TO: East Bay Community Energy Board of Directors
FROM: Annie Henderson, VP Marketing and Account Services
        Dan Lieberman, Senior Manager
SUBJECT: Amendments to Net Energy Metered (NEM) Policy for Solar Customers
DATE: February 20, 2019

Recommendations

A. Approve an amendment to the Net Energy Metering (NEM) policy, revert EBCE’s policy and tariff to original surplus payment calculations for new NEM customers.

B. Update the Electric Schedule NEM - Net Energy Metering Service to include an annual review in May of the financial outcomes of “existing” NEM accounts (interconnected before June 2018) that have 1) made payment to EBCE in the prior 12 months and 2) held a balance of at least $100 in April. Assess whether these accounts would have had better financial outcomes on PG&E service, and if so, issue a credit or check for the difference.

RECOMMENDATION 1

Background
At its February 21, 2018 meeting, the EBCE Board adopted an initial NEM policy, and also directed staff to amend that policy, as necessary, after finalization of Local Development Business Plan (LDBP). Staff brought an amended policy to the board on December 5, 2018, that included:

- Amendments to EBCE’s NEM policy with program details and added a NEM tariff
- Amendments to the policy to start enrollment of existing PG&E NEM customers in April 2019 and bi-monthly enrollment batches

EBCE set its initial surplus credit payment calculation for new NEM accounts as “The greater of retail capped at $2,500 or the PG&E NSC”. In the wake of adopting that policy, EBCE staff realized that customers who would generate just over $2,500 of retail credit will be prevented from monetizing those marginal kilowatt-hours (kWhs) just above the $2,500 threshold. For that reason, EBCE staff recommended revising the policy to read “Retail value up to $2,500 plus the PG&E NSC rate for each additional unit above $2,500.”
However, after the December board approval, staff realized that the marginal benefit of the revised payment calculation afforded to a very small number of impacted customers was greatly out-weighed by the cost to update back-end systems to support implementation of the new calculation.

**Analysis**

EBCE staff looked at the population of existing NEM customers as a proxy for a future population of new NEM customers to 1) identify the potential scale of impacted customers, and 2) compare the financial impacts of the original policy to an updated payment calculation, as well as to the PG&E payment calculation. The potential scale of impacted customers is very small, as indicated in Table 1. There is only a fraction of a percent of NEM customers that generate enough surplus to receive over $2,500 at retail rates. As shown in Table 2, the original EBCE NEM payment calculation is better than the PG&E payment calculation regarding the amount of payout for surplus generation.

### Table 1

<table>
<thead>
<tr>
<th></th>
<th>% of EBCE NEM Customers</th>
<th>% of All EBCE Customers</th>
</tr>
</thead>
<tbody>
<tr>
<td>EBCE NEM Surplus Exporters Over $2,500</td>
<td>0.17%</td>
<td>0.01%</td>
</tr>
<tr>
<td>EBCE NEM Surplus Exporters</td>
<td>9.65%</td>
<td>0.47%</td>
</tr>
<tr>
<td>Total EBCE NEM Customers</td>
<td>100%</td>
<td>4.87%</td>
</tr>
</tbody>
</table>

### Table 2

<table>
<thead>
<tr>
<th>Policy</th>
<th>EBCE Original</th>
<th>EBCE Updated</th>
<th>PG&amp;E</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calculation</td>
<td>Greater of retail up to $2,500 or NSC</td>
<td>Retail up to $2,500, then NSC</td>
<td>NSC*</td>
</tr>
<tr>
<td>Total Payment</td>
<td>$578,502.76</td>
<td>$623,113.38</td>
<td>$416,839.15</td>
</tr>
<tr>
<td>Average Payment</td>
<td>$221.06</td>
<td>$238.10</td>
<td>$159.28</td>
</tr>
</tbody>
</table>

*Net Surplus Compensation

**RECOMMENDATION 2**

**Background**

EBCE is aware of a scenario that will result in NEM customers being worse off financially on EBCE service than on PG&E bundled service. There are three conditions necessary to create this scenario:

- Customers must be “existing NEM”, meaning that had a NEM system already installed when EBCE launched.
- The customer must have at least one month when they pay EBCE for net consumption in a given year.
- The customer must retain at least $100 of generation credit in their EBCE account in April.

