



**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA**

FILED

01/23/26

04:59 PM

R2510003

Order Instituting Rulemaking to Oversee the
Resource Adequacy Program, Consider Program
Reforms and Refinements, and Establish Forward
Resource Adequacy Procurement Obligations.

R. 25-10-003
(Filed October 9, 2025)

VISTRA CORP. TRACK 1 PROPOSAL

January 23, 2026

VISTRA CORP.
Cathleen Colbert
Senior Director, Western Markets Policy
325 7th Street NW, Suite 520
Washington, DC 20004
Telephone: (412) 720-7016
Email: cathleen.colbert@vistracorp.com

**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA**

Order Instituting Rulemaking to Oversee the Resource Adequacy Program, Consider Program Reforms and Refinements, and Establish Forward Resource Adequacy Procurement Obligations.

R. 25-10-003
(Filed October 9, 2025)

VISTRA CORP. TRACK 1 PROPOSAL

Pursuant to the Assigned Commissioner’s Scoping Memo and Ruling (“Scoping Memo”), issued on December 12, 2025, Vistra Corp. (“Vistra”) hereby submits these higher-priority Track 1 Proposals (“Proposal”) to the California Public Utilities Commission (“Commission”) addressing accreditation for Long-Duration Energy Storage (“LDES”) under Scope Item 3 and an Unforced Capacity (“UCAP”) framework under Scope Item 4.

I. INTRODUCTION

Vistra is a Fortune 500 integrated retail electricity and power generation company based in Irving, Texas, and one of the nation’s largest competitive power providers. In California, Vistra owns and operates a diverse portfolio of generation and energy storage resources that support Resource Adequacy (“RA”) obligations, Integrated Resource Planning (“IRP”) compliance, or energy and ancillary services (“E&AS”) needs.

Through its subsidiaries, Vistra operates approximately 1,629 MW from the Greenleaf Power Plant (49 MW), the Oakland Power Plant (110 MW), the Moss Landing Power Plant (1,020 MW), and the Moss Landing Energy Storage Facility (450 MW / 1,800 MWh). Vistra is also in the process of bringing online the Deer Creek Solar 1 Hybrid Facility, which is expected to provide 50 MW of RA-eligible capacity when commercial operations begin in mid-2026.

As a seller of RA resources in California, Vistra has a direct and material interest in changes to the RA Program. Vistra participates in six of the seven competitive wholesale two-settlement markets in the U.S., including in markets that establish capacity requirements and assess compliance based on unforced capacity values. Additionally, Vistra has gained critical lessons from its operational experience since achieving commercial operations in 2021 that inform these Energy Storage System (“ESS”) accreditation proposals.

The current Qualifying Capacity (“QC”) methodologies overvalue dispatchable resources, storage, and storage components within a hybrid or co-located resource (paired resources) within the system RA program. As such, Vistra files this Track 1 Proposal to address Scoping Memo Issues 3 and 4 as follows:

- Storage QC proposal for long-duration and short-duration energy storage (“SDES”) to appropriately reflect the deliverable capacity that can be sustained based on its contracted energy and duration.
- Unforced Capacity framework proposal that establishes two QC values, one to be used for CAISO procedures in determining Net Qualifying Capacity (“NQC”) and a new unforced QC value to inform system RA requirements and compliance under the Slice-of-Day (“SOD”) RA program.

These proposals are important to be considered within this rulemaking because QC rules that result in overvaluation of resources may lead to false sense of security that the RA fleet is sufficient to meet the established requirements.

II. QUALIFYING CAPACITY PROPOSAL FOR LONG-DURATION AND SHORT-DURATION ENERGY STORAGE

The following sections describe the elements of Vistra’s Proposal to improve the accuracy of storage or storage components within a paired resource. These proposals also serve

as the basis for Vistra’s UCAP Framework proposal in Section III. Vistra proposes that the QC improvements to PmaxRA should be implemented for 2027 Compliance Year.

A. Background

As established in D.14-06-050, storage must “have the ability to operate for at least four consecutive hours at maximum power output (PmaxRA), and to do so over three consecutive days.” The Decision set the maximum value eligible to be sold for System and Local RA purposes to a $Pmax_{RA}$ value, defined as “the maximum output sustainable for four hours...; may be less than the maximum rated discharge/curtailment level.”¹ The Decision stated that storage “must submit to the CAISO an output level (in MW) at which the resource is capable of discharging for four or more uninterrupted hours; this is defined to be its $Pmax_{RA}$, the maximum output that can be considered for RA calculations...[s]torage facilities may also submit a short-term maximum rated output to the CAISO, for dispatch purposes.”² The value for dispatch purposes is Pmax, which may be greater than $Pmax_{RA}$. In practice, storage facilities registered their Pmax for dispatch purposes in the CAISO’s Master File Generator Resource Data Template (“GRDT”), which only allows registration of a single maximum operating level (“Pmax”).³ Consequently, a storage facility should ensure that it represent its $Pmax_{RA}$ when requesting to establish its NQC through CAISO’s Net Qualifying Capacity process that the value is based on the definition and formula for $Pmax_{RA}$.

¹ D.14-06-050 at B-11.

² *Id* at B-9.

³ CAISO GRDT column name is Maximum Generation Capacity (MAX_GEN), which is the Net Dependable Capacity or Pmax a generator can produce on a sustained basis as measured at the Point of Interconnection.

In D.14-06-050, the Commission described its rules for ensuring that the $P_{max_{RA}}$ value was the function of Available Energy (MWh) by stating, “the total MWh of energy available to be discharged from a storage device ... equivalent to the MAX_CONT_ENERGY_LIMIT variable in the CAISO Master File GRDT.”⁴ The Available Energy that can be marketed to the CAISO’s E&AS markets is the difference between its Master File registered Maximum Continuous Energy Limit (MAX_CON_ENERGY_LIMIT) and Minimum Continuous Energy Limit (MIN_CONT_ENERGY_LIMIT). The CAISO defines these two Master File parameters to set the boundaries on the maximum level of continuous stored energy, i.e., State of Charge (“SOC”), and the minimum SOC that a storage resource must maintain.⁵

Any storage resource that is required to maintain a minimum SOC should have a non-zero Minimum Continuous Energy Limit on file and the portion of its SOC that falls below that minimum level is unavailable to be discharged. A storage asset may have a non-zero Minimum Continuous Energy Limit if it has firm Depth of Discharge (“DoD”) limitations where the storage cannot discharge below a certain DoD capability without voiding its warranties. The storage industry,⁶ CAISO, and the modeling CAISO uses to support its Transmission Planning Process (“TPP”) recognize DoD as a real operational constraint.⁷ Storage resources subject to non-zero Minimum Continuous Energy Limits have an overvalued QC because the true

⁴ D.14-06-050 at B-14.

⁵ CAISO GRDT and IRDT Definitions, available at: <https://www.caiso.com/documents/grdt-and-irdt-definitions.xlsx>.

