

PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298



January 7, 2019

Advice Letter 3905-E/3905-E-A

Gary A. Stern, Ph.D.
Managing Director, State Regulatory Operations
Southern California Edison Company
8631 Rush Street
Rosemead, CA 91770

SUBJECT: GTSR Program Rate Component Updates for 2019.

Dear Dr. Stern:

Advice Letter 3905-E and 3905-E-A are effective as of January 1, 2019.

Sincerely,

A handwritten signature in cursive script that reads "Edward Randolph".

Edward Randolph
Director, Energy Division

December 20, 2018

**ADVICE 3905-E-A
(U 338-E)**

PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA
ENERGY DIVISION

SUBJECT: Supplemental to Advice 3905-E, Green Tariff Shared
Renewables Program Rate Component Updates for 2019

Pursuant to Decision (D.)15-01-051 (the Decision), Southern California Edison Company (SCE) hereby submits the following changes to its tariffs. The revised tariff sheets are listed on Attachment A, and attached hereto.

PURPOSE

The purpose of this supplemental advice letter is to make changes to rate components of the Green Tariff Shared Renewables (GTSR) Program tariffs originally contained within Advice 3905-E: Schedule GTSR-CR, *Green Tariff Shared Renewables Community Renewables* and Schedule GTSR-GR, *Green Tariff Shared Renewables Green Rate*, as further discussed below. These changes are made in accordance with General Order (GO) 96-B, General Rule 7.5.1, which authorizes utilities to make additional changes to an advice letter through the submittal of a supplemental advice letter.

This advice letter supplements in part, and will not change the integrity of the original Advice 3905-E, except as noted below.

DISCUSSION

Since the submission of Advice 3905-E, additional information impacting rate components of the GTSR Program tariffs has become available. For instance, a final decision for the Energy Resource Recovery Account (ERRA) Forecast proceeding (A.18-05-003), which determines the Cost Responsibility Surcharge (CRS)¹ and Class Average Generation Credit (CAGC),² has yet to be issued. Forecasted program

¹ Cost Responsibility Surcharge (CRS) includes the Power Charge Indifference Adjustment (PCIA) and Competition Transition Charge (CTC).

² GTSR Customer-Side Implementation Advice Letter and Supplemental Advice Letter. Advice 3219-E, effective November 20, 2015. See pp. 17, 20.

administration expenses and customer subscription levels have been revised to incorporate updates, including: estimated commercial operating dates (COD) for community renewable facilities associated with the Community Renewables – Renewable Auction Mechanism (CR-RAM) 3 and 4 solicitations, back-charging of procurement administration fees, and projected expenses resulting from manually billing customers enrolled in the GTSR-CR program.

The following rate components were updated after the submittal of Advice 3905-E on November 26, 2018:

- GTSR Indifference Adjustment and Class Average Generation Credit

The Adjustment and Credit are determined, and updated annually per the Energy Resource Recovery Account (ERRA) Forecast proceeding.³ SCE filed an application for the ERRA Forecast proceeding (A.18-05-003) on May 1, 2018, and updated its application on June and November of the same year. A final decision has yet to be issued. For this reason, the Adjustment and Credit remain the same as they are in 2018, adjusted for a Franchise Fee and Uncollectibles (FF&U) factor that has been proposed in SCE's 2018 General Rate Case (GRC) Phase 1 application (A.16-09-001). These Charges and Credits will be updated, once a final decision from the ERRA Forecast proceeding becomes available.

- Program Administration Charge

In addition to the Adjustment and Credit, forecasts of administrative expenses have been updated. The forecasts contain the most conservative cost estimates associated with manually billing customers who are anticipated to enroll on Schedule GTSR - CR during 2019. COD of community renewable projects have been revised to include project updates from developers. Subscription-level forecasts for the GTSR - CR program have also been updated to include 100-percent subscription of estimated average energy generation per facility. These assumptions may change, depending on regulatory compliance requirements and actual customer enrollments. The aforementioned updates resulted in changes to the Administrative and Marketing, Education, and Outreach (ME&O) Charges, which are calculated by amortizing the number obtained from dividing recorded and forecasted expenses by forecasted subscription levels over a 20- year period.

For instance, the Administrative Charge is calculated by dividing recorded and forecasted expenses by forecasted total subscription for the GTSR program, and then amortizing over a 20-year period. The ME&O Charge for each program option is calculated by amortizing recorded and forecasted expenses, divided by forecasted subscription level for each option, over a 20-year period.

³ *Id.*

The values included in the table below represent Charges and Credits that are applicable to residential GTSR Program customers in 2019. Workpapers supporting updates to the rates, as well as Charges and Credits for other customer classes, are included in Attachment B. Note that some rate components in Schedules GTSR - GR and GTSR - CR will be revised with supplemental advice letters, as updates become available.

Table 1 – Charges and Credits for GTSR Residential Customers

\$/kWh	Green Rate	Community Renewables
Charges		
Renewable Power Rate	0.06718	0.00000
Power Charge Indifference Adjustment (PCIA) ⁴	0.01508	0.01508
Competition Transition Charge (CTC)	0.00076	0.00076
California Independent System Operator (CAISO)	0.00049	0.00049
Grid Charge ⁵		
Western Renewable Energy Generation Information System (WREGIS) Charge	0.00001	0.00001
Resource Adequacy (RA) Adjustment	0.00695	CR Facility Specific
Renewables Integration Cost (RIC) Charge	0.00000	0.00000
Administrative Charge ⁶	0.00699	0.00699
Marketing, Education, and Outreach (ME&O) Charge ⁷	0.00549	0.00064
Total Charges	0.10295	CR Facility Specific
Credits		
Class Average Generation Credit	(0.08687)	(0.08687)
Time-of-Delivery (TOD) Adjustment	0.01095	CR Facility Specific
Total Credits	(0.07592)	CR Facility Specific
Premium		
	0.02703	CR Facility Specific

⁴ In the GTSR Program, the PCIA and CTC are shown in aggregate as the “GTSR Indifference Adjustment.”

