

<b>DOCKETED</b>	
<b>Docket Number:</b>	01-EP-14C
<b>Project Title:</b>	Border Project - Compliance
<b>TN #:</b>	247970
<b>Document Title:</b>	Memo - Border Project - Border BESS Petition to Amend - Corrected Staff Analysis
<b>Description:</b>	*** This Document Supersedes TN 247483 *** - Border Project - Border BESS Petition to Amend - Corrected Staff Analysis
<b>Filer:</b>	Mary Dyas
<b>Organization:</b>	California Energy Commission
<b>Submitter Role:</b>	Commission Staff
<b>Submission Date:</b>	12/7/2022 12:24:36 PM
<b>Docketed Date:</b>	12/7/2022



**DATE:** November 16, 2022

**TO:** Interested Parties

**FROM:** Mary Dyas, Compliance Project Manager

**SUBJECT: **Border Project (01-EP-14C)****  
**CEC Staff Analysis of Petition to Amend the Final Commission Decision**

On August 19, 2022, CalPeak Power Border LLC on behalf of Hermes BESS LLC (BESS project owner) filed a petition for a post-certification change (TN# [245506-1](#) and [245506-2](#)) with the California Energy Commission (CEC) for the Border Project. The project owner is seeking approval to modify the Border Project by implementing a 52-megawatt (MW) battery energy storage system (BESS) project on the existing Border Project parcel. The project will be known as the Border BESS Project (Border BESS).

The Border Project is a 49.5-MW simple-cycle, natural gas-fired peaking facility that was certified by the CEC on July 11, 2001 and began commercial operation on October 26, 2001. The facility is located on Otay Mesa at 2060 Sanyo Avenue in San Diego, San Diego County.

### **Description of Proposed Change**

The project owner is requesting the following:

1. An amendment to the CEC Final Decision (Decision) for the Border Project to change the project description to include the interconnection of the Border BESS at the low side of the existing generator step-up unit/main power transformer (GSU) and the use of the common facilities.
2. An amendment to the Decision identifying Hermes BESS LLC as the party that will have legal responsibility for the operation of the Border BESS and will be the responsible party for compliance with the CEC conditions of certification and applicable laws, ordinances, regulations, and standards (LORS) for the Border BESS Project.

## CEC Staff Review and Conclusions

California Code of Regulations, title 20, section 1769 requires a project owner to petition the CEC for the approval of any change the project owner proposes to the project, design, operation, or performance requirements of a certified facility.

Consistent with the California Code of Regulations, title 20, section 1769, the CEC staff (staff) has reviewed the petition for potential environmental effects and consistency with LORS. Based on staff's analysis, contained below, staff has concluded that the proposed changes to the Border Project would not have a significant effect on the environment, or cause the project to fail to comply with any applicable LORS, with the adoption of new or modified conditions of certification in the areas of Cultural Resources, Transmission System Engineering, and Worker Safety and Fire Protection. Consistent with California Code of Regulations, title 20, section 1769(a)(4), staff is bringing this petition to the Commission for approval.

Staff intends to recommend approval of the petition at the December 14, 2022 Business Meeting of the CEC.

The [CEC's project webpage](https://www.energy.ca.gov/powerplant/simple-cycle/border-project), <https://www.energy.ca.gov/powerplant/simple-cycle/border-project>, has a link to the petition and the Staff Analysis on the right side of the webpage in the box labeled "Compliance Proceeding." Click on the "[Docket Log \(01-EP-14C\)](#)" option. If approved, the CEC's Order approving this petition will also be available from the same webpage.

This letter has been mailed to the CEC's list of interested parties and property owners of all parcels within 500 feet of any affected project linears and 1,000 feet of the project site. It has also been emailed to the Border Project subscription list. The list is an automated CEC email system by which information about this facility is emailed to parties who have subscribed. To subscribe, go to the [CEC's project webpage](#), cited above, scroll down the right side of the project's webpage to the box labeled "Subscribe," and provide the requested contact information.

Any person may comment on the Staff Analysis. Those who wish to submit comments on the analysis prior to the CEC Business meeting may do so by using the CEC's electronic commenting feature. Go to the [CEC's project webpage](#) and click on either the "Comment on this Proceeding," or "[Submit e-Comment](#)" link. When your comments are filed, you will receive an email with a link to them.

Written comments may also be mailed or hand-delivered to:

California Energy Commission  
Docket Unit, MS-4  
Docket No. 01-EP-14C  
715 P Street  
Sacramento, CA 95814-5512

Comments will also be accepted during the scheduled business meeting. All comments and materials filed with the Dockets Unit will be added to the facility Docket Log and become publicly accessible on the [CEC's project webpage](#).

