



Addendum to Chief Executive Officer and
General Manager's Report and Recommendation on

Rates and Services

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Powering forward. Together.



**Chief Executive Officer
& General Manager's Report
and Recommendation on**

Rates and Services

**Addendum 1 to Chief Executive Officer & General Manager's
Report and Recommendation on Rates and Services Dated
March 21, 2019.**

April 12, 2019

A Sacramento Municipal Utility District Publication

Addendum 1 to Chief Executive Officer & General Manager's Report and Recommendation on Rates and Services, dated March 21, 2019

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Addendum 1

Overview

This document is Addendum 1 to the Chief Executive Officer & General Manager's Report and Recommendation on Rates and Services (Report) dated March 21, 2019, which modifies the Report's recommendations by:

- Moving the grandfathering date for a customer that submits an application for interconnection of renewable self generating resources, including Net Energy Metering (NEM) systems; and
- Making a minor amendment to grandfather current power factor waiver charges at the subtransmission service voltage level.

The following sections explain staff's proposed changes to SMUD Rates, Rules and Regulations.

Change in Application Date for Grandfathering Customer Renewable Self-Generation

Staff's proposal for customer renewable generation resources that interconnect to SMUD's distribution system included a 10-year grandfathering provision for applications submitted on or before March 31, 2019.

Staff has received public feedback on this item since the release of the Report and recommends extending the application deadline for grandfathering regarding the NEM 2.0 successor rate and Rule and Regulation 21 (Rule 21) by three months, from March 31, 2019 to July 1, 2019. This new proposed date provides an additional three months for solar customers to submit applications for renewable self-generation, and falls a few days after the Board is scheduled to vote on the proposal on June 24, 2019.

Purpose

Net Energy Metering (NEM) Successor Rate

Staff's proposal for the NEM successor rate includes a 10-year grandfathering provision for eligible renewable resource interconnection applications received on or before March 31, 2019. If a customer did not submit a complete application by this date, the proposed Grid Access Charge would apply as early as January 1, 2020 and not later than May 31, 2020.

The Board approved a Resolution in 2017 that all NEM customers with applications approved on or after January 1, 2018 would be subject to the successor rate. While staff believes the proposed date of March 31, 2019 is respectful of customers' existing investments in solar and other renewable energy, since the release of the Report, staff has received public feedback on the proposed deadline. The overall feedback is that an effective date prior to the Board vote scheduled for June 24, 2019, causes uncertainty and confusion.

Even though a change in the proposed deadline will increase the cost shift between NEM and non-NEM customers, staff is recommending extending the application deadline of the proposed NEM successor rate to July 1, 2019. Therefore, the proposed 10-year grandfathering provision would include systems that were approved for installation or for which complete applications were received by SMUD between January 1, 2018 and July 1, 2019.

Rule and Regulation 21

Staff's grandfathering proposal above also applies to customers that submit renewable resource interconnection applications but do not enroll in SMUD's NEM rate schedule. Customers that do not export their self-generated power to SMUD's grid may not enroll in SMUD's NEM rate (occasionally a customer will not seek the benefits of our NEM program because all of their system's generation is consumed by the customer on-site and is not exported to SMUD's grid; or the customer may not be eligible to enroll in the NEM rate). Accordingly, the Rule 21 section of the GM Report is also proposed to be amended with the new grandfathering application date of July 1, 2019.

Revenue Impact

Staff has calculated the forecasted increase in cost shifting due to this extension in the application submittal date to be \$6.85 million over the 10-year grandfathering period. The proposal specifies that customers that submit applications received between January 1, 2018 and July 1, 2019 will be eligible for a 10-year grandfathering period. The cost shift for the 10-year grandfathering period under the initial proposal was estimated at \$30.7 million; the cost shift under the new proposal is \$37.6 million over 10 years.

Recommendation

Staff recommends extending the application deadline of the proposed NEM successor rate and Rule 21 from March 31, 2019 to July 1, 2019. Therefore, the proposed 10-year grandfathering provision will include renewable resource systems that were approved for installation or for which complete applications were received between January 1, 2018 and July 1, 2019.

Revisions described above are detailed in Rate Schedules NEM1 and NEM2, and Rule 21 included in this Addendum.

Power Factor Waiver

Purpose

Staff's initial recommendation includes limiting the power factor waiver to customers connecting at the secondary and primary service voltage. Staff would like to clarify that customers taking service at 69kV subtransmission service voltage that currently have power factor waivers will be grandfathered.

Bill Impact

None.

Revenue Impact

None.

Recommendation

Allow customers taking service at the subtransmission service voltage level with an existing power factor waiver contract to keep their power factor waiver. Customers with current power factor waiver contracts will not be affected by the new power factor waiver limitation to subtransmission customers.

Environmental Assessment

- 1.0 Section 21080(b)(8) of the California Public Resources Code and Section 15273 of the California Environmental Quality Act (CEQA) Guidelines (California Code of Regulations, Title 14, Sections 15000, et seq.) provide that CEQA does not apply to the establishment, modification, structuring, restructuring, or approval of rates, tolls, fares, and other charges by public agencies which the public agency finds are for the purpose of:
- (1) Meeting operating expenses, including employee wage rates and fringe benefits;
 - (2) Purchasing or leasing supplies, equipment, or materials;
 - (3) Meeting financial reserve needs and requirements;
 - (4) Obtaining funds for capital projects necessary to maintain service within existing service areas; or
 - (5) Obtaining funds that are necessary to maintain such intra-city transfers as are authorized by city charter.
- 2.0 Section 15061(b) (3) of the CEQA Guidelines provides that where it can be said with certainty that there is no possibility that the activity in question may have a significant effect on the environment, the activity is not subject to CEQA.
- 3.0 The proposed action to modify the NEM and Rule 21 grandfathering period, , is for the purposes set forth in (1) through (4) of Section 1.0 of the Environmental Assessment. Therefore, this rate action is exempt from the requirements of CEQA.
- 4.0 The proposed action to modify the power factor waiver provision, is for the purposes set forth in (1) through (4) of Section 1.0 of the Environmental Assessment. Therefore, this rate action is exempt from the requirements of CEQA.

Appendix I

Amended Rate Schedules

Net Energy Metering Rate Schedule NEM1 (*Closed to new customers*)

I. Applicability

This Rate Schedule NEM1 applies to residential, commercial/industrial, and agricultural customers who established service at their premises on or prior to July 1, 2019 and have an electrical generation facility on their premises that is fueled by a renewable fuel source which had an application for interconnection received by SMUD on or prior to July 1, 2019.

Customers who established service at their premises after July 1, 2019 or have an electrical generation facility on their premises that is fueled by a renewable fuel source which had an application for interconnection received by SMUD after July 1, 2019 are subject to Rate Schedule NEM2.

If a customer moves out or transfers their service after July 1, 2019, the premises will be subject to Rate Schedule NEM2. Customers who move in or transfer their service to a new premises after July 1, 2019, and that premises has an eligible renewable electrical generation facility, are subject to Rate Schedule NEM2.

A renewable electrical generation facility is a facility that is eligible for certification as a renewable energy resource as defined by the California Energy Resources Conservation and Development Commission (CEC).¹ These facilities include, but may not be limited to, generators fueled by:

- photovoltaic
- wind
- biomass
- solar thermal
- geothermal
- fuel cells using renewable fuels
- small hydroelectric
- digester gas
- municipal solid waste conversion
- landfill gas
- ocean wave
- ocean thermal
- tidal current

Small hydroelectric generation facilities will not qualify for this tariff if the facility will cause an adverse impact on instream beneficial uses or cause a change in the volume or timing of streamflow. Fuel cells will not qualify for this tariff if the fuel cell derives any portion of its fuel from a nonrenewable fuel.

II. Generator Standby Charges

Customers who qualify for Net Energy Metering (NEM) are exempt from generator standby charges on that portion of their load that is served by the NEM eligible facility.