⁶ Solomon Evro, Abdurahman Ajumobi, Darrell Mayon, Olusegun Stanley Tomomewo, Navigating battery choices: A comparative study of lithium iron phosphate and nickel manganese cobalt battery technologies, Future Batteries, Volume 4, 2024, 100007, ISSN 2950-2640, <https://doi.org/10.1016/j.fub.2024.100007>. Table 2 compares the SOC and DoD effects between NMC and LFP with less impact affecting LFP.

⁷ 2022-2023 TPP Reliability Assessment and Study Updates, California ISO, November 17, 2022, slide 150, <https://stakeholdercenter.caiso.com/InitiativeDocuments/Presentation-2022-2023-Transmission-Planning-Process-Nov%2017,%202022.pdf>.

Available Energy is the difference between the Maximum and Minimum Continuous Energy Limits.

A storage Scheduling Coordinator (“SC”) can narrow its Available Energy for in-market purposes through submitting a Lower State of Charge limit bid or an Upper State of Charge Limit bid in day-ahead and real-time.⁸ The biddable lower or upper SOC can narrow the amount of storages’ capacity available to the market while the registered SOC outside that biddable SOC range can still be accessed through exceptional dispatches. Vistra is concerned that some storage operators may use biddable lower and upper SOC parameters to represent firm Available Energy limits, inequitably allowing those storage resources receive inflated QC values.

In the RA Reform Decisions, the Commission affirmed the QC approach adopted in D.14-06-050 as refined in D.20-06-031 for use in the SOD framework with the addition of the storage charging sufficiency requirement for Load-serving Entities (“LSEs”) showing storage resources.⁹ The SOD framework adopted Storage Resource Counting rules for all storage regardless of duration based on “Pmax or UCAP-light (if developed), restricted to daily resource capabilities (e.g., maximum daily run hours, maximum continuous energy, and storage efficiency) ... where excess capacity must be shown to cover battery capacity with efficiency losses.”¹⁰ In D.23-04-010, the Commission determined that an LSE could use a co-located energy-only (“EO”) resource to support deliverable on-site battery capacity with efficiency losses if it is charging on-site storage as it “does not rely on the transmission system to deliver

⁸ CAISO Market Instruments Business Practice Manual at Page 53-54, and 83-84, available at https://bpmcm.caiso.com/BPM%20Document%20Library/Market%20Instruments/BPM_for_Market%20Instruments_V92_Redline.pdf.

⁹ D.22-06-0850 at Page 86 and Conclusions of Law #16; D.23-04-010 Ordering Paragraph 10.

¹⁰ D.22-06-050 at Ordering Paragraph 20 as discussed at Page 86; Appendix A, Page 2; and Appendix A, Page 4.

charging capacity to the co-located storage.”¹¹ Otherwise, the Commission maintains that an LSE must show excess RA capacity to support storage charging sufficiency requirements.

The Commission continues to direct parties to work on proposals that would differentiate the resource counting or charging sufficiency requirements under a robust SOD framework to apply to LDES or Multi-Day Storage (“MDS”). In D.22-06-050, the Commission stated, “We recognize that ensuring LDES resources are properly valued across the slice-of-day framework is critical to the durability and success of the 24-hour framework.”¹² This sentiment was reiterated in D.23-04-010 and D.24-06-004. However, the Commission agreed with parties that an MDS resource counting methodology was not ready for adoption.¹³ In D.25-06-048, the Commission again found that several questions regarding LDES resource’s charging sufficiency requirements and accreditation require further discussion. The Commission authorized Energy Division to hold a workshop in 2025 on long-duration energy storage issues including charging sufficiency requirements and accreditation.¹⁴ The Scoping Memo includes the Track 1 Issue 3 to address the accreditation of LDES. Vistra’s proposal to establish LDES QC accreditation rules that differentiate SDES and LDES under slice-of-day framework are hereby filed in this Section II.

B. New Storage Master Resource Database Fields

Vistra proposes that the storage Qualifying Capacity rules be refined to more dynamically calculate the QC of each storage resource or component based on its SOC that was contracted to be capable of discharging at a sustained output level – Commercially Available Energy – and the duration contracted that could range between 4 and 24 hours.

¹¹ D.23-04-010 at Page 38.

¹² D.22-06-050 at Page 87.

¹³ D.23-04-010 at Page 45; D.24-06-004 at Page 51.

¹⁴ D.25-06-048 at Page 64-65.

The Commission should adopt a distinct Commercial Available Energy concept used exclusively for Qualifying Capacity calculation of P_{maxRA} that may be lower than the Available Energy used for CAISO dispatch purposes to more accurately capture the SOC range available to support sustained levels. The new concept for Commercial Available Energy that can be discharged at a sustained operating level over the contracted duration allows a straightforward distinction between SDES and LDES resources. Vistra proposes that the portion of the SOC where storage cannot sustain its operating levels when discharging must be excluded from its RA-eligibility. Based on our operating experience, it is our understanding that many storage units have their sustainable operating levels affected above 90% and below 10% thresholds within their Maximum Continuous Energy Limit and that some storage units have minimum SOC levels set to a firm limit below which the SOC is unavailable for dispatch.

The Commission should clarify in its findings that a storage resource has an Available Energy value established in the CAISO's Master File, which is the difference between the registered Maximum Continuous Energy Limit (`MAX_CON_ENERGY_LIMIT`) and the registered Minimum Continuous Energy Limit (`MIN_CONT_ENERGY_LIMIT`). This Available Energy can be operationalized within the E&AS markets.

Vistra proposes the following five new parameters to the Master Resource Database ("MRD") that will allow the calculation of the P_{maxRA} based on its Commercial Available Energy contracted to support sustaining the maximum output level over the contracted duration: The Proposal treats these new fields similarly to other default fields where the initial value is a default assumption that can be updated to reflect resource-specific values. Table 1 provides description of each proposed field and the proposed default assumption.

Table 1: Default Assumptions for New Storage Master Resource Database Fields

Field	Description	Default Assumption
Available Energy per Cycle (on MRD called Maximum Continuous Energy) ¹⁵	The total MWh of energy available to be discharged from a storage device for dispatch purposes in a single cycle.	Maximum Continuous Energy Limit minus Minimum Continuous Energy Limit
Maximum Continuous Energy Limit for RA-eligibility per Cycle	Maximum energy level for RA below which operating levels for storage can be sustained for up to 24 hours but no fewer than four hours.	(0.9 * Maximum Continuous Energy Limit)
Minimum Continuous Energy Limit for RA-eligibility per Cycle	Minimum energy level for RA above which operating levels for storage can be sustained for up to 24 hours but no fewer than four hours. CAISO registered Minimum Continuous Energy Limit is a floor.	Max(0.1 * Maximum Continuous Energy Limit, Minimum Continuous Energy Limit)
Commercial Available Energy Per Cycle	The portion of the Available Energy per cycle that can support operating levels that can be sustained for up to 24 hours but no fewer than four hours within a single cycle.	Maximum Continuous Energy Limit for RA minus Minimum Continuous Energy Limit for RA
Maximum Commercial Daily Energy	The maximum energy under contract that can be supported based on its contracted energy per cycle and contracted cycles.	Daily Storage Cycles * Commercial Available Energy per Cycle

¹⁵ MRD appears to be setting Available Energy by multiplying 4 by nameplate instead of using GRDT, which should be revised to use the difference between Minimum and Maximum Continuous Energy Limit in the Master File.

