yr.

In December, SCE also allocated RA sales pro rata across the resource vintages, in accordance with D.19-10-001.[132] This doesn't impact the total amounts recorded in the PABA, but does cause movement across the sub-accounts of the PABA.

(c) RPS Value

In accordance with D.18-10-019 and D.19-10-001, SCE calculates the market value of RPS from the PABA-eligible resources based on the Forecast RPS Adder provided by the Commission for "forecast retained" RPS. This amount is then trued-up by applying the Final RPS Adder provided by the Commission in November of each year to the Actual Retained RPS. SCE also trues up the amount of Actual Sold and Actual Unsold RPS. In total, the RPS Value is the sum of the Actual Retained RPS, Actual Sold RPS and Actual Unsold RPS (with the latter having a $0 value). For 2019, SCE had [redacted] of Actual Retained RPS, which equates to a value of [redacted][133] and [redacted] GWh of Actual Sold RPS, totaling [redacted]. SCE had [redacted] of Actual Unsold RPS, which was valued at $0.

The actual retained RPS value (imputed REC revenues) recorded in PABA for 2019, less the true-up for Actual Unsold RPS, is $313,908,994.[134] This includes a $437,710,333 credit transfer from ERRA shown in the May 2018 Beginning Balance section of Table XI-49, which resulted from the delayed approval of the PABA, and a $123,801,339 debit value for the remainder of 2019. There is a debit amount reflected in the June 2019 Imputed REC Revenues line item. This was the result of correcting an error from the previous months in 2019 when SCE was erroneously valuing its PABA-portfolio RECs at $59.97/MWh (Energy Index + REC Adder) instead of $18/MWh (REC Adder only). In November and December 2019, in accordance with D.19-10-001,[135] SCE completed a true-up of the actual retained RPS value, which is why amounts recorded in these months also reflect a

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[132] D.19-10-001, p. 32.

[133] Dividing [redacted] GWh by [redacted] results in $16.44/MWh, which is the Final RPS Adder for 2019.

[134] This number differs by $59,184 from the amount listed above (*i.e.,* $313,908,954 compared to [redacted]) due to an error that SCE corrected in January 2020.

[135] D.19-10-001, OPs 3 and 4.

debit.[136] This true-up was reflected in two steps. In November 2019, SCE recorded the true-up associated with valuing the Actual Unsold RPS at $0. This resulted in an [redacted] reduction to the RPS value. In December, SCE recorded the true-up associated with the applying the final RPS Adder to the Actual Retained RPS (*i.e.,* using $16.44/MWh instead of $18/MWh). This resulted in a [redacted] reduction to the actual retained RPS value.

In December, SCE also allocated REC sales pro rata across the resource vintages, in accordance with D.19-10-001.[137] This doesn't impact the total amounts recorded in the PABA, but does cause movement across the sub-accounts of the PABA.

(4) Other Transfers and/or Adjustments

Pursuant to D.18-10-031 (the decision addressing SCE's 2016 ERRA Compliance application) and Advice 3906-E/E-A, SCE transferred a credit of $7.8 million (plus interest) from BRRBA to the 2016 subaccount of the PABA as a Beginning Balance adjustment in July 2019.

Pursuant to D.19-10-039 (the decision addressing SCE's 2017 ERRA Compliance application) and as described in Advice 4117-E,[138] SCE transferred the 2017 year-end balances in the Project Development Division Memorandum Account (PDDMA) and the applicable portion of the Demand Response Program Balancing Account (DRPBA) to the 2017 vintage subaccount of the PABA as December 2019 Beginning Balance adjustments.

Pursuant to D.15-10-037 and as described in Advice 3914-E, year-end balances in SCE's Energy Settlement Memorandum Account (ESMA) and Litigation Costs Tracking Account (LCTA) are now recorded in the One-Time Refunds/Costs subaccount of the PABA. These amounts are shown as Beginning Balance transfers from ERRA in September 2019. Additionally, in December 2019, an ESMA adjustment was recorded in the Beginning Balance of the PABA.

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[136] *See* D.20-01-022, Section 5.3.2, pp. 26-30.

[137] D.19-10-001, pp. 29.

[138] The Commission's Energy Division approved Advice 4117-E on December 26, 2019, with a November 26, 2019 effective date.

e) Conclusion

SCE requests that the Commission find that the amounts recorded in the PABA are stated correctly and consistent with applicable Commission decisions and SCE's corresponding advice letters.

16. Tree Mortality Non-Bypassable Charge Balancing Account (TMNBCBA)

a) Introduction

The purpose of the TMNBCBA is to record the "net costs," as defined in D.18-12-003, of biomass generation procured pursuant to Resolutions E-4470 and E-4805 from SCE's tree mortality contracts.[139] The TMNBCBA will also record billed revenues received from customers once the TM-NBC is implemented in rates.

b) Background

On December 13, 2018, the Commission adopted D.18-12-003, which established the TM-NBC to recover the net costs of biomass generation procured pursuant to Resolutions E-4470 and E-4805 from SCE's tree mortality contracts. D.18-12-003 specified that the "net costs" that are to be recovered through the TM-NBC from all of SCE's customers are the costs of the tree mortality contracts less: (a) revenue received by SCE through sales of energy and ancillary services from the tree mortality contracts, (b) the value of RECs from the tree mortality contracts as determined by the sale of these credits in the marketplace (or a benchmark value if such sales are impossible), and (c) the value of RA capacity from the tree mortality contracts as determined by the sale of the capacity (or a benchmark value if such sales are impossible).[140] Pursuant to OPs 9 and 12 of D.18-12-003, on February 19, 2019, SCE submitted Advice 3955-E to establish the TMNBCBA.[141]

To address recovery of the net costs of the tree mortality contracts that were incurred prior to the establishment of the TMNBCBA, SCE also included for Energy Division review in

139 SCE has three tree mortality contracts, as described in Advice 3955-E, p. 5.

140 D.18-12-003, p. 2.

141 SCE subsequently submitted Advice 3955-E-A, which supplemented Advice 3955-E in part. Both advice letters were approved by the Commission's Energy Division on May 23, 2019, with a January 1, 2019 effective date.

Advice 3955-E the operation of the BioMass memorandum account (BioMASSMA) and the BioRAM memorandum account (BioRAMMA). SCE explained that in accordance with OP 9 of D.18-12-003, SCE would transfer the 2018 year-end balances in the BioMASSMA and BioRAMMA to the TMNBCBA upon approval of Advice 3955-E.

c) Operation of the TMNBCBA

The TMNBCBA records the actual costs, energy and ancillary services revenue, REC sales-related revenue (or a benchmark value if such sales are impossible),[142] and RA sales-related revenues (or a benchmark value if such sales are impossible)[143] of SCE's tree mortality contracts. The TMNBCBA also records billed TM-NBC revenues received from customers. However, because SCE has not yet implemented the TM-NBC in rates, no customer revenues related to the TM-NBC were recovered in 2019, which is why there are no customer revenues reflected in the TMNBCBA for the Record Period.[144] Table XI-50 below, summarizes the entries recorded in the TMNBCBA during the Record Period.

[142] SCE's methodology for determining the value of the RECs associated with its tree mortality contracts is described in Preliminary Statement Part P, Section 2.e.

[143] SCE's methodology for determining the value of the RA capacity associated with its tree mortality contracts is described in Preliminary Statement Part P, Section 2.f.

[144] SCE implemented the TM-NBC in rates as part of its 2020 ERRA Forecast implementation in April 2020. *See* Advice 4168-E, p. 4.

Table XI-50
Tree Mortality Non-Bypassable Charge Balancing Account
2019

Line No.	Description	($000)
1.	Beginning Balance	-
2.	BioRAMMA -2017 balance transfer + interest	9,983
3.	BioRAMMA -2018 balance transfer + interest	10,597
4.	Adjusted Jan. - April 2019 TMNBC / BioRam&BioMass + Interest	7,372
5.	BioMass -2017- 2018 balance transfer	30,867
6.	Mar2017-Sep2019 RA REC Valuation True up + Interest	(16,718)
7.	Adjusted Beginning Balance	42,101
8.	Current Under/(Over) Collection	28,000
9.	Interest	974
10.	Ending Balance (Line 7 + Line 8 + Line 9)	71,075

d) Recorded Expenses in the TMNBCBA

Upon approval of Advice 3955-E/E-A, in May 2019, SCE transferred the 2017-2019 balances (including interest) in the BioMASSAMA and BioRAMMA to the TMNBCMA, as shown in Table XI-50, resulting in an adjusted beginning balance of $42.101 million.[145] Going forward in 2019, the net costs previously recorded in BioMASSMA and BioRAMMA were directly recorded in the TMNBCBA, in accordance with the methodology adopted in D.18-12-003.

In November 2019, SCE recorded a credit of $16.273 million (plus interest) in the TMNBCBA. This credit represents the "REC value true-up" outlined in Advice 3955-E[146] for every REC generated prior to the establishment of the TMNBCBA and for every REC generated prior to the

[145] OP 5 of D.20-01-022 requires SCE to include the charges incurred from 2017-2019 in this instant proceeding for reasonableness review.

[146] *See* Advice 3955-E/E-A, pp. 4 and 7.

date that energy and PCC1 RECs were first sold under the REC sales contract.[147] The RECs were credited at a value of $15.04/MWh in accordance with OP 3 of D.18-12-003 and Advice 3955-E/E-A, as shown in Table XI-51 below.

Table XI-51
TMNBCBA REC Value True-Up Adjustment[148]

Year	Quantity (MWh)	REC Value True-Up Adjustment
2017	[redacted]	
2018		
2019		
TOTAL		

This $16.273 million credit in the TMNBCBA is reflected as a corresponding debit in the ERRA BA, in accordance with OP 3 of D.18-12-003.

No true-up adjustment is needed for the RA value pursuant to OP 5 of D.18-12-003, as outlined in Advice 3955-E.[149] Revenues received from tree mortality contract RA sales are recorded directly in the TMNBCBA under the "CAISO Revenue" line item entry.

e) Conclusion

SCE requests that the Commission find that the amounts recorded in the TMNBCBA are stated correctly and consistent with D.18-12-003 and Advice 3955-E/E-A.

E. Review and Disposition of Miscellaneous Account Balances

1. Residential Rate Implementation Memorandum Account (RRIMA)

a) Introduction

The purpose of this section is to: (1) provide the regulatory background associated with the Residential Rate Implementation Memorandum Account (RRIMA); (2) present the entries

[147] For the latter requirement, SCE used September 13, 2019 at the applicable date, since that was the delivery start date of SCE's first BioRAM REC sales RFO (*i.e.,* deliveries can begin within 10 business days of the advice letter submittal date (August 29, 2019)). *See* Advice 4064-E.

[148] For September 2019, SCE used a prorated calculation (12/30 days) to determine the amount of MWh to include in the true-up calculation since generation information per day was not available.