III. Conditions of Service

A. Eligibility

The following are requirements for eligibility under this rate schedule:

1. The facility must be located on the customer's premise; and
2. The facility must operate in parallel with SMUD's distribution facilities; and
3. The customer must meet all requirements of Rule and Regulation 21; and

¹ See the CEC's most current Renewable Portfolio Standard Eligibility Guidebook for the purposes of providing the technical definitions of a renewable electrical generation facility.

Net Energy Metering Rate Schedule NEM1 (*Closed to new customers*)

4. The facility must be intended primarily to offset part or all of the customer's own electrical requirements; and
5. The facilities and the electrical requirements are located at a single and same metering point; and
6. The generating capacity can be a maximum of 3,000 kilowatts; and
7. The size of the facility has not increased by more than 10% or 1 kW, whichever is greater, based on the CEC-AC rating at the initial date of approval.

For photovoltaic generation facilities, generation capacity is measured using the California Energy Commission Alternating Current (CEC-AC) rating. For all other renewable electrical generation facilities, the nameplate Alternating Current (AC) rating will be used to measure generation capacity. This paragraph defining the measurement of capacity only pertains to the applicability of this rate schedule and may differ from any measurement of capacity used in Rule and Regulation 21.

IV. Metering

A. Residential and Small Commercial ≤ 20 kW; Agricultural Customers ≤ 30 kW

SMUD will pay for and install, at no cost to the customer, a single meter capable of registering the flow of electricity in both directions, or an equivalent means of metering.

B. Large Commercial > 20 kW; Agricultural Customers > 30 kW

SMUD will pay for and install a single meter, or an equivalent means of metering, capable of registering the flow of electricity in both directions. New net-meter customers on GS-TOU1, GS-TOU2 or GS-TOU3 will be required to pay the cost differential between standard metering and bi-directional metering.

V. Payments

For the purposes of this schedule a "month" is considered to be a single billing period of 27 to 34 days.

- A. Charges for other than electricity usage must be paid monthly. This includes the System Infrastructure Fixed Charge, Summer Super Peak Demand Charge, Site Infrastructure Charge, program fees, surcharges and taxes.
- B. Residential, Small Commercial and Agricultural customers, meeting the eligibility criteria as defined in Section III (A) of this Rate Schedule, may pay monthly or annually for the net electricity consumed.
- C. For all other customers, the net balance of all moneys owed must be paid each monthly billing cycle.
- D. If, in any regular billing month, the electricity supplied by SMUD is less than the electricity supplied to SMUD by the customer's eligible generation system, the customer will receive retail-valued electricity credits for the excess electricity supplied to SMUD. The retail-valued electricity credits will carry over to the following billing period until the end of the settlement period. Retail-valued electricity credits will only be credited against electricity usage charges.

VI. Settlement Method

All customers who qualify for the net metering option will have a 12-month settlement period. For existing systems the settlement period begins on the customer's move-in date. For new installations, the settlement period begins on the first day of operations after the customer requested to be on the NEM rate and the NEM-eligible system was approved by SMUD for grid connection. At the end of the customer's 12-month settlement period, any unused accumulated monthly retail electricity credits may be zeroed out.

A. Annual Net Surplus Generation

1. At the end of a customer's 12-month settlement period, SMUD shall calculate the amount of net surplus generation over the 12-month period. If the customer has net surplus generation, SMUD will, at the customer's election, either:
 - Provide a monetary payment to the customer for the net surplus; or
 - Roll over the net annual surplus kWh into the next 12-month period.

Net Energy Metering Rate Schedule NEM1 (*Closed to new customers*)

Monetary value per kWh of net surplus generation shall be based on the most recently published SMUD budget, calculated as the dollar value of the expected avoided generation and production-related costs divided by the forecasted annual energy sales.

2. For each kWh purchased by SMUD under this annual net surplus generation method, the ownership of the associated renewable electricity credit will transfer from the customer to SMUD.
3. The net surplus monetary value shall be calculated annually.
4. This net surplus monetary value will remain in effect for the duration of the fiscal year used for the calculation of the customer's net surplus generation.
5. The value will be published on SMUD's website, www.smud.org, by December 20 prior to the year the value is in effect.

B. Opt-Out of Annual Net Surplus Generation

Customers may elect to opt out of receiving compensation or kWh roll-over credit for their net surplus generation over their 12-month settlement period. Customers who elect to opt out will not receive any form of compensation nor credit for net surplus generation delivered to SMUD. Such customers will be allowed to retain any associated renewable electricity credits produced by their net surplus generation.

VII. Grandfathering Period

This Rate Schedule will apply to customers who moved in or transferred service prior to January 1, 2018 and have an eligible renewable electrical generation facility on their premises that was approved by SMUD for installation before January 1, 2018 for 20 years from the date of the first billing cycle after initial renewable electrical generation facility interconnection date. This grandfathering period will not end any earlier than 2023, unless the customer moves out or transfers service. After such time, the customer will be subject to Rate Schedule NEM2 or the successor rate. If a customer moves out or transfers their service within the grandfathering period, the premises and customer will be subject to Rate Schedule NEM2 or the successor rate.

This Rate Schedule will apply to customers who moved in or transferred service between January 1, 2018 and July 1, 2019 or has an eligible renewable electrical generation facility on their premises which had an application for interconnection received by SMUD on or before July 1, 2019 for 10 years from the date of the first billing cycle after initial renewable electrical generation facility interconnection date. After such time, the customer will be subject to Rate Schedule NEM2 or the successor rate. If a customer moves out or transfers their service within the grandfathering period, the premises and customer will be subject to Rate Schedule NEM2 or the successor rate.

VIII. Rate Requirement

Residential customers who moved in or transferred service prior to January 1, 2018 and have an eligible renewable electrical generation facility on their premises that was approved by SMUD for installation before January 1, 2018 may elect to stay on their current rate until December 31, 2022. After December 31, 2022, those customers may elect to be on any open rate until the end of their grandfathering period. After the grandfathering period those customers will be subject to the applicable standard rate.

Residential customers who have an eligible renewable electrical generation facility on their premises that was approved by SMUD for installation on or after January 1, 2018 must be on the applicable standard rate.

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Net Energy Metering Rate Schedule NEM2

I. Applicability

This Rate Schedule NEM2 applies to residential, commercial/industrial, and agricultural customers who establish service at a premises after July 1, 2019 or have an electrical generation facility on their premises that is fueled by a renewable fuel source which had an application for interconnection received by SMUD after July 1, 2019.

Customers who established service at their premises on or prior to July 1, 2019 and have an electrical generation facility on their premises that is fueled by a renewable fuel source which had an application for interconnection received by SMUD on or prior to July 1, 2019 are subject to Rate Schedule NEM1.

All customers that have an electrical generation facility on their premises that is fueled by a renewable fuel source that are not eligible for Rate Schedule NEM1 are subject to Rate Schedule NEM2.

A renewable electrical generation facility is a facility that is eligible for certification as a renewable energy resource as defined by the California Energy Resources Conservation and Development Commission (CEC).¹ These facilities include, but may not be limited to, generators fueled by:

- photovoltaic
- wind
- biomass
- solar thermal
- geothermal
- fuel cells using renewable fuels
- small hydroelectric
- digester gas
- municipal solid waste conversion
- landfill gas
- ocean wave
- ocean thermal
- tidal current

Small hydroelectric generation facilities will not qualify for this tariff if the facility will cause an adverse impact on instream beneficial uses or cause a change in the volume or timing of streamflow. Fuel cells will not qualify for this tariff if the fuel cell derives any portion of its fuel from a nonrenewable fuel.

II. Generator Standby Charges

Customers who qualify for Net Energy Metering (NEM) through this Rate Schedule are exempt from generator standby charges on that portion of their load that is served by the NEM eligible facility.

III. Conditions of Service

A. Eligibility

The following are requirements for eligibility for net energy metering under this Rate Schedule:

1. The facility must be located on the customer's premises; and
2. The facility must operate in parallel with SMUD's distribution facilities; and
3. The customer must meet all requirements of Rule and Regulation 21; and
4. The facility must be intended primarily to offset part or all of the customer's own electrical requirements; and

¹ See the CEC's most current Renewable Portfolio Standard Eligibility Guidebook for the purposes of providing the technical definitions of a renewable electrical generation facility.

