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Technical Committee Meeting
Thursday, July 2, 2020
8:30 A.M.

The Technical Committee Meeting will be conducted pursuant to the provisions of the Governor’s Executive Order N-29-20 (March 17, 2020) which suspends certain requirements of the Ralph M. Brown Act. Technical Committee Members will be teleconferencing into the Technical Committee Meeting.

Members of the public who wish to observe the meeting may do so telephonically via the following teleconference call-in number and meeting ID:

Dial: 1-669-900-9128
Meeting ID - 830 7032 2782
Meeting Password - 282399

For Viewing Access Join Zoom Meeting:
https://us02web.zoom.us/j/83070322782?pwd=dUFCQTdoRjA4enNnTWhlX2ZzOTlzQT09

1. Roll Call/Quorum
2. Board Announcements (Discussion)
3. Public Open Time (Discussion)
4. Report from Chief Executive Officer (Discussion)
5. Consent Calendar (Discussion/Action)
   C.1 Approval of 4.2.20 Meeting Minutes
7. GHG-free Allocations from PG&E (Discussion/Action)
8. Committee Matters & Staff Matters (Discussion)

9. Adjourn

DISABLED ACCOMMODATION: If you have a disability which requires an accommodation, or an alternative format, please contact the Clerk of the Board at (925) 378-6732 as soon as possible to ensure arrangements for accommodation.
The Technical Committee Meeting was conducted pursuant to the provisions of the Governor’s Executive Order N-29-20 (March 17, 2020) which suspends certain requirements of the Ralph M. Brown Act. Committee Members, staff and members of the public were able to participate in the Committee Meeting via teleconference.

Present:
- Ford Greene, Town of San Anselmo
- Kevin Haroff, City of Larkspur
- Greg Lyman, City of El Cerrito
- Scott Perkins, City of San Ramon
- Kate Sears, Committee Chair, County of Marin
- Ray Withy, City of Sausalito and the City of Mill Valley

Absent:
- John Gioia, County of Contra Costa
- Rob Schroder, City of Martinez
- Justin Wedel, City of Walnut Creek

Staff & Others:
- John Dalessi, Pacific Energy Advisors
- Kirby Dusel, Pacific Energy Advisors
- CB Hall, Senior Power Procurement Manager
- Darlene Jackson, Board Clerk
- Jana Kopyciok-Lande, Senior Policy Analyst
- Vicken Kasarjian, Chief Operating Officer
- Justine Parmelee, Administrative Services Manager
- Enyonam Senyo-Mensah, Administrative Services Associate
- Dawn Weisz, Chief Executive Officer

1. **Roll Call**

   Chair Kate Sears called the regular Technical Committee meeting to order at 8:30 A.M. with quorum established by roll call.

2. **Board Announcements (Discussion)**

   There were none.

3. **Public Open Time (Discussion)**

   There were no speakers.

4. **Report from Chief Executive Officer (Discussion)**

   CEO Dawn Weisz, reported the following:
MCE is launching service in unincorporated Solano County starting this week, and continuing through the month of April.

MCE has been tracking load changes related to the pandemic and will continue to monitor to inform load scheduling and procurement activities.

The CPUC issued a proposed decision on the resource adequacy central buyer concept that would establish PG&E as the central buyer for all local resource adequacy. This would have financial implications on MCE because we have already procured local resource adequacy as required by the CPUC, on a three-year forward basis. In addition, the proposed decision interferes with MCE’s procurement authority and we will be filing reply comments.

MCE is working with PG&E and the CPUC on the payment waterfall that will be applied when customers enter into payment plans with PG&E, and only submit partial payments.

5. **Consent Calendar (Discussion/Action)**

   C.1 Approval of 2.6.20 Meeting Minutes

   Chair Sears opened the public comment period and there were no comments.

   Action: It was M/S/C (Perkins/Lyman) to approve Consent Calendar. Motion carried by unanimous roll call vote. (Absent: Directors Gioia, Schroder and Wedel).