EBCE analysis forecasts that about 30 accounts will fall into this category based on past performance. That population of accounts may vary from year to year, based on consumption and production performance.

**Analysis**
When NEM customers are on PG&E bundled service, they do not pay for electric generation service on a monthly basis; they pay for any net deficit of generation annually during true up. That means that whether the PG&E customer is a net generator or net consumer in a given month, that outcome is placed in a ledger that is trued-up annually. At annual true-up, PG&E converts any residual kWh balance to a wholesale rate called Net Surplus Compensation (NSC) for payout to the customer or charges the customer a retail rate for any deficit.

NEM customers on EBCE service have their generation charges balanced monthly. In a month when the customer generates surplus, EBCE credits their account at the retail generation rate and that balance is carried over as a dollar denomination to the next month. In a month when a customer is a net consumer, any credits on their account are drawn down. If there are insufficient reserve credits, then the customer is charged for the net deficit in that month at a retail rate. Each April, any EBCE NEM account with over $100 in retail credits is cashed out. Customers with NEM systems installed prior to EBCE’s launch are cashed out at NSC, and customers with NEM installed following launch receive a higher payment. Therefore, on cursory view EBCE’s NEM policies seem at parity or more generous than PG&E’s NEM policies.

However, there is a scenario when PG&E’s outcome is favorable. This occurs for an EBCE “existing” NEM customer that has a month in which they deplete any reserve credit and make payment to EBCE for generation service. At that point, they are paying a retail rate to EBCE for power they need. As a PG&E customer, they would make no payment at that time. Fast forward to EBCE’s April true up and consider that this customer now has accrued more than $100 in their retail credit balance. At that point, they are cashed out by EBCE for their surplus at NSC (wholesale), after already paying retail when they were in a deficit. When this EBCE customer paid retail for kWhs in a given month, they lost the opportunity to offset those kWh with future onsite generation, while the PG&E customer retains the opportunity to offset those kWh with onsite generation (rather than cashing out at a wholesale rate). In other words, for a portion of the kWhs produced, the EBCE customer received NCS payment, while the PG&E customer offset a retail kWh. This scenario is possible under all three of EBCE’s service levels (Bright Choice, Brilliant 100, or Renewable 100) and for all rate schedules.

The example below shows identical customers with zero balance going into March, one on PG&E service and one on EBCE service. In March they are net consumers of 50 kWh, and then in April they are net generators of 200 kWh. The PG&E customer pays nothing for generation service in March or April, and then has 150 kWh cashed out at NSC. The EBCE customer pays for 50 kWh at retail rates in March, and then has 200 kWh cashed out at NSC. Therefore, while the EBCE customer received more nominal payment at true-up, they had already paid retail for 50 kWh, so the PG&E customer got more value per kWh of production.

<table>
<thead>
<tr>
<th></th>
<th>March</th>
<th>April</th>
<th>True-up</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>EBCE</strong></td>
<td><strong>Starting Balance</strong></td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td><strong>Current Month Net</strong></td>
<td>50 kWh net consumption</td>
<td>200 kWh net production</td>
</tr>
<tr>
<td></td>
<td><strong>Cash Flow</strong></td>
<td>Pay for 50 kWh at retail</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td><strong>Ending Balance</strong></td>
<td>0</td>
<td>200 kWh retail</td>
</tr>
<tr>
<td><strong>PG&amp;E</strong></td>
<td><strong>Starting Balance</strong></td>
<td>0</td>
<td>-50 kWh</td>
</tr>
<tr>
<td></td>
<td><strong>Current Month Net</strong></td>
<td>50 kWh net consumption</td>
<td>200 kWh net production</td>
</tr>
</tbody>
</table>
All of the other California Community Choice Aggregators (CCAs) credit net annual surplus at a rate higher than NSC, mostly at retail or above. Therefore, the other CCAs avoid this problem entirely. EBCE’s policy aims to avoid paying out additional incentives to customers who made their purchasing decision based on the PG&E value proposition, and therefore avoid free ridership and focus EBCE’s financial resources on the Local Development Business Plan. However, the result of EBCE’s current policy includes a small number of edge cases that do not meet our general policy of ensuring that customers are on par or better than they would be with PG&E’s NEM policy.