Minimum Run Hours per Cycle	Minimum continuous discharge hours capable of sustaining output within a single cycle as contracted, which can be no fewer than four hours and no greater than 24 hours. ¹⁶	4 hours
-----------------------------	--	---------

This approach adopts conservative assumptions defining where many storage resources observe a portion of their SOC that cannot be used to sustain operating levels. By leveraging the Minimum Continuous Energy Limit as a floor on the Minimum Continuous Energy Limits for RA-eligibility, it will ensure storage assets with non-zero Minimum Continuous Energy Limits are not including inaccessible portions of its SOC in its storage’s QC. The Commercial Available Energy per cycle should be calculated within the MRD by Staff as the difference between the Maximum Continuous Energy Limit for RA-eligibility and Minimum Continuous Energy Limit for RA-Eligibility so that inaccessible or unsustainable portions of SOC are excluded from QC. The Minimum Run Hours per Cycle default assumption should assume at least four hours per cycle is under contract. The Maximum Commercial Daily Energy should be set to a conservative default assumption where Commercial Available Energy per Cycle is multiplied by the MRD’s Daily Storage Cycles.

C. LDES PmaxRA QC Value

Vistra proposes to refine the existing QC rules that apply to all storage assuming it can provide no more than four hours of minimum run hours per cycle to apply to all storage resources based on their contracted durations. Under the Proposal, the QC value, $Pmax_{RA}$,

¹⁶ Given Slice-of-Day performs a 24-hour assessment, Vistra proposes to limit the contracted duration per cycle that can be shown in the MRD to no more than 24 hours to align with the SOD showing period. If SOD assessments expand to capture multi-day periods, then the Minimum Run Hours per Cycle under contract should be allowed to be set to up to the length of the SOD assessment.

reflects the sustainable operating levels that can be sustained across the contracted duration if it exceeds the minimum four-hour requirement up to its deliverable output at the Point of Interconnection.

As recognized by the Commission in its RA Reform Decisions, the ability to establish capacity accreditation rules that appropriately differentiate between the value short-duration and long-duration storage is critical to the success of the slice-of-day framework.

The $Pmax_{RA}$ QC value is the maximum output sustainable based on its MRD fields for Commercial Available Energy that can be sustained over the MRD field for Minimum Run Hours per Cycle, which cannot be less than four hours or greater than 24 hours. The $Pmax_{RA}$ calculation should be revised as follows:

$Pmax_{RA}$ – the maximum output sustainable for the longer of the maximum run hours per cycle or four hours as limited by the capacity rated portion of the point of interconnection limit; may be less than the maximum rated discharge/curtailment level.

The formula to achieve the refined QC value of $Pmax_{RA}$ is:

Equation 1: Revised Storage QC ($Pmax_{RA}$)

$$Pmax_{RA} = \text{Min}(\text{Commercial_Available_Energy} / \text{Min_Run_Hours_Cycle}, Pmax_{RA} * FCDS\%)$$

Where,

Commercial_Available_Energy

$$= \text{MAX_CONT_ENERGY_LIMIT_RA} - \text{MIN_CONT_ENERGY_LIMIT_RA}$$

Min_Run_Hours_Per_Cycle New MRD field as defined in Table 1

Pmax Must be less than or equal to Point of Interconnection limit

FCDS% Percent of POI that has Full Capacity Deliverability Status

This more dynamic approach will be necessary to ensure the QC is accurately calculated as the storage fleet grows to have more duration diversity across the assets.

D. LDES Charging Sufficiency Requirements

Vistra further proposes to maintain consistency with the RA Reform's resource counting rules that adopted a requirement for LSEs to procure the charging energy for their shown battery capacity factoring in each resource's efficiency losses regardless of its contracted duration. The Proposal maintains storage charging sufficiency requirements for all energy storage resources. Vistra proposes to add to the sufficiency assessment a storage charging sufficiency credit based on aggregated stored energy that the LSE would have going into Hour Ending 1. At a conceptual level, the need for LSEs to show firm capacity for charging storage exists for all storage that charges from the grid. If energy storage may be able to charge in the days prior to an operating day, then there should be a reasonable assumption adopted to credit LSEs for charging that occurs on days preceding the SOD framework's worst-day assessment.

The storage charging sufficiency credit should be LSE-specific to avoid leaning. The credit should be based on the energy (MWh) that could have been deployed to charge storage resources leading into the worst day being assessed under SOD. Additional discussions on the look-ahead period are needed. Vistra proposes to calculate excess energy not needed for demand that could be used to charge storage over a 7-day period, with the initial condition for all storage assets assuming 0 MWh of SOC at the beginning of the assessment period.

III. UNFORCED CAPACITY FRAMEWORK

Vistra proposes an Unforced Capacity framework that establishes two QC values, one to be used for CAISO procedures in determining NQC and a new unforced QC value to inform system RA requirements and compliance under the SOD RA program. The current $Pmax_{RA}$ will

be used for CAISO procedures, including determining the NQC, deliverability, Must-Offer Obligations (“MOO”), and backstop procurement. A new unforced value - $P_{max}RA_{UCAP}$ - will be used to inform UCAP-based system RA requirements and compliance under the Slice-of-Day program, including the storage charging sufficiency requirements. The following sections detail the Proposal to transition to a UCAP framework for System RA.

A. Background

Since the RA Reform was discussed in Rulemaking 19-11-009, parties have been exploring the development of an Unforced Capacity framework. In D.21-07-014, the Commission saw merit in the UCAP concept but declined to adopt it until further developed.¹⁷ In D.22-06-050, the Commission declined to adopt either UCAP or UCAP-light, instead directing parties to develop a UCAP-light mechanism to apply to dispatchable generation and energy storage resources through the RA reform workstreams.¹⁸ UCAP-light value would reflect the short-term maximum rated output – P_{max} – of dispatchable resources as impacted by ambient derates due to temperature. UCAP value is the P_{max} of dispatchable resources, storage resources, or storage components of paired resources as impacted by unplanned (forced) outages. As of D.23-04-010, the Commission concurred with parties that it would be appropriate to forgo adopting UCAP-light in preference for developing a comprehensive UCAP framework for ambient derates and other types of outages.¹⁹ The Commission recognized the challenges with leveraging CAISO’s outage data and has encouraged Commission Staff to coordinate with the CAISO to develop UCAP mechanism; however, further discussions and proposal development

¹⁷ D.21-07-014 at Page 43.