6. **MCE Principles of Preferred Resources for Microgrid Development Related to Public Safety Power Shut Offs (Discussion/Action)**

   Senior Policy Analyst, Jana Kopyciok-Lande, presented this item and addressed questions from Committee members.

   Chair Sears opened the public comment period and there were comments from member of the public Howdy Goudey.

   Action: It was M/S/C (Greene/Haroff) to tentatively approve adoption of the MCE Principles of Preferred Resources for Microgrid Development Related to Public Safety Power Shut Offs, subject to final approval by Directors Green and Haroff, to guide resiliency efforts in MCE’s service area in response to PSPS and any other planned and/or long-duration power outages. Motion carried by unanimous vote. (Absent: Directors Gioia, Schroder and Wedel).

7. **Incremental Capacity Procurement (Discussion)**

   Senior Power Procurement Manager CB Hall, presented this item and addressed questions from Committee members.
Chair Sears opened the public comment period and there were comments from members of the public Dan Segedin and Ken Strong.

Action: No action was required.

8. Committee & Staff Matters (Discussion)

9. Adjournment

Chair Sears adjourned the meeting at 10:06 a.m. to the next scheduled Technical Committee Meeting on May 7, 2020.

Kathrin Sears, Chair

Attest:

Dawn Weisz, Secretary
July 2, 2020

TO: MCE Technical Committee
FROM: Justin Kudo, Strategic Analysis and Rates Manager
RE: Draft Electric Schedule EST – Energy Storage Tariff (Agenda Item #06)
               B. Electric Schedule PBST – Pilot Battery Storage Tariff

Dear Technical Committee Members:

BACKGROUND:
MCE recently launched its new Energy Storage Program to deploy 15 MWh of customer-sited battery storage systems, capable of providing both backup power and behind-the-meter dispatch. This Program will help MCE communities to become more energy resilient by providing backup power, driving decarbonization, lowering utility costs for Program participants, and enabling local grid management through load shaping. During later phases, this Program will help MCE to expand its role as a CAISO market participant, by aggregating resources which can be dispatched into the CAISO market.

The Energy Storage Program will benefit MCE by providing smart, demand-side management opportunities, via a network of flexible energy storage plus solar systems with real-time monitoring and controlling. These resources can then be aggregated and dispatched to manage critical peak loads, minimize procurement costs, and as market opportunities evolve, generate value in wholesale markets. This will help MCE minimize costs for all customers, and benefit California’s energy landscape as a whole by offsetting the growing “Duck Curve” through clean, reliable, and smart demand-side management (DSM) strategies enabled by energy storage technologies.

The Energy Storage Program is designed to minimize or eliminate the upfront costs of installing batteries for our most vulnerable customers, by leveraging incentives from the CPUC’s self-generation incentive program (SGIP), coupled with financing solutions and gap funding provided by MCE.

Your Technical Committee approved implementation of an energy storage tariff, Electric Schedule PBST (Pilot Battery Storage Tariff) in late 2016, but the tariff was not utilized due to limited data availability, device access, and other limitations. As energy storage technology has matured, staff proposes revising this tariff to serve customers participating in MCE’s Energy Storage Program. The Pilot Battery Storage Tariff is included as Attachment B for reference purposes, but would be superseded by the Energy Storage Tariff (Attachment A) if approved.