If you have questions about this notice, please contact Compliance Project Manager Mary Dyas, Safety and Reliability Office, Compliance Monitoring and Enforcement Unit, at (916) 628-5418 or via e-mail at [mary.dyas@energy.ca.gov](mailto:mary.dyas@energy.ca.gov).

For information on public participation, please contact the CEC's Office of Public Advisor, Energy Equity, and Tribal Affairs at (916) 957-7910 or email at [publicadvisor@energy.ca.gov](mailto:publicadvisor@energy.ca.gov).

News media inquiries should be directed to the CEC's Media Office at (916) 654-4989, or by e-mail to [mediaoffice@energy.ca.gov](mailto:mediaoffice@energy.ca.gov).

Mail List: 7417

Subscription List: Border Project, General Siting

**BORDER PROJECT (01-EP-14C)**  
**Petition to Amend Commission Decision**  
**STAFF ASSESSMENT**

# Table of Contents

Executive Summary.....	1
Cultural Resources .....	21
Transmission System Engineering .....	41
Worker Safety and Fire Protection.....	43



**BORDER PROJECT (01-EP-14C)**  
**Petition to Amend Commission Decision**  
**EXECUTIVE SUMMARY**  
MARY DYAS

## **INTRODUCTION**

---

On August 19, 2022, CalPeak Power Border LLC (Calpeak) on behalf of Hermes BESS LLC (BESS project owner) filed a post certification petition (TN# [245506-1](#) and [245506-2](#)) with the California Energy Commission (CEC) requesting to amend the Border Project CEC Final Decision (Decision). Staff has completed its review of all materials received.

The Border Project was licensed as a nominal 49.5 megawatt (MW) simple-cycle, natural gas-fired peaking facility utilizing one FT8 Pratt & Whitney Twinpac gas-fired turbine system consisting of two engines connected to a common generator and equipped with a selective catalytic reduction system to reduce project emissions.

The Border Project was certified by the CEC on July 11, 2001, and the facility began commercial operation on October 26, 2001. The facility is located on Otay Mesa at 2060 Sanyo Avenue in San Diego, San Diego County.

## **DESCRIPTION OF PROPOSED CHANGE(S)**

---

The project owner is seeking approval for:

1. An amendment to the CEC Final Decision (Decision) for the Border Project to change the project description to include the interconnection of the Border BESS at the low side of the existing generator step-up unit/main power transformer (GSU) and the use of the common facilities.
2. An amendment to the Decision identifying Hermes BESS LLC as the party that will have legal responsibility for the operation of the Border BESS and will be the responsible party for compliance with the CEC conditions of certification and applicable laws, ordinances, regulations, and standards (LORS) for the Border BESS Project.

The Border Project and BESS will be co-located on the same CEC-jurisdictional site. The entire Assessor Parcel No. 646-130-58 is owned by CalPeak Power-Border, LLC. A lease or easement will be provided to Hermes BESS LLC, which will own and operate the BESS within that same parcel. While the Border Project and BESS will have separate ownership and obligations under the conditions of certification, the two facilities will share some common infrastructure sufficient for the project to appropriately be subject to a petition for project change under California Code of Regulations, title 20, section 1769. Such integration includes the natural gas peaking plant and BESS sharing the generator step-up transformer, Gen-Tie, and a common point of interconnect with the



CAISO controlled/SDG&E owned transmission system. The proposed BESS project would not increase the output of the existing natural gas plant beyond the CEC licensed capacity and would not exceed the CAISO Aggregate Capability Constraint of 52 MW at the point of interconnection.

In addition, the battery system will be controlled by an Energy Management System controller, which will be connected to the existing Power Plant Control system at the Border Project. The direct current block Energy Management System will ramp up and down as directed by the natural gas plant's Power Plant Control system to not exceed 52 MW at the point of interconnection. Thus, operation of the Border BESS facility will be sufficiently integrated with the existing peaker plant such that an amendment to the existing certification to add the BESS is the appropriate process to modify the site previously certified by the CEC. CalPeak will remain responsible for the operations of the natural gas facility and will remain as the party responsible for compliance with the CEC conditions of certification and applicable LORS for the Border Project. The Hermes BESS LLC will have legal responsibility for the operation of the BESS and will be the responsible party for compliance with the CEC conditions of certification and applicable LORS for the BESS.

## **NECESSITY FOR THE PROPOSED CHANGE(S)**

---

As stated in the petition, the primary purpose and need for this amendment is in part to support California's current need for additional electrical energy storage available for dispatch during peak load demand time periods in the summer and to advance the State's and the California Public Utility Commission's policy of 60 percent renewable power by 2030 and 100 percent of total retail sales of electricity in California come from eligible renewable energy resources and zero-carbon resources by 2045 (Senate Bill 100).

## **CEC STAFF REVIEW AND CONCLUSION**

---

California Code of Regulations, title 20, section 1769 requires a project owner to petition the CEC for the approval of any change the project owner proposes to the project design, operation, or performance requirements of a certified facility.