[149] *See* Advice 3955-E, p. 4.

recorded in the RRIMA during the 2019 Record Period for review; and (3) demonstrate that the entries recorded in the RRIMA are appropriate, correctly stated, and in compliance with Commission decisions.

b) Background

On July 3, 2015, the Commission issued D.15-07-001, which adopts an optional two-tier residential rate structure, establishes a timeline to reform tiered residential electric rates during the years 2015 through 2020, and authorizes the future transition of residential customers to time-of-use (TOU) rates. OP 12 of D.15-07-001 authorized SCE to submit a Tier 1 Advice Letter to establish a memorandum account to track the verifiable incremental costs associated with: (1) TOU pilots, (2) TOU studies, including hiring of a consultant or consultants to assist in developing study parameters, (3) marketing, education and outreach (ME&O) costs associated with the rate changes approved in this decision, and (4) other reasonable expenditures. SCE submitted Advice Letter 3251-E[150] on July 29, 2015 to establish the RRIMA, Preliminary Statement Part N.61, to recover the verifiable incremental costs associated with the transition of residential customers to TOU rates.

In accordance with D.15-07-001, SCE included the operation of the RRIMA for review in its 2018 GRC to show the October 2015 to December 2017 costs were incremental, verifiable, and reasonable. On May 16, 2019, the Commission issued the 2018 GRC Decision D.19-05-020, which authorized, among other things, recovery of RRIMA costs and transfer of the RRIMA balance as of December 31, 2017 to the distribution sub-account of the BRRBA. In addition, D.19-05-020 authorized SCE to modify the RRIMA Preliminary Statement, Part N.61., RRIMA, to state that SCE will seek review and recovery of the 2018, 2019 and 2020 year-end recorded balance in its annual April ERRA Review proceeding. Recovery through the annual ERRA Review proceedings will give the Commission the opportunity to review recorded costs on a timely basis and allow SCE to recover these costs annually.

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[150] Advice Letter 3251-E was approved by the Commission's Energy Division with an effective date of July 29, 2015.

c) Operation of the RRIMA

This section sets forth the operation of the RRIMA for the 2019 Record Period for Commission review. The RRIMA records each month: (1) operating expenses and (2) recorded capital-related revenue requirement (book depreciation, authorized return on recorded rate base, and applicable taxes).

Table XI-52 below summarizes the operation of the RRIMA for the 2019 Record Period.

Table XI-52
Residential Rate Implementation Memorandum Account 2019
($000)

Line No.	Description	($000)
1.	Beginning Balance [1/]	32,186
2.	Transfer 2017 Balance and Interest to BRRBA per 2018 GRC [2/]	(18,113)
3.	Adjusted Beginning Balance (Line 1 + Line 2)	14,073
4.	RRIMA Expenses	13,648
5.	Capital-Related Revenue Requirement	
6.	- Depreciation	1,644
7.	- Income Taxes	(190)
8.	- Return	476
9.	Total Capital-Related Revenue Requirement	1,931
10.	(Over)/Under Collection (Line 4 + Line 9)	15,579
11.	Interest	569
12.	Ending Balance (Line 3 + Line 10 + Line 11)	30,221

1/ 2019 Beginning Balance includes 2018 recorded cost of $14 million, which will transfer to BRRBA Distribution Sub-Account once 2018 ERRA Review Application A.19-04-001 final decision is issued.

2/ 2018 GRC D.19-05-020 and Advice Letter 4012-E

d) Recorded Expenses in the RRIMA

SCE's RRIMA recorded costs from January 1, 2019 to December 31, 2019 were $15.579 million. SCE incurred $13.648 million of O&M expenses and $1.931 million in capital-related revenue requirement.

(1) O&M Expenses

Resolution E-4895 instructed SCE to revise its budget presentation so that it's similar to the other IOUs. SCE has revised all budget presentations in its Progress of Residential Rate Reform (PRRR) report, which has resulted in different budget categorizations. O&M expenses below include costs for TOU Pilots (Opt-In, Default Pilot), Default Full Rollout, and Non-TOU Pilot expenses. Each category is further separated into ME&O and other sections to be consistent with Resolution E-4895. SCE has recorded approximately $13.648 million [151] in O&M expenses from January 1, 2019 to December 31, 2019.

(a) TOU Pilots

D.15-07-001 directed SCE to conduct two TOU pilots to help inform the full scale roll out of default TOU to eligible residential customers in 2020. In compliance with this directive, SCE launched a TOU Opt-In Pilot (Opt-In Pilot) in June 2016 and a TOU Default Pilot (Default Pilot) in March 2018. The Opt-In Pilot concluded on March 30, 2018 as reported in the 11th PRRR Quarterly Report and will no longer be included in this section. SCE's expenses for TOU pilots include costs for planning and implementing activities to support the Default Pilot. SCE has recorded approximately $457 thousand in Default Pilot costs from January 1, 2019 to December 31, 2019.

(i) Default Pilot

In accordance with D.15-07-001, SCE launched the Default Pilot in March 2018. D.15-07-001 stated that the Default Pilot's purpose is "primarily to study aspects of TOU that are directly impacted by the self-selection bias, and to fine-tune customer education and test system operability prior to full rollout of default TOU." SCE initially targeted 400,000 customer accounts.

Budget expenditures for the Default Pilot were outlined in AL 3531-E (filed December 16, 2016), and AL 3531-E-A (filed May 26, 2017). The budgeted amounts included costs for ME&O, research, measurement and evaluation, information technology system updates, operation and project management support. In addition, ME&O expenditures were revised in

[151] SCE reported approximately $13.4 million of O&M expenses in the 18th PRRR Quarterly report, which reflects a credit of approximately $240k that is not reflected in the balancing account total shown in this filing.

AL 3777-E (filed March 30, 2018) and AL 3777-E-A (filed August 24, 2018). SCE recorded approximately $457 thousand in Default Pilot costs from January 1, 2019 to December 31, 2019.

(b) ME&O

SCE recorded approximately $276 thousand in the Default Pilot ME&O activities for 2019. These expenses include costs for bill protection communications, market research, and marketing support.

In Q1 2019, SCE began sending bill protection letters and emails to Default Pilot customers. These letters and emails informed customers that their mandated bill protection period had ended and informed the customers of their results with either the amount saved, or the amount of credit received.

Market Research includes costs for Survey 2 for the Default Pilot. Survey 2 was conducted in October-November 2018 with results received in late December 2018. This study evaluated customers' longer-term, post-summer attitudes and experiences with their Default TOU rate and SCE communications. A total of 2,023 interviews / surveys were completed either by phone or web with Default Pilot customers still on the two test rates when surveyed – 1,021 with TOU-D-4 customers and 1,002 with TOU-D-5 customers. Data collection began on October 22 and ended on November 27. Results from Survey 2 were reported in the 16th PRRR Quarterly report.

In addition, marketing support includes costs for customer education and TOU Text alerts.

(i) Other

SCE recorded approximately $181 thousand in the Default Pilot Other activities for 2019. These expenses include Information Technology (IT) alerts, load and bill impact reports, labor, and non-labor. As reported in the 17th PRRR Quarterly report, SCE received draft findings for winter load impacts which show a reduction in peak load for both TOU rates.

Incremental labor expenses include labor hours for measurement & evaluation and regulatory project management support. Non-labor costs include incremental employee expenses applicable to the Default Pilot.

(c) Default Full Rollout

On December 21, 2017, SCE submitted the Rate Design Window (RDW) Application (A.17-12-012) requesting authority to implement Default Full Rollout (Full Rollout) rates for eligible residential customers beginning in October 2020. As stated in the RDW Application, the Full Rollout's purpose is to transition eligible residential customers to default TOU rates. SCE has incurred planning and development costs for the Full Rollout.

Budget expenditures for the Full Rollout were outlined in the RDW Application and supplemental testimony submitted August 17, 2018. The budgeted amounts included costs for ME&O, research, measurement and evaluation, information technology system updates, operation and project management support. In addition, Full Rollout ME&O expenditures were revised in AL 3777-E (filed March 30, 2018) and AL 3777-E-A (filed August 24, 2018). SCE recorded approximately $1.09 million in Full Rollout costs from January 1, 2019 to December 31, 2019.

(i) ME&O

SCE recorded approximately $366 thousand in the Full Rollout ME&O activities for 2019. These expenses include costs for marketing automation, support, and market research.

In accordance with Resolution E-4895, Ordering Paragraph 3e, SCE developed marketing automation with the intention of utilizing the automated software to complement the extensive targeting and segmentation required for the Full Rollout. Marketing automation technology and enablement became functional in December 2018 through the established Salesforce platform. A limited set of automated communications were tested on residential customers in Q1 utilizing real-time, geo-targeted relationship-oriented audience over a four-week time period which encompassed a total audience of 60,134 new or transferred tiered rate customers.

The primary objectives of the Q1 automation pilot were to test marketing functionality in order to assess automation capabilities and limit any inadequacies prior to the Full Rollout. Additional objectives include delivering communications based on customer behavior and actions, and engagement through specific triggers, segmentation, timing and content.

In Q4 SCE deployed a 2nd marketing automation pilot in conjunction with a targeted TOU acquisition campaign to enroll customers onto either the 4-9PM or the 5-8PM rates. The primary objectives of the Q4 automation pilot were to test which communications resonated the best, increase TOU enrollment, and integrate aspects of automation/personalization via another channel, e.g. social targeting.

SCE began conducting semi-annual (spring / fall) ME&O tracking surveys in 2016 to assess customer awareness, understanding, and engagement with regard to residential rate reform and the anticipated transition to Full Rollout. In 2019, SCE incurred costs for wave 8 surveys.

The eighth wave of the ME&O tracking survey was conducted in November-December 2019 with a total of 1,315 Residential customers (including low / moderate / high usage, CARE / FERA, NEM, and other demographic and geographic customer sub-groups), from which a properly weighted representative sample of 1,000 customers was identified. Also, 712 of the 1,000 were qualified as “Default Eligible” customers – their responses were compared to the general Residential population and used to determine SCE’s performance against the seven ME&O targets established in Spring 2018. Wave 8 survey result responses are comparable between general Residential and Default Eligible respondents.

Due to the shift in launch of the Customer Service Replacement Project (CSRP), SCE is planning on defaulting a set of residential customers in October 2020 and then pausing for the launch of CSRP, with a restart in September or October 2021 with completion slated for March 2022. To test the messaging of customer communications, SCE conducted several focus groups with Default Eligible customers in mid-October - 4 in English, 2 in Spanish, and 2 with CCAs (Clean Power Alliance). Based on findings from the focus groups, SCE is revising customer communications to provide more clarity and simplification.

In addition, marketing support includes costs for Full Rollout pre-communication development.

(ii) Other

SCE recorded approximately $722 thousand in the Full Rollout Other activities in 2019. These expenses include costs for information technology charges, labor, and non-labor expenses. These charges include costs to maintain and update SCE's Rate Plan Comparison Tool, as well costs to provide energy management and projected bill information to customers for Residential rates, including TOU-D-PRIME rates, as mentioned in the 13th PRRR Quarterly report. Also included are incremental labor hours for project management support. Non-labor costs include incremental employee expenses applicable to the Full Rollout.

(d) Non-TOU Pilot

Non-TOU pilot costs include expenses associated with Residential Rate Reform activities that are not related to the TOU Pilots or Full Rollout. SCE was directed in D.15-07-001 to inform residential customers of the various rate reform changes, including development and delivery of educational materials that will help inform customers.

Budget expenditures for Non-TOU costs were outlined in the RDW Application supplemental testimony (A.17-12-02) (filed August 17, 2018), AL 3777-E (filed March 30, 2018) and AL 3777-E-A (filed August 24, 2018). The budgeted amounts include costs for local targeted media, statewide marketing, High Usage Charge, community-based organizations, and bill comparisons. Costs are provided by the following two activity types: (1) ME&O and (2) Other, which includes labor, non-labor and employee expenses to support these efforts. SCE has recorded approximately $11.76 million in Non-TOU costs from January 1, 2019 to December 31, 2019.