SUMMARY:
Staff has developed the draft revised Tariff, Electric Schedule EST – Energy Storage Tariff (Attachment A), which provides a monthly credit to customers participating in MCE’s Energy Storage Program who have installed a fully operational electricity battery storage unit with a qualifying inverter, will provide MCE with remote control and dispatch capability, and otherwise meet the conditions stipulated in the Tariff and Energy Storage Agreement. Under this Tariff, MCE would have the ability to monitor and manage the batteries for daily load shift performance and during Public Safety Power Shutoffs (PSPS) and other emergency events.
Customers participating in the Tariff would be billed in accordance with the customer’s otherwise-applicable evening peak time-of-use MCE rate schedule. In addition, customers served under this Tariff would receive a monthly credit on their billing statement determined as follows:

**Residential System Capacity**
- Between 7 kWh and 20 kWh: $10 per month
- Over 20 kWh: $20 per month

**Commercial System Capacity**
- $20 per month per 20kWh installed, up to a maximum of $200 per month

MCE would provide benefits to participating customers not only through a monthly credit, but also by typically charging the battery during lower priced, “off peak” hours and discharging the battery during higher priced “peak” hours, reducing net energy charges due to the customer. To meet this goal, participating customers would be required to take service on a time-of-use rate schedule with a peak period occurring after 3 P.M. daily.

Additionally, a key goal of the Energy Storage Program is to ensure continued electricity reliability through outage events. Therefore, the proposed Tariff describes special conditions in which MCE would modify its operations of the battery to maximize resiliency, as follows.

1. **Public Safety Power Shutoffs.** In the event that PG&E calls a pending Public Safety Power Shutoff event in the vicinity of a participating customer, MCE will attempt to charge the battery to full capacity by the time the PSPS event is initiated. If necessary, MCE may charge the battery to full capacity during any time of day, including “peak” periods, to maximize resiliency benefits for participating customers. Once the PSPS event has been resolved, MCE will resume its normal dispatching of the system.

2. **Unplanned Outages.** MCE will instruct devices to operate independently in the event of an unplanned outage. Batteries will be charged using on-site generation resources if available, and only discharged to provide power for on-site usage. Once grid power has been restored, MCE will resume its normal dispatching of the system.

3. **Emergency Situations.** In the event of a disaster (flooding, wildfires, earthquakes, etc.) MCE will cease dispatching the battery energy storage system and signal for the system to begin charging as rapidly as possible to maximize resiliency benefits for participating customers. Once the situation has been resolved, MCE will resume its normal dispatching of the system.

4. **Loss of Connectivity.** It is the customer’s responsibility to ensure continued connectivity to the battery storage device and inverter. If MCE loses connectivity to a device, such as due to interruption of internet or cellular connection, the device will revert to autonomous control, using pre-defined operating parameters established by MCE until connectivity is restored.

**FISCAL IMPACTS:**
The bill credits provided by this Tariff would cost approximately $96,000 annually based on full Program subscription at 15 MWh. These costs would persist until the Program is amended. Billing system development and testing costs would be a one-time cost of up to $5,000. The costs are likely to be partially offset by a reduction in power supply expenses as MCE will be able to shift load to more economic time periods.

**RECOMMENDATION:**
Approve Electric Schedule EST - Energy Storage Tariff.
Electric Schedule EST - Energy Storage Tariff

**Applicability:** The Energy Storage Tariff (EST) is available to any MCE customer participating in MCE’s Energy Storage Program who has installed a fully operational electricity battery storage unit with a qualifying inverter providing MCE with remote control and dispatch capability (for purposes of the Tariff, a “battery” or in aggregate “batteries”).

This optional schedule is available to customers which meet the conditions detailed below in the Program Requirements section, and who have completed the MCE Energy Storage Program Participation Agreement (ESPPA).

**Rates:** All usage billed under this schedule will be in accordance with the customer’s otherwise-applicable MCE rate schedule. In addition, customers served under this schedule will receive a monthly credit on their billing statement determined as follows:

- **Residential System Capacity**
  - Between 7 kWh and 20 kWh: $10 per month
  - Over 20 kWh: $20 per month

- **Commercial System Capacity**
  - $20 per month per 20kWh installed, up to a maximum of $200 per month

**Program Requirements:** To be eligible for EST, a customer must meet-and-maintain the following requirements:

1. Participating customer must have installed a fully operational battery with a qualifying inverter compatible for communications and dispatchability with MCE’s Energy Storage Program, as noted on the ESPPA. A list of qualifying inverters can be found at [www.mcecleanenergy.org/resiliency](http://www.mcecleanenergy.org/resiliency).