¹⁸ D.22-06-050 at Page 99 and Ordering Paragraphs 18 and 20.

¹⁹ D.23-04-010 at Page 40-41.

are needed. The Commission directed further development in D.23-06-029, D.24-06-004, and D.25-06-048.

B. System RA Capacity Accreditation

The current QC methodologies may overvalue dispatchable resources, storage, and storage components within a hybrid or co-located resource (paired resources) within the system RA program where Slice-of-Day showing could be leveraged to ensure sufficient RA capacity is shown even after unplanned (forced) outages are taken into consideration. Vistra proposes to establish two QC values, one to be used for CAISO procedures in determining NQC and a new unforced QC value to inform system RA requirements and compliance under the SOD RA program. The new $PmaxRA_{UCAP}$ is in addition to $Pmax_{RA}$ and will only be used for the UCAP-informed requirements in the Slice-of-Day showings, including storage charging sufficiency assessment.

For purposes of selling RA, hybrid and co-located resources will continue to sell $Pmax_{RA}$. Given the RA bundling rules, when a buyer contracts for RA capacity it will continue to buy a bundled RA attributes. The RA contracts will continue to procure a share of the maximum RA-eligible capacity set by the QC value of $Pmax_{RA}$, which is capped at Net Qualifying Capacity. The contract will procure a MOO into the CAISO markets up to the percent of $Pmax_{RA}$ procured. For purposes of assessing SOD compliance, the final UCAP framework will be clear that the new $PmaxRA_{UCAP}$ only impacts the Commission efforts to set the UCAP-based System RA requirements and assess compliance under Slice-of-Day tools for the LSE showing and storage charging sufficiency test.

The local RA requirements and flexible RA requirements established by the CAISO and adopted by the Commission will continue to be set based on $Pmax_{RA}$. A resource that will have

its System RA compliance assessed based on UCAP will continue to have its NQC, deliverability, and must-offer obligation assessed based on its $Pmax_{RA}$. CAISO will continue to use $Pmax_{RA}$ for purposes of evaluating collective system deficiencies under its backstop procurement protocols as well. The Commission should produce a $Pmax_{RA}$ based PRM for CAISO to use for its backstop assessments to ensure the Commission's PRM continue to inform those assessments.

The following sections outline the specific QC calculation changes by category of resources that are proposed given their unique operational differences.

1. Energy Storage Capacity Values

Vistra's proposal for storage builds off its $Pmax_{RA}$ QC proposals in Section II. Since storage resources will continue to have its NQC, deliverability, and must-offer obligation assessed based on its $Pmax_{RA}$, the Commission should under UCAP framework adopt the $Pmax_{RA}$ improvements as proposed in Section II.C found in Equation 1: Revised Storage QC ($Pmax_{RA}$). For storage, $Pmax_{RA_{UCAP}}$ will be defined as the lower of the *unforced* maximum output sustainable for the longer of the minimum run hours per cycle or four hours as limited by the *unforced* capacity rated portion of the point of interconnection limit, which may be less than the maximum rated discharge/curtailment level and the $Pmax_{RA}$.

Vistra proposes to establish an Energy Storage UCAP Framework that clarifies the role of the various operating characteristics that apply to energy storage. Storage resources' operations are limited due to outages submitted to the CAISO's Outage Management System on four of its operating parameters: Maximum Continuous Energy Limit, Minimum Continuous Energy Limit, Maximum Operating Limit, and Minimum Operating Limit. The first three operating parameters impact QC rules. Under UCAP, outages on Maximum Continuous Energy

Limit or Minimum Continuous Energy Limit may narrow *unforced* Available Energy such that the *unforced* Available Energy may be narrower than the Commercial Available Energy.

To implement the $PmaxRA_{UCAP}$ value, the Proposal will calculate an EFORD for each of the three operating parameters affected by unplanned (forced) outages. These are:

- Equivalent Forced Outage Rates on Demand on Maximum Continuous Energy Limit ($MaxCEL_{EFORD}$)
- Equivalent Forced Outage Rates on Demand Minimum Continuous Energy Limit ($MinCEL_{EFORD}$)
- Equivalent Forced Outage Rates on Demand Maximum Operating Limit ($Pmax_{EFORD}$)

Vistra proposes the definition and formula below for storage $PmaxRA_{UCAP}$ on a resource-specific basis for each RA compliance season.²⁰

Equation 2: Storage UCAP QC ($PmaxRA_{UCAP}$)

$$PmaxRA_{UCAP} = \text{Min}(\text{Unforced_Commercial_Available_Energy} / \text{Min_Run_Hours_Cycle}, \text{MIN}(Pmax * FCDS\%, \text{Unforced_Pmax}))$$

Where,

$$\begin{aligned} \text{Unforced_Commercial_Available_Energy} &= \text{MIN}(\text{MAX_CONT_ENERGY_LIMIT_RA}), \text{MAX_CONT_ENERGY_LIMIT} \\ &* \text{MaxCEL}_{EFORD}) - \text{MAX}(\text{MIN_CONT_ENERGY_LIMIT_RA}, \\ &\text{MIN_CONT_ENERGY_LIMIT} * \text{MinCEL}_{EFORD}) \end{aligned}$$

²⁰ RA measurement hours adopted in D.10-06-036, and revised in D.18-06-030, D.22-06-050, and D.23-06-029 for summer months (June – October), winter months (November to May), and spring months (March to May).

$$Unforced_Pmax = Pmax * Pmax_{EFORD}$$

The rationale for applying EFORD to both the Available Energy and the Maximum Output level is that physical outages on the Continuous Energy Limits can be more restrictive than physical outages on the Pmax. The proposal is consistent with D.24-12-003's determination that forced outage rates for storage resources should reflect plant failures but not state-of-charge, as the SERVVM model accounts for state-of-charge.²¹ D.24-12-003 omitted discussion of state-of-charge outages due to plant equipment failures, which are the basis for Vistra's UCAP proposal to include Forced Outage Rates for plant failures that limit the Operational Available Energy in addition to outages that limit its Pmax for CAISO dispatch purposes (Pmax). In D.25-06-048, the Commission stated that it is unclear what SOC-driven outages may be under operator control.²² One common example is inverter outages that simultaneously limit the Maximum Continuous Energy Limit, Maximum Operating Limit, and Minimum Operating Limit. Attachment A provides additional background on storage outages that can impact Available Energy.

Vistra finds reasonable the Commission's prior findings that unavailability of energy to support a unit's state-of-charge is accounted for in other mechanisms. For reduced State of Charge availability due to charging energy, the accreditation of storage is correctly established in the Integrated Resource Planning process using SERVVM to capture the interaction between other resources providing charging energy to inform accurate Effective Load Carrying Capability values. Further, this interaction between energy storage and other resources to provide charging energy is also captured in the Slice-of-Day program, which requires LSEs to cover their battery charging capability plus efficiency losses.