(i) ME&O

SCE incurred approximately $3.3 million of local targeted media charges. These costs include efforts for rate options summer campaign, creative development and media buy, and translation services. The goal of the rate options summer campaign, as in the previous two years, was residential rate option awareness in preparation for the 2020 TOU default. Rate options include time-of-use (TOU) and other rates. A dedicated campaign landing page was offered to learn more about rate options. The landing page was translated in English, Spanish, Chinese, Korean, and Vietnamese.

Overall the campaign generated 686 million impressions. The digital click-through-rate (CTR) at 0.22% surpassed both the SCE and Sizmek government/utility benchmark of 0.15% and 0.14%, respectively. This demonstrates consumers were engaged and interested in learning more.

In 2019, SCE incurred approximately $8.4 million of statewide marketing charges. These costs include SCE's portion of statewide marketing costs and consultant support from Coleman Inc. This is in accordance with D.17-12-023 and the Greenberg Blueprint which required the IOUs to develop a statewide marketing effort and hire a consultant to implement the program. Between September 6 and October 18, 2018, Ipsos (the selected evaluator for the statewide TOU ME&O efforts, in particular the DDB campaign) conducted the Year 1 baseline survey prior to the launch of any "air cover" communications in SDG&E's territory or elsewhere in California. The purpose of the annual surveys is to measure specific aspects of the statewide residential rate reform campaign via customer research and assess the achievement of the Vision Metrics per the Greenberg Blueprint related to engagement, rate choice, and action.

For the baseline study, surveys were conducted by phone and online among Residential customers across all three IOUs. A total of 5,359 surveys were completed statewide – 1,693 with SCE's customers (1,160 online and 533 phone). Surveys were offered in English, Spanish, Mandarin, and Cantonese.

Preliminary results were presented at TOU Working Group meetings late last year and in early 2019 – and highlights were included in SCE's 14th PRRR Quarterly report. In addition to finalizing the report, Ipsos proposed an approach / methodology for establishing Vision metric targets – which was accepted by the Working Group in April 2019. Using 2018 survey results, 2019 targets were modeled for all three IOUs with a primary focus on SDG&E with its TOU Default Full Roll-out already underway. Post-Default (2022) targets were also modeled / estimated for all three IOUs – and will be refined / modified with the 2019 (and succeeding years') survey results.

The second wave (Year 2 2019) of this statewide study was conducted in October-November for SDG&E and November-December for SCE and PG&E.

In 2019, SCE spent approximately $146k on TOU bill/rate comparisons and acquisition campaigns. In accordance with D.15-07-001, SCE was required to provide a semi-annual rate comparison (online and/or paper) for all residential customers advising customers of their rate options as part of the TOU default. SCE sent rate option communications to customers through customer acquisition campaigns, including a marketing automation pilot with bill comparisons.

In 2019, SCE spent approximately $0.219 million on community-based organization (CBO) outreach efforts. As part of SCE's strategy to increase awareness and educate customers about rates and assistance programs, the Company has implemented a bottoms-up, grassroots approach, by leveraging established relationships with more than 1,400 CBOs within our service territory as well as by participating in a variety of local events and community celebrations. In addition, SCE released a Request for Proposal (RFP) on December 10, 2018 to CBOs that reach critical customer segments like Seniors, Low Income, Disabled, and Multi-Cultural. The RFP encouraged CBOs to submit a proposal to be eligible to receive an incentive of up to $5,000 to be paid out in four quarterly disbursements throughout 2019. SCE has on-boarded more than 30 CBOs which resulted in approximately 227 events that reached 68,000 constituents in critical segments. Of those events, SCE attended 86 community events.

In A.17-12-011, SCE proposed the development of prototype designs for a conceptual study that will aid in measuring the best online rate conversation turn-on experience, which includes how customers view their rate options. SCE developed a visual design and ran a proof-of-concept study in 2019 that cost approximately $91k. SCE's goal is to enable the launch of online rate conversations in Q4 2020.

SCE discovered a co-funding reporting error for work performed by Greenberg in 2016. The error was caused by an incorrect co-funding split which resulted in approximately $1.2 million in overcharges being applied to RRIMA. SCE has reversed the incorrect charges and re-billed in the amount of approximately $516k which represents SCE's portion of Greenberg charges.

In addition, SCE incurred approximately $0.106 million of non-TOU ME&O costs for website updates, translation services, and marketing collateral.

(ii) Other

SCE recorded approximately $183,000 in non-TOU other activities for 2019. These expenses include costs for High Usage Charge letters, labor and non-labor expenses.

In January 2017, SCE introduced the High Usage Charge. SCE sends a pre-notification (pre-breach) mailer to customers who were between 349% and 400% of the baseline usage, and a High Usage Charge mailer to customers who exceeded 400%. In 2019, SCE has sent 192,500 automated letters to those customers who exceeded 400% of baseline, and 232,522 pre-breach letters.

Labor costs include incremental labor hours for project management support. Non-labor costs include incremental employee expenses applicable to the non-TOU activities.

(e) Miscellaneous

As stated in the 12th PRRR Quarterly report, SCE now classifies internal charges (*e.g.*, general labor and absence fees, contract procurement, accruals, etc.), and budget reclassification efforts as miscellaneous charges. These charges are best separated from the other categories as they are not specific to TOU and non-TOU activities. SCE incurred approximately $103 thousand in miscellaneous charges in 2019.

e) Capital-Related Revenue Requirement

SCE incurred capital-related expenses (depreciation, income taxes, return) of $1.931 million in 2019 to support the residential rate reform decision D.15-07-001. This work included information technology system changes for the TOU Default Full Rollout, which included enhancements to the rate analysis tool and self-service rate change function.

f) Reasonableness of RRIMA Recorded O&M and Capital

As described above, the RRIMA-related costs include expenses for O&M and capital expenditures. The RRIMA O&M expenses include costs associated with the TOU Default Pilot, Default Full Rollout, and all other non-TOU Residential Rate Reform activities. RRIMA-related capital expenditures include information technology systems that were necessary and reasonable to implement the Commission's directive on residential TOU rates. As required by R.12-06-013, SCE provides quarterly reports on the progress of its residential rate reform activities and costs that are recorded in RRIMA.

g) RRIMA Cost Allocation

All RRIMA-related costs are proposed to be allocated to distribution charges because they benefit both bundled and departing load customers. This is consistent with the cost allocation adopted in Resolution E-4847 for residential default TOU pilot-costs. As SCE will migrate all customers to TOU rates on the delivery portion of its rates, customer education and outreach for the transition to TOU is important regardless of the design of a customer's generation rates. Further, the rollout of residential TOU rates reflects the transition to more cost-based rates that has many potential benefits to all customers. Over the long run, these prospective benefits will likely include GHG emissions reductions, a less peaky load curve, improved reliability and potential reductions in future grid investment requirements.

h) Conclusion

Upon a Commission decision in this proceeding, SCE will transfer the RRIMA under-collected amount of $15.579 million, with accrued interest through the date of transfer, to the distribution sub-account of the BRRBA to recover from all customers.

2. Power Charge Indifference Adjustment Memorandum Account (PCIAMA)

a) Introduction

The purpose of the PCIAMA is to record and track the costs associated with the education and outreach efforts for California Alternate Rates for Energy (CARE) and Medical Baseline (MB) program customers impacted by the elimination of the exemption from paying the PCIA.

Pursuant to Section 18.3 of Preliminary Statement Part N, SCE will seek recovery of the balance in the PCIAMA in its annual ERRA Review proceeding.

b) Background

On June 19, 2003, the Commission issued Resolution E-3813, which established an exemption from the PCIA for departing load CARE and MB customers to shield those customers from the 2000-2001 Energy Crisis-related costs. Although these Energy Crisis-related costs have not been a part of SCE's portfolio since 2011, prior to the issuance of D.18-07-009, CARE and MB customers of Community Choice Aggregators (CCAs) and Electric Service Providers (ESPs) in SCE's service territory continued to be exempt from paying the PCIA. As a result, while bundled service CARE and MB customers do pay for the costs reflected in the PCIA, departing load and MB customers that receive the exemptions did not.

On July 23, 2018, the Commission issued D.18-07-009, which approved the elimination of the PCIA exemption for CARE and MB customers in SCE's and San Diego Gas & Electric's (SDG&E) service territory. Ordering Paragraph (OP) 5 of D.18-07-009 required SCE and SDG&E to initiate and jointly fund a collaborative effort with stakeholders and policymakers to implement an appropriate outreach plan to provide effective notice and education to customers who were impacted by the elimination of the PCIA exemption – including providing information about payment plans or other options. Pursuant to OP 6 of D.18-07-009, on August 9, 2018, SCE submitted Advice 3843-E to establish the PCIAMA to record and track its share of the costs associated with the education and outreach effort.[152]

c) Operation of the PCIAMA

Monthly entries to the PCIAMA include: (1) a debit entry equal to SCE's share of the education and outreach costs outlined above and (2) an interest entry determined by applying one-twelfth of the three-month Commercial Paper, as reported by the Federal Reserve, to the average

[152] On September 17, 2018, the Commission's Energy Division approved Advice 3843-E, with an August 9, 2018 effective date.

monthly balance in the PCIAMA. Table XI-53, below, summarizes the entries recorded in the PCIAMA during the Record Period.

Table XI-53
Operation of the PCIAMA
2019

Line No.	Description	($000)
1.	Beginning Balance	24
2.	Adjusted Beginning Balance	24
3.	Operation & Maintenance Expense	
4.	Non-Labor	23
5.	Total O&M Expense	23
6.	Monthly (Over)/Under Collection	23
7.	Interest	1
8.	Ending Balance (Line 2 + Line 6 + Line 7)	48

d) Recorded Expenses in the PCIAMA

In 2019, SCE recorded $23,781 in non-labor O&M expenses and $1,035.60 in interest expense. These amounts, in addition to the beginning balance of $23,780.73 (from 2018), resulted in a 2019 year-end balance of $47,852.14.

e) Conclusion

SCE requests that the Commission find that the amounts recorded in the PCIAMA are stated correctly and consistent with D.18-07-009 and Advice 3843-E. Upon a Commission decision in this proceeding, SCE will transfer $0.048 million, including interest of $0.001 million, to the PPPAM for recovery for recovery through the Public Purpose Programs Charge (PPPC).

3. **Building Benchmarking Data Memorandum Account (BBDMA)**

a) Introduction

The purpose of this section is to: (1) provide the regulatory background associated with the Building Benchmarking Data Memorandum Account (BBDMA); (2) present the entries recorded in the BBDMA during the 2019 Record Period for Commission review; (3) demonstrate that the entries recorded in the BBDMA are appropriate, correctly stated, and in compliance with Commission decisions; and (4) propose the disposition of the under-collected ending balance of $0.834 million for the 2019 Record Period (Line 14 of Table XI-54).[153]

b) Background

In compliance with AB 802, enacted on October 8, 2015,[154] SCE submitted Advice Letter 3408-E on May 12, 2016 to revise SCE's Preliminary Statements Part N, Memorandum Accounts, Section 19, to include the addition of the BBDMA. The BBDMA is used to track incremental operational and maintenance (O&M) expense and capital-related revenue requirements associated with maintaining energy usage data and providing aggregated data to building owners and their agents. The purpose of this data collection and delivery process is to allow the building owners whose buildings are covered under AB 802 to benchmark the energy usage of their buildings and provide their information to the California Energy Commission (CEC).