Net Energy Metering Rate Schedule NEM2

5. The facilities and the electrical requirements are located at a single and same metering point; and
6. The generating capacity can be a maximum of 3,000 kilowatts.

For photovoltaic generation facilities, generation capacity is measured using the California Energy Commission Alternating Current (CEC-AC) rating. For all other renewable electrical generation facilities, the nameplate Alternating Current (AC) rating will be used to measure generation capacity. This paragraph defining the measurement of capacity only pertains to the applicability of this rate schedule and may differ from any measurement of capacity used in Rule and Regulation 21.

IV. Metering

A. Residential and Small Commercial ≤ 20 kW; Agricultural Customers ≤ 30 kW

SMUD will pay for and install, at no cost to the customer, a single meter capable of registering the flow of electricity in both directions, or an equivalent means of metering.

B. Large Commercial > 20 kW; Agricultural Customers > 30 kW

SMUD will pay for and install a single meter, or an equivalent means of metering, capable of registering the flow of electricity in both directions. New net-meter customers on GS-TOU1, GS-TOU2 or GS-TOU3 will be required to pay the cost differential between standard metering and bi-directional metering.

V. Grid Access Charge

All customers under this Rate Schedule will be assessed a monthly Grid Access Charge based on the generation capacity of the facility (kW), effective as early as January 1, 2020, and no later than May 31, 2020.

The following monthly Grid Access Charge applies to customers with a photovoltaic generating facility. The generation capacity of the facility is measured using the CEC-AC rating.

Monthly Grid Access Charge	2019
	Per kW
Residential (RT02)	n/a
Commercial	
GSN_T	n/a
GSS_T, GUS_S, GUS_M, GUS_L, GUP_S, GUP_M, GUP_L	n/a
GUT_M, GUT_L	n/a
Agriculture (ASN, ASD, AON, AOD)	n/a

The monthly per kW charge amounts by year and rate category are shown in the table below:

Rate Category	2020	2021	2022	2023	2024	2025
RT02	\$8.00	\$8.00	\$9.00	\$10.00	\$10.00	\$11.00
GSN_T	\$6.50	\$7.00	\$8.00	\$8.50	\$9.00	\$10.00
GSS_T, GUS_S, GUS_M, GUS_L	\$5.00	\$5.50	\$6.00	\$6.50	\$7.00	\$8.00
GUP_S, GUP_M, GUP_L	\$5.00	\$5.50	\$6.00	\$6.50	\$7.00	\$8.00
GUT_M, GUT_L	\$4.00	\$4.50	\$5.00	\$5.50	\$6.00	\$6.50
ASN, ASD, AON, AOD	\$8.00	\$8.50	\$9.00	\$10.00	\$10.50	\$11.00

For the Grid Access Charge applicable to other renewable resources, refer to Rule and Regulation 21.

Net Energy Metering Rate Schedule NEM2

VI. EAPR Grid Access Charge Discount

Residential customers that qualify for the Energy Assistance Program (EAPR) will receive a discount on the monthly Grid Access Charge according to the following income guidelines:

Residential EAPR Grid Access Charge Discount	Per kW
0-50% Federal Poverty Level	100%
>50-100% Federal Poverty Level	100%
>100-150% Federal Poverty Level	50%
>150-200% Federal Poverty Level	50%

VII. Payments

For the purposes of this schedule a “month” is considered to be a single billing period of 27 to 34 days.

- A. Charges other than electricity usage must be paid monthly. This includes the System Infrastructure Fixed Charge, the Grid Access Charge, Summer Super Peak Demand Charge, Site Infrastructure Charge, program fees, surcharges and taxes.
- B. Residential, Small Commercial and Agricultural customers, meeting the eligibility criteria as defined in Section III (A) of this Rate Schedule, may pay monthly or annually for the net electricity consumed, depending on billing method.
- C. For all other customers, the net balance of all moneys owed must be paid each monthly billing cycle.
- D. If, in any regular billing month, the electricity supplied by SMUD is less than the electricity supplied to SMUD by the customer's eligible generation system, the customer will receive retail-valued electricity credits for the excess electricity supplied to SMUD. The retail-valued electricity credits will carry over to the following billing period until the end of the settlement period. Retail-valued electricity credits will only be credited against electricity usage charges.

VIII. Settlement Method

All customers who qualify for the net metering option will have a 12-month settlement period. For existing systems, the settlement period begins on the customer's move-in date. For new installations, the settlement period begins on the first day of operations after the customer has requested to be on this NEM2 rate and the NEM-eligible system is approved by SMUD for grid connection. At the end of the customer's 12-month settlement period, any unused accumulated monthly retail electricity credits may be zeroed out.

A. Annual Net Surplus Generation

1. At the end of a customer's 12-month settlement period, SMUD shall calculate the amount of net surplus generation over the 12-month period. If the customer has net surplus generation, SMUD will, at the customer's election, either:
 - Provide a monetary payment to the customer for the net surplus; or
 - Roll-over the net annual surplus kWh into the next 12-month period.

Monetary value per kWh of net surplus generation shall be based on the most recently published SMUD budget, calculated as the dollar value of the expected avoided generation and production-related costs divided by the forecasted annual energy sales.

2. For each kWh purchased by SMUD under this annual net surplus generation method, the ownership of the associated renewable electricity credit will transfer from the customer to SMUD.
3. The net surplus monetary value shall be calculated annually.
4. This net surplus monetary value will remain in effect for the duration of the fiscal year used for the calculation of the customer's net surplus generation.

Net Energy Metering Rate Schedule NEM2

5. The value will be published on SMUD's website, www.smud.org, by December 20 prior to the year the value is in effect.

B. Service Cancellation

1. If a customer cancels their electric service and has a net surplus generation, SMUD will provide a monetary payment to the customer for the net surplus. Monetary value per kWh of net surplus generation shall be based on the most recently published SMUD budget, calculated as the dollar value of the expected avoided generation and production-related costs divided by the forecasted annual energy sales.
2. For each kWh purchased by SMUD under this annual net surplus generation method, the ownership of the associated renewable electricity credit will transfer from the customer to SMUD.
3. The net surplus monetary value shall be calculated annually.
4. This net surplus monetary value will remain in effect for the duration of the fiscal year used for the calculation of the customer's net surplus generation.
5. The value will be published on SMUD's website, www.smud.org, by December 20 prior to the year the value is in effect.

C. Opt-Out of Annual Net Surplus Generation

Customers may elect to opt out of receiving compensation or kWh roll-over credit for their net surplus generation over their 12-month settlement period. Customers who elect to opt out will not receive any form of compensation nor credit for net surplus generation delivered to SMUD. Such customers will be allowed to retain any associated renewable electricity credits produced by their net surplus generation.

IX. Billing

A. Net Electricity Usage

1. Residential, Small Commercial and Agricultural customers, meeting the eligibility criteria as defined in Section III (A) of this Rate Schedule, will be billed monthly for net electricity usage. Customers may elect annual billing as an alternative.
2. For all other customers, the net electricity usage will be billed each monthly billing cycle.

B. Proration of Charges

The Grid Access Charge will be prorated according to the proration terms of the applicable rate schedule.

A. Discontinuance of Service

Any customer resuming service at the same premises within 12 months after discontinuing service will be required to pay the Grid Access Charge that would have been billed if service had not been discontinued, except when service has been disconnected. The Grid Access Charge will be waived during each of those months. Retroactive billing shall be at SMUD's sole discretion.

B. Changes to Facility

The Grid Access Charge will be charged until the customer notifies SMUD of the disconnect of the renewable electrical generation facility.

Net Energy Metering Rate Schedule NEM2

If the size of the facility is modified, the Grid Access Charge will be modified accordingly upon notification or SMUD identification. In the event that the size of the facility is incorrectly reported, SMUD reserves the right to retroactively bill for the difference.