2. The participating customer’s battery must provide a minimum of 7 kWh of storage capacity per 24-hour discharge cycle and provide a minimum discharge rate of 2 kW per hour

3. Participating customer battery installations must be compliant with rules of the ESPPA, as well as the rules, stipulations, and restrictions of all manufacturer warranties and State and local codes and regulations. Customers must also be authorized to interconnect and operate a battery by PG&E.

4. Participating customers must take service under one of the following rate schedules:
   b. Commercial: B-1, B-6, B-10, B-19, B-20, and SB.
   c. Other rate schedules as determined by MCE will be noted at [www.mcecleanenergy.org/resiliency](http://www.mcecleanenergy.org/resiliency).

5. Participating customers receiving a monthly credit must enroll in or already be enrolled in a net energy metering program.
a. Aggregated net energy metering customers may participate, but for their generating account only.

b. Virtual net energy metering customers are ineligible from participating, except with the written approval of MCE, in situations where the battery is designed to provide emergency power to a multi-family housing facility.

6. Participating customers who change onto an ineligible rate schedule may be removed from the Energy Storage Program and Energy Storage Tariff.

7. Participating customers must have an installed SmartMeter, MV-90, or equivalent load meter capable of providing 15-minute interval data.

8. Participating customers must provide MCE with remote access to the inverter to enable monitoring and control of the battery for charging and discharging by MCE.

9. Participating customers must provide any information reasonably requested, such as specifications for battery or solar installations, by MCE or its authorized designees that is necessary for MCE to administer this Tariff.

10. Participating customers agree to allow MCE and its authorized designees to operate the battery consistent with the MCE Energy Storage Program rules and guidelines contained in the ESPPA. A participating customer must allow MCE to charge/discharge the battery at its discretion, subject to the following limitations:

   a) MCE shall have the option to discharge the battery daily, up to the capacity and charge or discharge limits set by each battery’s warranty, detailed in each customer’s ESPPA.

   b) MCE may at its discretion charge the battery, except as necessary during Public Safety Power Shutoff (PSPS) or unplanned outage events (see Special Conditions 1 and 2 below). Charging shall occur during typically non-peak hours before 3 p.m. and after 10 p.m.

   c) MCE may charge and discharge the battery multiple times during the day, up to limits set in the ESPPA and no more than the battery vendor’s charge cycles under warranty.

   d) If an unplanned outage or emergency situation occurs, MCE will cease usage of the battery until the situation is resolved; see Special Conditions 2 and 3 below.

   e) If MCE loses connectivity with the battery, it will continue to charge and discharge based on expected conditions; see Special Condition 4 below.

11. In the event that available storage capacity is less than the Minimum Storage Capacity defined in the ESPPA due to circumstances other than failure of MCE to fully charge the battery, the monthly bill credit may be reduced by MCE as defined in the ESPPA.

12. MCE’s Energy Storage Program is available to MCE customers only. If a participating customer opts-out of MCE service, the customer will be immediately removed from the EST on the effective date of the opt-out and will be ineligible for further credits. In the event a departing customer is participating in on-bill repayment or other financing option offered by MCE, repayment of any outstanding amounts will be due according to the terms of the on-bill repayment agreement or other applicable agreements.
13. Participating customers may elect to stop participation in MCE’s EST by contacting customer service. Termination of participation in EST, and the credits for participation, will be effective at the end of the customer’s current billing cycle.

Special Conditions

1. **Public Safety Power Shutoffs.** In the event that PG&E calls a pending Public Safety Power Shutoff event in the vicinity of a participating customer, MCE will attempt to charge the battery to full capacity in advance of the PSPS event. If necessary, MCE may charge the battery to full capacity during any time of day, including “peak” periods, to maximize resiliency benefits for participating customers. Once the PSPS event has been resolved, and power has been restored, MCE will resume its normal dispatching of the battery.