The purpose of the CEC's review process is to assess whether the project changes proposed in the petition would have a significant impact on the environment or cause the project to not comply with applicable LORS (California Code of Regulations., title 20, section 1769).

Consistent with California Code of Regulations, title 20, section 1769, the CEC staff has reviewed the petition for potential environmental effects and consistency with applicable LORS. Based on the analysis below, staff concludes that the proposed

changes to the Border Project would not have a significant effect on the environment or cause the project to fail to comply with any applicable LORS, with the adoption of new or modified conditions of certification in the areas of Cultural Resources, Transmission System Engineering, and Worker Safety and Fire Protection.

Staff recommends the addition of Cultural Resource Conditions of Certification **CUL-2** through **CUL-9**, the modification of existing Transmission System Engineering Condition of Certification **TSE-1**, and the addition of Worker Safety and Fire Protection Conditions of Certification **WORKERSAFETY-2** through **WORKERSAFETY-4** to ensure the effects on the environment are less-than-significant. In addition, in Staff's Assessment below, staff notes the existing Border Project conditions of certification that also apply to the proposed BESS to ensure no significant effects on the environment and LORS compliance.

Staff concludes that none of the findings specified in California Code of Regulations, title 20, section 1748(b) apply to the proposed changes. Lastly, while the addition of the BESS changes the overall design of the facility and the structures on the site, staff concludes the proposed addition of the BESS and supporting onsite infrastructure does not meet any of the criteria requiring the production of subsequent or supplemental review pursuant to Public Resources Code, section 21166. The existing extensive framework of mitigation covering the original project along with some BESS specific conditions of certification address potential impacts from the construction and operations of the BESS.

## **STAFF'S ASSESSMENT OF THE PROPOSED PETITION**

---

Staff reviewed the petition for potential environmental effects and consistency with applicable LORS. Staff's assessment of the proposed changes considered the potential impacts to the population within the disadvantaged community, including the environmental justice population within a six-mile radius of the existing Border Project. Staff's conclusions for all technical and environmental areas are summarized in **Executive Summary Table 1.**



**Executive Summary Table 1  
Summary of Conclusions for all Technical and Environmental Areas**

Technical Areas Reviewed	CEQA				Conforms with applicable LORS
	Potentially Significant Impact	Less-than-significant Impact with Mitigation (with Revised or New COCs)	Less-than-significant Impact (with or without Existing COCs)	No Impact	
Air Quality			X		X
Biological Resources			X		X
Cultural Resources		X			X
Efficiency				X	
Facility Design					X
Geological and Paleontological Resources			X		X
Hazardous Materials Management			X		X
Land Use			X		X
Noise and Vibration			X		X
Public Health			X		X
Reliability					
Socioeconomics			X		
Soil and Water Resources			X		X
Traffic and Transportation			X		X
Transmission Line Safety and Nuisance			X		X
Transmission System Engineering		X			X
Visual Resources			X		X
Waste Management			X		X
Worker Safety and Fire Protection		X			X

Areas shown in gray are not subject to CEQA consideration or have no applicable LORS the project must comply with.



For the technical areas of Cultural Resources, Transmission System Engineering, and Worker Safety and Fire Protection, staff has proposed new or revised conditions of certification. With the addition of new Conditions of Certification **CUL-2** through **CUL-9**, revised Condition of Certification **TSE-1**, and new Worker Safety and Fire Protection Conditions of Certification **WORKER SAFETY-2** through **WORKER SAFETY-4**, the project would not have a significant effect on the environment and would continue to comply with all applicable LORS. The details of the proposed revisions and additional conditions of certification can be found under the Cultural Resources, Transmission System Engineering and Worker Safety and Fire Protection sections in this Staff Analysis.

For the remaining environmental and technical areas, staff has determined that the modified project would continue to comply with applicable LORS, and the project change would not result in any significant adverse environmental impacts or require a change to any existing conditions of certification that apply to this amendment.

The basis for each of the staff's conclusions are provided below:

## **AIR QUALITY**

Impacts to air quality and greenhouse gases are expected to continue to be less than significant with the implementation of the existing Air Quality conditions of certification in the Border Project Decision. The proposed addition of the BESS is expected to comply with all applicable LORS during construction and no new LORS related to air quality would be triggered during operation. Significant impacts to air quality are not expected from the short-term construction and installation of the BESS and its associated system. Therefore, there are no expected significant air quality impacts from the proposed amendment to any population, including any environmental justice population.

Construction emissions of criteria air pollutants and greenhouse gases include emissions generated by construction equipment used on-site and emissions generated by vehicle trips associated with construction, such as worker and truck delivery trips. Construction of the BESS is expected to occur over an approximately 8- to 9-month period. The BESS would be located on previously disturbed land that is actively maintained by weed abatement and grading. The closest sensitive receptor is a residence located approximately 2,500 feet from the project site.