In the event that a customer did not receive approval for installation, SMUD reserves the right to retroactively bill for the Grid Access Charge.

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Net Energy Metering Rate Schedule NEM2

I. Applicability

This Rate Schedule NEM2 applies to residential, commercial/industrial, and agricultural customers who establish service at a premises after July 1, 2019 or have an electrical generation facility on their premises that is fueled by a renewable fuel source which had an application for interconnection received by SMUD after July 1, 2019.

Customers who established service at their premises on or prior to July 1, 2019 and have an electrical generation facility on their premises that is fueled by a renewable fuel source which had an application for interconnection received by SMUD on or prior to July 1, 2019 are subject to Rate Schedule NEM1.

All customers that have an electrical generation facility on their premises that is fueled by a renewable fuel source that are not eligible for Rate Schedule NEM1 are subject to Rate Schedule NEM2.

A renewable electrical generation facility is a facility that is eligible for certification as a renewable energy resource as defined by the California Energy Resources Conservation and Development Commission (CEC).¹ These facilities include, but may not be limited to, generators fueled by:

- photovoltaic
- wind
- biomass
- solar thermal
- geothermal
- fuel cells using renewable fuels
- small hydroelectric
- digester gas
- municipal solid waste conversion
- landfill gas
- ocean wave
- ocean thermal
- tidal current

Small hydroelectric generation facilities will not qualify for this tariff if the facility will cause an adverse impact on instream beneficial uses or cause a change in the volume or timing of streamflow. Fuel cells will not qualify for this tariff if the fuel cell derives any portion of its fuel from a nonrenewable fuel.

II. Generator Standby Charges

Customers who qualify for Net Energy Metering (NEM) through this Rate Schedule are exempt from generator standby charges on that portion of their load that is served by the NEM eligible facility.

III. Conditions of Service

A. Eligibility

The following are requirements for eligibility for net energy metering under this Rate Schedule:

1. The facility must be located on the customer's premises; and
2. The facility must operate in parallel with SMUD's distribution facilities; and
3. The customer must meet all requirements of Rule and Regulation 21; and
4. The facility must be intended primarily to offset part or all of the customer's own electrical requirements; and

¹ See the CEC's most current Renewable Portfolio Standard Eligibility Guidebook for the purposes of providing the technical definitions of a renewable electrical generation facility.

Net Energy Metering Rate Schedule NEM2

5. The facilities and the electrical requirements are located at a single and same metering point; and
6. The generating capacity can be a maximum of 3,000 kilowatts.

For photovoltaic generation facilities, generation capacity is measured using the California Energy Commission Alternating Current (CEC-AC) rating. For all other renewable electrical generation facilities, the nameplate Alternating Current (AC) rating will be used to measure generation capacity. This paragraph defining the measurement of capacity only pertains to the applicability of this rate schedule and may differ from any measurement of capacity used in Rule and Regulation 21.

IV. Metering

A. Residential and Small Commercial ≤ 20 kW; Agricultural Customers ≤ 30 kW

SMUD will pay for and install, at no cost to the customer, a single meter capable of registering the flow of electricity in both directions, or an equivalent means of metering.

B. Large Commercial > 20 kW; Agricultural Customers > 30 kW

SMUD will pay for and install a single meter, or an equivalent means of metering, capable of registering the flow of electricity in both directions. New net-meter customers on GS-TOU1, GS-TOU2 or GS-TOU3 will be required to pay the cost differential between standard metering and bi-directional metering.

V. Grid Access Charge

All customers under this Rate Schedule will be assessed a monthly Grid Access Charge based on the generation capacity of the facility (kW), effective as early as January 1, 2020, and no later than May 31, 2020.

The following monthly Grid Access Charge applies to customers with a photovoltaic generating facility. The generation capacity of the facility is measured using the CEC-AC rating.

Monthly Grid Access Charge	2020
Residential (RT02)	Per kW
	\$8.00
Commercial	
GSN_T	\$6.50
GSS_T, GUS_S, GUS_M, GUS_L, GUP_S, GUP_M, GUP_L	\$5.00
GUT_M, GUT_L	\$4.00
Agriculture (ASN, ASD, AON, AOD)	\$8.00

The monthly per kW charge amounts by year and rate category are shown in the table below:

Rate Category	2021	2022	2023	2024	2025
RT02	\$8.00	\$9.00	\$10.00	\$10.00	\$11.00
GSN_T	\$7.00	\$8.00	\$8.50	\$9.00	\$10.00
GSS_T, GUS_S, GUS_M, GUS_L	\$5.50	\$6.00	\$6.50	\$7.00	\$8.00
GUP_S, GUP_M, GUP_L	\$5.50	\$6.00	\$6.50	\$7.00	\$8.00
GUT_M, GUT_L	\$4.50	\$5.00	\$5.50	\$6.00	\$6.50
ASN, ASD, AON, AOD	\$8.50	\$9.00	\$10.00	\$10.50	\$11.00

For the Grid Access Charge applicable to other renewable resources, refer to Rule and Regulation 21.

Net Energy Metering Rate Schedule NEM2

VI. EAPR Grid Access Charge Discount

Residential customers that qualify for the Energy Assistance Program (EAPR) will receive a discount on the monthly Grid Access Charge according to the following income guidelines:

Residential EAPR Grid Access Charge Discount	Per kW
0-50% Federal Poverty Level	100%
>50-100% Federal Poverty Level	100%
>100-150% Federal Poverty Level	50%
>150-200% Federal Poverty Level	50%

VII. Payments

For the purposes of this schedule a “month” is considered to be a single billing period of 27 to 34 days.

- A. Charges other than electricity usage must be paid monthly. This includes the System Infrastructure Fixed Charge, the Grid Access Charge, Summer Super Peak Demand Charge, Site Infrastructure Charge, program fees, surcharges and taxes.
- B. Residential, Small Commercial and Agricultural customers, meeting the eligibility criteria as defined in Section III (A) of this Rate Schedule, may pay monthly or annually for the net electricity consumed, depending on billing method.
- C. For all other customers, the net balance of all moneys owed must be paid each monthly billing cycle.
- D. If, in any regular billing month, the electricity supplied by SMUD is less than the electricity supplied to SMUD by the customer's eligible generation system, the customer will receive retail-valued electricity credits for the excess electricity supplied to SMUD. The retail-valued electricity credits will carry over to the following billing period until the end of the settlement period. Retail-valued electricity credits will only be credited against electricity usage charges.

VIII. Settlement Method

All customers who qualify for the net metering option will have a 12-month settlement period. For existing systems, the settlement period begins on the customer's move-in date. For new installations, the settlement period begins on the first day of operations after the customer has requested to be on this NEM2 rate and the NEM-eligible system is approved by SMUD for grid connection. At the end of the customer's 12-month settlement period, any unused accumulated monthly retail electricity credits may be zeroed out.

A. Annual Net Surplus Generation

1. At the end of a customer's 12-month settlement period, SMUD shall calculate the amount of net surplus generation over the 12-month period. If the customer has net surplus generation, SMUD will, at the customer's election, either:
 - Provide a monetary payment to the customer for the net surplus; or
 - Roll-over the net annual surplus kWh into the next 12-month period.

Monetary value per kWh of net surplus generation shall be based on the most recently published SMUD budget, calculated as the dollar value of the expected avoided generation and production-related costs divided by the forecasted annual energy sales.

2. For each kWh purchased by SMUD under this annual net surplus generation method, the ownership of the associated renewable electricity credit will transfer from the customer to SMUD.
3. The net surplus monetary value shall be calculated annually.
4. This net surplus monetary value will remain in effect for the duration of the fiscal year used for the calculation of the customer's net surplus generation.