2. **Unplanned Outages.** MCE will instruct batteries to operate independently in the event of an unplanned outage. Batteries will be charged using on-site generation resources if available, and only discharged to provide power for on-site usage. Once grid power has been restored, MCE will resume its normal dispatching of the battery.

3. **Emergency Situations.** In the event of a disaster event (flooding, wildfires, earthquakes, etc.) MCE will cease dispatching the battery and signal for the battery to begin charging as rapidly as possible to maximize resiliency benefits for participating customers. Once the disaster event has been resolved, MCE will resume its normal dispatching of the battery.

4. **Loss of Connectivity.** It is the customer’s responsibility to ensure continued connectivity to the battery and inverter. If MCE loses connectivity to a battery, such as due to interruption of internet or cellular connection, the battery will revert to autonomous control, using pre-defined operating parameters established by MCE, until connectivity is restored.
Electric Schedule PBST – Pilot Energy Storage Tariff

Applicability: This Pilot Battery Storage Tariff (PBST) schedule is applicable to any MCE residential customer who has installed a fully operational residential electricity battery storage unit with a qualifying micro-inverter providing MCE with remote control and dispatch capability (for purposes of this tariff, a “battery” or in aggregate “batteries”).

This optional schedule is available on a first-come, first-served basis to the first twenty customers with batteries who have provided MCE with a completed MCE Battery Storage Application.

Territory: The entire MCE service area.

Rates: All rates charged under this schedule will be in accordance with the customer’s otherwise-applicable MCE rate schedule, noting the following exceptions:

Customers served under this schedule must choose Partial Cycle Participation or Full Cycle Participation:

a) Full Cycle Participation: MCE shall have the option to fully discharge the electricity from the battery during each 24 hour discharge cycle. Customers electing Full Cycle Participation will receive a credit of $10/billing cycle.

b) Partial Cycle Participation: MCE shall have the option to discharge the electricity from the battery to 50% of its available storage capacity during each 24 hour discharge cycle. Customers electing Partial Cycle Participation will receive a credit of $5/billing cycle.

Program Requirements:

1. A participating customer must have an installed and fully operational battery with a qualifying micro-inverter. The battery must provide a minimum of 7 kWh of storage capacity per 24 hour discharge cycle and provide a minimum discharge rate of 2 kW per hour. Qualifying micro-inverters are listed on Attachment A. The aforementioned specifications related to battery capacity and discharge rate shall be applicable at the time of battery installation.

2. A participating customer must take electric service under an MCE residential rate schedule.
3. A participating customer must provide MCE with internet-based remote access to the inverter, enabling control of the battery for charging and discharging by MCE. Bill credits provided pursuant to this tariff schedule shall be reduced on a pro rata basis for any hours during which MCE is unable to remotely access and control the battery. Participating customers must provide any information reasonably requested by MCE that is necessary for MCE to administer this tariff.

4. A participating customer must allow MCE to charge/discharge the battery at its discretion, subject to the following limitations:

   a) During each 24 hour cycle, MCE may charge the customer’s battery up to one time prior to discharging the battery; charging of the battery shall occur at any time of day selected by MCE.

   b) During each 24 hour cycle, MCE may discharge the customer’s battery (fully or partially, depending upon the option selected by the customer under this tariff) up to one time prior to charging the battery; discharging of the battery shall occur at any time of day selected by MCE.

   c) The hours during which MCE charges and discharges the battery need not be continuous.

   d) The 24 hour discharge cycle shall generally coincide with each calendar day, beginning at hour ending 1:00 AM and continuing through hour ending 12:00 AM.