Construction emission estimates are provided in Appendix C of the Petition to Amend. The emission estimates are well below the San Diego Pollution Control District's (SDAPCD) Air Quality Impact Analysis (AQIA) trigger levels for new, modified, or relocated stationary sources (SDAPCD Rules 20.1, 20.2, and 20.3). Although the trigger levels do not typically apply to construction activities, they can be used to identify sources with emissions that are not expected to cause or substantially contribute to violations of National and California Ambient Air Quality Standards (AAQS).

Because the emission estimates are well below the AQIA trigger levels, the project would be located on previously disturbed land, and the nearest sensitive receptor is located approximately 2,500 feet from the project site, installation of the BESS would result in less than significant impacts to air quality.

Existing Condition of Certification **AQ-1** would reduce fugitive dust emissions during construction by requiring the project owner to prepare a Construction Fugitive Dust Mitigation Plan that will specifically identify fugitive dust mitigation measures that will be employed during construction of the BESS.

To reduce emissions from equipment exhaust, the project owner has committed to using equipment equipped with at least Tier 4 Interim diesel engines for engines larger than 50 horsepower and electric engines for smaller equipment where feasible.

Operational greenhouse gas emissions would result primarily from BESS cooling system refrigerant leakage and amortized periodic maintenance activities. However, compliance with the City of San Diego's Climate Action Plan and the project's displacement of non-renewable electricity generating facilities during peak grid demand would result in the project having less than significant greenhouse gas-related impacts to the environment during operation.

## **BIOLOGICAL RESOURCES**

Construction activities for the proposed modification are expected to start around March of 2023 during the avian breeding season: January 1 through August 31. Nesting birds may use any of the trees, shrubs or ground cover that would be removed during construction or adjacent to construction activities. Therefore, construction activities have the potential to affect nesting birds. Pre-construction bird surveys and biological monitoring during construction per existing Conditions of Certification **BIO-1, BIO-5, and BIO-8** would ensure that any nesting birds are protected as well as any other wildlife. Design and management measures shall be followed per existing Conditions of Certification **BIO-4 and BIO-6**. Implementation of these Biological Resources conditions of certification in the Decision would ensure the proposed BESS would have less than significant impacts on biological resources and the project would comply with all applicable LORS.

## **CULTURAL RESOURCES**

The proposed modifications are not likely to create significant cultural resources impacts on the project site or in the vicinity of the project. There are no known cultural resources on the project site that could be impacted by the proposed project changes. The proposed installation areas have been surveyed for cultural resources (CEC 2001b, p.18; Rotella et al 2022, p.25). No cultural resources eligible for listing on the California Register of Historical Resources have been identified by those surveys. In the event that cultural resources might be encountered during the construction of the BESS and related facilities, implementation of the proposed Conditions of Certification **CUL-2** through **CUL-9**, would mitigate any potentially adverse impacts during construction and would ensure the project remains in conformance with San Diego Municipal Code, Land

Development Code, Historical Resources Guidelines regarding treatment of archaeological resources (San Diego 2001).

Conditions of Certification **CUL-2** through **CUL-9** applicable to this proposed project modification, were developed with the intent that, if cultural resources are encountered during construction, adequate measures are in place to mitigate any project-level impacts to less than significant.

Please see the Cultural Resources section of this document.

## **EFFICIENCY**

This petition to amend would not impact the thermal efficiency of the power plant, because the BESS portion of the power plant would not use thermal energy to produce electricity.

## **FACILITY DESIGN**

Installation of the BESS must be in accordance with the 2019 edition of the California Building Standards Code (CBSC), or to the 2022 edition of the CBSC if the initial engineering design drawings would be submitted to the CEC's delegate chief building official (DCBO) on January 1, 2023, or later. Implementation of the existing Facility Design conditions of certification adopted in the Border Project Decision and construction compliance oversight by the DCBO would ensure this compliance.

## **GEOLOGICAL AND PALEONTOLOGICAL RESOURCES**

The existing Border Project facilities occupy approximately 4.5 acres on the southwestern portion of the 10-acre Border Project property located along the west side of Sanyo Avenue, north of Airway Road. The planned BESS facilities would be located on an approximately 1.7-acre area east of the existing Border Project facilities. The past disturbance at the proposed BESS site has been associated with historical agricultural use, the development of the Border Project in the early 2000s, and annual mowing to control vegetation. The BESS project also would include the use of up to an additional 1.3 acres of the Border Project site for temporary construction laydown and construction personnel parking.