⁵ In the GTSR Program, the CAISO Grid Charge and WREGIS Charge are shown in aggregate as the “CAISO Grid and WREGIS Charges.”

⁶ In the GTSR Program, the Administrative Charge and ME&O Charge are shown in aggregate as the “Program Administration Charge.”

⁷ The 2019 ME&O charges for the Green Rate and Community Renewables Programs are based partly on revised ME&O forecasted costs outlined in Advice 3877-E.

PROPOSED TARIFF CHANGES

Pursuant to the discussion above, SCE proposes to modify the rate tables included in the Rates section of Schedule GTSR-GR and Schedule GTSR-CR to reflect 2019 rates for customers electing to participate in the GTSR Program.

LIST OF ATTACHMENTS

Attachment A: Revised Tariffs

Attachment B: GTSR Program Rate Component Workpapers

TIER DESIGNATION

Pursuant to the Decision, this advice letter is submitted with a Tier 2 designation, which is the same tier designation as the original Advice 3905-E.

EFFECTIVE DATE

This advice letter will become effective on January 1, 2019, the same date as requested in Advice 3905-E.

NOTICE

Anyone wishing to protest this advice letter may do so by letter via U.S. Mail, facsimile, or electronically, any of which must be received no later than 20 days after the date of this advice letter. Protests should be submitted to:

CPUC, Energy Division
Attention: Tariff Unit
505 Van Ness Avenue
San Francisco, California 94102
E-mail: EDTariffUnit@cpuc.ca.gov

Copies should also be mailed to the attention of the Director, Energy Division, Room 4004 (same address as above).

In addition, protests and all other correspondence regarding this advice letter should be sent by letter and transmitted via facsimile or electronically to the attention of:

Gary A. Stern, Ph.D.
Managing Director, State Regulatory Operations
Southern California Edison Company
8631 Rush Street
Rosemead, California 91770
Telephone: (626) 302-9645
Facsimile: (626) 302-6396
E-mail: AdviceTariffManager@sce.com

Laura Genao
Managing Director, State Regulatory Affairs
c/o Karyn Gansecki
Southern California Edison Company
601 Van Ness Avenue, Suite 2030
San Francisco, California 94102
Facsimile: (415) 929-5544
E-mail: Karyn.Gansecki@sce.com

There are no restrictions on who may submit a protest, but the protest must set forth specifically the grounds upon which it is based and must be received by the deadline shown above.

In accordance with General Rule 4 of GO 96-B, SCE is serving copies of this advice letter to the interested parties shown on the attached GO 96-B and A.12-01-008 et al. service lists. Address change requests to the GO 96-B service list should be directed by electronic mail to AdviceTariffManager@sce.com or at (626) 302-3719. For changes to all other service lists, please contact the Commission's Process Office at (415) 703-2021 or by electronic mail at Process_Office@cpuc.ca.gov.

Further, in accordance with Public Utilities Code Section 491, notice to the public is hereby given by submitting and keeping the advice letter at SCE's corporate headquarters. To view other SCE advice letters submitted with the Commission, log on to SCE's web site at <https://www.sce.com/wps/portal/home/regulatory/advice-letters>.

For questions, please contact Jenny Chen at (626) 302-8823 or by electronic mail at Jennychienyi.Chen@sce.com.

Southern California Edison Company

/s/ Gary A. Stern
Gary A. Stern, Ph.D.

GAS:jc:cm
Enclosures



ADVICE LETTER SUMMARY

ENERGY UTILITY



MUST BE COMPLETED BY UTILITY (Attach additional pages as needed)

Company name/CPUC Utility No.:

Utility type:

ELC GAS WATER
 PLC HEAT

Contact Person:

Phone #:
E-mail:
E-mail Disposition Notice to:

EXPLANATION OF UTILITY TYPE

ELC = Electric GAS = Gas WATER = Water
PLC = Pipeline HEAT = Heat

(Date Submitted / Received Stamp by CPUC)

Advice Letter (AL) #:

Tier Designation:

Subject of AL:

Keywords (choose from CPUC listing):

AL Type: Monthly Quarterly Annual One-Time Other:

If AL submitted in compliance with a Commission order, indicate relevant Decision/Resolution #:

Does AL replace a withdrawn or rejected AL? If so, identify the prior AL:

Summarize differences between the AL and the prior withdrawn or rejected AL:

Confidential treatment requested? Yes No

If yes, specification of confidential information:

Confidential information will be made available to appropriate parties who execute a nondisclosure agreement. Name and contact information to request nondisclosure agreement/ access to confidential information:

Resolution required? Yes No

Requested effective date:

No. of tariff sheets:

Estimated system annual revenue effect (%):

Estimated system average rate effect (%):

When rates are affected by AL, include attachment in AL showing average rate effects on customer classes (residential, small commercial, large C/I, agricultural, lighting).

Tariff schedules affected:

Service affected and changes proposed¹:

Pending advice letters that revise the same tariff sheets:

¹Discuss in AL if more space is needed.

