| Party | Topic | Comment | Response |
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| Boston Energy | CHP | Setting the lower bound of the EFC formula for CHP resource at the lesser of RDT Pmin or the RDT Regulatory Must Take (RMT) value "doesn't work for CHP resources" under NS-PGA. Should be determined "either by (i) using the Pmax of the resource as the upper bound of the EFC calculation instead of the netload NQC value or (ii) include a load adjustment to the RMT max value used for the EFC determination." | The tariff says that CHP EFC is "the MW difference between the CHP resource's maximum output and its minimum operating level, such quantity not to exceed the quantity of generating capacity capable of being delivered over a three-hour period," but capped at NQC. CAISO agrees that "maximum output" in this context is more appropriately captured by Pmax instead of NQC. The tariff reference to "minimum operating level" is vague as to whether it refers to pmin or RMTG. The CAISO will clarify this tariff provision to say that CHP EFC is "the MW difference between the CHP resource's maximum output and *its RMTMax, if the resource has a RMTMax, or its minimum operating level* ," but capped at NQC. |
| Boston Energy | Storage | Request additional details on how the MOO and RAAIM for storage will be impacted by expanding EFC values – "provide specific examples of how the RAAIM availability economic bid MW checks will be conducted for an energy storage resource." | If a storage resource shows itself for the higher EFC, then RAAIM will apply the economic bid requirement to that higher amount of shown flexible capacity. |
| LS Power | Storage | Factoring in efficiency losses is inappropriate because flexibility is represented by the full range from charge to discharge. | The efficiency losses factor ultimately was not included in the the ISO's EFC formula for storage. |
| LS Power | Storage | What justification is there to have a different approach for storage under REM? | This is existing tariff and policy. The rationale is that a REM has to be at a set point somewhere in the middle of its range and cannot go all the way from fully discharged to fully charged to fully discharged in the same way that a NGR can when providing energy. |
| LS Power | Storage | Why do REMs only count under super peak? What is the justification for that? | This is existing tariff and policy. The rationale is that REMs provide flexibility by allowing other resources to be ramped but do not actually provide the ramping capabilities themselves. As a result, it was appropriate to limit the amount of flex provided by REM resources. |

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| Middle River Power | Storage | Request for examples of before and after for storage calculations. | The formula for battery units: 1) Before, efc = min(nqc, pmin+(180-startup_time)*weighted_ramp_rate); 2). After: nqc - pmin, where pmin may be negative. Examples can be derived by applying a specific unit's registered parameters. |
| Middle River Power | CHP | Request for examples of before and after for CHP calculations. | The only difference in before and after formula for CHP units are the pmin.1) Before: the pmin used is nameplate min_operating_value; 2) After: the pmin will be changed to max(nameplate minimum_operating_value, RMTG_MAX_ON_PEAK). Examples can be derived by applying a specific unit's registered parameters. |
| Middle River Power | Attestation | Clarify if attestation is only for new resources or for all resources. | This is for all resources that would like to have an EFC value calculated. |
| Middle River Power | Stakeholder process | These are policy changes not clarifications. Need to go through full stakeholder process. | No change to Board-approved policy has been identified. |
| Olivine | PDR | Oppose tests to establish EFC. Ok with tests to audit or verify. | The test process is part of the exsting tariff. |

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| Olivine | PDR | Clarify if re-testing permitted. Too much imprecision with baselines and random variation for the first test to hold. | The ISO will consider this comment as it continues to develop its testing procedures. |
| Olivine | PDR | Will testing be done so as not to violate DR operational constraints? | The ISO is still developing the testing procedures. |
| PG&E | Attestation | Attestation process is not in tariff or BPM and there is no basis for it. Submisson of the RA plan already constitutes the attestation. | Relying on monthly RA plans is insufficent because the category determination is part of the annual process. |
| PG&E | Annual EFC process | Tariff deadline of September 1 for final EFC list is too restrictive. Should be a three-week comment period at a minimum so defer the deadline to the BPM. Provides specific clarifications to sections 40.10.4.2(a)(1) and (a)(2). | The CAISO will now propose to defer the details of these deadlines to the relevant BPM. |
| PG&E | Hydro | Proposed hydro language is ambiguous. The tariff language should be clear that the EFC calculation is based on the resource's physical capability to store the water and not the physical storage of water at the time of the EFC calculation. | The CAISO will clarify that the six-hour requirement assumes that the resource's physical storage is at maximum capacity at the beginning of the six hours. The CAISO will also move towards having hydro EFC set by a SC attestation because there is no way for the CAISO to feasibly test the six-hour standard. |