5. In the event that available storage capacity is less than the Minimum Storage Capacity due to circumstances other than failure of MCE to fully charge the battery, the monthly bill credit may be reduced by an Availability Adjustment. For purposes of applying the Availability Adjustment, the otherwise applicable monthly bill credit shall be multiplied by the ratio of the total kWh available for dispatch by MCE during the billing month divided by the monthly Minimum Storage Capacity. Monthly Minimum Storage Capacity shall equal the number of billing days during the month multiplied by:

   a. For Full Cycle Participation: 7 kWh
   b. For Partial Cycle Participation: 3.5 kWh
Electric Schedule PBST – Pilot Battery Storage Tariff

Attachment A: Qualifying Micro-Inverters

July 2, 2020

TO: MCE Technical Committee

FROM: MCE Staff

RE: GHG-free Allocations from PG&E (Agenda Item #07)

Summary

On February 6, 2020 in conjunction with a discussion on the power charge indifference adjustment (“PCIA”), MCE’s Technical Committee voted to do the following:

- Accept and use the 2020 PCIA-related PG&E large hydroelectric allocations
- Reject the 2020 PCIA-related PG&E nuclear allocations

In accordance with this direction from MCE’s Technical Committee, MCE is currently receiving large hydroelectric energy from PG&E, and these volumes will continue through 12/31/2020.

The purpose of this memorandum is to help MCE’s Technical Committee decide whether MCE should accept PCIA-related hydroelectric and/or nuclear allocations from PG&E for 2021 and beyond.

In short, MCE staff is recommending that MCE do the following:

- Accept and use the PCIA-related PG&E large hydroelectric allocations for 2021 and beyond
- Reject the PCIA-related PG&E nuclear allocations for 2021 through 2025, after which PG&E’s Diablo Canyon Power Plant will be retired (and nuclear allocations will not be available/offered)

Background

Through the power charge indifference adjustment (“PCIA”), MCE customers (and other CCA and Direct Access customers) are required to pay their share of the above-market costs associated with PG&E’s large hydroelectric fleet and PG&E’s nuclear power plant, Diablo Canyon. Accordingly, PG&E has voluntarily offered to allocate (to CCAs and Direct Access providers whose customers pay the PCIA) a proportionate share of the output of these GHG-free resources at no additional cost. There are two parallel processes to develop a mechanism to allow the voluntary allocations; 1) an interim GHG-free allocation for 2020 (“Interim Allocation”) and, 2) a 2021 and
beyond allocation ("PCIA Proposal") resulting from the PCIA Phase 2, Working Group 3 ("WG 3") efforts.

**Interim Allocation:**

In accordance with direction from MCE’s Technical Committee in February 2020, MCE has already engaged in the Interim Allocation process and has accepted PG&E hydroelectric allocations for 2020. In exchange for these allocations, MCE waived its ability to make arguments to the CPUC or the California Legislature asserting that PG&E has not offered any allocation, sale, or transfer of GHG-free energy or environmental attributes for 2020.

The Interim Allocation is currently scheduled to sunset at the end of 2020, but the PCIA Proposal may not be approved by the CPUC in time to take effect in 2021. It is noteworthy that PG&E is now opposed to these types of GHG-free allocations and prefers they be bundled with natural gas allocations. MCE and other CCAs are working to ensure standalone GHG-free allocations are available while CCA customers are paying for those GHG-free attributes. However, CPUC decisions may result in the GHG-free allocations becoming unavailable after 2020.

**PCIA Proposal**

On October 11, 2018 the CPUC issued Decision (D.)18-10-019, which modified the PCIA Methodology and opened a second phase of the proceeding to further develop proposals for portfolio optimization and cost reduction. On February 1, 2019, the CPUC directed the parties to convene three working groups to further develop PCIA-related proposals for consideration by the CPUC. Working Group 3 (WG 3) is focused on portfolio optimization and tasked with answering the question: “what are the structures, processes, and rules governing portfolio optimization that the CPUC should consider in addressing excess resources in utility portfolios?” A final CPUC decision on the activities of WG 3 is expected in Q3 2020; therefore, implementation of the PCIA Proposal is expected in 2021 at the earliest.