Protests and all other correspondence regarding this AL are due no later than 20 days after the date of this submittal, unless otherwise authorized by the Commission, and shall be sent to:

CPUC, Energy Division
Attention: Tariff Unit
505 Van Ness Avenue
San Francisco, CA 94102
Email: EDTariffUnit@cpuc.ca.gov

Name:
Title:
Utility Name:
Address:
City:
State: Zip:
Telephone (xxx) xxx-xxxx:
Facsimile (xxx) xxx-xxxx:
Email:

Name:
Title:
Utility Name:
Address:
City:
State: Zip:
Telephone (xxx) xxx-xxxx:
Facsimile (xxx) xxx-xxxx:
Email:

ENERGY Advice Letter Keywords

Affiliate	Direct Access	Preliminary Statement
Agreements	Disconnect Service	Procurement
Agriculture	ECAC / Energy Cost Adjustment	Qualifying Facility
Avoided Cost	EOR / Enhanced Oil Recovery	Rebates
Balancing Account	Energy Charge	Refunds
Baseline	Energy Efficiency	Reliability
Bilingual	Establish Service	Re-MAT/Bio-MAT
Billings	Expand Service Area	Revenue Allocation
Bioenergy	Forms	Rule 21
Brokerage Fees	Franchise Fee / User Tax	Rules
CARE	G.O. 131-D	Section 851
CPUC Reimbursement Fee	GRC / General Rate Case	Self Generation
Capacity	Hazardous Waste	Service Area Map
Cogeneration	Increase Rates	Service Outage
Compliance	Interruptible Service	Solar
Conditions of Service	Interutility Transportation	Standby Service
Connection	LIEE / Low-Income Energy Efficiency	Storage
Conservation	LIRA / Low-Income Ratepayer Assistance	Street Lights
Consolidate Tariffs	Late Payment Charge	Surcharges
Contracts	Line Extensions	Tariffs
Core	Memorandum Account	Taxes
Credit	Metered Energy Efficiency	Text Changes
Curtable Service	Metering	Transformer
Customer Charge	Mobile Home Parks	Transition Cost
Customer Owned Generation	Name Change	Transmission Lines
Decrease Rates	Non-Core	Transportation Electrification
Demand Charge	Non-firm Service Contracts	Transportation Rates
Demand Side Fund	Nuclear	Undergrounding
Demand Side Management	Oil Pipelines	Voltage Discount
Demand Side Response	PBR / Performance Based Ratemaking	Wind Power
Deposits	Portfolio	Withdrawal of Service
Depreciation	Power Lines	

Cal. P.U.C. Sheet No.	Title of Sheet	Cancelling Cal. P.U.C. Sheet No.
Revised 65172-E	Schedule GTSR-CR	Revised 62697-E
Revised 65173-E	Schedule GTSR-GR	Revised 62698-E

Schedule GTSR-CR Sheet 2
GREEN TARIFF SHARED RENEWABLES COMMUNITY RENEWABLES

(Continued)

RATES

All charges and provisions of the Customer's Otherwise Applicable Tariff (OAT) apply, except that the total amount billed to the Customer by SCE shall be adjusted by applying the following additional credits and charges on a dollar per kilowatt-hour (\$/kWh) basis to the Customer's Subscription, as defined below. A breakdown of individual credits and charges and the historical trends and non-binding forecasts for each to the extent they are available can be found on SCE's GTSR Program webpage.

Component	(\$/kWh)
Community Renewables Credit	
Class Average Generation Credit	
Residential	(0.08687) (R)
TOU-GS-1	(0.08808) (R)
TOU-GS-2	(0.08213) (R)
TOU-GS-3	(0.07779) (R)
TOU-8-Sec	(0.07289) (R)
TOU-8-Pri	(0.06836) (R)
TOU-8-Sub	(0.06167) (R)
TOU-8-S-Sec	(0.07331) (R)
TOU-8-S-Pri	(0.06945) (R)
TOU-8-S-Sub	(0.06082) (R)
TOU-PA-2	(0.07449) (R)
TOU-PA-3	(0.05965) (R)
Street and Area Lighting	(0.04614) (R)
TC-1	(0.06639) (R)
Renewable Energy Value Adjustment	CR Facility Specific
Community Renewables Charge	
RPR	0.00000
GTSR Indifference Adjustment	See Schedule DA-CRS
CAISO Grid & WREGIS Charges	0.00050 (R)
RA Adjustment	CR Facility Specific
Program Administration Charge	0.00762 (I)
RIC Charge	0.00000

1. Credits. All of the following components appear in aggregate as the "Community Renewables Credit" under the Generation section of the Customer's regular billing statement from SCE and are updated annually as part of SCE's Energy Resource Recovery Account (ERRA) proceeding.
 - a. Class Average Generation Credit: Based on the class average retail generation rate as established in SCE's Commission-approved tariffs for the class to which the Customer's OAT belongs. In addition to the ERRA proceeding, this component will be updated whenever there is a substantial change to the generation revenue requirement, such as the implementation of Phase 1 of a General Rate Case.

(Continued)

(To be inserted by utility)
 Advice 3905-E-A
 Decision 15-01-051

Issued by
Caroline Choi
 Senior Vice President

(To be inserted by Cal. PUC)
 Date Filed Dec 20, 2018
 Effective Jan 1, 2019
 Resolution _____

Schedule GTSR-GR
GREEN TARIFF SHARED RENEWABLES GREEN RATE

Sheet 2

(Continued)

RATES

All charges and provisions of the Customer's Otherwise Applicable Tariff (OAT) apply, except that the total amount billed to the Customer shall be adjusted by applying the following additional credits and charges on a dollar per kilowatt-hour (\$/kWh) basis to the Customer's Subscription, as defined below. A breakdown of all individual credits and charges and the historical trends and non-binding forecasts for each to the extent they are available can be found on SCE's GTSR Program webpage.