In order to comply with these benchmarking requirements set under AB 802, SCE first decommissioned its manual process in April 2017 and then implemented an automated self-service "dashboard" solution to receive and fulfill building benchmarking data requests. This system allowed SCE to receive and fulfill requests from building owners for whole building energy consumption data according to the rules and regulations defined in AB 802 and for the CEC to implement their regulations. The scope of this tool included the following capabilities: (1) Data request Dashboard, (2)

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[153] Includes $0.564 million from 2017 & 2018.

[154] Chapter 590, Stats. 205, filed October 8, 2015.

Building address lookup by zip code, (3) Tenant list lookup and verification, (4) Tenant authorization, and (5) Data aggregation and fulfilment.

These capabilities allow SCE to meet the benchmarking requirements that consist of:

- A benchmarking web site that provides an overview of the data request process;
- A benchmarking Dashboard for making requests, managing buildings profiles, and tracking request status, and
- A Notification system that provides timely emails that guide the requestor through the process

As of the end of 2019, SCE had fulfilled over 4,000 building benchmarking data requests since inception. Currently, SCE has over 4,300 active buildings which it monitors with requests being received from various types of building owners (such as commercial and multi-family) and other types of entities such as Council of Governments, local governments, Energy Efficiency and Sustainability consultants, and Energy management/Property management companies. By our measures, the breakdown of data requests by building types has been approximately 64 percent commercial, 35 percent multi-family, and 1 percent multi-use.

c) <u>Operation of the BBDMA</u>

In this ERRA Review proceeding, SCE is presenting the operation of the BBDMA for the 2019 Record Period. Table XI-54 below summarizes the operation of the BBDMA during the 2019 Record Period.

Table XI-54
Building Benchmarking Data Memorandum Account
2019

Line No.	Description	($000)
1.	Beginning Balance	564
2.	Capital Model Income Tax Adjustments 2018 & 2019	0
3.	Associated Interest	0
4.	Adjusted Beginning Balance (Sum of Line 1 - Line 3)	564
5.	O&M Expenditures	-
6.	Capital-Related Revenue Requirements	
7.	Depreciation	229
8.	Income Taxes	(43)
9.	Property Taxes	12
10.	Return	57
11.	Total Capital Costs (Sum of Line 7 - Line 10)	254
12.	Monthly (Over)/Under Collection	254
13.	Total Interest [1/]	16
14.	Ending Balance (Line 4 + Line 12 + Line 13)	834

Total interest includes interest accrued on Beginning Balance currently under review in SCE's ERRA Review (A.19-04-001). The interest related to 2019 Capital Costs is $0.003 million.

d) Recorded Expenses in the BBDMA

The total capitalized expenditure amount for the project of $1.145 million is being fully depreciated over 5 years. Therefore, in 2019, there is an annual depreciation expense in the amount of $0.229 million. The depreciation expense began in January 2018 and will end in December 2022. In addition to the depreciation expenses, the other Capital-Related Revenue Requirements (Costs) are also being expensed over the same five-year period. In Table XI-54 above, the annual income tax expense amount was a credit of $0.043 million, the annual property tax expense was $0.012 million and the annual return on capital and interest expenses was $0.057 million for a total Capital-Related Revenue Requirement of $0.254 million.

e) Conclusion

SCE requests that the Commission find the amounts recorded in the BBDMA during the Record Period were appropriate, correctly stated, and in compliance with Commission decisions. Upon a Commission decision in this proceeding, SCE will transfer the 2019 ending balance, including interest, to the distribution subaccount of the BRRBA for recovery from all customers through distribution rates. The 2017 and 2018 ending balances, including interest, will be transferred when the Commission issues a decision in the 2018 ERRA Review (A.19-04-001).

XII.

POLE LOADING AND DETERIORATED POLE PROGRAMS BALANCING ACCOUNT

A. Background

The Pole Loading and Deteriorated Pole Programs Balancing Account (PLDPBA) includes capital-related revenue requirements for the Pole Loading Program (PLP) and the Deteriorated Pole Program (Det Pole) and operating expenses for the Pole Loading Program. The PLDPBA was adopted in SCE's 2015 GRC, D.15-11-021. The Pole Program Management Department manages these two pole remediation programs. These programs improve the safety and reliability of SCE's pole infrastructure. The PLP assesses SCE's poles[155] to identify and repair or replace poles that do not meet G.O. 95 loading, temperature and safety factor requirements or, in areas with known local conditions such as high winds, SCE's loading, temperature and safety factor requirements. PLP assessment began in January 2014 and the pole remediation phase is expected to continue for 11 years through 2024. Under PLP, a pole will be replaced between 72 hours and 36 months depending on the safety factor results and its location relative to high fire areas.[156] On a small percentage of poles, the installation or redesign of a "down guy"[157] is required.

The Deteriorated Pole Program's (Det Pole) primary purpose is to replace poles that fail the Intrusive Pole Inspection required by G.O. 165. Under Det Pole, a pole will be replaced between 72 hours and 36 months or will be remediated with a steel stub, depending on the severity of the decay. Other poles are replaced under Det Pole such as overloaded poles and damaged poles found through normal business (*i.e.*, not found by PLP), and damaged poles identified through SCE's overhead detailed inspections.

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[155] PLP assessments will include all wood, light duty steel, and other non-engineered structures with limited exceptions.

[156] Prior to the implementation of D.18-05-042, under PLP, a pole was replaced between 72 hours and 59 months.

[157] A down guy is a guy wire anchored to the ground.

B. Operation of the PLDPBA

The section sets forth the operation of the PLDPBA for the 2019 Record Period for Commission review. In D.15-11-021, resolving SCE's 2015 GRC, the Commission authorized SCE to establish a two-way balancing account to recover certain costs associated with the PLP and Det Pole. Although the PLDPBA was to become effective on January 1, 2015, the PLDPBA was authorized in D.15-11-021 to begin as early as January 1, 2014.[158] SCE filed Advice Letter 3314-E[159] (as modified by 3314-E-B) to implement the 2015 GRC final decision, including the establishment of Preliminary Statement Part J, PLDPBA, which will record each month the difference between: (1) recorded capital-related revenue requirement (book depreciation, authorized return on recorded rate base, and applicable taxes) plus (2) operating expenses; and (3) the PLDPBA authorized revenue requirement adopted in D.15-11-021. In the advice letter's relevant tariff provision, "[t]he recorded operation of the PLDPBA will be reviewed by the Commission in SCE's April 1st ERRA annual review applications to ensure the entries to the account are stated correctly and are consistent with Commission decisions."[160] Under the PLDPBA, any over- or under-collection in the account is transferred annually to the distribution subaccount in the BRRBA to be returned to, or recovered from, SCE's customers. On May 16, 2019 the Commission issued the 2018 GRC D.19-05-020, which included the authorized PLDPBA revenue requirements. On June 13, 2019, SCE filed Advice Letter 4012-E (as modified by 4012-E-A) which included the implementation of the PLDPBA 2018 and 2019 authorized revenue requirements.[161]

Table XII-55 below summarizes recorded activity in the PLDPBA for the Record Period.

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[158] *See* D.15-11-021, pp. 539-541, COL 57 and 63.

[159] Advice Letter 3314-E was approved by the Commission's Energy Division with an effective date of November 1, 2016.

[160] AL 4012-E at Preliminary Statement Part J., Section 6. That same tariff section continues: "The cumulative recorded activity in the PLDPBA will be reviewed in SCE's 2021 GRC and will include: (1) the cumulative spending in the PLDPBA relative to the authorized amounts, and (2) information on the number of repairs made and the number of poles replaced."

[161] Advice Letter 4012-E/EA was approved by the Commission's Energy Division with an effective date of January 1, 2018.

Table XII-55
Pole Loading and Deteriorated Pole Balancing Account
2019

Line No.	Description	($000)
1.	Beginning Balance	162,892
2.	2018 Ending Balance Transfer to the BRRBA	(162,892)
3.	Tax Repair Deduction True Up Adjustment	(2,639)
4.	2018 GRC Adjustments	(165,421)
5.	2018 GRC Adjustments Transfer to the BRRBA	165,421
6.	2019 Authorized Revenue Requirement Trueup	(62,360)
7.	2019 GRC Adjustments	(3,391)
8.	Adjusted Beginning Balance (Sum Lines 1:7)	(68,390)
9.	Authorized Revenue Requirement	(165,081)
10.	PLP Expenses	25,875
11.	Capital-Related Revenue Requirement	
12.	- Depreciation	91,488
13.	- Income Taxes	(57,379)
14.	- Property Taxes	22,550
15.	- Return	161,239
16.	Total Capital-Related Revenue Requirement	217,898
17.	Total Recorded Revenue Requirement (Line 10 + Line 16)	243,773
18.	(Over)/Under Collection (Line 9 + Line 17)	78,692
19.	Interest	254
20.	Ending Balance (Line 8 + Line 18 + Line 19)	10,557

C. <u>Significant Adjustments</u>

As shown on Line 2 of Table XII-55, SCE recorded an adjustment to transfer the PLDPBA December 31, 2018 recorded ending balance to BRRBA, pursuant to Preliminary Statement Part J, Pole Loading and Deteriorated Pole Programs Balancing Account (PLDPBA). SCE recorded an adjustment with interest of ($2.639) million, to true up the estimated tax repair deduction to actual amounts, as shown on Line 3 of Table XII-55. Pursuant to D.19-05-020 and Advice Letter 4012-E authorizing SCE's 2018 GRC, SCE recorded the following adjustments and transfers. As shown on Line 4, an adjustment of ($165.421) million was recorded to true-up the 2018 recorded revenue requirement and expenses to 2018 authorized amount, and to adjust for the newly adopted 2018 GRC jurisdictionalization and payroll rates. SCE transferred the adjustment from PLDPBA to BRRBA, as shown on Line 5. SCE further recorded an adjustment of ($62.360) million to true-up the 2019 recorded revenue requirement for the first four months of the year to the 2019 authorized amount for that period, as shown on Line 6. In addition, SCE recorded an adjustment of ($3.391) million to true-up the 2019 recorded expenses related to jurisdictionalization and payroll rates for the first four months of the year to the 2019 authorized amount for that period, as shown on Line 7.

D. PLDPBA Recorded Revenue Requirement

The 2019 PLDPBA recorded revenue requirement is $243.773 million, comprised of $25.875 million in recorded operating expenses and $217.898 million in recorded capital-related revenue requirement. The 2019 GRC authorized PLDPBA revenue requirement was ($227.441) million, excluding FF&U, which is the total of Line 6 and Line 9 of Table XII-55 which results in a December 31, 2019 under-collection in the PLDPBA of $10.557 million. Consistent with SCE's PLDPBA Preliminary Statement, the December 31 balance in the PLDPBA is transferred annually to the distribution sub-account of the BRRBA to be recovered from, or returned to, customers.