Construction of the proposed Border BESS project would require grading and excavation for site leveling, drainage control, and foundation construction on the BESS site and switchyard areas. The maximum cut depth is estimated at approximately 4 feet in the southeastern portion of the laydown area with an expected balanced earthwork cut-and-fill estimate of up to 5,000 cubic yards. Individual BESS enclosures and inverters would be supported on concrete pads (+/- 1.5-foot thick). If driven pile foundations are chosen during the final pad design in lieu of concrete pad foundations, it is estimated that eight, 15-foot long, H-frame driven piles would be required per BESS and inverter enclosure.

The 52-MW BESS would be connected to the SDG&E Border substation to the north by installing an approximately 90-foot long, 13.8-kV overhead line or underground



concrete cable trench from the BESS 13.8-kV switchyard to the existing generator step-up unit/main power transformer at the Border Project. The overhead 13.8-kV line option includes the installation of two, approximately 30-foot tall H-frame structures on concrete mat foundation pads each approximately five-feet-wide by 20 feet long by three feet deep. The underground cable option consists of multiple conductors installed in a concrete trench approximately 10-feet-wide by three feet deep across the Border Project perimeter access road and covered with steel plates to allow future access to the cables and crossing by vehicles.

The BESS project also would include the repair of the approximately 600-linear-foot access road between Sanyo Avenue and the Border Project entrance gate. The repair work includes the removal of the existing asphalt surface, reconstruction of the roadway subgrade, and repaving with asphalt concrete. It is expected that excess cut from the access road repair, installation of the 13.8 kV underground cable (if selected), and associated facility underground communication lines would be recycled and/or disposed of at an approved offsite location.

The original Application for Certification and conditions of certification for the Border Project did not address geological resources; however, the petition to amend states, “the project will conform to applicable LORS related to geological and paleontological resources.” Since the BESS project construction location and anticipated subsurface disturbance depths are similar to the Border Project, adverse impacts to sensitive paleontological resources would be avoided through compliance with the existing conditions of certification set forth in the Decision. The Decision requires standard Condition of Certification **PALEO-2** to address and avoid significant impacts to paleontological resources.

Therefore, with compliance with the existing LORS and Condition of Certification **PALEO-2**, impacts of the BESS project to geological or paleontological resources would be less than significant.

## **HAZARDOUS MATERIALS MANAGEMENT**

The proposed BESS would use lithium-ion batteries. The extensive regulatory framework that applies to the shipment of hazardous materials on California highways and road would ensure that the batteries would be delivered to the project site safely. The Hazardous Materials Business Plan and Risk Management Plan would be updated to include the new BESS per existing Condition of Certification **HAZ-2**. In addition, the batteries would be included on the list of hazardous materials contained at the site and reported in the annual compliance report per existing Condition of Certification **HAZ-1**.

## **LAND USE**

The Border BESS project is proposed in the City of San Diego on a site zoned Industrial-Light-2-1 (IL-2-1). This zoning designation allows a mix of light industrial, and office uses with limited commercial uses. To locate “energy generation and distribution facilities” in the IL-2-1 zone, approval of a Conditional Use Permit (CUP) by the City of San Diego would normally be required, if the CEC did not have licensing and permitting

jurisdiction over the project. Because the CEC has jurisdiction over the project, the CEC must ensure that the project complies with local LORS, including the City's required findings for approving a CUP. The project meets the City's required findings for a CUP, as detailed below.

City of San Diego's required findings for a CUP (Section 126.0305 of the San Diego Municipal Code):

1. The proposed development will not adversely affect the applicable land use plan<sup>1</sup>.

The General Plan land use designation for the project site is Industrial Employment. (See Table 2-3 in the Otay Mesa Community Plan.) The Otay Mesa Community Plan's more specific designation for the project site is "Light Industrial". (See Figure 1-3, "Otay Mesa Precise and Specific Plan Areas" in the Otay Mesa Community Plan.) The maximum allowed floor-area-ratio, or FAR, on the project site is 0.5. (See Table 2-3 in the Otay Mesa Community Plan.)

The BESS project does not conflict with any General Plan or Otay Mesa Community Plan policies, and it would support providing energy to the industrial uses in the area. The project FAR would be less than the maximum of 0.5.

2. The proposed development will not be detrimental to the public health, safety, and welfare.

The BESS project would not be detrimental to the public health, safety, and welfare. Staff found that impacts related to noise, hazards, public health, air quality, and soil and water would be less than significant.

3. The proposed development will comply with the regulations of the Land Development Code, including any allowable deviations pursuant to the Land Development Code.

The BESS project falls under the category "energy generation and distribution facilities", which is allowable in the IL-2-1 zone with issuance of a CUP. The project would also meet all required site setbacks in the IL-2-1 zone. There are no height regulations in this zone.

4. The proposed use is appropriate at the proposed location.

The proposed use is co-located on a site with another energy-related facility, the Border Project and is compatible with that use. The proposed use is compatible with its surroundings, which include industrial uses and vacant land. The low-profile project structures would not interfere with Brown Municipal Airport operations and would not require Federal Aviation Administration notification.

