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STATE OF CALIFORNIA

Energy Resources Conservation and Development Commission

In the Matter of:

Opt-In Application for the CORBY BATTERY ENERGY STORAGE PROJECT

DOCKET NO: 14-OPT-05

North Bay Interconnect, LLC and Corby Energy Storage, LLC Proposed Revisions to Conditions of Certification WORKER SAFETY- 7, 8 and 9 Proposed by CEC Staff in the Darden Clean Energy Project Revised Staff Assessment

North Bay Interconnect, LLC and Corby Energy Storage, LLC (Applicant) files these proposed revisions to Conditions of Certification WORKER SAFETY-7, 8 and 9 proposed by Staff in the Darden Clean Energy Project Revised Final Staff Assessment (TN–263053) (Darden Fire COCs). The purpose of this filing is to provide Staff with relevant feedback and suggested revisions to the Darden Fire COCs that we propose be included in the Corby Battery Energy Storage Project (Project).

Applicant is in complete agreement with Staff that the Project should be constructed in accordance with all applicable codes to prevent fire. To that end, Applicant agrees with most of the requirements contained in the Darden Fire COCs. Below is our suggested modification to each of the Darden Fire COCs followed by our detailed reasoning for each.

PROPOSED REVISIONS TO WORKER SAFETY-7

WORKER SAFETY-7 The project owner shall do the following at the BESS facility:

- Require that the lithium-ion batteries be shipped from the factory to the project site at a maximum of 30 percent State of Charge (SOC);
- b. Provide that fire lanes exist <u>within the site down the length and</u> width of the BESS units wide enough to allow for fire engine accessin accordance with California Fire Code Section 503;
- Provide at least two gates into the BESS facility wide enough for emergency access;
- d. Install remote fire or heat sensors at sufficient locations to cover the entire BESS facility (e.g., temperature sensors, thermal infrared, or other heat detection devices);
- d.e. Provide fire water flow of at least 1,500 gallons per minute;
- e.f. Install closed-circuit television (CCTV) cameras with Pan, Tilt, Zoom (PTZ), and low-light capability that cover the entire area of the BESS and which would have their own separate power supply as long as not inconsistent or in violation of FERC standards;
- f.g. Establish a Command and Control Protocol in accordance with the Emergency Response Plan for staff to perform emergency duties and responsibilities during the detection, initiation, and escalation of a BESS fire;
- g.h. Establish remote telemetry and CCTV viewing <u>available</u> to the <u>Incident Commander</u> in a Command and Control Center located at a safe distance from the BESS facility for an <u>Incident Commander to use</u>, <u>as long as not inconsistent or in violation of FERC standards</u>;
- h.i. Establish an annual joint training program with the <u>Dixon</u> FCFPD that includes table- top exercises for a BESS fire;
- i.—j. <u>Provide copies of any information submitted to the CPUC</u> pursuant to General Order 167 c Prepare and submit a Root

Cause analysis of any incident at the BESS facility (including but not limited to fire, malfunction, leak, or thermal runaway of any cell, module, or unit) to the CPM;

- k. Consult with the <u>Dixon</u>FCFPD in preparing the fire protection system specifications and drawings for the <u>Control</u>
 <u>EnclosureOperations and Maintenance Building</u>to ensure anadequate water supply for the fire suppression systems for the BESS facility as well as for occupied buildings; and
- I. Implement the final provisions of CPUC GO 167-C.

Verification: At least 60 days prior to the start of construction, the project owner shall provide all the information required above (with the exception of k) to the <u>Dixon FCFPD</u> for review and comment, to the CPM for review and approval, and to the DCBO for plan check approval and construction inspection.

Within 10 days of an incident at the BESS facility (including but not limited to fire, malfunction, leak, or thermal runaway of any cell, module, or unit) the project owner shall notify the CPM of all compliance activities required by CPUC 167 c and provide any information submitted to the CPUC to the CPM that a Root Cause Analysis (RCA) is being prepared. The project owner shall work with the CPM to determine a submission date for the completed RCA. The RCA shall be submitted to the FCFPD for review and comment, and to the CPM for review and approval.

Section b., Fire Lanes

Section b. as currently written would require the Project to construct roads to each individual BESS unit wide enough to fit a fire engine. The site has been designed with fire access roads to permit overall safety and in accordance with CFC Section 503.

As discussed in more detail below, in practical application, during a thermal runaway incident, it is neither safe nor standard procedure for fire engines to approach a burning BESS unit. Instead, our emergency response plans advise allowing the BESS to burn and consume itself, while being monitored from a safe distance by first responders. This approach is recommended to ensure the safety of emergency personnel and is supported by established safety protocols.

For this reason, we have modified Section b. to require that the site roads comply with CFC Section 503.

Section d, Remote Heat Sensors

We agree that remote heat sensors in combination with other remote monitoring devices are an essential part of the fire prevention and response plans and consistent with NFPA 72. The purpose of the proposed modifications outlined above is to clarify that listing of thermal infrared in the condition does not mean that it is the only option for providing appropriate sensing devices.

The current design of the BESS includes a SCADA (Supervisory Control and Data Acquisition) System and BMS (Battery Management System) system. All detections are monitored continuously by our 24/7/365 remote operational control center. This setup guarantees real-time monitoring and immediate response to any fire or smoke incident, ensuring optimal safety and data available to the incident commander during an emergency event. In the event that the incident commander is not project owner personnel, the information will be provided to the incident commander by project owner personnel sufficiently trained to access the SCADA/BMS system remotely.