As discussed in Section E.2 below, the $25.875 million in operating expenses on Line 10 of Table XII-55 comprises expenses for pole loading assessments, repairs, replacements, joint pole organization and payroll taxes.[162] As shown on Line 16 of Table XII-55, in 2019 SCE recorded $217.898 million in capital-related revenue requirement in the PLDPBA. The depreciation expense of $91.488 million on Line 12 of Table XII-55 is based on the 2018 GRC authorized depreciation rates applied to the plant-in-service balance. The income taxes of ($57.379) million on Line 13 of Table XII-

[162] Payroll taxes are calculated based on the monthly recorded O&M labor amount and the 2018 GRC authorized payroll tax rate.

55 are based on taxable income adjusted for deductions permitted by the tax rules, and reflects the net tax benefit associated with the tax repair deduction subject to tax flow-through ratemaking treatment. The property taxes of $22.550 million on Line 14 of Table XII-55 are calculated based on the 2018 GRC authorized assessed value and tax rates. Finally, the return of $161.239 million on Line 15 of Table XII-55 is based on the average rate base multiplied by the 2017 authorized rate of return on rate base of 7.90%.

E. Description of Pole Loading and Deteriorated Pole Program Costs

1. Capital Cost

Table XII-56 below sets forth the PLP and Deteriorated Pole capital expenditures over the 2019 time period.

Table XII-56
Pole Loading and Deteriorated Pole CPUC Expenditures ($000)
2019

Line No.	2019 Capital Expenditures Categories	($000s)
1	Transmission Deteriorated Pole Replacements	80,608
2	Distribution Deteriorated Pole Replacements	195,969
3	Transmission PLP Pole Replacements	40,551
4	Distribution PLP Pole Replacements	158,276
5	**Pole Replacement Subtotal:**	**475,405**
6	Transmission Steel Stub Remediation	47
7	Distribution Steel Stub Remediation	336
8	**Steel Stub Remediation Subtotal:**	**383**
9	PLP Dist Joint Pole	(17,817)
10	PLP Trans Joint Pole	(697)
11	PLP Distribution Prefab	6,056
12	PLP Distribution Transformers	8,924
13	PLP Distribution Wood Pole Disposal	1,694
14	**PLP Related Subtotal:**	**(1,840)**
15	**Total Capital Expenditures**	**473,949**

The PLDPBA includes capital-related revenue requirements for the Pole Loading Program and the Deteriorated Pole Program. The capital-related revenue requirement is the revenue requirement associated with the capital expenditures included in SCE's rate base through 2019 for these two programs. The capital expenditures include all costs associated with a pole replacement including design, material, and construction. Many pole replacements for PLP and Det Pole are designed by contract planners. The primary material cost is the pole itself. However, there are other pieces of equipment that often must be replaced when a pole is replaced, such as transformers and switches. Construction is performed by SCE's regional contractors or SCE district crews depending on the availability of resources and other work required. Another capital cost is the cost to dispose of the old pole. Wood poles are chemically treated to prolong their life. Therefore, the old poles must be properly disposed of. If the pole is jointly owned with another utility, such as AT&T or Frontier, and the replacement is deemed a mutual benefit, joint owners will contribute to the cost of pole replacements. There is a credit to the capital cost for the portion of the pole that is not owned by SCE in accordance with the applicable joint pole agreements.

Some deteriorated poles can be remediated with the installation of a steel stub. The capital cost includes all costs associated with a steel stub installation including design, material, and construction. Steel stub installations are done by a contractor. The contractor selects the correct steel stub size based on the size of the pole. The contractor then performs all the required construction activities to install the steel stub. There may be additional costs to complete the work such as concrete or asphalt repair. In 2019, 251 steel stub remediations were performed.

Table XII-57 below shows the completed pole replacements in 2019 and the source of the pole replacements.[163] The source category labeled "Others" represents poles that are visual rejects, pole loading rejects (not found through the Pole Loading Program) and miscellaneous rejects. Pole replacements due to storms, "car hit pole," new business and customer requests are not included in the PLDPBA and are not shown in the totals below.

[163] *See* Workpaper WPSCE-02V00ChXII Jacobs – Pole Replacements for pole replacements completed in 2014 through 2019.

Table XII-57
Pole Replacements Completed

	Source	2019
Distribution	Pole Loading Program (PLP)	7192
	Intrusive Inspection	5,866
	Others	3,372
	Total	**16,430**
Transmission	Pole Loading Program (PLP)	1227
	Intrusive Inspection	948
	Others	2,208
	Total	**4,383**

The source category labeled others represents poles that are visual rejects, pole loading rejects (not found through the Pole Loading Program) and miscellaneous rejects.

2. Operating Expense

The PLP operating expenses included in PLDPBA are comprised of pole assessment cost, pole repair costs and capital-related expense recorded in 2019.

Table XII-58
Pole Loading O&M Expense ($000)
2019

Line No.	2019 O&M Categories	($000s)
1	PLP Assessments Transmission	460
2	PLP Repairs Transmission	84
3	PLP Related Expenses Transmission	555
4	PLP Assessments Distribution	20,246
5	PLP Repairs Distribution	3,981
6	PLP Related Expenses Distribution	395
7	**O&M Subtotal**	**25,720**
8	**2019 Labor Loadings**	
9	**Payroll Taxes Subtotal**	155
10	**Total O&M Expenses**	**25,875**

Pole loading assessments require a field assessment and a desktop analysis to calculate each pole's safety factor. Inputs include the physical attributes of the pole, its attachments, and local weather conditions. The field assessment measures or validates the pole's attributes (such as wood species and type) and the size and type of equipment it supports. Collecting the data to perform a pole loading calculation requires an experienced assessor who must be able to access poles throughout SCE's service territory, including those located in remote terrain and other difficult-to-access locations such as customer backyards, and take accurate measurements. Assessors must be close enough to the pole to measure the ground line circumference and have enough room around the pole to measure attachment heights and span lengths. Photographs are also taken of each pole. The desktop analysis uses a software program called SPIDACalc to calculate the pole's safety factor. Pole assessment costs also include SCE's assessment staff. The assessment staff works with the vendors, manages the data exchange between the vendors and SCE, updates SCE's systems with the assessment results and performs checks on certain poles. SCE completed 189,629 assessments under the Pole Loading Program in 2019.

Depending on the reason(s) and extent to which a pole does not meet the required safety factor, the remediation may be accomplished by repairing the pole rather than replacing it. Repair involves either the installation of a guy wire(s) or the modification of an existing guy wire(s).[164] The cost of repair includes the design and construction. Design involves determining the appropriate size and placement of a guy wire(s) such that the design conforms to SCE design standards and produces an appropriate safety factor. Then, a drawing is developed that shows the location of the pole that needs to be repaired, the placement of the guy on the pole and the guy specifications. Environmental review and land rights checks, when needed, are conducted as part of the design process. Once the design work is completed the repair notification is sent to construction. The construction of the guy may be completed by either an SCE district crew or a regional contractor. SCE completed 1,581 repairs under the pole loading program in 2019.

Capital-related expense is the portion of the capital costs that represents expenses recorded for work that must be done when capital additions or replacements are being performed but does not qualify for capitalization under standard accounting guidelines. Examples include minor material items such as insulators and cross arms.

3. Other Matters

As set forth above in SCE's ERRA Review testimony, SCE includes Table XII-56 to show the total pole programs capital expenditures for the Record Period, and a separate Table XII-55 to show the revenue requirement recorded in the PLDPBA. The revenue requirement reflected in the PLDPBA should capture the total capital expenditures for the Record Period. However, in early 2020, SCE discovered that certain capital expenditures were inadvertently excluded from the revenue requirement calculation recorded in the PLDPBA. SCE estimates that the total capital expenditures inadvertently excluded from the revenue requirement calculations totaled approximately $11 million in 2018 and $22 million in 2019, for a total of approximately $33 million. These capital expenditures were correctly included in SCE's 2018 GRC Application, A.16-09-001. Because this issue was discovered

[164] SCE is responsible for guy repair at electrical levels only. If guy repairs are required at communication levels, the communication companies will be notified and will be responsible for the costs.

after the Record Period ended and the 2019 accounts were already closed, SCE was unable to make the proper adjustments during the Record Period. While the revenue requirement calculations will require adjustment in 2020, it should be noted that the 2019 capital expenditures themselves are correctly reflected in Table XII-58 above.[165] SCE will make a correction to the revenue requirement in the PLDPBA in 2020 to accurately capture all of the applicable capital expenditures. This correction will be subject to review in SCE's 2020 ERRA Review application.

[165] The 2018 capital expenditures were also correctly reflected in the 2018 ERRA Review (A.19-04-001) in Table XII-47 except for a discrepancy of $506,000. SCE's revenue requirement adjustment in 2020 will also account for and correct this discrepancy in 2018.

XIII.

2019 ERRA REVIEW – ERRA-RELATED AUDIT TESTIMONY

In compliance with the settlement agreement reached in SCE's 2011 Record Period ERRA review proceeding (approved in D.13-12-045), SCE's Audit Services Department (ASD) completed six internal audits related to Utility Retained Generation (URG) administration and certain other procurement-related company functions during the Record Period.

A. Oversight of Energy Procurement Risk Management

On December 31, 2019, ASD completed its assessment on the adequacy and effectiveness of Risk Management's monitoring of Energy Procurement and Management's (EP&M) trades and credit limits as required by the Risk Policy. Based on ASD's independent assessment, we concluded with reasonable assurance that Risk Management's oversight of EP&M's trades and credit limits as required by the Risk Policy is adequate and effective. One opportunity for improvement was identified during this assessment. Risk Management has indicated that procedures will be implemented to address the process improvement opportunity.

B. 2019 Endur Phase II Energy Markets and Trading System Refresh

On May 29, 2019, ASD completed an audit of the "Endur Phase II EMTSR system implementation project" to assess the readiness of the Endur system to adhere with internal control requirements, including Sarbanes-Oxley (SOX). The scope of the audit covered project management controls, business process SOX Controls, IT general computing controls and any observations from the 2018 Endur Phase II EMTSR readiness audit. The audit identified weaknesses in two areas. First, EMTSR project management team did not complete the mapping and updating of the Requirements Traceability Matrix and the applicable design documents with final sign-off by the business approvers. Secondly, the EMTSR project management team did not complete testing of all relevant system generated reports and key system screens/functionalities used to generate data for SOX controls or regulatory filings. Corrective actions plans were obtained to address the two weaknesses.

C. Power Source Disclosure Report and Power Content Label

On August 27, 2019, ASD completed a review of the Power Content Label and the Power Source Disclosure Report. The California Energy Commission (CEC), under the Power Source Disclosure Senate Bill 13045, requires that SCE disclose to consumers accurate, reliable, and simple-to-understand information on the sources of energy that are being used, and to submit an independent audit of the annual report to the CEC. The audit objective was to determine whether the SCE Meter Data Management group prepared the 2018 Power Content Label and the 2018 Power Source Disclosure Report according to the California Code of Regulation governing Senate Bill 1305, specifically Title 20, Article 5. Based on ASD's independent assessment, the review found sufficient controls for the preparation of both the 2018 Power Content Label and the 2018 Power Source Disclosure Report.

D. Green-e Energy Verification Audit

On May 22, 2019, ASD completed its audit using the "Green-e Energy Annual Verification Audit Protocol" to validate the accuracy of the information that was submitted to the Center for Resource Solutions through the software verification system. The audit covered the 2018 reporting year. Based on ASD's independent assessment, SCE complied with the Green-e Energy reporting requirements for the 2018 reporting year. No exceptions were noted.