Component	(\$/kWh)
Green Rate Credit	
Class Average Generation Credit	
Residential	(0.08687) (R)
TOU-GS-1	(0.08808) (R)
TOU-GS-2	(0.08213) (R)
TOU-GS-3	(0.07779) (R)
TOU-8-Sec	(0.07289) (R)
TOU-8-Pri	(0.06836) (R)
TOU-8-Sub	(0.06167) (R)
TOU-8-S-Sec	(0.07331) (R)
TOU-8-S-Pri	(0.06945) (R)
TOU-8-S-Sub	(0.06082) (R)
TOU-PA-2	(0.07449) (R)
TOU-PA-3	(0.05965) (R)
Street and Area Lighting	(0.04614) (R)
TC-1	(0.06639) (R)
Renewable Energy Value Adjustment	
Residential	0.01095 (I)
TOU-GS-1	0.00651 (I)
TOU-GS-2	0.00596 (I)
TOU-GS-3	0.00486 (I)
TOU-8-Sec	0.00427 (I)
TOU-8-Pri	0.00395 (I)
TOU-8-Sub	0.00338 (I)
TOU-8-S-Sec	0.00442 (I)
TOU-8-S-Pri	0.00470 (I)
TOU-8-Sub	0.00336 (I)
TOU-PA-2	0.00383 (I)
TOU-PA-3	0.00348 (I)
Street and Area Lighting	0.00386 (I)
TC-1	0.00350 (I)
Green Rate Charge	
RPR	0.06718 (R)
GTSR Indifference Adjustment	See Schedule DA-CRS
CAISO Grid & WREGIS Charges	0.00050 (R)
RA Adjustment	0.00695 (I)
Program Administration Charge	0.01248 (I)
RIC Charge	0.00000

(Continued)

(To be inserted by utility)

Advice 3905-E-A
 Decision 15-01-051

Issued by

Caroline Choi
Senior Vice President

(To be inserted by Cal. PUC)

Date Filed Dec 20, 2018
 Effective Jan 1, 2019
 Resolution _____

Attachment B
Workpapers

Schedule GTSR – Green Rate (GR)

Rate Component	Residential	GS-1	TC-1	GS-2	TOU-GS	TOU-8- Sec	TOU-8- Pri	TOU-8- Sub	TOU-8- Sec-S	TOU-8- Pri-S	TOU-8- Sub-S	TOU PA- 2	TOU PA- 3	STLights
Charges (\$/kWh)														
Renewable Power Rate	0.06718	0.06718	0.06718	0.06718	0.06718	0.06718	0.06718	0.06718	0.06718	0.06718	0.06718	0.06718	0.06718	0.06718
PCIA	0.01508	0.00965	0.00681	0.01256	0.01039	0.00906	0.00839	0.00800	0.00180	0.00187	0.00108	0.00934	0.00604	(0.00006)
CTC	0.00076	0.00049	0.00034	0.00064	0.00053	0.00046	0.00042	0.00040	0.00009	0.00010	0.00006	0.00048	0.00030	0.00000
WREGIS Charge	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001
CAISO Grid Charge	0.00049	0.00049	0.00049	0.00049	0.00049	0.00049	0.00049	0.00049	0.00049	0.00049	0.00049	0.00049	0.00049	0.00049
RA Adjustment	0.00695	0.00695	0.00695	0.00695	0.00695	0.00695	0.00695	0.00695	0.00695	0.00695	0.00695	0.00695	0.00695	0.00695
RIC Charge	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Administrative Charge	0.00699	0.00699	0.00699	0.00699	0.00699	0.00699	0.00699	0.00699	0.00699	0.00699	0.00699	0.00699	0.00699	0.00699
ME&O Charge	0.00549	0.00549	0.00549	0.00549	0.00549	0.00549	0.00549	0.00549	0.00549	0.00549	0.00549	0.00549	0.00549	0.00549
Total Charges	0.10295	0.09725	0.09426	0.10031	0.09803	0.09663	0.09592	0.09551	0.08900	0.08908	0.08825	0.09693	0.09345	0.08705
Credits (\$/kWh)														
Class Average														
Generation Credit	(0.08687)	(0.08808)	(0.06639)	(0.08213)	(0.07779)	(0.07289)	(0.06836)	(0.06167)	(0.07331)	(0.06945)	(0.06082)	(0.07449)	(0.05965)	(0.04614)
TOD Adjustment	0.01095	0.00651	0.00350	0.00596	0.00486	0.00427	0.00395	0.00338	0.00442	0.00470	0.00336	0.00383	0.00348	0.00386
Total Credits	(0.07592)	(0.08157)	(0.06289)	(0.07617)	(0.07293)	(0.06862)	(0.06441)	(0.05829)	(0.06889)	(0.06475)	(0.05746)	(0.07066)	(0.05617)	(0.04228)
Green Rate Premium (2019)	0.02703	0.01568	0.03137	0.02414	0.02510	0.02801	0.03151	0.03722	0.02011	0.02433	0.03079	0.02627	0.03728	0.04477

Renewables Power Rate (RR) and Resource Adequacy (RA) Adjustment

Generation Rate (Cents/kWh)