If EBCE wants to ensure that in all cases Bright Choice and Brilliant 100 customers come out at parity with, or better than, PG&E service, then EBCE needs to adjust its NEM policy. This objective has always been of utmost importance to EBCE’s staff, Board, and stakeholders, and is especially resonant in the wake of recent media coverage doubting that EBCE’s rates benefit customers.

**Options**
There are several potential pathways that EBCE can consider:

1) **No policy change.** Rather than change policy, EBCE could message to customers that EBCE’s monthly balancing approach provides benefits by avoiding a large annual true-up payment that many NEM customers face on PG&E service. EBCE’s NEM policy might not be for everyone, but it provides a choice. The downside of this approach is that EBCE could no longer make the blanket statement “all customers on Bright Choice pay less than they would have on PG&E”.

2) **Parity with PG&E.** In order to achieve parity with PG&E, EBCE could either:
   a. Match PG&E’s accrual approach and charge customers a single time per year in April. Implementing PG&E’s accrual approach would require back-end programming and would negatively impact cash flows for EBCE by carrying a balance for NEM customers until April each year. Annual net cash from EBCE’s NEM accounts is estimated to be approximately $25 million, and the back-end programming would cost >$25,000. Or,
   b. Continue to balance accounts monthly, and then perform an annual true-up each May that compares each account’s performance on EBCE to the outcome had the account been on PG&E bundled service with a single annual payment. EBCE would then issue a check or credit to the accounts that would have received a greater benefit under PG&E service. Preliminary analysis by EBCE staff forecasts approximately 30 accounts that would receive this corrective payment. The additional payout is estimated at approximately $15,000 per year and retaining SMUD to do the analysis would cost ~$12,000.

3) **Retail cash-out.** Other CCAs do an annual cash out at retail rates, rather than at NCS. Preliminary analysis shows that such a switch would increase EBCE’s cash-out burden by about $500,000 annually (representing a doubling of cash out to ~$1M for these accounts).

Option 2b above is both low-cost and retains the core of EBCE’s value proposition ensuring the opportunity for all customers to have rates at or below PG&E’s rates.
Proposed Amendments for Recommendations 1 and 2
1 - Staff proposes to revert the surplus payment calculation for new NEM accounts (not low income, municipal, or existing) to the original language of “The greater of retail capped at $2,500 or the PG&E NSC”.

2 - In Electric Schedule NEM, in the section “EBCE Annual Cash-Out” add the text: Annually in May, EBCE will review the financial outcomes of “existing” NEM accounts (interconnected before June 2018) that have 1) made payment to EBCE in the prior 12 months and 2) held a balance of at least $100 in April. EBCE will assess whether these accounts would have had better financial outcomes on PG&E service, and if so, issue a credit or check for the difference. This applies to all rates schedules and service levels.

Fiscal Impact of Recommendations 1 and 2
1 - There is a substantial cost to update back-end systems to support the payout calculation approved in December 2018 which can be avoided by reverting to the original policy, while having minimal impact on customers.

2 - Additional payout estimated at approximately $15,000 per year and paying SMUD to do the analysis would cost ~$12,000 annually.

Attachments
A. Resolution Amending NEM Policy
B. Exhibit A: Amended NEM Policy
C. Exhibit B: Revised EBCE NEM Tariff
D. Revised NEM fact sheet

CEQA
Not a project
RESOLUTION NO. ___
A RESOLUTION OF THE BOARD OF DIRECTORS
OF THE EAST BAY COMMUNITY ENERGY AUTHORITY TO FURTHER AMEND THE NET
ENERGY METERING POLICY

THE BOARD OF DIRECTORS OF THE EAST BAY COMMUNITY ENERGY AUTHORITY DOES
HEREBY FIND, RESOLVE AND ORDER AS FOLLOWS:

Section 1. The East Bay Community Energy Authority ("EBCE") was formed on
December 1, 2016, under the Joint Exercise of Power Act, California Government
Code sections 6500 et seq., among the County of Alameda, and the Cities of Albany,
Berkeley, Dublin, Emeryville, Fremont, Hayward, Livermore, Piedmont, Oakland, San
Leandro, and Union City to study, promote, develop, conduct, operate, and manage
energy and energy-related climate change programs in all of the member
jurisdictions.