The proposed BESS project must comply with the original Land Use condition of certification, **LAND-1**, in the Decision.

With compliance with Condition of Certification **LAND-1**, the Border BESS would not physically divide an established community or cause a significant environmental impact due to a conflict with LORS adopted for the purpose of avoiding or mitigating an environmental effect. Further, the change would not result in the conversion of Farmland or forest land or conflicts with agricultural operations. Therefore, the project would have less-than-significant impacts to land use.

## **NOISE AND VIBRATION**

Construction work associated with this petition would be temporary and would occur during the daytime hours that are consistent with the local ordinance (City of San Diego Municipal Code 59.5.04). Any noise generated during these activities would result in a less-than-significant impact with implementation of the existing Noise conditions of certification in the Decision.

The project modifications, which include the addition of a 52-MW BESS, would not result in significant changes to the noise impacts during operations. The primary source of noise would be from the cooling system from the battery storage units and would be quieter than the existing noise sources on site. The batteries and inverters make very little noise and are fully enclosed.

Furthermore, the project would continue to meet operational noise requirements established in the Decision. Therefore, the changes in this petition would create a less-than-significant impact due to operational noise.

## **PUBLIC HEALTH**

Toxic air contaminant (TAC) emissions from the project would be limited to diesel particulate matter released during the construction phase, as normal operation of the BESS would release negligible TAC emissions. Because the nearest sensitive receptor is a residence approximately 2,500 feet northeast of the project and the owner has committed to using construction equipment with at least Tier 4 Interim diesel engines, the emissions from diesel construction equipment are expected to result in less-than-significant impacts on public health.

## **RELIABILITY**

The project modifications would not adversely impact the reliability of the Border Project. The addition of the 52-MW BESS would increase grid reliability by serving the transmission grid to which it is connected.

## **SOCIOECONOMICS**

Construction of the Border BESS at the existing Border Project would require an average workforce of 30 to 35 workers and a peak workforce of 40 to 50 workers. BESS construction would take approximately 8 to 9 months to complete with typical construction schedule of 7 am to 7 pm Monday through Saturday.

Operation of the Border BESS would require no permanent onsite staff. Periodic inspections and maintenance activities would occur, requiring a maintenance workforce of approximately 2 workers, 1 day a week. A chain-link fence would be installed for security. The BESS project facilities would also be protected by the existing security measures at the Border Project.

The project site is serviced by the San Diego Fire Department (SDFD). The primary concern of the SDFD is potential pressure buildup in BESS enclosures during an upset condition and how to relieve pressure during an emergency. The Border BESS project would use battery enclosures that are designed to relieve pressure from the top of the enclosure to minimize risk of lateral fire and explosion hazards. The SDFD hazardous material team has experience with BESS systems for large scale, commercial and residential systems.

There are no existing Socioeconomic conditions of certification for the Border Project. There would be less-than-significant workforce-related impacts on population, housing, and public services.

## **SOIL AND WATER**

The existing Broder Project facilities occupy approximately 4.5 acres on the southwestern portion of the property. The proposed BESS would be operated by Hermes BESS LLC by means of a lease from CalPeak and encompass approximately 1.7 acres east of the existing Border Project.

The past disturbance at the proposed BESS site has been associated with historical agricultural use, the development of the Border Project in the early 2000s, and annual mowing to control vegetation. The Border BESS project would also include an additional 1.3 acres of the CalPeak property to serve as a temporary construction laydown yard.

Construction of the proposed Border BESS project would require grading and excavation at both the BESS site and laydown area for site leveling and drainage control. Excavation would also be necessary during foundation construction at the BESS site. Excavation is estimated to reach a maximum depth of 4 feet and to generate approximately 5,000 cubic yards of soil. Excavation design is expected to balance earthwork cut-and-fill. The Border BESS project would also include the repair of the approximately 600 linear-foot access road between Sanyo Avenue and the Border Project entrance gate. The repair work would include removal of the existing asphalt surface, reconstruction of the roadway subgrade, and repaving with asphalt concrete. It is anticipated that excess soil generated during construction activities would be recycled and/or disposed of at an approved offsite location.

Water usage is anticipated at 5,000 gallons per day (gpd) for the first 2 to 3 months of site grading and 2,000 to 3,000 gpd during the remaining 8 months of construction. Water would be provided by either the existing Border Project water supply or trucked in from an off-site location.

Since the disturbed area would be larger than 1.0 acre, the project owner would be required to obtain coverage under the National Pollutant Discharge Elimination System

Construction General Permit administered by the State Water Quality Control Board pursuant to Condition of Certification **SOIL&WATER-1**. This includes the preparation of a Storm Water Pollution Prevention Plan to ensure that stormwater discharged by the project would have no adverse impact on the water quality of receiving waters. An Erosion Prevention and Sedimentation Control Plan would be submitted to the Compliance Project Manager (CPM) (Condition of Certification **SOIL&WATER-2**).