The BMS/SCADA: system includes the following features:

- Continuously monitors critical operating parameters such as voltage, current, and temperature.
- Detects anomalies providing early warning signs of potential battery failure.
- Rapidly disconnects any problematic battery to prevent escalation.
- Prior to operation, controls and monitoring mechanisms for all battery systems are established.
- Enables screening millions of data points per second to detect behavioral changes in batteries.
- Identifies slower changes that might suggest maintenance or replacement needs.
- It is equipped with combination smoke/fire and combustible gas monitoring tools to alert of events.
- Provides insights on risks before approaching any system with issues.

The systems also includes a human-machine interface (HMI) in the site control enclosure that provides significantly greater telemetry than would be obtained by a site

fire panel, as it has access to the full fire alarm signaling as well as the status of the BESS, including voltage and temperatures. Each container is equipped with a horn and strobe that will activate in the event of smoke, fire, or gas detection, so it will be extremely easy to identify which container is experiencing the event and to monitor surrounding containers.

The CEC Staff cite as an example of the use of remote sensing devices by an incident commander in the response to the Elkhorn Tesla Megapack fire. An incident commander would be provided information by project owner personnel from the system through the control house or through a remote connection to the SCADA/BMS system and have real-time data available to respond to a fire at the Project.

Sections f and h, CCTV and Remote Access

Applicant agrees to these requirements but has added language to the condition to ensure that providing the CCTV and remote access would not be inconsistent with or violate FERC requirements and that the information would be provided to an incident commander.

Section g, Command and Control Plan

This provision was modified to avoid confusion by ensuring that the Command and Control Plan is consistent with the Emergency Response Plan for the Project.

<u>Sections i and k, Fire District Coordination</u>

The modifications to these sections are simply to refer to the Dixon Fire District instead of FCFPD.

Section j, Root Cause Analysis

This section has been modified to be consistent with CPUC GO 167 c to avoid any inconsistencies in reporting requirements.

Verification

The verification section was modified to be consistent with the modifications proposed to the requirements in the condition discussed above.

PROPOSED REVISIONS TO WORKER SAFETY-8 and 9

WORKER SAFETY-8 The project owner shall adhere to all applicable provisions of the latest version of NFPA 855: Standard for the Installation of Stationary Energy Storage Systems, as the minimum level of safety for the BESS. The project owner shall interpret and adhere to all applicable NFPA 855 recommended provisions and actions stating "should" as "shall." In any situations where both NFPA 855 and the state or local LORS have application, the more restrictive shall apply.

Verification: The project owner shall ensure that the project adheres to all applicable provisions of NFPA 855. At least 90 days prior to the start of construction of the BESS, the project owner shall provide all system specifications and design drawings to the Dixon_FCFPD for review and comment, to the CPM for review and approval, and to the DCBO for plan check approval and construction inspection.

WORKER SAFETY-9 The project owner shall adhere to all applicable provisions of the latest version of NFPA 850: Recommended Practice for Fire Protection for Electric Generating Plants and High Voltage Direct Current Converter Stations, as the minimum level of fire protection. The project owner shall interpret and adhere to all applicable NFPA 850 recommended provisions and actions stating "should" as "shall." In any situations where both NFPA 850 and the state or local LORS have application, the more restrictive shall apply.

Verification: The project owner shall ensure that the project adheres to all applicable provisions of NFPA 850. At least 90 days prior to the start of construction of the fire protection system, the project owner shall provide all fire protection system specifications and drawings to the Dixon_FCFPD for review and comment, to the CPM for review and approval, and to the DCBO for plan check approval and construction inspection.

We understand the tendency and desire to require all recommendations be incorporated into a project to ensure it is safe and reliable, and protects workers, first responders and the public. However, simply requiring an existing set of codes designed to provide that protection to include all recommendations ("should statements") as requirements ("shall statements") does not achieve that objective. In fact such a blanket approach would impose mandatory requirements that could have unintended consequences for local fire departments, potentially undermining their autonomy and operational effectiveness.

First it is important to note that the main body of NFPA 855 (2023) does not include any "should" recommendations. They are included in the Annex portions of the section. For example, in NFPA 855 (2023)

For example:

Sections C.6 and C.7.3 would mandate the use of SCBA during all fire and post-fire events, regardless of the environment's conditions. This strict requirement may increase the strain on firefighters and exhaust resources unnecessarily when the environment is not an IDLH.

Section C.1.1 would require fire departments to develop pre-incident plans for various emergency scenarios, including fires and explosions. While pre-incident planning is a best practice and highly encouraged, we cannot dictate how local fire departments develop pre-incident plans. Mandating such plans could infringe on their operational discretion.

Sections C.4.2 and C.6 address fire and air monitoring, which include steps to isolate the system. Our standard practice discourages local fire departments from engaging directly with the units, suggesting instead that shutdowns should be controlled remotely at the ROCC. Mandating these steps could lead to unnecessary interventions by local fire departments, potentially increasing risks and complications.

We look forward to meeting with Staff to discuss these proposed changes to assist in advancing the project to completion and facilitating Staff's fire-related compliance concerns.

Dated: May 23, 2025

Respectfully Submitted,

Scott A. Galati

Counsel to North Bay Interconnect, LLC and

Corby Energy Storage, LLC