²¹ D.24-12-003 at Page 22.

²² D.25-06-048 at Page 49.

2. Hybrid and Co-Located Capacity Values

Vistra's storage capacity values proposed in Section III.A will apply to the energy storage component within co-located and hybrid storage facilities. D.24-06-004 revised the hybrid and co-located resources' counting rules such that hybrid and co-located resources' QC counting methodology is that "the renewable component's QC value will be calculated the same as other renewable resources' QC values, the storage component's QC value will be calculated the same as other storage resources' QC values, and the total QC value of the resource will be the sum of the two components limited by the POI limit and the compliance tool's state-of-charge test."²³ The paired resources' storage QC value of $PmaxRA_{UCAP}$ will be calculated the same as other storage resources' $PmaxRA_{UCAP}$ as proposed in Section III.A in Equation 2.

3. Dispatchable Resources Capacity Values

Vistra's Proposal respects the resource counting rules adopted in D.22-06-050 for dispatchable resources where the definition contemplates dispatchable resources being assigned a single value based on $PmaxRA_{UCAP}$. Under current rules, dispatchable resources are valued based on its PmaxRA QC value, which is capped at its deliverable quantity (i.e., NQC). Under Vistra's Proposal, RA resources will continue to sell their Net Qualifying Capacity, i.e., $Pmax_{RA}$, with their bundled RA attributes. They will continue to have their NQC established, deliverability assessed and must-offer obligation administered based on $Pmax_{RA}$. The new $PmaxRA_{UCAP}$ QC value will inform the Slice-of-Day showings and be used to assess compliance with the UCAP-based Planning Reserve Margin requirements. Slice-of-Day showings will continue to strive to capture dispatchable use-limited resources daily

²³ D.24-06-004 at Page 43.

availability constraints. The following formula is the $PmaxRA_{UCAP}$ equation proposed for dispatchable resources on a resource-specific basis for each RA compliance season.

Equation 3: Dispatchable Resources' UCAP QC ($PmaxRA_{UCAP}$)

$$PmaxRA_{UCAP} = Min(Pmax * FCDS\%, Unforced_Pmax)$$

Where,

$$Unforced_Pmax = Pmax * Pmax_{EFORD}$$

$Pmax$ Must be less than or equal to Point of Interconnection limit

$FCDS\%$ Percent of POI that has Full Capacity Deliverability Status

C. Equivalent Forced Outage Rates on Demand

Vistra proposes that the framework use EFORD methods for the resource performance metrics based on unplanned (forced) outages. EFORD is an unavailability rate that identifies the percent of all hours that a unit would have been in demand based on user-defined conditions where the unit experienced a Forced Outage Hour (“FOH”) or Forced Derated Hour (“FDH”).

There are up to three resource-specific EFORD values for the operating parameter applicable to each resource type, as shown below in **Error! Reference source not found.** and described below.

Table 2: EFORD Values by Resource Type

Resource Type	$Pmax_{EFORD}$	$MAXCEL_{EFORD}$	$MINCEL_{EFORD}$
Dispatchable Resources	Yes	N/A	N/A
Storage Resources	Yes	Yes	Yes
Co-located/Hybrid Storage Component	Yes	Yes	Yes

Where $Pmax_{EFORD}$ is the EFORD percentage that is calculated based on unit outages submitted on the Pmax; $MAXCEL_{EFORD}$ is the EFORD percentage that is calculated based on unit outages submitted on the Maximum Continuous Energy Limit; and $MINCEL_{EFORD}$ is the EFORD percentage that is calculated based on unit outages submitted on the Minimum Continuous Energy Limit.

Staff should compile the outage data from the CAISO's Outage Management System ("OMS"), specifically the Prior Day Curtailment Report for the single public data source to ensure compatibility and verifiability in accordance with D.24-06-004 and D.25-06-048 guidance. These reports currently only contain outages on Pmax, where Commission Staff and CAISO should coordinate to enhance CAISO's generator curtailment reports to also publicly report outages affecting storage, including paired resources' components, on Maximum Continuous Energy Limit and Minimum Continuous Energy Limit.

Staff will calculate resource-specific EFORD values for each RA season for each applicable parameter using the same EFORD methodology. Vistra proposes the Commission adopt an "on demand" definition as the hours on the top ten net load days within the month that are Availability Assessment Hours.²⁴ The EFORD rates will be calculated by resource and season to simplify complexity.

The following standard EFORD formulation will be used consistently for each operating characteristic applicable as described in using.

²⁴ Vistra leverages Energy Division's "in-demand" proposal with a targeted enhancement to better harmonize with the CAISO's RAMPD default UCAP rules that identifies "at-risk" hours. Vistra encourages recurring updates to the AAH to better harmonize the specific hours the Commission and CAISO view as at higher risk of reliability challenges on an annual basis through the RA proceedings.

Equation 4: EFORd Calculation Proposed

$$EFORd_{r,S} = \frac{\sum_i FOHd_{r,S,i} + EFDHd_{r,S}}{(\sum_i FOHd_{r,S,i} + \sum_i SH_{r,S})}$$

Where,

$$EFDHd_{r,S} = \sum_i \frac{DHD_i \times \text{Size of Reduction}_i}{\text{Net Maximum Capacity}_i}$$

EFORd Equivalent Forced Outage Rate on Demand

EFDHd Equivalent forced outage hours during demand

FOHd Forced outage hours during demand hours in decimal²⁵

SH Service hours in demand hours when unit was available

DHd Hours with a derate during demand hours expressed in decimal²⁶

Net Maximum Capacity (NMC) Unit monthly deliverable maximum operating level (*Pmax*)

Size of Reduction Sum of curtailment MW excluding Ambient due to Temp (if modeled)

r Resource

S RA Season

i Derate or outage event *i*

²⁵ Forced Outage Hours during demand should be represented in decimals for the percent of the hour the outage lasted. For example, if the outage lasted 40 minutes and it was a demand hour then the $FOHd_{r,S,i}$ for that resource, Season, and event-hour would be 0.66667. If the outage was 60 minutes than $FOHd_{r,S,i}$ is 1.0.

²⁶ Similarly, Derating Hours during demand represents the derate where derated hours will have a reduction at less than the NMC for that month. The DHD_i for that resource, Season, and event-hour is what the percent of the Net Maximum Capacity was the MW reduction weighted by the length of the derate. For example, if derate lasted 30 minutes than DHD_i is 50% rather than 1.

It appears Energy Division's formulation discussed in November 2025 workshop that its formula is integrating outage hours and derating hours in a single formulation and arrives at the same output as the proposed formula.

Staff will use the best three out of four years for the EFORd calculations where the best three out of four years could differ by parameter. The rationale is while some outages may be correlated across the storage resource or storage components, some outages may not be correlated between Pmax and the Maximum Continuous Energy Limits. The worst year out of the prior four should be a representation of that parameter's reliability. Some storage may have more reliable output operations than Operational Available Energy or vice versa.