In addition, Hermes would comply with Conditions of Certification **SOIL&WATER-3** requiring a valid water service agreement with an authorized water purveyor if an off-site water source is used, and **SOIL&WATER-5** requiring submittal of a geo-technical report to the CPM.

Therefore, with compliance with the existing LORS and conditions of certification discussed herein, the impacts of the Border BESS project to soil and water resources would be less than significant.

## **TRAFFIC AND TRANSPORTATION**

Vehicle trips generated by the installation of the Border BESS and associated transmission equipment would generate a maximum of 65 round trips per day during the construction period. A mobile crane would be required for placement of battery containers on a new concrete foundation and for the installation of two 30-foot tall H-frame structures, should the overhead option be selected. A construction-worker parking and laydown area would be located on a 1.7-acre area within the Border Project property. In addition, a 600-foot section of the existing access road, located between Sanyo Avenue and the Border Project entrance gate, would be replaced. The repair work would include the removal of existing asphalt surface for asphalt recycling, reconstruction and reconditioning of the roadway subgrade, and repaving with asphalt. All road work would be conducted within the Border Project site to improve an existing private road. Lastly, a vehicle-miles travelled (VMT) screening analysis was performed by the applicant and is consistent with the City of San Diego VMT methodology for projects requiring CEQA review. The analysis concluded the project would not require a full VMT analysis because it is located within a VMT efficient area, generates a negligible amount of temporary construction trips and is considered a "passive use" public utility project. The temporary construction and testing activities are estimated to take approximately 11-months to complete. Operations and maintenance of the Border Project would remain unchanged.

Installation and operation of the Border BESS and the associated transmission equipment would comply with Conditions of Certification **TRANS-1** "Transportation Permits", **TRANS-2** "Encroachment Permits", **TRANS-3** "Hazardous Material Transportation Permits", and **TRANS-4** "Repair of Roadways" as applicable, including scheduling deliveries of heavy equipment during off-peak hours and obtaining heavy haul permits from the applicable jurisdictions, as required.

The BESS project would not conflict with local plans or ordinances addressing circulation; cause a significant increase in VMT in the area; and would not result in a

substantial increase in hazards or inadequate emergency access. Therefore, potential transportation impacts would be less-than-significant.

### **TRANSMISSION LINE SAFETY AND NUISANCE**

The Border BESS project will include an onsite 13.8 kV switchyard that will connect to the low side (13.8 kV) of the existing nominal 13.8 kV/69 kV GSU before entering the Border Project switchyard. This connection will be made using a short underground or overhead onsite 13.8 kV cable. No upgrades to the offsite existing transmission line are needed. Therefore, the proposed installation of the BESS will not result in significant transmission line safety and nuisance impacts.

### **TRANSMISSION SYSTEM ENGINEERING**

The proposed 52-MW BESS, to be installed at the existing Border Project site, would be connected to the low side of the existing Border Project's 13.8/69 kV transformer. Power would be stepped-up to 69 kV and delivered to the San Diego Gas & Electric grid through the existing Border Project gen-tie line.

An Energy Management System controller would be installed and connected to the existing Border Project control system to control the BESS and Border Project output not to exceed 52 MW. In addition, a Post-Commercial Operation Date Modification Review was submitted to the California Independent System Operator (California ISO) and approval is anticipated by November or early December 2022.

The BESS, assuming compliance with existing Transmission System Engineering Conditions of Certification and the revised **TSE-1** proposed below, would continue to comply with applicable LORS. The proposed Condition of Certification **TSE-1** ensures the Delegate Chief Building Official and the CEC has a complete set of permits for the interconnection of the battery storage system by requiring the submittal of the application to the California ISO for a Material Modification Assessment and the approval of that application before energization of the batteries.

Please see the Transmission System Engineering section of this document.

### **VISUAL RESOURCES**

The Border BESS project would include installation of 50 modular 8 feet wide by 23 feet long by 9.5 feet tall battery enclosures, 25 8 feet wide by 20 feet long by 9.5 feet tall inverter enclosures, and a 90 foot long 13.8 kV line interconnection, which if the overhead option is chosen would involve two 30 feet tall H-frame structures on the existing Border Project site.

The BESS project would be located on relatively flat land in a highly developed urban area. The South Bay Expressway/Otay Mesa Freeway/State Highway 11 elevated interchange and highways are to the west and north, a large business park with manufacturing facilities is to east, and another to the south having logistic service facilities and a hotel.

Neither the Decision nor the City of San Diego General Plan identified a scenic vista or scenic resource on the site or in the vicinity. Staff did not identify a scenic vista or scenic resource after review of Google Earth or Google Maps. The BESS project would not have a substantial adverse effect on a scenic vista or substantially damage scenic resources.