Section 2. EBCE desires to encourage customers to construct new on-site
energy generation systems and to retain current Net Energy Metering (NEM) customers
by minimizing any adverse financial impacts from becoming an EBCE customer.

Section 3. The Board of Directors approved an Initial NEM Policy on February
21, 2018 and an amended policy on December 5, 2018.

Section 4. Subsequent research proved that the previously approved
amendment to the surplus cash out calculation for new NEM customers is cost
prohibitive.

Section 5. The Board hereby amends the Net Energy Metering Policy attached
as Exhibit A and Electric Schedule NEM attached as Exhibit B, effective on February
20, 2019.

ADOPTED AND APPROVED this _______ day of ___________________, 2019.

__________________________________________________________
Scott Haggerty, Chair

ATTEST:

__________________________________________________________
Stephanie Cabrera, Clerk of the Board
Subject: Net Energy Metering

Policies:

Export Credit
The following customer classes will receive the stated export credit. Prior to enrollment of NEM customers, additional export credit will be considered for projects that support livable wage and supply shifting.

<table>
<thead>
<tr>
<th>Customer Class</th>
<th>Export Credit/kWh</th>
</tr>
</thead>
<tbody>
<tr>
<td>Existing Customers at Enrollment</td>
<td>Retail based on selection of Bright Choice/Brilliant 100 (“Retail”)</td>
</tr>
<tr>
<td>New Customers after Enrollment</td>
<td>Retail</td>
</tr>
<tr>
<td>Low Income Customers</td>
<td>Retail + $0.01</td>
</tr>
<tr>
<td>Municipal Customers</td>
<td>Retail + $0.01</td>
</tr>
</tbody>
</table>

Billing
- Monthly bill of generation charges
- Monthly application of credit
- Annual surplus payment in April

Surplus Credit
The following customer classes will receive the stated surplus credit at the time of payment in April of each year. Prior to enrollment of NEM customers, additional surplus credit will be considered for projects that support livable wage and supply shifting.

<table>
<thead>
<tr>
<th>Customer Class</th>
<th>Export Credit/kWh</th>
</tr>
</thead>
<tbody>
<tr>
<td>Existing Customers at Enrollment</td>
<td>PG&amp;E Net Surplus Charge (NSC)</td>
</tr>
<tr>
<td>New Customers after Enrollment</td>
<td>The greater of retail capped at $2,500 or the PG&amp;E NSC</td>
</tr>
<tr>
<td>Low Income Customers</td>
<td>Retail + $0.01</td>
</tr>
<tr>
<td>Municipal Customers</td>
<td>Retail + $0.01</td>
</tr>
</tbody>
</table>
Surplus credit will be issued by check for customers with a balance at or above $100. For customers with Net Surplus Generation totaling less than $100, such balances will be carried forward and shall be applied to offset future EBCE charges.

Enrollment Schedule
Enrollment will be based on the PG&E True-Up Date for each customer. Enrollment will be bimonthly beginning April 2019.

Rate Schedule
This policy will apply to all NEM rate schedules.
**ELECTRIC SCHEDULE NEM - NET ENERGY METERING SERVICE**

**APPLICABILITY:** This net energy metering (NEM) schedule is applicable to a customer who uses an eligible Renewable Electrical Generation Facility, as defined in PG&E’s Electric Schedule NEM ([http://www.pge.com/tariffs](http://www.pge.com/tariffs)), within the capacity limits described in PG&E’s Electric Schedule NEM that is located on the customer’s owned, leased, or rented premises, is interconnected and operates in parallel with PG&E’s transmission and distribution systems, and is intended primarily to offset part or all of the customer’s own electrical requirements (hereinafter “eligible customer generator” or “customer”).