For new resources, Staff should apply a transition approach that uses the class average for each year without operational data until the resource transitions to a fully resource-specific value.²⁷ Similarly, if there is missing data for other reasons, a class average for that time period could be used.

Vistra proposes that the Commission define what outage types qualify as unplanned (forced) outages in the EFORd calculations. At a high level, outages included in the EFORd calculation should be for reduction in output or capacity or removal from service, in whole or in part, of a generating unit by reason of an Emergency or Emergency risk, unanticipated failure, or other cause beyond the control of the owner or operator of the facility. Outage causes that are driven by systemic conditions outside of the Generator Owner's control should not be captured in

²⁷ For example, resource coming online in 2028 should use class-average EFORd values. For 2029, the resources EFORd should use its resource-specific EFORd for 2028 and the class-average values for 2025-2027 taking the best three of the four. For 2030, 2029-2028 resource-specific values and 2026-2027 class-average values should be used taking the best three years of the four.

UCAP values but should remain risks within the planning reserve margin. Additional clarifications on the principles are provided below.

- For dispatchable thermal resources, ambient impacts should be captured through the Ambient due to Temperature outage card, not through modelling. If an ambient derate model is instead adopted in the final framework, then the Ambient not due to Temperature outage cards should be excluded from the EFORd calculation.
- For storage resources, outages that may have been submitted to reflect insufficient Operational Available Energy for reasons outside of equipment failures should be excluded. The storage charging sufficiency tests that already test for sufficient charging energy and paired resource storage components should be specifying whether they have grid charging constraints. Refinements of these tests should be pursued if needed.
- All outages due to plant equipment failures should be included in the EFORd calculations including unplanned (forced) outages on Maximum Operating Limit (Pmax), Maximum Continuous Energy Limit, and Minimum Continuous Energy Limit.
- Outages that do not clearly constitute equipment failure or insufficient charging supply should be assessed based on whether the outage is within the operator's control.

Below reflects an initial mapping of Nature of Work categories that meet the principles proposed above.

Table 3: Forced Outage Nature of Work Included in EFORd

Nature of Work Category	Rationale
Ambient due to Temp	Ambient impacts should be included in EFORd if the ambient derate modeling is not adopted, otherwise excluding from EFORd and establishing ambient impacts is more robust approach.
Plant Trouble	Equipment failure or imminent equipment failures
Power System Stabilizer	Equipment out-of-service status for generator equipment
AVR/Exciter	Equipment out-of-service status for generator equipment
Ambient due to Fuel Insufficiency	Actions could be taken to firm up fuel supply or transport but were not taken. Due to insufficient fuel availability for reasons other than Ambient not due to Temp used for gas-electric coordination per CAISO Operating Procedure 4120.
Environmental Restrictions	Generator owner may be able to invest in Best Available Control Technology to loosen regulatory environmental restrictions.
Annual Use Limit Reached	Other outages in the control of the operator because they are supposed to coordinate managing use limit, seek opportunity costs, and use short-term use limit reached to make sure they limit uses if it is at risk.
Monthly Use Limit Reached	
Other Use Limit Reached	

The remaining nature of works at CAISO either (1) do not apply to the CAISO Balancing Authority Area resources, (2) do not apply to resources the CAISO can control in a Metered Sub-System, (3) are not actual resource outages but rather technical limitations that the CAISO is aware of that would otherwise require out-of-market actions to manage, (4) are for services provided to the grid, (5) are outages that the market operator wants to incentivize be used for resources nearing use limitations or needing a fatigue break if Demand Response, and (6) are for communication or visibility equipment outages that do not limit manual operations to the grid. Finally, the Commission should adopt a process to allow for a consultation between RA suppliers, Commission Staff, and CAISO to validate their resource-specific values are accurate representations of their forced capacity. Including a consultation process will best address the data quality issues, if any arise, with using OMS as the single, public data source as well as allow confidential discussions to address outliers or missing data concerns. It should occur between

Staff publishing preliminary resource-specific EFORd values and the final resource-specific EFORd values. The consultation process will allow suppliers to identify if there are any data issues or other factors that need to be considered.

D. Implementation Timeline

Vistra proposes the following process and timeline for incorporating unforced capacity into the Slice-of-Day showing tool for assessing RA compliance:

- June 2025: “The Commission targets the 2028 RA compliance year as the implementation year for a UCAP framework. In addition to publishing preliminary resource-specific and class average UCAP values, we authorize Energy Division to publish estimated impacts to the PRM without a forced outage rate in advance of adopting a final UCAP framework. Energy Division is authorized to hold a workshop with stakeholders on its refined UCAP proposal before the end of 2025.”²⁸ Vistra proposes that the target date be refined to make the two new QC values effective after 2028 Loss of Load Expectation study can incorporate the new UCAP values.
- Q1 2025 – Q1 2026: The Commission Staff held UCAP workshops in November 2025 and will hold one in February 2026.
- Q2 2026: Commission decision on final UCAP methodology framework for 2028 compliance year.
- Q3 2026: Establishing preliminary resource-specific EFORd rates impacting applicable operating parameters for the resource-specific calculations for $P_{maxRA_{UCAP}}$. Suppliers should be allowed to appeal any initial EFORd values and the resulting UCAP calculations so they can provide resource-specific information to

²⁸ D.25-06-048 at Page 51.

- the Energy Division and CAISO to validate its resource-specific value. By end of 2026, suppliers will have completed and received the results of any appeal for resource-specific values to be reviewed by Commission Staff.
- Q1 2027: CPUC Staff should publish updated final EFORD values for the applicable operating parameters across Maximum Continuous Energy Limit, Minimum Continuous Energy Limit, and Maximum Operating Limit and the resulting $PmaxRA_{UCAP}$ for each operating parameter.
 - August 2027: CAISO publishes the draft NQC list the second week of August each year and confirms a final NQC list for the annual showings.²⁹ The draft and final NQC list will publish NQC based on $Pmax_{RA}$.
 - Last business day of October 2027: LSE and RA suppliers submit their annual RA Plan and Supply Plans to the CAISO for the 2028 compliance year with its $Pmax_{RA}$. LSEs submit their SOD showings to the CPUC with the $PmaxRA_{UCAP}$ values associated with the shown $Pmax_{RA}$. ICAP values will be used for local and flexible assessments while UCAP values should be used in the SOD showings.
 - 2028 compliance year and beyond: Thermal, storage, hybrid, and co-located assets will have their $Pmax_{RA}$ (i.e., NQC) in ICAP terms and their EFORD and resulting UCAP capacity value - $PmaxRA_{UCAP}$ updated on a recurring basis.

²⁹ CAISO Business Practice Manual, Reliability Requirements, Attachment A, Exhibit A-1, https://bpmcm.caiso.com/BPM%20Document%20Library/Reliability%20Requirements/BPM%20for%20Reliability%20Requirements%20Version%2074_redline.pdf.