E. IT Controls for Hydro Dam Control Rooms

On December 30, 2019, Audit Services assessed key systems operating at major hydro dam aggregation control centers to determine whether security controls are defined and operating effectively to mitigate operations risks covering network segmentation and management; backup configuration, retention and patching; and logical and physical access controls that support major control rooms and related infrastructure. Audit Services' independent assessment found that the controls in hydro operations are designed and operating effectively with some exceptions. Specifically, opportunities exist to tighten controls in logical security, physical security, technology documentation, and technology security areas. Audit Services recommended (1) implementing stricter access control standards, guidelines and practices; (2) improved technology asset control including ownership, documentation and understanding; and (3) implementation of additional controls to enhance the technology security where risk-mitigation is not cost prohibitive.

F. <u>IT General Controls at Catalina</u>

On September 6, 2019, Audit Services assessed key systems operating at Catalina to determine if IT General Controls are designed and operating effectively to mitigate operational and cyber risk. Audit Services' independent assessment found that the ITGCs at Catalina need improvement in the following areas: roles and responsibilities clarity between Generation, IT, and Physical Security; physical and system access control strengthening; control room safety measures; network rules, hardware upgrades, and possible routing configurations.

XIV.

GREENHOUSE GAS COMPLIANCE INSTRUMENT PROCUREMENT

A. Introduction and Bundled Procurement Plan Background

California's Global Warming Solutions Act of 2006 (AB 32) identified a market-based program as a potential strategy for the California Air Resource Board (CARB) to reduce GHG emissions to 1990 levels by the year 2020. On October 27, 2011 CARB adopted a Cap-and-Trade Final Regulation Order.

Compliance with the emissions cap established in the CARB Cap-and-Trade regulation began with calendar year 2013 GHG emissions. CARB created three compliance periods. The first compliance period began January 1, 2013 and covers 2013 through 2014. The second compliance period covers years 2015 through 2017 and the third compliance period covers years 2018 through 2020. Covered entities include operators of any facility that annually emits at least 25,000 metric tons of carbon dioxide equivalents (mtCO2e). Operators must obtain and surrender compliance instruments equivalent to the annual GHG emissions for each such facility. Importers of electricity into California are also responsible for obtaining and surrendering compliance instruments for GHG emissions deemed associated with electricity imports for compliance with Cap-and-Trade.

The surrender of compliance instruments associated with the first second and third compliance period occurred in November 2014, November 2015, November 2016, November 2017, November 2018 and November 2019. At that time, covered entities had to transfer compliance instruments associated with the quantity of verified, reported emissions to a CARB compliance account.

There are two types of compliance instruments: allowances, which are limited tradable authorizations created by CARB to emit up to one mtCO2e; and offset credits, which are tradable compliance instruments issued by CARB that represent verified reductions of one mtCO2e from projects whose emissions or avoided emissions are not from a source covered under the Cap-and-Trade program. For compliance, an offset credit and an allowance have limited differences. Unlike an allowance, an offset credit is not limited by vintage and can be utilized for any annual compliance obligation. However, an entity can only use offset credits to meet up to eight percent of its compliance obligation in any compliance period.

The Commission, through D.12-12-033 Adopting Cap-and-Trade GHG Allowance Revenue Allocation Methodology and D.12-04-046 Decision on System Track I and Rules Track III of the Long-Term Procurement Plan Proceeding and Approving Settlement, approved SCE and the other utilities to engage in electricity-related GHG products. SCE submitted its Greenhouse Gas Procurement Plan in Advice Letter (AL) 2713-E, which was approved by the Commission on July 11, 2013 and incorporated into SCE's 2010 BPP. SCE updated its 2010 BPP to the 2014 BPP with Advice Letter 3349-E, which was approved by the commission on February 16, 2016. SCE's procurement and limits for the 2019 Record Period were governed by its 2014 BPP.[166]

SCE's Greenhouse Gas Procurement Plan sets out the Commission-approved products, procurement methods, risk management strategy, credit and collateral requirements, affiliate transaction rules, total procurement limits, transaction rate limits, and other rules governing SCE's transactions in the California GHG cap-and-trade market. Like all other BPP-compliant transactions, provided they comply with the upfront standards contained in SCE's Commission-approved Greenhouse Gas Procurement Plan (*i.e.*, as incorporated into SCE's BPP), SCE's GHG instrument purchase and sale transactions are deemed *per se* reasonable and are eligible for cost recovery consistent with AB 57.[167] As explained in Section B. below, SCE's compliance instrument purchases are reviewed for BPP-compliance in SCE's QCR.

As explained in Section C. below, GHG compliance instrument purchases record to SCE's GHG inventory account. The cost of these instruments is then averaged with the cost of all other instruments in the inventory account, to yield an overall average cost (*i.e.*, \$/mtCO2e) of all the instruments in inventory. As SCE incurs GHG compliance obligations each month due to the metric tons of carbon dioxide equivalents (mtCO2e) emitted by SCE-owned and contracted resources (*e.g.*, by SCE's Mountainview Generating Station), the cost of these obligations is recorded to SCE's ERRA account by

[166] In support of the instant application, SCE is submitting as a workpaper confidential Attachment D of the 2014 BPP, including its Appendix E (GHG Limits).

[167] *See* D.12-01-033, p. 5.

applying the inventory weighted average price (in \$/mtCO2e) to the mtCO2e emitted using accrual accounting.

B. <u>GHG Instrument Procurement Review is Performed as Part of SCE's Quarterly Compliance Reports</u>

For the purchases and sales of GHG compliance instruments during the 2019 Record Period, SCE has demonstrated compliance with its 2014 BPP requirements in its 2019 QCR; *i.e.*, Advice Letters 3995-E, 4046-E, 4097-E, and 4149-E. At this time, 2019 advice letters 3995-E and 4046-E have been approved, but advice letters 4097-E and 4149-E are still pending final approval from the Commission. For reference, copies of portions of these four QCR filings, which document all of SCE's purchases and sales of GHG compliance instruments during the 2018 Record Period, are provided in the confidential workpapers that accompany this testimony.

C. <u>GHG Accounting</u>

When GHG compliance instruments are purchased at auction or through third parties, SCE records them as GHG allowance inventory at the purchase price. These transactions do not directly record to the ERRA, PABA or NSGBA balancing accounts. SCE records emissions expense and emission obligation liability when SCE emits GHG into the air. GHG allowance inventory and emission obligation liability are then offset through the GHG settlement process.

Pursuant to D.19-04-016, and prior decisions[168], SCE is required to use the accrual method of accounting to record GHG emissions expense. The accrual method of accounting is a system of accounting under which revenue is recorded when earned, and expenses are recorded when incurred. Greenhouse gas emission expense is incurred as SCE's utility owned generation and/or tolling partners emit GHG into the air. However, because final settlement of these emission expenses with CARB can be more than two years after the GHG is emitted, SCE must estimate GHG emissions to record this activity in the month that the GHG is emitted. SCE's procedure is to record an initial estimate in the

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[168] D.19-04-016 modifies D.15-01-024 to amend the Weighted Average Cost (WAC) of Greenhouse Gas (GHG) compliance instruments methodology (WAC methodology) in Attachment C. D.15-01-024 modifies D.14-10-055 and D.14-10-033.

month of the emission, a second more refined estimate in the month following the month of emission and subsequent estimates as needed in the intervening months between the GHG emission and final settlement with CARB or a tolling partner. Estimation is a fundamental element of the accrual method of accounting. Not employing estimation would cause the recording of revenues and expenses, and the related cost recovery, to be shifted away from the period earned or incurred. The confidential workpapers that accompany this testimony include the monthly accounting entries made to reflect SCE's estimated emission obligations incurred each month, and the entries showing the addition (to the inventory account) of each instrument purchase executed during the Record Period.

Total GHG expense recorded for 2019 is [redacted]. Of this amount, [redacted] relates to physical settlements and [redacted] relates to financial settlements. Physical settlements result in the delivery of GHG certificates from SCE inventory to a tolling counterparty or to CARB. Financial settlements result in the transfer of cash to SCE's tolling partners. Template C-1 below supports SCE's physical settlements of GHG emissions through the use of procured inventory. It presents a combined view of both inventory activity and direct GHG Costs.

Table XIV-59
Template C-1: Reporting Template to Calculate Weighted Cost of Compliance Instruments and Direct GHG costs

Month	Transaction/Activity Details							Inventory Emissions and $		WAC Pricing ($/MT)	Direct GHG Costs			True-Ups	Monthly BA Entry
Month	Transaction Date	Transaction Type	Quantity Pur/(Sales) (MT)	Purchase Price ($/MT)	Sales Price ($/MT)	Total Cost ($)	Total Sales ($)	Inventory Balance ($)	Total Qty in Inventory (MT)	WAC ($/MT)	Direct Monthly Emissions (MT)	WAC ($/MT)	WAC x Direct Emissions Qty ($)	True-Up Value /- ($)	Monthly Balancing Acocunt Entries ($)
Jan-19	1/1/2019	Inventory balance	[redacted]												
	1/31/2019	True-ups of prior recorded direct GHG costs													
	1/31/2019	Current month accrual													
Feb-19	2/1/2019	Inventory balance													
	2/28/2019	True-ups of prior recorded direct GHG costs													
	2/28/2019	Current month accrual													
Mar-19	3/1/2019	Inventory balance													
	3/19/2019	Adjustment related to prior years' settlements													
	3/19/2019	Adjustment related to prior years' settlements													
	3/19/2019	Inventory purchase - Q1 2019 ARB auction													
	3/21/2019	Q4 2018 settlements													
	3/31/2019	True-ups of prior recorded direct GHG costs													
	3/31/2019	Current month accrual													
Apr-19	4/1/2019	Inventory balance													
	4/15/2019	Q4 2018 settlement													
	4/30/2019	True-ups of prior recorded direct GHG costs													
	4/30/2019	Current month accrual													
May-19	5/1/2019	Inventory balance													
	5/22/2019	Inventory purchase - Q2 2019 ARB auction													
	5/31/2019	True-ups of prior recorded direct GHG costs													
	5/31/2019	Current month accrual													
Jun-19	6/1/2019	Inventory balance													
	6/11/2019	Q1 2019 settlements													
	6/30/2019	True-ups of prior recorded direct GHG costs													
	6/30/2019	Current month accrual													
Jul-19	7/1/2019	Inventory balance													
	7/31/2019	True-ups of prior recorded direct GHG costs													
	7/31/2019	Current month accrual													
Aug-19	8/1/2019	Inventory balance													
	8/31/2019	Inventory purchase - Q3 2019 ARB auction													
	8/31/2019	True-ups of prior recorded direct GHG costs													
	8/31/2019	Current month accrual													
Sep-19	9/1/2019	Inventory balance													
	9/27/2019	Q2 2019 settlements													
	9/30/2019	True-ups of prior recorded direct GHG costs													
	9/30/2019	Current month accrual													
Oct-19	10/1/2019	Inventory balance													
	10/17/2019	2017 & 20 8 settlements - AES													
	10/23/2019	GHG offset purchase													
	10/29/2019	Compliance transfer to settle 30% of 2018 UOG & Imports obligation													
	10/31/2019	True-ups of prior recorded direct GHG costs													
	10/31/2019	Current month accrual													
Nov-19	11/1/2019	Inventory balance													
	11/30/2019	Inventory purchase - Q4 2019 ARB auction													
	11/30/2019	True-ups of prior recorded direct GHG costs													
	11/30/2019	Current month accrual													
Dec-19	12/1/2019	Inventory balance													
	12/20/2019	Q3 2019 settlements													
	12/31/2019	True-ups of prior recorded direct GHG costs													
	12/31/2019	Current month accrual													
	12/31/2019	Inventory balance													

Of the [redacted] is associated with Purchase Power Expense[169] and [redacted] is associated with SCE's utility owned generation and is recorded as Operations and Maintenance expense.[170] Furthermore, of the [redacted] SCE recorded [redacted] in NSGBA, [redacted] in PABA and [redacted] in ERRA, consistent with the prescribed recovery mechanism of the emitting resource.