Under the PCIA Proposal, a Load-Serving Entity (LSE) would receive a proportional share of GHG-free attributes and energy on an hourly basis related to the generation from each applicable vintage of the Investor Owned Utilities ("IOU") generation. Allocation is based on each LSE’s customers’ forecasted share of vintage load on an asset.

Similar to the Interim Allocation, an LSE may opt-out of its allocation of one or both pools of resources (for example, an LSE could opt out of nuclear allocation but keep its hydro allocation), but it would not receive compensation in lieu of allocation. Unlike the Interim Proposal, allocations not accepted by an LSE under the PCIA Proposal would be reallocated automatically.

\[1\] WG 3 was established by a CPUC scoping memo in early 2019. The memo indicated that there should be three working groups to implement the CPUC’s directives. The first working group focuses on appropriate forecasting and benchmarking, the second focuses on prepayment of the PCIA, and the third working group is generally supposed to focus on the transition of contracts from the investor-owned utilities to the CCAs.

\[2\] Vintage is a term that refers to the year in which a CCA customer departed. A CCA customer is responsible for all of the generation contracts signed by the IOU up until the year of its departure, or vintage. Therefore, a customer with a 2010 vintage would be responsible for fewer contract commitments than a customer with a 2020 vintage. Because of MCE’s inclusion of new communities since its launch, MCE customers have a wide variety of vintages depending on when their community voted to join MCE and customers departed.

\[3\] The generation resources would have to be GHG-free, not be counted towards the IOU’s Renewable Standard Portfolio compliance, and be eligible for the PCIA.
among LSEs participating in the allocation of that category of resources, and not simply returned to the IOU. Allocations would continue for as long as the underlying assets are in the PCIA mechanism, but LSEs could opt in or out each year by a certain deadline. Attributes would be tradeable or available for sale after received by an LSE, with no further involvement of the IOU.

Estimated Allocations

MCE’s estimated large hydroelectric and nuclear allocation volumes are shown directly below. Very roughly, the estimated large hydroelectric allocations equal 10% of MCE’s projected retail load; the estimated nuclear allocations equal 20% of MCE’s projected retail load. Note that the estimated volumes do not reflect vintaging and are based on a combination of various sources.

Estimated Large Hydroelectric Allocations:
- 450 – 650 GWh per year

Estimated Diablo Canyon Power Plant Nuclear Allocations:
- 2021: 1200 GWh
- 2022: 1200 GWh
- 2023: 1200 GWh
- 2024: 1200 GWh x 75% = 900 GWh
- 2025: 1200 GWh x 25% = 300 GWh

Fiscal Impacts:

With respect to the large hydroelectric allocations, MCE staff projects that accepting such allocations would result in annual savings of approximately $2.5 million (+/- $1.5 million).

With respect to the Diablo Canyon Power Plant nuclear allocations, MCE staff projects that accepting such allocations and using them on MCE’s Power Content Label would result in annual savings (for each of the first three years) of approximately $5 million (+/- $2 million) and then an additional $5 million (+/- $2 million) for the final two years combined. Alternatively, if MCE accepts such allocations and successfully sells all of them, MCE staff projects annual savings (for each of the first three years) of approximately $500,000 (+/- $500,000) and then an additional $500,000 (+/- $500,000) for the final two years combined.

MCE Staff Recommendation:

- Large Hydroelectric Allocations: Accept and use large hydroelectric allocations for 2021 and beyond.
- Diablo Canyon Power Plant (Nuclear) Allocations: Reject nuclear allocations for 2021 – 2025, with the option to revisit this decision in the future based on new information.