Portfolio	2018	2019	2020	2021	2022	2023
GTSR Dedicated Procurement Pool	0.000	6.642	5.605	5.654	5.705	5.757

RA Charge (Cents/kWh)

Portfolio	2018	2019	2020	2021	2022	2023
GTSR Dedicated Procurement Pool	0.765	0.687	0.615	0.615	0.615	0.615

Divide by **0.988696** to add Franchise Fees & Uncollectibles (FF&U)

Generation rate (\$/kWh)

Portfolio	2018	2019	2020	2021	2022	2023
GTSR Dedicated Procurement Pool	0.00000	0.06718	0.05669	0.05719	0.05771	0.05823

RA Charge (\$/kWh)

Portfolio	2018	2019	2020	2021	2022	2023
GTSR Dedicated Procurement Pool	0.00774	0.00695	0.00622	0.00622	0.00622	0.00622

Time-of-Delivery (TOD) Adjustment

Rate Group	Normalized Difference Between Class and Generator [\$]	Total Cost of Serving Class [\$]	TOD Adjustment Factor	01/01/2018 Rates Class Avg Gen Rate [\$/kWh]	TOD Adjustment [\$/kWh]	TOD Adjustment, grossed up for Franchise Fees & Uncollectibles (FF&U) Expenses [\$/kWh]
Residential	(84,532)	348,153	-24.3%	0.08589	(0.02085)	(0.02109)
TOU PA-2	(40,347)	303,968	-13.3%	0.07365	(0.00978)	(0.00989)
TOU PA-3	(48,106)	311,727	-15.4%	0.05897	(0.00910)	(0.00921)
GS-1	(49,895)	313,516	-15.9%	0.08709	(0.01386)	(0.01402)
TC-1	(44,481)	308,102	-14.4%	0.06564	(0.00948)	(0.00958)
GS-2	(48,022)	311,643	-15.4%	0.08121	(0.01251)	(0.01266)
TOU-GS	(42,550)	306,171	-13.9%	0.07691	(0.01069)	(0.01081)
TOU-8-Sec	(42,517)	306,138	-13.9%	0.07207	(0.01001)	(0.01012)
TOU-8-Pri	(44,475)	308,097	-14.4%	0.06759	(0.00976)	(0.00987)
TOU-8-Sub	(44,178)	307,799	-14.4%	0.06098	(0.00875)	(0.00885)
TOU-8-Sec-S	(44,503)	308,124	-14.4%	0.07248	(0.01047)	(0.01059)
TOU-8-Pri-S	(51,504)	315,125	-16.3%	0.06866	(0.01122)	(0.01135)
TOU-8-Sub-S	(45,951)	309,572	-14.8%	0.06013	(0.00893)	(0.00903)
StLights	(77,770)	341,391	-22.8%	0.04562	(0.01039)	(0.01051)

	2016	2017	2018	2019	2016	2017	2018	2019	Avg 2016-2019
	TOD Adjustment	TOD Adjustment	TOD Adjustment	TOD Adjustment	TOD Adjustment, incl FF&U	TOD Adjustment, incl FF&U	TOD Adjustment, incl FF&U	TOD Adjustment, incl FF&U	TOD Adjustment
Residential	0.00162	(0.00855)	(0.01551)	(0.02085)	0.00164	(0.00865)	(0.01569)	(0.02109)	(0.01095)
PA-1	0.00455	(0.00335)	(0.00656)	(0.00978)	0.00461	(0.00339)	(0.00664)	(0.00989)	(0.00383)
PA-2	0.00455	(0.00335)	(0.00656)	(0.00978)	0.00461	(0.00339)	(0.00664)	(0.00989)	(0.00383)
TOU PA-2	0.00455	(0.00335)	(0.00656)	(0.00978)	0.00461	(0.00339)	(0.00664)	(0.00989)	(0.00383)
TOU PA-3	0.00401	(0.00269)	(0.00597)	(0.00910)	0.00405	(0.00272)	(0.00604)	(0.00921)	(0.00348)
GS-1	0.00316	(0.00530)	(0.00973)	(0.01386)	0.00319	(0.00536)	(0.00984)	(0.01402)	(0.00651)
TC-1	0.00408	(0.00236)	(0.00609)	(0.00948)	0.00413	(0.00238)	(0.00616)	(0.00958)	(0.00350)
GS-2	0.00263	(0.00491)	(0.00876)	(0.01251)	0.00266	(0.00496)	(0.00887)	(0.01266)	(0.00596)
TOU-GS	0.00289	(0.00408)	(0.00735)	(0.01069)	0.00292	(0.00413)	(0.00744)	(0.01081)	(0.00486)
TOU-8-Sec	0.00351	(0.00361)	(0.00679)	(0.01001)	0.00355	(0.00365)	(0.00687)	(0.01012)	(0.00427)
TOU-8-Pri	0.00378	(0.00321)	(0.00644)	(0.00976)	0.00382	(0.00325)	(0.00652)	(0.00987)	(0.00395)
TOU-8-Sub	0.00345	(0.00250)	(0.00557)	(0.00875)	0.00349	(0.00253)	(0.00564)	(0.00885)	(0.00338)
TOU-8-Sec-S	0.00352	(0.00357)	(0.00695)	(0.01047)	0.00356	(0.00361)	(0.00703)	(0.01059)	(0.00442)
TOU-8-Pri-S	0.00364	(0.00349)	(0.00751)	(0.01122)	0.00368	(0.00353)	(0.00759)	(0.01135)	(0.00470)
TOU-8-Sub-S	0.00362	(0.00233)	(0.00565)	(0.00893)	0.00366	(0.00236)	(0.00572)	(0.00903)	(0.00336)
StLights	0.00480	(0.00278)	(0.00689)	(0.01039)	0.00486	(0.00282)	(0.00697)	(0.01051)	(0.00386)