Net Energy Metering Rate Schedule NEM2

5. The value will be published on SMUD's website, www.smud.org, by December 20 prior to the year the value is in effect.

B. Service Cancellation

1. If a customer cancels their electric service and has a net surplus generation, SMUD will provide a monetary payment to the customer for the net surplus. Monetary value per kWh of net surplus generation shall be based on the most recently published SMUD budget, calculated as the dollar value of the expected avoided generation and production-related costs divided by the forecasted annual energy sales.
2. For each kWh purchased by SMUD under this annual net surplus generation method, the ownership of the associated renewable electricity credit will transfer from the customer to SMUD.
3. The net surplus monetary value shall be calculated annually.
4. This net surplus monetary value will remain in effect for the duration of the fiscal year used for the calculation of the customer's net surplus generation.
5. The value will be published on SMUD's website, www.smud.org, by December 20 prior to the year the value is in effect.

C. Opt-Out of Annual Net Surplus Generation

Customers may elect to opt out of receiving compensation or kWh roll-over credit for their net surplus generation over their 12-month settlement period. Customers who elect to opt out will not receive any form of compensation nor credit for net surplus generation delivered to SMUD. Such customers will be allowed to retain any associated renewable electricity credits produced by their net surplus generation.

IX. Billing

A. Net Electricity Usage

1. Residential, Small Commercial and Agricultural customers, meeting the eligibility criteria as defined in Section III (A) of this Rate Schedule, will be billed monthly for net electricity usage. Customers may elect annual billing as an alternative.
2. For all other customers, the net electricity usage will be billed each monthly billing cycle.

B. Proration of Charges

The Grid Access Charge will be prorated according to the proration terms of the applicable rate schedule.

A. Discontinuance of Service

Any customer resuming service at the same premises within 12 months after discontinuing service will be required to pay the Grid Access Charge that would have been billed if service had not been discontinued, except when service has been disconnected. The Grid Access Charge will be waived during each of those months. Retroactive billing shall be at SMUD's sole discretion.

B. Changes to Facility

The Grid Access Charge will be charged until the customer notifies SMUD of the disconnect of the renewable electrical generation facility.

Net Energy Metering Rate Schedule NEM2

If the size of the facility is modified, the Grid Access Charge will be modified accordingly upon notification or SMUD identification. In the event that the size of the facility is incorrectly reported, SMUD reserves the right to retroactively bill for the difference.

In the event that a customer did not receive approval for installation, SMUD reserves the right to retroactively bill for the Grid Access Charge.

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Interconnection Requirements Rule and Regulation 21

I. Requirements

Rule and Regulation 21 sets forth the mandatory conditions and requirements for the interconnection and operation of distributed generation. All distributed generation connecting to the SMUD distribution system must comply with the mandatory conditions and requirements of Rule and Regulation 21, as further specified in SMUD Policy and Procedure 11-01. Interconnection is at SMUD's sole discretion and is prohibited until an approval to interconnect is provided by SMUD.

Requirements for interconnecting and operating distributed generation shall be available on the SMUD website (www.smud.org) and shall address, at a minimum, the following topics:

- Applicability
- Definitions
- General Rules, Rights, and Obligations
- Application and Interconnection Process
- Initial Review Process for Applications to Interconnect a Generating Facility
- Photovoltaic Interconnection Design Standards
- Generating Facility Design and Operating Requirements
- Maintenance and Permits
- Interconnection Facility and Distribution System Modifications and Costs
- Metering, Monitoring, and Telemetry
- Testing and Certification Criteria
- Interruptions or Reductions of Deliveries
- Access to Premises
- Indemnity and Liability By Customer
- Dispute Resolution Process

II. Grid Access Charge

All customers with an electrical generation facility on their premises will be assessed a monthly Grid Access Charge, except as provided as follows:

- Customers who established service at their premises on or prior to January 1, 2018 and have a renewable electrical generation facility¹ on their premises that was approved for installation on or prior to January 1, 2018 are exempt from the Grid Access Charge for 20 years from the date of the first billing cycle after initial facility interconnection date. This exemption period will not end any earlier than 2023, unless the customer moves out or transfers service.
- Customers who established service at their premises between January 1, 2018 and July 1, 2019 or have a renewable electrical generation facility on their premises which had an application for interconnection received by SMUD on or prior to July 1, 2019 are exempt from the Grid Access Charge for 10 years from the date of the first billing cycle after initial facility interconnection date, unless the customer moves out or transfers service.

¹ See the CEC's most current Renewable Portfolio Standard Eligibility Guidebook for the purposes of providing the technical definition of a renewable electrical generation facility.

Interconnection Requirements Rule and Regulation 21

The Grid Access Charge will go into effect as early as January 1, 2020 and no later than May 31, 2020.

The generation capacity of the customer’s facility (kW) is used to determine the Grid Access Charge. For photovoltaic facilities, the generation capacity is based on the CEC-AC rating of the facility. For all other resources, the nameplate Alternating Current (AC) rating will be used to measure generation capacity.

In the event that a customer did not receive approval for installation, SMUD reserves the right to retroactively bill for the Grid Access Charge.

A. Grid Access Charge for Photovoltaic (Solar) Facilities

For photovoltaic (solar) generating facilities, the Grid Access Charge amount by year and customer rate category is shown in the table below, in \$/kW:

Rate Category	2020	2021	2022	2023	2024	2025
RT02	\$8.00	\$8.00	\$9.00	\$10.00	\$10.00	\$11.00
GSN_T	\$6.50	\$7.00	\$8.00	\$8.50	\$9.00	\$10.00
GSS_T, GUS_S, GUS_M, GUS_L,	\$5.00	\$5.50	\$6.00	\$6.50	\$7.00	\$8.00
GUP_S, GUP_M, GUP_L	\$5.00	\$5.50	\$6.00	\$6.50	\$7.00	\$8.00
GUT_M, GUT_L	\$4.00	\$4.50	\$5.00	\$5.50	\$6.00	\$6.50
ASN, ASD, AON, AOD	\$8.00	\$8.50	\$9.00	\$10.00	\$10.50	\$11.00

The charge for 2022-2025 assumes a 4% rate increase each year.

B. Grid Access Charge – Non-Bypassable Methodology

The Grid Access Charge for all other non-photovoltaic generating facilities will be determined based on a methodology using an unbundled non-bypassable cost component by rate class and service voltage level, as follows:

Residential Non-Bypassable Components (\$/kWh)		
Season and Time Period		Residential
Summer	Peak	\$ 0.2558
	Mid-Peak	\$ 0.0838
	Off-Peak	\$ 0.0526
Non-Summer	Peak	\$ 0.0632
	Off-Peak	\$ 0.0476

Residential season and time periods follow the time periods from the standard time-of-day rate.

Non-Residential Non-Bypassable Components (\$/kWh)						
Season and Time Period		Agriculture	GSN_T	Secondary	Primary	Subtransmission
Summer	Peak	\$ 0.1997	\$ 0.1966	\$ 0.1161	\$ 0.1075	\$ 0.0970
	Off-Peak	\$ 0.0474	\$ 0.0441	\$ 0.0332	\$ 0.0389	\$ 0.0291
Non-Summer	Peak	\$ 0.0551	\$ 0.0310	\$ 0.0386	\$ 0.0462	\$ 0.0337
	Off-Peak	\$ 0.0493	\$ 0.0326	\$ 0.0339	\$ 0.0410	\$ 0.0298
	Off-Peak Saver	\$ 0.0751	\$ 0.0467	\$ 0.0261	\$ 0.0301	\$ 0.0234

Non-residential season and time periods follow the proposed commercial restructure time periods.

The Grid Access Charge applied to a customer generating facility is calculated using the non-bypassable cost components (\$/kWh) times the system size (kW) times the capacity factor of the generation facility times the number of hours per year (8,760) as shown in the formula below:

$$\begin{aligned} \text{Non-bypassable cost component} \times \text{kW} \times \text{capacity factor} \times 8,760 &= \text{Annual Charge} \\ \text{Annual Charge} / 12 \text{ billing cycles} &= \text{Grid Access Charge } (\$/\text{kW}) \end{aligned}$$

Interconnection Requirements Rule and Regulation 21

C. Time Periods

The non-residential non-bypassable cost components in Section II(B) are based on the following time periods. Holidays are defined in the applicable rate schedules.