Template D-2 below summarizes SCE's annual physically and financially settled GHG emissions.

[169] GL accounts 5221050 and 5221051.

[170] GL account 6170032.

Table XIV-60
Template D-2: Annual GHG Emissions and Associated Costs

Line	Description	2018	2019
1	**Direct GHG Emissions (MTCO2e)**		
2	Utility Owned Generation (UOG)	[redacted]	
3	Tolling Agreements		
4	Energy Imports (Specified)		
5	Energy Imports (Unspecified)		
6	Qualifying Facility (QF) Contracts		
7	Contracts with Financial Settlement		
8	**Subtotal**		
15	**GHG Costs ($)**		
16	Direct GHG Costs	[redacted]	
17	Direct GHG Costs - Financial Settlement		

During 2019, SCE did not sell any purchased emissions allowances and did not incur any "other inventory costs." SCE did not receive or sell any free emissions allowances other than those separately recorded and reported in the Greenhouse Gas Revenue Balancing Account (GHGRBA). For the period ended December 31, 2019, SCE recorded [redacted] of revenue as a regulatory liability to the Greenhouse Gas Revenue Balancing Account from the sale of [redacted] GHG allowances allocated by California Air Resources Board (CARB). SCE does not commingle these allocated emission allowances with its purchased inventory. The GHGRBA is included in SCE's ERRA Forecast application which is out of the scope of this ERRA compliance review.

D. <u>Conclusion</u>

SCE's GHG compliance instrument procurement transactions are reviewed in SCE's QCR. In the attached workpapers, SCE provides the additional GHG procurement information agreed upon in the SCE-ORA settlement agreement for SCE's 2014 Record Period ERRA Review Phase proceeding (A.15-04-002), to facilitate the review of SCE's GHG-related costs incurred during the Record Period and that appropriately recorded to SCE's ERRA account. Herein, SCE demonstrates these ERRA account entries are appropriate and correct, available for audit as part of the ERRA Review Phase proceeding process and are recoverable.

XV.

TEHACHAPI STORAGE PROJECT

A. Introduction

SCE submits this testimony in compliance with Resolution E-4954 as discussed herein.

On April 2, 2018, SCE submitted Tier 3 Advice Letter 3779-E in compliance with Resolution E-4809 OP 8 to support the continued operation of the Tehachapi Storage Project (TSP). Advice Letter 3779-E describes why the TSP's continued operation as a resource is beneficial for grid reliability and is economically feasible. On January 10, 2019, the Commission authorized SCE's advice letter and, thus, the continued operation of the TSP in Resolution E-4954. The Resolution requires SCE to "justify, in the Energy Resource Recovery Account Compliance proceeding for 2017 and future years, its cost recovery of expenses for any time the TSP is offline."[171]

Per SCE's Preliminary Statement Part YY, BRRBA, SCE records both revenues and expenses related to the continued operation of the TSP in the BRRBA. As such, TSP expenses totaling $0.988 million are shown in SCE's 2019 BRRBA Table XI-14.

B. Tehachapi Storage Project Costs

The TSP was funded as a United States (US) Department of Energy (DOE) American Reinvestment and Recovery Act (ARRA) cost-share demonstration project[172] to evaluate utility-scale lithium-ion battery technology to improve grid performance and integrate wind energy generation resources into the grid.[173] Resolution E-4809 authorized SCE to continue to operate TSP beyond the original DOE ARRA Program end date to further evaluate this nascent technology. Resolution E-4809 further authorized SCE to permanently move the point of interconnection of the TSP to the Monolith 12kV bus. During the 2019 calendar year, TSP was operating in the CAISO wholesale market and made

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[171] Resolution E-4954, Ordering Paragraph (OP) 3 at p. 13.

[172] US DOE, Smart Grid Demonstration Program, DOE's Funding Opportunity Number DE-FOA-0000036, awarded to SCE on November 24, 2009.

[173] Advice Letter 2482-E, at p. 1.

advances towards moving the point of interconnection to the 12kV bus. In Table XV-61 below, 2019 TSP costs are shown for each month.

Table XV-61
2019 Tehachapi Storage Project Costs

Month	**TSP ONGOING OPERATIONS**	**TSP ONE-TIME COSTS**	**Totals**
January	[redacted]		
February			
March			
April			
May			
June			
July			
August			
September			
October			
November			
December			
Total			

The costs shown in Table XV-61 include:

TSP Ongoing Operations: These are standard costs for operation which include costs for maintaining interconnection facilities, preventative maintenance costs, and cost for repairs.

TSP One-Time Costs: These are one-time costs for moving the point of interconnection to the Monolith 12kV bus.

When considering the operating cost of the system versus revenue, TSP was revenue positive for 2019 with $1,105,061 in total revenue and $484,007 in ongoing operating cost (excluding one-time costs). With One-time costs included project revenues also exceeded total costs.

During the 2019 calendar year, TSP experienced 29 outages,[174] due to component failures and other operational issues typically associated with the demonstration of a nascent technology, which required TSP to be either fully or partially out of CAISO market participation.

These occurrences fell into four general categories.

1. System Repairs: System Repairs are not uncommon for nascent technologies operating in a production environment. For TSP the general category of System Repairs was often due to a single component failure that resulted in TSP operating at less than full capacity. TSP was designed to allow for isolation of a fraction of the system to be taken out of service, with the remainder of the system available for continued operations. Under this scenario, an outage is entered to de-rate the system making it available for market operations at less than full capacity. SCE utilized their prime vendor maintenance agreement to deploy resources to troubleshoot and make repairs for these component failures. There were 13 outage occurrences related to system repairs.[175]
2. Grid Reliability Needs: Because TSP is connected to the distribution system in an unconventional and temporary fashion, system conditions sometimes required the unit to be taken off-line to allow for switching operations in the Monolith Substation. When required, TSP was disconnected in order to maintain reliability and allow for grid repairs to equipment unrelated to TSP. There were four outage occurrences related to grid reliability needs.[176] These were forced outages due to the temporary nature of the grid connection. It should be noted that the change to the point of interconnection will eliminate the need for disconnecting TSP for substation switching once connected to a permanent bus position.
3. Telemetry and Communication Issues: TSP is networked to CAISO as is required of all generators. During 2018, TSP encountered several communication issues which resulted

[174] See workpapers for SCE-02, Chapter XV for descriptions of the 51 outages.

[175] See workpapers for SCE-02, Chapter XV for outages related to system failures.

[176] See workpapers for SCE-02, Chapter XV for outages related to grid reliability needs.

in outages due to network issues. There were three outage occurrences related to telemetry and network communications technical issues.

4. Planned Preventative Maintenance: Preventative maintenance shutdowns were conducted to perform manufacturer recommended inspections and routine maintenance. There were nine planned outages for quarterly preventative maintenance of the battery system.[177]

In general, these types of issues are common to all forms of generation to a greater or lesser degree. The project team and contracted technical support technicians took prudent actions to minimize these outages.

C. **Conclusion**

SCE's 2019 costs and operating expenses were reasonable. Considering the risks to safety, grid reliability, and long-term system operations, it was prudent to take TSP offline for preventative and corrective maintenance during the year. SCE appropriately prioritized safety and reliability.

From its inception, TSP was an innovative project that, as noted by the Commission, would "design, build, operate, and evaluate utility-scale lithium-ion battery technology for purposes of improving grid performance and integrating intermittent renewable resources."[178] The project called for SCE to think long-term and grapple with novel challenges at the outset of the project, and when the DOE oversight ended. SCE acted reasonably in addressing these challenges. Over the long and fruitful project life of TSP, SCE has demonstrated customer benefits in enhancing grid performance and integrating renewable resources. TSP's 2019 offline expenses were reasonable and not out of the ordinary for emerging technology deployed in a production environment. Correcting equipment failures, and conducting preventative maintenance improve reliability, and provide for the safety of equipment and operating personnel. Safe, reliable operation of TSP provide for continued accumulation of experience and knowledge over the long term, and serve both public and private interest.

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[177] See workpapers for SCE-02, Chapter XV for outages related to preventative maintenance.

[178] Resolution E-4355, p. 1.

XVI.

PUBLIC SAFETY POWER SHUTOFF IMPACTS ON REVENUE COLLECTIONS

Pursuant to D.20-01-022, SCE provides an accounting of the PSPS events that occurred in its service territory in 2019 and an estimate of how those events impacted SCE's revenue collections. As noted in SCE's January 2, 2020 Opening Comments in A.19-06-002, SCE's balancing accounts simply identify the difference between authorized revenues and/or recorded costs and actual revenues received from customers, and there is no way to easily quantify the impact of any one factor on the over- or under-collected balance. There is also no easy way to quantify the important public safety and economic benefits of the PSPS events that accrue to customers and to society more generally. PSPS events are called when SCE determines there is an unacceptable and imminent risk to public safety that could result from an ignition associated with SCE's infrastructure. These important benefits are difficult to numerically calculate, and the following sections describe only SCE's assumptions and methodology for estimating the revenue shortfall associated with SCE's 2019 PSPS events.

Table XVI-62 below provides the dates of each PSPS event in which customers were de-energized, the number of customers impacted, and the average outage duration. More information on SCE's PSPS events can be found in SCE's Post Event PSPS Reports.[179]

[179] As required by Resolution ESRB-8 and D.19-05-042 and archived at https://www.sce.com/safety/wildfire#HelpfulResources.

Table XVI-62
Summary of PSPS Events in 2019

Event	Customers Impacted	Average Outage Duration (Hours)
September 4th to September 8th	632	20.57
September 9th to September 19th	14,826	17.34
September 21st to October 1st	85	5.80
October 2nd to October 12th	24,028	27.95
October 12th to October 21st	1,153	19.82
October 21st to October 26th	30,712	35.56
October 27th to November 3rd	126,090	26.96
November 15th to November 17th	49	4.70
November 23rd to November 26th	1,192	12.35
Grand Total	**198,767**	**27.52**

A. Methodology for Estimating Revenue Shortfall

SCE sets its rates on a forecast basis using the most recently approved sales forecast. Any difference between authorized revenues and/or recorded costs and actual revenues is recorded in SCE's revenue-related balancing accounts, and over- or under-collections in those balancing accounts are then refunded or recovered, respectively, from customers the following year. The 2019 sales forecast adopted in D.19-02-024 and used to set 2019 rates did not reflect any adjustments for potential PSPS events. As such, all else being equal, the de-energization of customers would result in a revenue shortfall in SCE's balancing accounts because SCE's actual sales are lower than those assumed in the rate-setting process because of the unrealized sales due to PSPS.[180] SCE performed the following steps to estimate this revenue shortfall:

- Step 1: Estimate the unrealized sales due to PSPS events
- Step 2: Quantify the revenue shortfall by multiplying the sales loss by the applicable rates

[180] For example, assume a $10 revenue requirement and 100 kWh forecast sales. Rates are thus set on a forecast basis at $0.1/kWh. Assume SCE's actual sales are 90 kWh due to a PSPS event. SCE will collect $9 in revenue, and its balancing account will reflect a -$1 under-collection.