CONCLUSION

Vistra respectfully submits its Track 1 Proposal pursuant to the Scoping Memo to address accreditation for energy storage so that the storage QC rules differentiate between LDES and SDES appropriately under Scope Item 3 and to establish a UCAP framework to consider in adopting a final UCAP methodology framework under Scope Item 4. We respectfully request consideration of Vistra's Proposal.

DATED: January 23, 2026

By: /s/ Cathleen Colbert
VISTRA CORP.

Cathleen Colbert
Senior Director, Western Markets Policy
325 7th Street NW, Suite 520
Washington, DC 20004
Telephone: (412) 720-7016
Email: cathleen.colbert@vistracorp.com

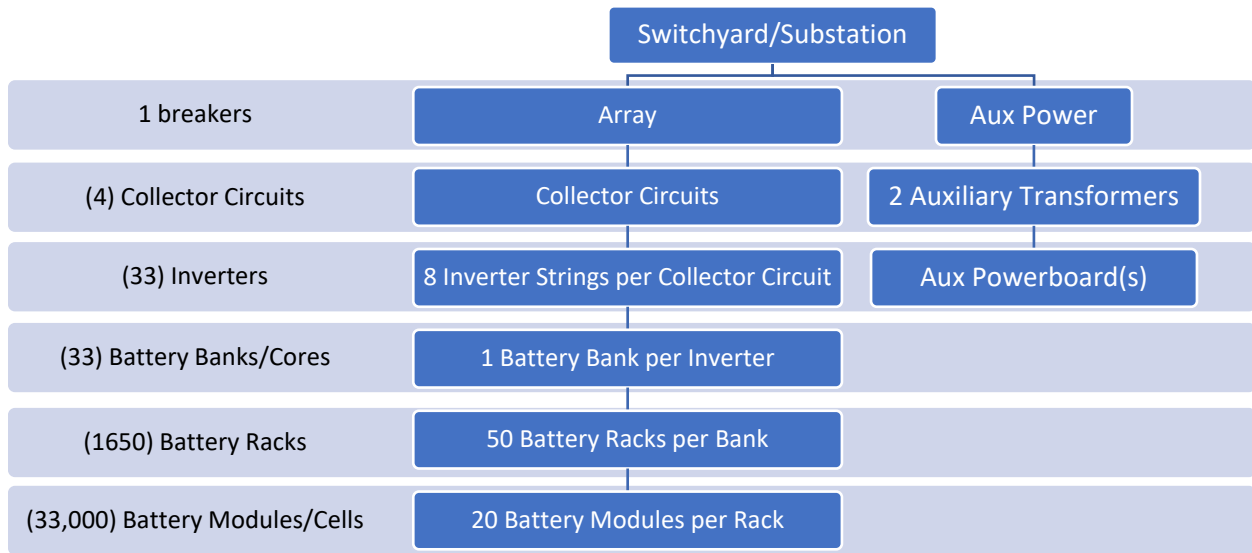
ATTACHMENT A: STORAGE OUTAGE EXAMPLES

This attachment provides detailed background material on various energy storage operating parameters and several energy storage outage scenarios that impact those operating parameters. For each outage scenario, this attachment identifies a best-fit Nature of Work outage classification. The following are brief descriptions of outages due to equipment failure that can affect the Maximum Continuous Energy Limit, Minimum Continuous Energy Limit, Maximum Operating Limit, or Minimum Operating Limit. For purposes of this document Load Max is the OMS name for Pmin, Availability is the OMS name for Pmax, Max Energy is the OMS name for Maximum Continuous Energy Limit, and Min Energy is the OMS name for Minimum Continuous Energy Limit.

I. Background

The basics related to the configuration of lithium-ion storage resources which utilize inverters and battery energy storage systems composed of banks, racks, and modules is useful to understand the opportunities for operational system improvements related to outage reporting. A single inverter string generally represents roughly 3 MW of capacity and 15 MWh of stored energy capability. A single inverter can be thought of as a component node representing the 3 MW and 15 MWh of capability where the combination of ~33 inverters operating simultaneously at full functionality results in a 100 MW / 400 MWh energy storage resource. The inverter controls the ability to operate a single bank, also called core, within which there are roughly between 40-50 racks that hold roughly 20-25 modules, also called cells, per rack. The figure below provides an illustrative example of a storage resource configuration to help visualize the outage examples discussed in the following sections.

Figure 1. Illustrative 100 MW / 400 MWh energy storage resource configuration with overbuild



II. Storage outage scenarios

Storage resources are regularly affected by capability changes to their Ancillary Services (AS) Availability, Availability, Load Max, Max Energy and Min Energy capabilities due to a range of outage causes some that are design characteristics not currently in the market model (e.g., foldback) and others are unique outage types specific to storage resources including component-level outages such as inverter outages or battery modules or rack outages. Similar to all resources, storage resources can also be affected by plant wide outages that can change their capability, while still being affected by existing component-level outages. Details on each type of outage are provided below.

A. Foldback design characteristic

Parameters Impacted: P_{max} , P_{min}

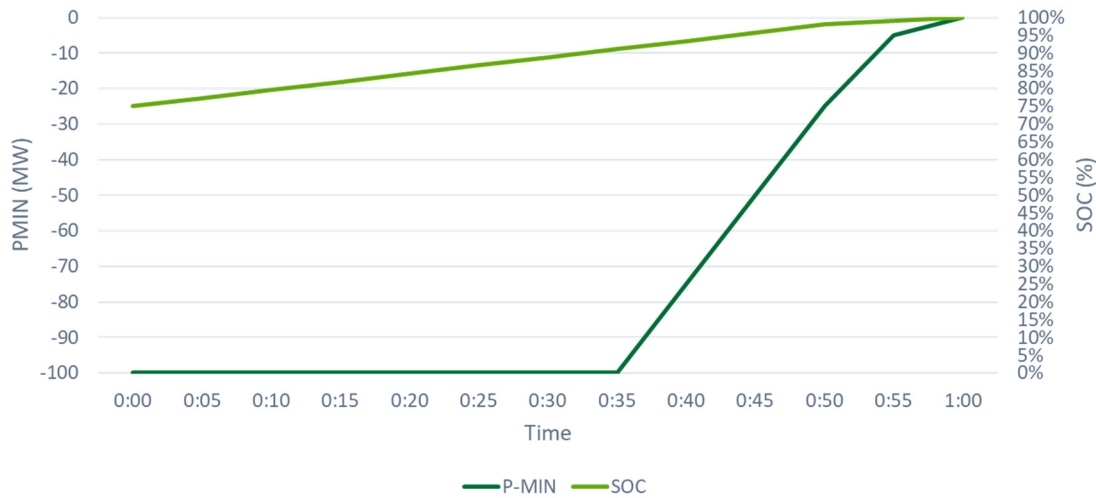
Best Nature of Work (NoW) Category³⁰: Technical Limitations not in Market Model

³⁰ CAISO Business Practice Manual (BPM) for Outage Management Section 3.4 Nature of Work Attributes for Generation Outages provides the table of categories which can be selected when submitting an outage card.