Non-Summer October 1 -May 31	Peak	Weekdays between 4:00 p.m. and 9:00 p.m., excluding holidays
	Off-Peak Saver	Every day between 9:00 a.m. and 4:00 p.m., including holidays
	Off-Peak	All other hours, including holidays
Summer June 1 -September 30	Peak	Weekdays between 4:00 p.m. and 9:00 p.m., excluding holidays
	Off-Peak	All other hours, including holidays

III. Changes to Requirements

SMUD's General Manager and CEO is authorized to develop, implement, and revise as necessary interconnection requirements addressing the above topics and such additional provisions to respond to legislation, regulatory requirements, industry practice, operating requirements, or average service costs.

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Net Energy Metering Rate Schedule NEM1 (*Closed to new customers*)

I. Applicability

This Rate Schedule NEM1 applies to residential, commercial/industrial, and agricultural customers who established service at their premises on or prior to July 1, 2019 and have an electrical generation facility on their premises that is fueled by a renewable fuel source which had an application for interconnection received by SMUD on or prior to July 1, 2019.

Customers who established service at their premises after July 1, 2019 or have an electrical generation facility on their premises that is fueled by a renewable fuel source which had an application for interconnection received by SMUD after July 1, 2019 are subject to Rate Schedule NEM2.

If a customer moves out or transfers their service after July 1, 2019, the premises will be subject to Rate Schedule NEM2. Customers who move in or transfer their service to a new premises after July 1, 2019, and that premises has an eligible renewable electrical generation facility, are subject to Rate Schedule NEM2.

A renewable electrical generation facility is a facility that is eligible for certification as a renewable energy resource as defined by the California Energy Resources Conservation and Development Commission (CEC).¹ These facilities include, but may not be limited to, generators fueled by:

- photovoltaic
- wind
- biomass
- solar thermal
- geothermal
- fuel cells using renewable fuels
- small hydroelectric
- digester gas
- municipal solid waste conversion
- landfill gas
- ocean wave
- ocean thermal
- tidal current

Small hydroelectric generation facilities will not qualify for this tariff if the facility will cause an adverse impact on instream beneficial uses or cause a change in the volume or timing of streamflow. Fuel cells will not qualify for this tariff if the fuel cell derives any portion of its fuel from a nonrenewable fuel.

II. Generator Standby Charges

Customers who qualify for Net Energy Metering (NEM) are exempt from generator standby charges on that portion of their load that is served by the NEM eligible facility.

III. Conditions of Service

A. Eligibility

The following are requirements for eligibility under this rate schedule:

1. The facility must be located on the customer's premise; and
2. The facility must operate in parallel with SMUD's distribution facilities; and
3. The customer must meet all requirements of Rule and Regulation 21; and

¹ See the CEC's most current Renewable Portfolio Standard Eligibility Guidebook for the purposes of providing the technical definitions of a renewable electrical generation facility.

Net Energy Metering Rate Schedule NEM1 (*Closed to new customers*)

4. The facility must be intended primarily to offset part or all of the customer's own electrical requirements; and
5. The facilities and the electrical requirements are located at a single and same metering point; and
6. The generating capacity can be a maximum of 3,000 kilowatts; and
7. The size of the facility has not increased by more than 10% or 1 kW, whichever is greater, based on the CEC-AC rating at the initial date of approval.

For photovoltaic generation facilities, generation capacity is measured using the California Energy Commission Alternating Current (CEC-AC) rating. For all other renewable electrical generation facilities, the nameplate Alternating Current (AC) rating will be used to measure generation capacity. This paragraph defining the measurement of capacity only pertains to the applicability of this rate schedule and may differ from any measurement of capacity used in Rule and Regulation 21.

IV. Metering

A. Residential and Small Commercial ≤ 20 kW; Agricultural Customers ≤ 30 kW

SMUD will pay for and install, at no cost to the customer, a single meter capable of registering the flow of electricity in both directions, or an equivalent means of metering.

B. Large Commercial > 20 kW; Agricultural Customers > 30 kW

SMUD will pay for and install a single meter, or an equivalent means of metering, capable of registering the flow of electricity in both directions. New net-meter customers on GS-TOU1, GS-TOU2 or GS-TOU3 will be required to pay the cost differential between standard metering and bi-directional metering.

V. Payments

For the purposes of this schedule a "month" is considered to be a single billing period of 27 to 34 days.

- A. Charges for other than electricity usage must be paid monthly. This includes the System Infrastructure Fixed Charge, Summer Super Peak Demand Charge, Site Infrastructure Charge, program fees, surcharges and taxes.
- B. Residential, Small Commercial and Agricultural customers, meeting the eligibility criteria as defined in Section III (A) of this Rate Schedule, may pay monthly or annually for the net electricity consumed.
- C. For all other customers, the net balance of all moneys owed must be paid each monthly billing cycle.
- D. If, in any regular billing month, the electricity supplied by SMUD is less than the electricity supplied to SMUD by the customer's eligible generation system, the customer will receive retail-valued electricity credits for the excess electricity supplied to SMUD. The retail-valued electricity credits will carry over to the following billing period until the end of the settlement period. Retail-valued electricity credits will only be credited against electricity usage charges.

VI. Settlement Method

All customers who qualify for the net metering option will have a 12-month settlement period. For existing systems the settlement period begins on the customer's move-in date. For new installations, the settlement period begins on the first day of operations after the customer requested to be on the NEM rate and the NEM-eligible system was approved by SMUD for grid connection. At the end of the customer's 12-month settlement period, any unused accumulated monthly retail electricity credits may be zeroed out.

A. Annual Net Surplus Generation

1. At the end of a customer's 12-month settlement period, SMUD shall calculate the amount of net surplus generation over the 12-month period. If the customer has net surplus generation, SMUD will, at the customer's election, either:
 - Provide a monetary payment to the customer for the net surplus; or
 - Roll over the net annual surplus kWh into the next 12-month period.

Net Energy Metering Rate Schedule NEM1 (*Closed to new customers*)

Monetary value per kWh of net surplus generation shall be based on the most recently published SMUD budget, calculated as the dollar value of the expected avoided generation and production-related costs divided by the forecasted annual energy sales.

2. For each kWh purchased by SMUD under this annual net surplus generation method, the ownership of the associated renewable electricity credit will transfer from the customer to SMUD.
3. The net surplus monetary value shall be calculated annually.
4. This net surplus monetary value will remain in effect for the duration of the fiscal year used for the calculation of the customer's net surplus generation.
5. The value will be published on SMUD's website, www.smud.org, by December 20 prior to the year the value is in effect.

B. Opt-Out of Annual Net Surplus Generation

Customers may elect to opt out of receiving compensation or kWh roll-over credit for their net surplus generation over their 12-month settlement period. Customers who elect to opt out will not receive any form of compensation nor credit for net surplus generation delivered to SMUD. Such customers will be allowed to retain any associated renewable electricity credits produced by their net surplus generation.

VII. Grandfathering Period

This Rate Schedule will apply to customers who moved in or transferred service prior to January 1, 2018 and have an eligible renewable electrical generation facility on their premises that was approved by SMUD for installation before January 1, 2018 for 20 years from the date of the first billing cycle after initial renewable electrical generation facility interconnection date. This grandfathering period will not end any earlier than 2023, unless the customer moves out or transfers service. After such time, the customer will be subject to Rate Schedule NEM2 or the successor rate. If a customer moves out or transfers their service within the grandfathering period, the premises and customer will be subject to Rate Schedule NEM2 or the successor rate.

This Rate Schedule will apply to customers who moved in or transferred service between January 1, 2018 and July 1, 2019 or has an eligible renewable electrical generation facility on their premises which had an application for interconnection received by SMUD on or before July 1, 2019 for 10 years from the date of the first billing cycle after initial renewable electrical generation facility interconnection date. After such time, the customer will be subject to Rate Schedule NEM2 or the successor rate. If a customer moves out or transfers their service within the grandfathering period, the premises and customer will be subject to Rate Schedule NEM2 or the successor rate.