FF&U Factor 0.988696 to add Franchise Fee & Uncollectibles (FF&U) from 2016 - 2018

Divide by 0.988525 to add Franchise Fee & Uncollectibles (FF&U) for 2019

Administrative & ME&O Charges

	2017	2018	2019	2020	2021	2022
Green Tariff Shared Renewables (GTSR) [USD]						
Admin - Operating Expenses	\$0	\$569,782	\$173,611	\$502,993	\$506,696	\$19,200
Admin - Operating Revenues	(\$12,819)	(\$3,711)				
Green Rate [USD]						
ME&O - Operating Expenses	\$0	\$374,785	\$22,800	\$5,000	\$0	\$0
ME&O - Operating Revenues	(\$7,030)	(\$32,093)				
Enhanced Community Renewables (ECR) [USD]						
ME&O - Operating Expenses	\$0	\$25,079	\$27,500	\$5,000	\$5,000	\$5,000
ME&O - Operating Revenues	\$0	\$0	\$0	\$0	\$0	\$0
Total Annual Subscription Level [kWh]	4,102,444	4,243,228	8,115,998	17,078,225	16,967,355	16,860,272
Green Rate (GR)	4,102,444	4,243,228	4,401,239	4,360,388	4,312,791	4,268,666
Enhanced Community Renewables (ECR)	0	0	3,714,760	12,717,837	12,654,564	12,591,606

	2023	2024	2025	2026	2027	2028	2029	2030
Green Tariff Shared Renewables (GTSR)								
[USD]								
Admin - Operating Expenses	\$21,120	\$21,120	\$21,120	\$21,120	\$23,232	\$23,232	\$23,232	\$23,232
Admin - Operating Revenues								
Green Rate [USD]								
ME&O - Operating Expenses	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
ME&O - Operating Revenues								
Enhanced Community Renewables (ECR)								
[USD]								
ME&O - Operating Expenses	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000
ME&O - Operating Revenues	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Annual Subscription Level [kWh]	16,757,548	16,658,886	16,563,941	16,472,392	16,383,949	16,298,347	16,215,348	16,134,733
Green Rate (GR)	4,228,586	4,192,257	4,159,336	4,129,501	4,102,466	4,077,966	4,055,764	4,035,645
Enhanced Community Renewables (ECR)	12,528,961	12,466,628	12,404,605	12,342,891	12,281,483	12,220,381	12,159,583	12,099,088

	2031	2032	2033	2034	2035	2036	2037	2038
Green Tariff Shared Renewables (GTSR)								
[USD]								
Admin - Operating Expenses	\$25,555	\$25,555	\$25,555	\$25,555	\$28,111	\$28,111	\$28,111	\$30,922
Admin - Operating Revenues								
Green Rate [USD]								
ME&O - Operating Expenses	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
ME&O - Operating Revenues								
Enhanced Community Renewables (ECR)								
[USD]								
ME&O - Operating Expenses	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000
ME&O - Operating Revenues	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Annual Subscription Level [kWh]	16,054,419	15,974,405	15,894,689	15,815,269	15,736,144	15,657,313	15,578,774	15,500,526
Green Rate (GR)	4,015,526	3,995,407	3,975,287	3,955,168	3,935,049	3,914,930	3,894,810	3,874,691
Enhanced Community Renewables (ECR)	12,038,894	11,978,999	11,919,402	11,860,101	11,801,096	11,742,384	11,683,964	11,625,835

	SCE (2019), amortized over life of GTSR Program (until 12/31/2038)	Check by PMT() formula
Administrative Charge [\$/kWh]	\$ 0.00691	\$ 0.00691
ME&O Charge [\$/kWh]		
Green Rate (GR)	\$ 0.00543	\$ 0.00543
Enhanced Community Renewables (ECR)	\$ 0.00063	\$ 0.00063
FF&U Factor	0.988696	0.988696
Administrative Charge (with FF&U) [\$/kWh]	\$ 0.00699	\$ 0.00699
ME&O Charge (with FF&U) [\$/kWh]		
Green Rate (GR)	\$ 0.00549	\$ 0.00549
Enhanced Community Renewables (ECR)	\$ 0.00064	\$ 0.00064

Program Administration Charge per kWh

Green Rate (GR)	\$	0.01248
Enhanced Community Renewables (ECR)	\$	0.00762

Class Average Generation Rate (CAGR)

Rate Schedule By Customer Group	MWh (M)	URGR _{Rev} Revenue (\$M)	Class Avg Gen Credit (\$/kWh)	Class Avg Gen Credit, FF&U (\$/kWh)
Domestic				
D	18,026,187.7	1,548,269.3	0.08589	0.08689
D-CARE	6,620,434.7	568,629.1	0.08589	0.08689
D-APS	1,159,028.6	99,549.0	0.08589	0.08689
DE	108,075.5	9,282.6	0.08589	0.08689
DM	97,250.6	8,352.9	0.08589	0.08689
DMS-1	35,107.7	3,015.4	0.08589	0.08689
DMS-2	481,778.5	41,380.0	0.08589	0.08689
	-----	-----	-----	-----
Group Total	26,527,863.4	2,278,478.2	0.08589	0.08689
Lighting-SM Med Power				
GS-1	5,845,306.4	509,046.6	0.08709	0.08810
GS-2	11,442,129.2	929,165.0	0.08121	0.08215
GS-2-S	0.0	0.0		
TC-1	55,712.8	3,657.0	0.06564	0.06640
TOU-GS	6,005,015.7	461,849.1	0.07691	0.07780
	-----	-----	-----	-----
Group Total	23,348,164.1	1,903,717.8	0.08154	0.08248
Large Power				