This rate schedule is available on a first-come, first-served basis to customers that provide PG&E with a completed PG&E NEM Application and comply with all PG&E NEM requirements as described in PG&E Electric Schedule NEM. This includes customers served by NEMV (Virtual Net Energy Metering), NEMVMASH (Virtual Net Energy Metering for Multifamily Affordable Housing), NEMA (NEM Aggregation) and Multiple Tariff facilities as described by PG&E Electric Schedule NEM.

**TERRITORY:** The entire EBCE service area.

**RATES:** All rates charged under this schedule will be in accordance with the eligible customer generator’s otherwise-applicable EBCE rate schedule (OAS), which includes their rate schedule and EBCE service level (i.e. Bright Choice, Brilliant 100, or Renewable 100). An eligible customer-generator served under this schedule is responsible for all charges from its OAS including monthly minimum charges, customer charges, meter charges, facilities charges, demand charges and surcharges, and all other charges owed to EBCE or PG&E. Charges for energy (kWh) supplied by EBCE, will be based on the net metered usage in accordance with this tariff.

**BILLING:** Customers with NEM service will be billed as follows:

a) For a customer with Non-Time of Use (TOU) Rates:
   Any net consumption or production shall be valued monthly as follows:
   If the eligible customer-generator is a “Net Consumer,” having overall positive usage over a billing cycle, the eligible customer-generator will be billed in accordance with the eligible customer-generator’s OAS.
   If the eligible customer-generator is a “Net Generator,” having overall negative usage over a billing cycle, any net energy production shall be valued at the OAS plus any additional incentive payment as applicable (e.g. for new installations at low income or municipal accounts). The calculated value of any net energy production shall be credited to EBCE customers as described in Section (c).

b) For a customer with TOU Rates:
   If the eligible customer-generator is a Net Consumer (as defined above) during any discrete TOU period, the net kWh consumed during such period shall be billed in accordance with applicable TOU period-specific rates/charges, as described in the eligible customer-generator’s OAS.
   If the eligible customer-generator is a Net Generator (as defined above) during any discrete TOU period, the net kWh produced during such period shall be valued in consideration of the applicable TOU period-specific rates/charges, as described in the eligible customer-generator’s OAS, plus any additional incentive payment as applicable (e.g. for new installations at low income or municipal accounts). The...
calculated value of any net energy production during a specific TOU period shall be credited to EBCE customers as described in Section (c).

c) Monthly Settlement of EBCE Charges/Credits:
NEM customers will receive a statement in their monthly PG&E bills indicating any accrued charges for their usage during the current billing cycle. Customers who have accrued credits during previous billing cycles will see these credits applied against current charges. Any remaining balance is due and must be paid during each monthly billing cycle.

When a customer’s net energy production results in a net bill credit over a billing cycle, the value of any net energy production during the billing cycle shall be noted on the customer’s bill and carried over as a bill credit for use in subsequent billing period(s).

Monthly settlements are valued as follows:

<table>
<thead>
<tr>
<th>Customer Type</th>
<th>Bill Credit per kWh</th>
</tr>
</thead>
<tbody>
<tr>
<td>Existing NEM Customer as of 6/1/18</td>
<td>Retail*</td>
</tr>
<tr>
<td>New NEM Customers after 6/1/18</td>
<td>Retail</td>
</tr>
<tr>
<td>New Low Income and Municipal Customers after 6/1/18</td>
<td>Retail + $0.01</td>
</tr>
</tbody>
</table>

*Equivalent to the generation rate you are charged for power received from EBCE

d) EBCE Annual Cash-Out:
During the April billing cycle of each year, all current EBCE NEM customers with a credit balance of more than $100 will be offered a direct payment by check for this balance. Any credit balance will be determined as of the final date of the customer’s March-April billing Cycle (i.e. the first bill period ending on or after April 1). Customers who participate in the EBCE Cash-Out or transfer process will have an equivalent credit removed from their NEM account balance at the time of check issuance or transfer. In the event that customer’s credit balance is less than $100, such credits will continue to be tracked by EBCE and will remain on the customer’s account for future use (i.e., reduction of future EBCE charges).

Customers who close their electric account through PG&E or move outside of the EBCE service area prior to the April billing cycle of each year are also eligible for the annual EBCE Cash-Out process.