VIII. Rate Requirement

Residential customers who moved in or transferred service prior to January 1, 2018 and have an eligible renewable electrical generation facility on their premises that was approved by SMUD for installation before January 1, 2018 may elect to stay on their current rate until December 31, 2022. After December 31, 2022, those customers may elect to be on any open rate until the end of their grandfathering period. After the grandfathering period those customers will be subject to the applicable standard rate.

Residential customers who have an eligible renewable electrical generation facility on their premises that was approved by SMUD for installation on or after January 1, 2018 must be on the applicable standard rate.

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Net Energy Metering Rate Schedule NEM2

I. Applicability

This Rate Schedule NEM2 applies to residential, commercial/industrial, and agricultural customers who establish service at a premises after July 1, 2019 or have an electrical generation facility on their premises that is fueled by a renewable fuel source which had an application for interconnection received by SMUD after July 1, 2019.

Customers who established service at their premises on or prior to July 1, 2019 and have an electrical generation facility on their premises that is fueled by a renewable fuel source which had an application for interconnection received by SMUD on or prior to July 1, 2019 are subject to Rate Schedule NEM1.

All customers that have an electrical generation facility on their premises that is fueled by a renewable fuel source that are not eligible for Rate Schedule NEM1 are subject to Rate Schedule NEM2.

A renewable electrical generation facility is a facility that is eligible for certification as a renewable energy resource as defined by the California Energy Resources Conservation and Development Commission (CEC).¹ These facilities include, but may not be limited to, generators fueled by:

- photovoltaic
- wind
- biomass
- solar thermal
- geothermal
- fuel cells using renewable fuels
- small hydroelectric
- digester gas
- municipal solid waste conversion
- landfill gas
- ocean wave
- ocean thermal
- tidal current

Small hydroelectric generation facilities will not qualify for this tariff if the facility will cause an adverse impact on instream beneficial uses or cause a change in the volume or timing of streamflow. Fuel cells will not qualify for this tariff if the fuel cell derives any portion of its fuel from a nonrenewable fuel.

II. Generator Standby Charges

Customers who qualify for Net Energy Metering (NEM) through this Rate Schedule are exempt from generator standby charges on that portion of their load that is served by the NEM eligible facility.

III. Conditions of Service

A. Eligibility

The following are requirements for eligibility for net energy metering under this Rate Schedule:

1. The facility must be located on the customer's premises; and
2. The facility must operate in parallel with SMUD's distribution facilities; and
3. The customer must meet all requirements of Rule and Regulation 21; and
4. The facility must be intended primarily to offset part or all of the customer's own electrical requirements; and

¹ See the CEC's most current Renewable Portfolio Standard Eligibility Guidebook for the purposes of providing the technical definitions of a renewable electrical generation facility.

Net Energy Metering Rate Schedule NEM2

5. The facilities and the electrical requirements are located at a single and same metering point; and
6. The generating capacity can be a maximum of 3,000 kilowatts.

For photovoltaic generation facilities, generation capacity is measured using the California Energy Commission Alternating Current (CEC-AC) rating. For all other renewable electrical generation facilities, the nameplate Alternating Current (AC) rating will be used to measure generation capacity. This paragraph defining the measurement of capacity only pertains to the applicability of this rate schedule and may differ from any measurement of capacity used in Rule and Regulation 21.

IV. Metering

A. Residential and Small Commercial ≤ 20 kW; Agricultural Customers ≤ 30 kW

SMUD will pay for and install, at no cost to the customer, a single meter capable of registering the flow of electricity in both directions, or an equivalent means of metering.

B. Large Commercial > 20 kW; Agricultural Customers > 30 kW

SMUD will pay for and install a single meter, or an equivalent means of metering, capable of registering the flow of electricity in both directions. New net-meter customers on GS-TOD1, GS-TOD2 or GS-TOD3 will be required to pay the cost differential between standard metering and bi-directional metering.

V. Grid Access Charge

All customers under this Rate Schedule will be assessed a monthly Grid Access Charge based on the generation capacity of the facility (kW).

The following monthly Grid Access Charge applies to customers with a photovoltaic generating facility. The generation capacity of the facility is measured using the CEC-AC rating.

Monthly Grid Access Charge	2021
Residential (RT02)	Per kW
Commercial	
GSN_T	\$7.00
GSS_T, GUS_S, GUS_M, GUS_L, GUP_S, GUP_M, GUP_L	\$5.50
GUT_M, GUT_L	\$4.50
Agriculture (ASN, ASD, AON, AOD)	\$8.50

The monthly per kW charge amounts by year and rate category are shown in the table below:

Rate Category*	2022	2023	2024	2025
RT02	\$9.00	\$10.00	\$10.00	\$11.00
GSN_T	\$8.00	\$8.50	\$9.00	\$10.00
GSS_T, GUS_S, GUS_M, GUS_L	\$6.00	\$6.50	\$7.00	\$8.00
GUP_S, GUP_M, GUP_L	\$6.00	\$6.50	\$7.00	\$8.00
GUT_M, GUT_L	\$5.00	\$5.50	\$6.00	\$6.50
ASN, ASD, AON, AOD	\$9.00	\$10.00	\$10.50	\$11.00

* The new restructured commercial Time-of-Day rates will follow new rates nomenclature as determined by SMUD.

For the Grid Access Charge applicable to other renewable resources, refer to Rule and Regulation 21.

Net Energy Metering Rate Schedule NEM2

VI. EAPR Grid Access Charge Discount

Residential customers that qualify for the Energy Assistance Program (EAPR) will receive a discount on the monthly Grid Access Charge according to the following income guidelines:

Residential EAPR Grid Access Charge Discount	Per kW
0-50% Federal Poverty Level	100%
>50-100% Federal Poverty Level	100%
>100-150% Federal Poverty Level	50%
>150-200% Federal Poverty Level	50%

VII. Payments

For the purposes of this schedule a “month” is considered to be a single billing period of 27 to 34 days.

- A. Charges other than electricity usage must be paid monthly. This includes the System Infrastructure Fixed Charge, the Grid Access Charge, Summer Peak Demand Charge, Site Infrastructure Charge, program fees, surcharges and taxes.
- B. Residential, Small Commercial and Agricultural customers, meeting the eligibility criteria as defined in Section III (A) of this Rate Schedule, may pay monthly or annually for the net electricity consumed, depending on billing method.
- C. For all other customers, the net balance of all moneys owed must be paid each monthly billing cycle.
- D. If, in any regular billing month, the electricity supplied by SMUD is less than the electricity supplied to SMUD by the customer's eligible generation system, the customer will receive retail-valued electricity credits for the excess electricity supplied to SMUD. The retail-valued electricity credits will carry over to the following billing period until the end of the settlement period. Retail-valued electricity credits will only be credited against electricity usage charges.

VIII. Settlement Method

All customers who qualify for the net metering option will have a 12-month settlement period. For existing systems, the settlement period begins on the customer's move-in date. For new installations, the settlement period begins on the first day of operations after the customer has requested to be on this NEM2 rate and the NEM-eligible system is approved by SMUD for grid connection. At the end of the customer's 12-month settlement period, any unused accumulated monthly retail electricity credits may be zeroed out.

A. Annual Net Surplus Generation

1. At the end of a customer's 12-month settlement period, SMUD shall calculate the amount of net surplus generation over the 12-month period. If the customer has net surplus generation, SMUD will, at the customer's election, either:
 - Provide a monetary payment to the customer for the net surplus; or
 - Roll-over the net annual surplus kWh into the next 12-month period.

Monetary value per kWh of net surplus generation shall be based on the most recently published SMUD budget, calculated as the dollar value of the expected avoided generation and production-related costs divided by the forecasted annual energy sales.

2. For each kWh purchased by SMUD under this annual net surplus generation method, the ownership of the associated renewable electricity credit will transfer from the customer to SMUD.
3. The net surplus monetary value shall be calculated annually.
4. This net surplus monetary value will remain in effect for the duration of the fiscal year used for the calculation of the customer's net surplus generation.