Rate Schedule By Customer Group	MWh (M)	URGRcv Revenue (\$M)	Class Avg Gen Credit (\$/kWh)	Class Avg Gen Credit, FF&U (\$/kWh)
TOU-8-S	6,032,858.5	434,773.2	0.07207	0.07290
TOU-8-P	3,771,499.4	254,905.1	0.06759	0.06837
TOU-8-T	3,770,479.9	229,911.7	0.06098	0.06168
TOU-8-S-S	175,019.6	12,685.8	0.07248	0.07332
TOU-8-S-P	541,413.9	37,174.6	0.06866	0.06946
TOU-8-S-T	1,800,349.4	108,256.6	0.06013	0.06083
	-----	-----	-----	-----
Group Total	16,091,620.6	1,077,706.9	0.06697	0.06775
Agricultural & Pumping				
PA-1			0.07365	0.07450
PA-2			0.07365	0.07450
TOU-PA-2	1,811,056.5	133,377.4	0.07365	0.07450
TOU-PA-3	1,417,126.9	83,574.8	0.05897	0.05966
	-----	-----	-----	-----
Group Total	3,228,183.5	216,952.2	0.06721	0.06799
Street & Area Lighting				
LS-1	333,231.5	15,202.0	0.04562	0.04615
LS-2	99,466.5	4,537.7	0.04562	0.04615
LS-3	213,843.9	9,755.6	0.04562	0.04615
DWL	2,078.5	94.8	0.04562	0.04615

Rate Schedule By Customer Group	MWh (M)	URGRev Revenue (\$M)	Class Avg Gen Credit (\$/kWh)	Class Avg Gen Credit, FF&U (\$/kWh)
OL-1	11,638.6	531.0	0.04562	0.04615
Group Total	660,259.1	30,121.0	0.04562	0.04615
Total 5 Cust Gps.	69,856,090.7	5,506,976.1	0.07883	0.07975
CPUC Juris. Other				
Spec. Con. Sub.				
Group Total				
Grand Total	69,856,090.7	5,506,976.1		

CAISO Grid Charge

	A	B	C	D	E = A + B + C + D	F = E / 0.988696
	Market Service Charge	Systems Operations Charge	CRR Services Charge	EIR Forecast Fee	Sum	CAISO (grossed up for Franchise Fee & Uncollectibles (FF&U) Expense
Cost per MWh	0.10620	0.27740	0.00400	0.10000	0.48760	0.49317
Cost per kWh	0.00011	0.00028	0.00000	0.00010	0.00049	0.00049

Divide by **0.988696** to add Franchise Fee and Uncollectibles (FF&U)

CAISO. "Comparison of Grid Management Charge Rates (\$/MWh)." 2019 Budget and Grid Management Charge Rates. pp. 62.
<http://www.caiso.com/Documents/FiscalYear2019-Budget-GridManagementChargeRates-PreliminaryDraft.pdf>

CAISO. Schedule 4. Appendix F.
<http://www.caiso.com/Documents/AppendixF-RateSchedules-asof-Nov1-2018.pdf>

WREGIS

	Issuance Fee	Retirement Fee	WREGIS	WREGIS (grossed up for Franchise Fee & Uncollectibles (FF&U) Expense)
Cost per REC (REC required for each MWh)	0.005	0.005	0.01	0.01011
Cost per kWh	0.000005	0.000005	0.00001	0.00001

Divide by **0.988696** to add Franchise Fee & Uncollectibles (FF&U)

Source:

WECC. "WREGIS Fee Matrix." pp. 150

<https://www.wecc.biz/Administrative/WREGIS%20Account%20Holder%20Training%20Slides.pdf>