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| PG&E | Hydro | PG&E believes there is no policy or tariff basis to categorize hydroelectric resources as “non-eligible” flexible capacity resources under Section 40.3.10.6 of the CAISO Tariff. | The CAISO no longer proposes to make six hours of storage a threshhold requirement for hydro to provide Flex Capacity. It will leave the hydro EFC requirement where it is. The CAISO will also move towards having hydro EFC set by a SC attestation because there is no way for the CAISO to feasibly test the six-hour standard. |
| SCE | Attestation | Unreasonable to request attestation from the SC because only the generation owner can speak to the resource’s physical capabilities. | Requesting that the SC submit the attestation is similar to the master file RDT process, through which the SC submits a unit's operating parameters on behalf of the resource for which it serves as the SC. |
| SCE | Storage | Even if a battery has some efficiency losses in charging that shouldn’t be factored into the formula because the amount that is lost in charging is still providing flexibility to the grid. | The efficiency losses factor ultimately was not included in the the ISO's EFC formula for storage. |
| SDG&E | Storage | The new formula includes a variable of charging efficiency not defined in the Tariff and does not limit the EFC to be within a three hour window. SDG&E requests the CAISO to include this change as part of its Tariff modification to FERC. | The efficiency losses factor ultimately was not included in the the ISO's EFC formula for storage. |
| SDG&E | Storage | Provide example of how RAAIM would apply to storage resources under the expanded EFC. Can RAAIM account for this as configured today? | If a storage resource shows itself for the higher EFC, then RAAIM will apply the economic bid requirement to that higher amount of shown flexible capacity. |

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| SDG&E | Hydro | Please clarify the impact to the EFC value for hydro resources based on the CAISO's proposed EFC calculation change. | The CAISO no longer proposes to make six hours of storage a threshhold requirement for hydro to provide Flex Capacity. The CAISO therefore foresees no impact. |
| SDG&E | Hydro | SDG&E recommends that CAISO to indicate that sufficient physical storage capacity for hydroelectric generating units should be 6 hours or more per day. As currently drafted, it is unclear if the 6-hour requirement spans a day, week or month. | The CAISO will clarify that the six-hour requirement assumes that the resource's physical storage is at maximum capacity at the beginning of the six hours. |
| SDG&E | General formula | Tariff clarifications for resources with start-up less than 90 minutes would be unnecessary with more detailed BPM provisions. | The ISO believes the proposed tariff change provides helpful clarity. |
| WPTF | Stakeholder process | These are policy changes that need to go through a full stakeholder polcy development process. | No change to Board-approved policy has been identified. |
| WPTF | Storage | Issues with storage formula – EFC should be tied to actual operational capability and how NGRs are actually dispatched. | Actual operation is not the relevant issue; the registered resource type is what matters here. The ISO allows resources to count as flex that are fully loaded, but economically bidding as well as resources with low cap factors (i.e. hardly ever dispatched). The requirement is that they economically bid, not that the ISO use them in a pre-defined way. |

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| WPTF | Storage | Issues with storage formula – Charging efficiency parameter should be included on the discharge part of the equation. | The efficiency losses factor ultimately was not included in the the ISO's EFC formula for storage. |
| WPTF | Storage | Evaluate how the new EFC methodology may change the RAAIM or must-offer obligations for storage. Seems like this decouples MOO and RAAIM assessment—provides example of 38 MW EFC but MOO of 40 MW. | Removal of the efficiency losses from the formula changes the example. There should not be a case where a resource has a generic or flexible MOO that is higher than its EFC or NQC, respectively. |
| WPTF | Hydro | Clarify how the hydro EFC is changing and demonstrate what this will do in aggregate to hydro EFC RA values. | The CAISO no longer proposes to make six hours of storage a threshhold requirement for hydro to provide Flex Capacity. The CAISO therefore foresees no impact. |
| WPTF | Attestation | Issue market notice as a reminder so the EFC attestation requirement doesn't get lost in the shuffle. | The ISO will look to do this for future years. |