Annually in May, EBCE will review the financial outcomes of “existing” NEM accounts (interconnected before June 2018) that have 1) made payment to EBCE in the prior 12 months and 2) held a balance of at least $100 in April. EBCE will assess whether these accounts would have had better financial outcomes on PG&E service, and if so, issue a credit or check for the difference. This applies to all rates schedules and service levels.

Annual cash-out credits are valued as follows:

<table>
<thead>
<tr>
<th>Customer Type</th>
<th>Annual Payout Credit per kWh</th>
</tr>
</thead>
<tbody>
<tr>
<td>Existing NEM Customer as of 6/1/18</td>
<td>PG&amp;E Net Surplus Compensation (NSC)</td>
</tr>
<tr>
<td>New NEM Customers after 6/1/18</td>
<td>The greater of retail capped at $2,500 or the PG&amp;E NSC</td>
</tr>
<tr>
<td>New Low Income and Municipal Customers after 6/1/18</td>
<td>Retail + $0.01</td>
</tr>
</tbody>
</table>

*Equivalent to the generation rate you are charged for power received from EBCE

Updated 02.20.19
e) Return to PG&E Bundled Service:
EBCE customers with NEM service may opt out and return to PG&E bundled service at any time. Customers should be advised that PG&E will perform a true-up of their account at the time of return to PG&E bundled service, and that PG&E’s standard terms for transitional rates apply to customer returns with less than a six-month advance notice if they have been an EBCE customer for 60 days or more.

If an EBCE NEM customer opts out of the EBCE program and returns to bundled service, EBCE will cash-out any remaining generation credits on the account (using the approach detailed in section d above) and mail a check to the billing address.

f) PG&E NEM Services:
EBCE NEM customers are subject to the conditions and billing procedures of PG&E for their non-generation services, as described in PG&E’s Electric Schedule NEM and related PG&E tariff options addressing NEM service. Customers should be advised that while EBCE settles out balances for generation on a monthly basis, PG&E will continue to assess charges for delivery, transmission and other services. Most NEM customers will receive an annual true-up from PG&E (on their NEM anniversary with PG&E) for these non-generation services. Customers are encouraged to review PG&E’s most up-to-date NEM tariffs, which are available from PG&E.

g) Aggregated NEM
Per the California Public Utilities Commission Section 2827(h)(4)(B), aggregated NEM customers are “permanently ineligible to receive net surplus electricity compensation.” Therefore, any excess accrued credits over the course of a year under an aggregated NEM account are ineligible for EBCE’s annual Cash-Out as in section (d). All other NEM rules apply to aggregated NEM accounts.
Rooftop solar can be installed on commercial and residential properties to serve on-site load and use the electric grid like a battery through a program called Net Energy Metering.

**What is Net Energy Metering?**

Net Energy Metering (NEM) is a program that allows you to receive compensation for the energy that you produce and put onto the grid. Most NEM customers have installed solar systems on their home or business, but NEM benefits also apply to customers who install small wind, biogas, and fuel cell systems. East Bay Community Energy (EBCE) customers that generate electricity at their home or business and are approved for interconnection by PG&E will be automatically enrolled in EBCE’s NEM program.

**How it Works**

- Your meter tracks the amount of energy you use versus the amount of energy your system produces.
- When your system produces more energy than you are using at that point in time, the energy is put onto the grid and you receive a bill credit for at least the retail generation value of each kWh.
- Every April will be the “true up” period when customers who produced more energy during the year than they used will receive a payout amount for each kWh.
- Additional monetary benefits may be added in the future for projects that deliver specific local benefits, such as livable wage jobs or energy storage.
- Customers interested in adding rooftop solar or other NEM technology must first apply to PG&E for interconnection approval.

**Enrollment Schedule**

Enrollment for existing solar customers will be based on the PG&E True-Up Date for each customer. Enrollment will be bimonthly beginning January 2019. Customers with NEM service who wish to opt out of EBCE can do so when they receive their enrollment notices in 2019. Commercial accounts with a net metered system that is interconnected after June 1, 2018 are immediately placed into EBCE generation service. Residential accounts with a net metered system that is interconnected after November 1, 2018 will be immediately placed into EBCE generation service.

**Questions?**

For more information about Net Energy Metering with EBCE, call or email us or visit our website.