1. Unrealized Sales Due to PSPS

"Unrealized sales" is impossible to perfectly quantify because measuring unrealized sales inherently relies on a counterfactual scenario: how much energy would customers have used if a PSPS de-energization event had not occurred? Because customers differ in their energy usage, SCE estimates the average unrealized sales by customer class by relying on existing load research studies that collect and analyze all customers' energy and demand requirements by class, month, and day-type (weekday vs. weekend/holiday).[181] A relevant excerpt from SCE's 2018 Load Study is shown in Table XVI-63 below.

Table XVI-63
SCE 2018 Load Study – Average Hourly Usage by Rate Group kWh

Month	Sep		Oct		Nov		Dec	
Rate Group	**Workday**	**Weekend**	**Workday**	**Weekend**	**Workday**	**Weekend**	**Workday**	**Weekend**
Domestic Single/Multi Family	0.83	0.91	0.66	0.69	0.61	0.64	0.69	0.72
Domestic Master Metered	11.2	12.1	9.0	9.2	8.4	8.6	9.6	10.0
GS-1 (TOU-GS-1)	1.5	1.3	1.4	1.1	1.3	1.1	1.3	1.1
TC-1	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
GS-2 (TOU-GS-2)	20.8	16.8	19.1	15.3	17.5	14.1	16.7	13.3
TOU-GS-3	144.1	105.4	135.1	98.5	125.5	94.4	118.2	88.2
TOU-PA-2	10.7	9.7	9.1	7.9	7.0	6.2	5.7	5.0
TOU-PA-3	127.1	118.3	114.8	102.5	101.6	91.9	82.8	73.5
TOU-8-SUB	4152.6	3950.8	4173.0	3896.6	4094.7	3824.2	3903.3	3658.9
TOU-8-PRI	1012.0	838.4	965.4	801.9	919.1	766.1	863.4	715.1
TOU-8-SEC	448.2	329.2	429.2	314.1	404.7	299.7	380.8	275.0
ST-LTNG	2.0	2.0	2.2	2.2	2.4	2.3	2.4	2.4

SCE first identified the impacted service accounts and number of hours each account was subject to PSPS, then aggregated that data to calculate the number of "PSPS hours" by customer class, month, and day-type.

[181] SCE performs rate group load studies annually. The results of these studies are used in various proceedings, such as GRC Phase 2 proceedings, and inform the hourly load profiles posted on https://www.sce.com/regulatory/load-profiles.

Table XVI-64
PSPS Hours by Rate Group in 2019

# of Hours Off	Weekday	Weekend	Weekday	Weekend	Weekday	Weekend	Grand Total
Domestic Single/Multi Family	213,439	5,436	4,461,361	8,992	9,888	155	4,699,271
Domestic Master Metered	255	21	7,857	9	26		8,167
GS-1 (TOU-GS-1)	35,148	4,503	483,810	2,881	3,674	47	530,064
TC-1	164		14,010	38			14,212
GS-2 (TOU-GS-2)	5,234	329	60,939	345	446	5	67,297
TOU-GS-3	68	21	5,072				5,160
TOU-PA-2	2,217	2,505	119,904	402	525	19	125,572
TOU-PA-3	136		4,204		43		4,383
TOU-8-SUB			61				61
TOU-8-PRI	62	21	616				699
TOU-8-SEC			1,234		25	5	1,263
ST-LTNG	389	164	11,942	18	41		12,554
	257,110	**13,000**	**5,171,011**	**12,685**	**14,669**	**230**	**5,468,705**

SCE then multiplied those PSPS hours by the relevant load study average kWh usage to quantify the total unrealized sales by rate group. In total, SCE estimates there to be approximately 9 GWh in unrealized sales due to PSPS events (*i.e.,* 0.01% of the recorded 82,935 GWh in 2019 total system usage).

Table XVI-65
Unrealized Sales due to PSPS in 2019

	Total kWh by Class
Domestic Single/Multi Family	3,147,971
Domestic Master Metered	73,772
GS-1 (TOU-GS-1)	727,914
TC-1	6,032
GS-2 (TOU-GS-2)	1,293,448
TOU-GS-3	697,271
TOU-PA-2	1,148,066
TOU-PA-3	504,155
TOU-8-SUB	255,107
TOU-8-PRI	675,281
TOU-8-SEC	540,922
ST-LTNG	27,646
Total kWh	**9,097,586**

2. <u>Revenue Shortfall based on the Applicable Charges</u>

SCE estimated the PSPS-related revenue shortfall by multiplying the unrealized sales by the applicable energy ($/kWh) rates by class.

The following table lists each of SCE's major CPUC-jurisdictional revenue-related balancing accounts, the general type of costs recovered through those balancing accounts, and the rate component used to recover those costs from customers.[182]

[182] Additionally, SCE collects the DWR Bond Charge and the Public Utilities Commission Reimbursement Fee. Revenues collected through these charges are forwarded to the relevant agency and not recovered through a SCE balancing account.

Table XVI-66
CPUC-Jurisdictional Balancing Accounts[183]

Balancing Account	Costs Recovered (description is not intended to be exhaustive--for more information, please see respective Preliminary Statement)	Rate Component
Base Revenue Requirement Balancing Account (BRRBA)	Distribution base revenue requirement, as authorized in SCE's General Rate Case	Distribution Charge
Public Purpose Programs Adjustment Mechanism (PPPAM)	Public Purpose Programs (*e.g.* Energy Efficiency, administration of CARE and Energy Savings Assistance program, surcharge to fund CARE discount)	Public Purpose Programs Charge
Nuclear Decommissioning Adjustment Mechanism (NDAM)	Nuclear decommissioning revenue requirement and spent nuclear fuel costs	Nuclear Decommissioning Charge
New System Generation Balancing Account (NSGBA)	Peakers revenue requirement, as authorized in SCE's General Rate Case, and net costs of Cost Allocation Mechanism contracts	New System Generation Charge
Portfolio Allocation Balancing Account (PABA)	Above-market costs of long-term (>1 year) generation resources (contracts and Utility Owned Generation)	Generation Charge or Power Charge Indifference Adjustment
Energy Resource Recovery Account (ERRA)	Cost of meeting bundled service customers' energy, resource adequacy, and Renewable Portfolio Standard (RPS) requirements	Generation Charge
California Alternate Rates for Energy Balancing Account (CAREBA)	Discount for CARE customers	Discount provided in Distribution Charge; Surcharge to fund discount collected in PPPC

For purposes of this exercise, SCE considered all balancing accounts shown above except the ERRA BA and CAREBA. ERRA BA is excluded because SCE does not incur purchased power costs for unrealized sales. As such, there should be no revenue shortfall in ERRA BA due to PSPS events. CAREBA is excluded because it is not used to recover "authorized costs;" it is simply the mechanism to fund and distribute the CARE discount to eligible customers.

SCE determined the revenue shortfall in each account by multiplying the applicable class average energy ($/kWh) charges, effective at the time of the PSPS event,[184] by the class-specific

[183] The Base Revenue Requirement Balancing Account, Public Purpose Programs Adjustment Mechanism (PPPAM), and Nuclear Decommissioning Adjustment Mechanism (NDAM) record the difference between the authorized revenue requirement and actual revenues received from customers; as such, any over- or under-collections in these accounts are solely attributable to differences between forecast and actual sales (*i.e.,* sales variance). The New System Generation Balancing Account (NSGBA), Portfolio Allocation Balancing Account (PABA), and Energy Resource Recovery Account (ERRA BA) record the difference between actual costs and actual revenues; as such, over- or under-collections in these accounts may be attributable to sales variance, differences between forecast costs that are used to set the rates and actual costs (*i.e.,* cost variance), or a combination of the two. Other balancing accounts, such as the California Alternate Rates for Energy Balancing Account (CAREBA) record the difference between discounts distributed to CARE customers and surcharges collected from non-CARE customers to fund the discount.

[184] Rates effective July 26, 2019, as submitted in Advice 4043-E.

unrealized sales. PPPC, NDC, NSGC, and PCIA[185] are collected on a $/kWh energy charge basis from all customer classes. As such, the class average energy charge is simply the functionalized revenue requirement forecast to be recovered from each class divided by the class-specific kWh sales.[186] Distribution charges are collected through a combination of facilities-related demand charges ($/kW based on a customer's maximum demand in a month), customer charges (flat and specified $/customer fee), and energy charges ($/kWh), and the amount collected through each type of charge varies by customer class. Because facilities-related demand charges and customer charges are generally not impacted by PSPS events, the class average distribution energy charges used for this exercise have been pro-rated to reflect the average energy charges that are actually collected from customers on a $/kWh basis.[187] Table XVI-67 below lists the applicable charges used to determine the revenue shortfall.

[185] SCE multiplied all usage by the 2019 vintage PCIA rate, which was the rate embedded into bundled service customers' generation rate.

[186] As alluded to above, SCE removed the CARE surcharge from the class average PPPC rates.

[187] For example, 97% of distribution revenues collected from domestic customers are collected through $/kWh energy charges. As such, SCE multiplied the domestic revenue requirement by 0.97 and divided that amount by domestic kWh sales to calculate the domestic class average distribution charge. On the other hand, approximately 11% of distribution revenues collected from large industrial (TOU-8) customers are collected through $/kWh energy charges, while the rest is collected through demand and customer charges. As such, SCE multiplied the TOU-8 revenue requirement by 0.11 and divided that amount by TOU-8 kWh sales to calculate the TOU-8 class average distribution charge.

Table XVI-67
Class Average Energy Charges

	Distribution energy charge	NDC	PPPC	NSGC	PABA Rate (2019 Vintage)
Domestic Single/Multi Family	0.06412	-0.00035	0.00612	0.00698	0.02711
Domestic Master Metered	0.07017	-0.00035	0.00618	0.00698	0.02711
GS-1 (TOU-GS-1)	0.03878	-0.00035	0.00344	0.00583	0.02359
TC-1	0.04253	-0.00035	0.00314	0.00378	0.02022
GS-2 (TOU-GS-2)	0.00538	-0.00035	0.00309	0.00555	0.02280
TOU-GS-3	0.00480	-0.00035	0.00389	0.00511	0.02100
TOU-PA-2	0.00792	-0.00035	0.00239	0.00381	0.02148
TOU-PA-3	0.00649	-0.00035	0.00322	0.00368	0.01955
TOU-8-SUB	0.00000	-0.00035	0.00163	0.00370	0.01868
TOU-8-PRI	0.00342	-0.00035	0.00361	0.00426	0.01977
TOU-8-SEC	0.00406	-0.00035	0.00431	0.00474	0.02207
ST-LTNG	0.01673	-0.00035	0.00318	0.00278	0.01567

Based on these charges, SCE estimates the total revenue shortfall associated with PSPS events during the Record Period to be approximately $563,000. The revenue shortfall broken down by balancing account is provided in Table XVI-68 below.

Table XVI-68
Revenue Shortfall by Account

"Unrealized Revenues" by Account	BRRBA	NDAM	PPPAM	NSGBA	PABA
	$ 263,143	$ (3,184)	$ 38,601	$ 50,187	$ 213,770

End of Attachment A