**PCIA and CTC (without FF&U)
Rates effective 01/01/2019**

Rate Group	DWRBC (All Vintages)	CTC (For All Vintages)	2001	2004	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Domestic	0.00549	0.00075	0.00350	0.00350	0.01156	0.01377	0.01621	0.01666	0.01650	0.01608	0.01548	0.01490	0.01491	0.01491
GS-1	0.00549	0.00048	0.00222	0.00222	0.00739	0.00881	0.01037	0.01066	0.01056	0.01029	0.00991	0.00954	0.00954	0.00954
TC-1	0.00549	0.00034	0.00155	0.00155	0.00521	0.00622	0.00732	0.00753	0.00745	0.00727	0.00699	0.00673	0.00673	0.00673
GS-2	0.00549	0.00063	0.00291	0.00291	0.00963	0.01147	0.01350	0.01388	0.01374	0.01340	0.01290	0.01241	0.01242	0.01242
TOU-GS-3	0.00549	0.00052	0.00240	0.00240	0.00796	0.00949	0.01117	0.01148	0.01137	0.01108	0.01067	0.01027	0.01027	0.01027
TOU-8-Sec	0.00549	0.00045	0.00208	0.00208	0.00694	0.00828	0.00974	0.01002	0.00992	0.00967	0.00931	0.00896	0.00896	0.00896
TOU-8-Pri	0.00549	0.00042	0.00192	0.00192	0.00643	0.00767	0.00903	0.00928	0.00919	0.00896	0.00862	0.00830	0.00830	0.00830
TOU-8-Sub	0.00549	0.00040	0.00183	0.00183	0.00613	0.00730	0.00860	0.00884	0.00875	0.00853	0.00821	0.00790	0.00791	0.00791
TOU-PA-2	0.00549	0.00047	0.00215	0.00215	0.00715	0.00852	0.01003	0.01032	0.01021	0.00996	0.00958	0.00922	0.00923	0.00923
TOU-PA-3	0.00549	0.00030	0.00137	0.00137	0.00462	0.00551	0.00649	0.00668	0.00661	0.00644	0.00620	0.00597	0.00597	0.00597
St. Lighting	0.00549	0.00000	(0.00007)	(0.00007)	(0.00006)	(0.00006)	(0.00005)	(0.00005)	(0.00005)	(0.00005)	(0.00006)	(0.00006)	(0.00006)	(0.00006)
TOU-8-Standby-Sec	0.00549	0.00009	0.00037	0.00037	0.00137	0.00164	0.00194	0.00200	0.00198	0.00192	0.00185	0.00178	0.00178	0.00178
TOU-8-Standby-Pri	0.00549	0.00010	0.00039	0.00039	0.00142	0.00170	0.00201	0.00207	0.00205	0.00200	0.00192	0.00185	0.00185	0.00185
TOU-8-Standby-Sub	0.00549	0.00006	0.00020	0.00020	0.00081	0.00098	0.00116	0.00120	0.00119	0.00115	0.00111	0.00107	0.00107	0.00107

[1] DWRBC: Department of Water Resources (DWR) Bond Charge. The DWR Bond Charge is not applicable to exempt Bundled Service and Direct Access Customers, as defined in and pursuant to D.02-10-063, D.02-02-051, and D.02-12-082.

[2] CTC: A non-bypassable charge applicable to all existing and future SCE Bundled Service Customers, all Direct Access Customers, and all Departing Load Customers for recovery of SCE's transition costs.

**PCIA and CTC (with FF&U)
Rates effective 01/01/2019**

Rate Group	DWRBC (All Vintages)	CTC (For All Vintages)	2001	2004	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Domestic	0.00509	0.00076	0.00354	0.00354	0.01169	0.01393	0.01640	0.01685	0.01669	0.01626	0.01566	0.01507	0.01508	0.01508
GS-1	0.00509	0.00049	0.00225	0.00225	0.00747	0.00891	0.01049	0.01078	0.01068	0.01041	0.01002	0.00965	0.00965	0.00965
TC-1	0.00509	0.00034	0.00157	0.00157	0.00527	0.00629	0.00740	0.00762	0.00754	0.00735	0.00707	0.00681	0.00681	0.00681
GS-2	0.00509	0.00064	0.00294	0.00294	0.00974	0.01160	0.01365	0.01404	0.01390	0.01355	0.01305	0.01255	0.01256	0.01256
TOU-GS-3	0.00509	0.00053	0.00243	0.00243	0.00805	0.00960	0.01130	0.01161	0.01150	0.01121	0.01079	0.01039	0.01039	0.01039
TOU-8-Sec	0.00509	0.00046	0.00210	0.00210	0.00702	0.00837	0.00985	0.01013	0.01003	0.00978	0.00942	0.00906	0.00906	0.00906
TOU-8-Pri	0.00509	0.00042	0.00194	0.00194	0.00650	0.00776	0.00913	0.00939	0.00930	0.00906	0.00872	0.00839	0.00839	0.00839
TOU-8-Sub	0.00509	0.00040	0.00185	0.00185	0.00620	0.00738	0.00870	0.00894	0.00885	0.00863	0.00830	0.00799	0.00800	0.00800
TOU-PA-2	0.00509	0.00048	0.00217	0.00217	0.00723	0.00862	0.01014	0.01044	0.01033	0.01007	0.00969	0.00933	0.00934	0.00934
TOU-PA-3	0.00509	0.00030	0.00139	0.00139	0.00467	0.00557	0.00656	0.00676	0.00669	0.00651	0.00627	0.00604	0.00604	0.00604
St. Lighting [12]	0.00509	0.00000	(0.00007)	(0.00007)	(0.00006)	(0.00006)	(0.00005)	(0.00005)	(0.00005)	(0.00005)	(0.00006)	(0.00006)	(0.00006)	(0.00006)
TOU-8-Standby-Sec	0.00509	0.00009	0.00037	0.00037	0.00139	0.00166	0.00196	0.00202	0.00200	0.00194	0.00187	0.00180	0.00180	0.00180
TOU-8-Standby-Pri	0.00509	0.00010	0.00039	0.00039	0.00144	0.00172	0.00203	0.00209	0.00207	0.00202	0.00194	0.00187	0.00187	0.00187
TOU-8-Standby-Sub	0.00509	0.00006	0.00020	0.00020	0.00082	0.00099	0.00117	0.00121	0.00120	0.00116	0.00112	0.00108	0.00108	0.00108

[1] DWRBC: Department of Water Resources (DWR) Bond Charge. The DWR Bond Charge is not applicable to exempt Bundled Service and Direct Access Customers, as defined in and pursuant to D.02-10-063, D.02-02-051, and D.02-12-082.

[2] CTC: A non-bypassable charge applicable to all existing and future SCE Bundled Service Customers, all Direct Access Customers, and all Departing Load Customers for recovery of SCE's transition costs.