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4 The IOUs will provide forecasts of aggregated hydro and nuclear production or aggregated hydro-only production, and quarterly updates for the remaining balance of year of the monthly total, aggregated production. They will also provide the past three years of historical, aggregated, hourly production data by combined nuclear and non-nuclear pool or only hydro pool.
Overview: PG&E GHG-Free Allocations

Non-Renewable Portfolio Standard (RPS) resources:

- Large hydroelectric (Large hydro)
  - Large hydro = 30 MW or greater
- Diablo Canyon Power Plant (nuclear)
  - Units 1 and 2 scheduled to retire in 2024 and 2025, respectively

February 2020 Technical Committee voted to:

- Keep and use large hydro allocation for 2020
- Reject nuclear allocation for 2020

Starting June 15, 2020, and continuing through December 31, 2020 MCE will receive large hydroelectric bundled energy from PG&E.
Regulatory Update: GHG-Free Allocation Status

1. Current PG&E interim allocations limited to 2020

2. Parallel CPUC process examining rules for ongoing allocations

3. Interim allocations may be extended until new rules are adopted
### Snapshot of the CCAs on Nuclear

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<thead>
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<th>Accepting</th>
<th>Rejecting</th>
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<tbody>
<tr>
<td>San Jose Clean Energy</td>
<td>Clean Power Alliance</td>
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<td>Silicon Valley Clean Energy</td>
<td>East Bay Community Energy</td>
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<td>Monterey Bay Community Power</td>
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<td>Sonoma Clean Power</td>
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<td>Valley Clean Energy</td>
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MCE GHG-Free Targets

MCE GHG-Free Targets and Potential PG&E Allocations

- MCE GHG-Free Under Contract
- Potential PG&E Hydro Allocation
- Potential PG&E Nuclear Allocation
- MCE GHG-Free Target
# PG&E Large Hydroelectric Potential 2021 and Beyond Allocations

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<th>Option 1: Reject</th>
<th>Option 2: Accept and Use</th>
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<td><strong>Annual Savings</strong></td>
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<td><strong>Commercial Risks</strong></td>
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<td>Low:</td>
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<td></td>
<td>Tightening market for large hydro</td>
<td>California large hydro volumes can be difficult to forecast</td>
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<td><strong>Reputational Risks</strong></td>
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<td>Low:</td>
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<td>Ratepayer advocacy</td>
<td>Reliance on PG&amp;E for allocation</td>
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**MCE Staff Recommendation:** Option 2 – Accept and Use Large Hydro Allocations for 2021 and beyond
# PG&E Diablo Canyon Power Plant (DCPP) Potential 2021-2025 Nuclear Allocations

**MCE Staff Recommendation:** Option 1 - Reject Nuclear Allocation for 2021 – 2025, with the option to revisit this decision based on new information

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<th>Option 1: Reject</th>
<th>Option 2: Accept and Use</th>
<th>Option 3: Accept and Sell</th>
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<tbody>
<tr>
<td><strong>Total 5-Year Savings</strong></td>
<td>$0</td>
<td>$20 million (+/- $8 million)</td>
<td>$2 million (+/- $2 million)</td>
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<td><strong>Commercial Risks</strong></td>
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<td></td>
<td><strong>Medium:</strong></td>
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<td></td>
<td>Tightening market for large hydro</td>
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<td><strong>Low:</strong></td>
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<td></td>
<td>DCPP volume is straightforward to forecast</td>
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<td><strong>High:</strong></td>
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<tr>
<td></td>
<td>No certainty of buyer for 100% of MCE’s allocated volume</td>
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<td><strong>Reputational Risks</strong></td>
<td><strong>Low:</strong></td>
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<td></td>
<td>Ratepayer advocacy</td>
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<td><strong>High:</strong></td>
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<td>MCE stakeholders opposed to nuclear</td>
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<td><strong>High:</strong></td>
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<td>Nuclear volumes will show on MCE Power Content Label if MCE does not sell 100% of its allocation</td>
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Thank You