Net Energy Metering Rate Schedule NEM2

5. The value will be published on SMUD's website, www.smud.org, by December 20 prior to the year the value is in effect.

B. Service Cancellation

1. If a customer cancels their electric service and has a net surplus generation, SMUD will provide a monetary payment to the customer for the net surplus. Monetary value per kWh of net surplus generation shall be based on the most recently published SMUD budget, calculated as the dollar value of the expected avoided generation and production-related costs divided by the forecasted annual energy sales.
2. For each kWh purchased by SMUD under this annual net surplus generation method, the ownership of the associated renewable electricity credit will transfer from the customer to SMUD.
3. The net surplus monetary value shall be calculated annually.
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5. The value will be published on SMUD's website, www.smud.org, by December 20 prior to the year the value is in effect.

C. Opt-Out of Annual Net Surplus Generation

Customers may elect to opt out of receiving compensation or kWh roll-over credit for their net surplus generation over their 12-month settlement period. Customers who elect to opt out will not receive any form of compensation nor credit for net surplus generation delivered to SMUD. Such customers will be allowed to retain any associated renewable electricity credits produced by their net surplus generation.

IX. Billing

A. Net Electricity Usage

1. Residential, Small Commercial and Agricultural customers, meeting the eligibility criteria as defined in Section III (A) of this Rate Schedule, will be billed monthly for net electricity usage. Customers may elect annual billing as an alternative.
2. For all other customers, the net electricity usage will be billed each monthly billing cycle.

B. Proration of Charges

The Grid Access Charge will be prorated according to the proration terms of the applicable rate schedule.

A. Discontinuance of Service

Any customer resuming service at the same premises within 12 months after discontinuing service will be required to pay the Grid Access Charge that would have been billed if service had not been discontinued, except when service has been disconnected. The Grid Access Charge will be waived during each of those months. Retroactive billing shall be at SMUD's sole discretion.

B. Changes to Facility

The Grid Access Charge will be charged until the customer notifies SMUD of the disconnect of the renewable electrical generation facility.

Net Energy Metering Rate Schedule NEM2

If the size of the facility is modified, the Grid Access Charge will be modified accordingly upon notification or SMUD identification. In the event that the size of the facility is incorrectly reported, SMUD reserves the right to retroactively bill for the difference.

In the event that a customer did not receive approval for installation, SMUD reserves the right to retroactively bill for the Grid Access Charge.

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Interconnection Requirements Rule and Regulation 21

I. Requirements

Rule and Regulation 21 sets forth the mandatory conditions and requirements for the interconnection and operation of distributed generation. All distributed generation connecting to the SMUD distribution system must comply with the mandatory conditions and requirements of Rule and Regulation 21, as further specified in SMUD Policy and Procedure 11-01. Interconnection is at SMUD's sole discretion and is prohibited until an approval to interconnect is provided by SMUD.

Requirements for interconnecting and operating distributed generation shall be available on the SMUD website (www.smud.org) and shall address, at a minimum, the following topics:

- Applicability
- Definitions
- General Rules, Rights, and Obligations
- Application and Interconnection Process
- Initial Review Process for Applications to Interconnect a Generating Facility
- Photovoltaic Interconnection Design Standards
- Generating Facility Design and Operating Requirements
- Maintenance and Permits
- Interconnection Facility and Distribution System Modifications and Costs
- Metering, Monitoring, and Telemetry
- Testing and Certification Criteria
- Interruptions or Reductions of Deliveries
- Access to Premises
- Indemnity and Liability By Customer
- Dispute Resolution Process

II. Grid Access Charge

All customers with an electrical generation facility on their premises will be assessed a monthly Grid Access Charge, except as provided as follows:

- Customers who established service at their premises on or prior to January 1, 2018 and have a renewable electrical generation facility¹ on their premises that was approved for installation on or prior to January 1, 2018 are exempt from the Grid Access Charge for 20 years from the date of the first billing cycle after initial facility interconnection date. This exemption period will not end any earlier than 2023, unless the customer moves out or transfers service.
- Customers who established service at their premises between January 1, 2018 and July 1, 2019 or have a renewable electrical generation facility on their premises which had an application for interconnection received by SMUD on or prior to July 1, 2019 are exempt from the Grid Access Charge for 10 years from the date of the first billing cycle after initial facility interconnection date, unless the customer moves out or transfers service.

The Grid Access Charge will go into effect as early as January 1, 2020 and no later than May 31, 2020.

The generation capacity of the customer's facility (kW) is used to determine the Grid Access Charge. For photovoltaic facilities, the generation capacity is based on the CEC-AC rating of the facility. For all other resources, the nameplate Alternating Current (AC) rating will be used to measure generation capacity.

¹ See the CEC's most current Renewable Portfolio Standard Eligibility Guidebook for the purposes of providing the technical definition of a renewable electrical generation facility.

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In the event that a customer did not receive approval for installation, SMUD reserves the right to retroactively bill for the Grid Access Charge.

A. Grid Access Charge for Photovoltaic (Solar) Facilities

For photovoltaic (solar) generating facilities, the Grid Access Charge amount by year and customer rate category is shown in the table below, in \$/kW:

Rate Category	2021	2022	2023	2024	2025
RT02	\$8.00	\$9.00	\$10.00	\$10.00	\$11.00
GSN_T	\$7.00	\$8.00	\$8.50	\$9.00	\$10.00
GSS_T, GUS_S, GUS_M, GUS_L,	\$5.50	\$6.00	\$6.50	\$7.00	\$8.00
GUP_S, GUP_M, GUP_L	\$5.50	\$6.00	\$6.50	\$7.00	\$8.00
GUT_M, GUT_L	\$4.50	\$5.00	\$5.50	\$6.00	\$6.50
ASN, ASD, AON, AOD	\$8.50	\$9.00	\$10.00	\$10.50	\$11.00

The charge for 2022-2025 assumes a 4% rate increase each year.

B. Grid Access Charge – Non-Bypassable Methodology

The Grid Access Charge for all other non-photovoltaic generating facilities will be determined based on a methodology using an unbundled non-bypassable cost component by rate class and service voltage level, as follows:

Residential Non-Bypassable Components (\$/kWh)		
Season and Time Period	Residential	
Summer	Peak	\$ 0.2614
	Mid-Peak	\$ 0.0895
	Off-Peak	\$ 0.0583
Non-Summer	Peak	\$ 0.0689
	Off-Peak	\$ 0.0533

Residential season and time periods follow the time periods from the standard time-of-day rate.

Non-Residential Non-Bypassable Components (\$/kWh)						
Season and Time Period	Agriculture	GSN_T	Secondary	Primary	Subtransmission	
Summer	Peak	\$ 0.2053	\$ 0.2028	\$ 0.1208	\$ 0.1118	\$ 0.1012
	Off-Peak	\$ 0.0530	\$ 0.0504	\$ 0.0379	\$ 0.0432	\$ 0.0333
Non-Summer	Peak	\$ 0.0608	\$ 0.0373	\$ 0.0433	\$ 0.0505	\$ 0.0379
	Off-Peak	\$ 0.0549	\$ 0.0389	\$ 0.0387	\$ 0.0452	\$ 0.0340
	Off-Peak Saver	\$ 0.0807	\$ 0.0530	\$ 0.0309	\$ 0.0344	\$ 0.0276

Non-residential season and time periods follow the proposed commercial restructure time periods.

The Grid Access Charge applied to a customer generating facility is calculated using the non-bypassable cost components (\$/kWh) times the system size (kW) times the capacity factor of the generation facility times the number of hours per year (8,760), as shown in the formula below:

$$\text{Non-bypassable cost component} \times \text{kW} \times \text{capacity factor} \times 8,760 = \text{Annual Charge}$$

$$\text{Annual Charge} / 12 \text{ billing cycles} = \text{Grid Access Charge } (\$/\text{kW})$$

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III. Changes to Requirements

SMUD's General Manager and CEO is authorized to develop, implement, and revise as necessary interconnection requirements addressing the above topics and such additional provisions to respond to legislation, regulatory requirements, industry practice, operating requirements, or average service costs.

(End)