CAISO Nature of Work Category Proposed: Plant Trouble

Engineering phenomena when energy storage is at either high or low state of charge, the charging or discharging current must be limited to ensure the operating limits of the equipment are not exceeded. It is important to recognize foldback is expected operations where the unit is unavailable due to technical limitations not captured in the CAISO market model because its Load Max (i.e., Pmin) and Availability (i.e., Pmax) is a function of its state of charge by design and it is not captured in the Master File to allow the physical parameters to be included in the market model. Consequently, the market could result in infeasible dispatches for storage situated within this region on an extended basis because the dispatches are inconsistent with the resource's design capabilities (foldback), which in part is mitigated through outage cards. Outage cards are used to reflect the reduction of its Load Max or Availability capabilities when at a high or low State of Charge (SOC) level respectively for reductions that last 15 minutes or longer per Section 4.1 of the Outage Management BPM. The change in Load Max or Availability as a function of SOC is sloped where the reduction may be more severe on the Load Max side than the Availability side. In the illustrative example below, the Load Max reductions begin and accelerate rapidly to 0 MW beginning around 90% of its Maximum State of Charge, and a similar pattern would appear at a less severe reduction rate for the Availability beginning generally around 10% of its Maximum State of Charge.

Figure 2. Foldback illustrative example of Load Max reduction at high SOC



For a 100 MW / 400 MWh asset, generally operations between 40 MWh and 360 MWh (between 10% - 90%) will not be affected by foldback. However, on stressed days operating into the outer bounds of the State of Charge at less than 40 MWh or more than 360 MWh, foldback must be appropriately considered. Based on the current CAISO market model, storage operators and the SC submit outage cards when the foldback impacts last 15 minutes or longer. Market dispatches will only result in feasible dispatches and reliable outcomes if the Load Max and Availability capabilities are reflected with as minimal delay as possible as the storage resource operates into these outer bounds of its State of Charge.

B. Inverter outage

Parameters Impacted: Maximum Continuous Energy Limit, Pmax, Pmin

Best Nature of Work (NoW): Plant Trouble

Using the above illustrative storage resource configuration, any of the 33 inverters may incur an outage one at a time or in various combinations. Storage operators are not able to forecast when, how many, or whether an inverter outage will result in full reduction or partial reduction in inverter capability. Additionally, it is uncertain when the inverter(s) can be returned to service

once an outage occurs. Using the above example, a 100 MW / 400 MWh resource with 33 inverters could reasonably have 30% of the inverters (10 inverters) either completely out or operating at reduced capability, amounting to roughly approximately 30 MW and 150 MWh of curtailment MW associated with the unit. For a 30% inverter failure rate, the storage would have an actual capability of 70 Pmax (Availability), -70 MW (Load Max) and 250 MWh Max Energy Limits. It is possible that at least 3 inverters may have issues resulting in ~10 MW reduction to Availability and Load Max and 45 MWh reductions to Max Energy and Min Energy. This would result in actual capability of 90 Pmax (Availability), -90 MW (Load Max) and 355 MWh Max Energy Limits. As the inverters go out of and back into service at an unknown point in time, the actual capability fluctuates throughout the day and storage operators and SC submit outage cards to reflect the changing capabilities.

C. Rack outage

Parameters Impacted: Minimum Continuous Energy Limit, Maximum Continuous Energy Limit, Pmax, or Pmin

Best Nature of Work (NoW): Plant Trouble

As a storage resource operates, there are instances when racks (or cells) disconnect from the rest of the operating bank. One common cause of this is due to racks being out of balance with other racks within the bank. If 46 out of the 50 racks within the bank representing roughly 3 MW and 15 MWh hold significantly different levels of State of Charge (SOC) from the majority of the racks within the bank, then the out of balance racks or cells may disconnect from the bank and reduce the MW and MWh capability.

Storage operators must restore the bank to a similar SOC level to those racks that disconnected to allow for the disconnected racks to reconnect to the bank and return to operation. If for example

46 of the 50 racks are in balance at roughly 80% SOC and 2 racks are operating at 60% SOC and 2 racks are holding 90% of SOC, then the four racks out of balance will disconnect. The bank will need to rebalance the racks by bringing the 46 operating racks to 60% SOC by discharging and then the 2 racks at 60% SOC will reconnect with the rest of the racks. In this example, assume the storage resource performed this step and now 48 racks are in balance and now it needs to reconnect the 2 out of balance racks that are holding at 90% SOC. The bank must rebalance the 2 racks by bringing the now 48 operating racks to 90% SOC by charging and then the 2 racks at 90% will reconnect with the rest of the racks. The bank is now balanced, and all racks and cells are connected³¹.

If the market dispatches are not sufficient to bring the racks within the bank(s) back into balance, then an outage to allow storage operator to reflect the reduced Operational Available Energy both on the Minimum Continuous Energy Limit or the Maximum Continuous Energy Limit as well as combination of outages or self-schedules to for increasing or decreasing the SOC outside of market participation is needed to facilitate rebalancing to allow the resource to return to its full capabilities.

D. Full plant outage

Parameters Impacted: Minimum Continuous Energy Limit, Maximum Continuous Energy

Limit, Pmax, Pmin

Best Nature of Work (NoW): Plant Trouble

As with any other generating resource, the entire storage resource can become unavailable for various reasons. One cause could be the need to manage safety at the resource or neighboring

³¹ This example was given for racks; however, this can also occur if cells within a single rack are at SOC levels within each cell are out of balance with the other cells in the same rack. In most instances, cells out of balance would not require an outage card since the availability impacts are minimal.

sites in response to credible risks of imminent failure due to safety concerns. Other causes could include control system(s) failures, at the array level, or transformer failures, or electrical phenomena (lightning) resulting in entire transmission substation failure. A full plant outage results in the entire resource being unavailable, including the ancillary services. These outages fully remove all capabilities and as such mechanisms to facilitate clear communication to operations would make it clearer when there is a full outage. Further, this outage type is one that, when it occurs, needs to overlap an existing outage which may be active related to the previously discussed situations: foldback, inverter, cell, or rack outages. Once the full plant outage is resolved and the resource returns to service, these prior outages related to foldback, inverter, and rack outages will generally not have changed, and those outages will need to be in effect when the full plant outage issue is resolved.

E. Derated Unit

Parameters Impacted: Maximum Continuous Energy Limit

Best Nature of Work (NoW): Plant Trouble

Energy storage resources may face outages on their Maximum Continuous Energy Limit if the maximum level of continuous stored energy needs to be limited for various reasons such as instructions to maintain operations below maximum SOC level by manufacturer or due to engineering studies.