The BESS project would be located in an “urbanized area” as defined in Public Resources Code section 21071. Condition of Certification **VIS-3** requires the project owner to comply with the City of San Diego landscape requirements. **VIS-3** also includes language that would prohibit the use of invasive species. With implementation of **VIS-3**, the Border BESS would conform with applicable city zoning and other regulations governing scenic quality.

The BESS project would be visually concordant with the existing character of the site and surrounding area. It would not substantially degrade the existing visual character or quality of public views of the site and its surrounding.

The BESS project includes new outdoor lighting. Light fixtures are to be shielded and directed onsite. With the implementation of Conditions of Certification **VIS-1** and **VIS-2**, new lighting would not create a new source of substantial light, glare, or reflectance that would adversely affect day or nighttime views in the area.

The Border BESS project would have a less-than-significant effect with the implementation of the existing conditions of certification for visual resources.

## **WASTE MANAGEMENT**

The Border BESS project would generate small quantities of waste during construction and associated with maintenance and battery augmentation events during the operational phase. If spent or degraded batteries need to be replaced during the operational phase and/or during decommissioning, the batteries would be handled as universal waste and be recycled or disposed of in an approved manner in accordance with applicable LORS at the time of removal.

No new or additional waste streams would be generated. Therefore, with compliance with the existing LORS and existing Border Project Waste Management conditions of certification, the impacts of the BESS project to waste management would be less-than-significant.

## **WORKER SAFETY AND FIRE PROTECTION**

Based on the analysis of the BESS project, staff proposes Conditions of Certification **WORKER SAFETY-2**, **WORKER SAFETY-3**, and **WORKER SAFETY-4**, which would provide adequate protection to on-site workers and would mitigate the fire risks posed to first responders and the offsite public to a level that is less-than-significant.

Please see the Worker Safety and Fire Protection section of this document.

## CALENVIROSCREEN

---

Staff reviewed CalEnviroScreen 4.0 data to determine whether the United States census tract where the Border Project is located (6073010015) is identified as a disadvantaged community. This science-based mapping tool is used by the California Environmental Protection Agency (CalEPA) to identify disadvantaged communities based on geographic, socioeconomic, public health, and environmental hazard criteria pursuant to Health and Safety Code section 39711 as enacted by Senate Bill 535 (De León, Chapter 830, Statutes of 2012). The CalEnviroScreen 4.0 overall percentile score for this census tract is 57.27 and, thus, is not identified as a disadvantaged community<sup>1</sup>.

## ENVIRONMENTAL JUSTICE

---

Environmental Justice Figure 1 shows 2020 census blocks in the six-mile radius of the Border Project with a minority population greater than or equal to 50 percent. The population in these census blocks represents an environmental justice (EJ) population based on race and ethnicity as defined in the *United States Environmental Protection Agency's Guidance on Considering Environmental Justice During the Development of Regulatory Actions*. Staff conservatively obtains demographic data within a six-mile radius around a project site based on the parameters for dispersion modeling used in staff's air quality analysis. Air quality impacts are generally the type of project impacts that extend the furthest from a project site. Beyond a six-mile radius, air emissions have either settled out of the air column or mixed with surrounding air to the extent the potential impacts are less than significant. The area of potential impacts would not extend this far from the project site for most other technical areas included in staff's EJ analysis.

Based on California Department of Education data in the **Environmental Justice – Table 1**, staff concluded that the percentage of those living in the San Ysidro Elementary School District (in a six-mile radius of the project site) and enrolled in the free or reduced-price meal program is larger than those in the reference geography. Thus, it is considered an EJ population based on low income as defined in *Guidance on Considering Environmental Justice During the Development of Regulatory Actions*. **Environmental Justice – Figure 2** shows where the boundaries of the school district are in relation to the six-mile radius around the Border Project site.

---

1 The four categories of geographic areas identified by CalEPA as disadvantaged are: 1) Census tracts receiving the highest 25 percent of overall scores in CalEnviroScreen 4.0, 2) Census tracts lacking overall scores in CalEnviroScreen 4.0 due to data gaps, but receiving the highest 5 percent of CalEnviroScreen 4.0 cumulative pollution burden scores, 3) Census tracts identified in the 2017 DAC designation, regardless of their scores in CalEnviroScreen 4.0, and 4) Lands under the control of federally recognized Tribes. Source: CalEPA Final Designation of Disadvantaged Communities: May 2022 <https://calepa.ca.gov/envjustice/ghginvest/>



**Environmental Justice – Table 1**  
**Low Income Data within the Project Area**

SCHOOL DISTRICTS IN SIX-MILE RADIUS	Enrollment Used for Meals	Free or Reduced-Price Meals	
Chula Vista Elementary	28,878	13,582	47%
San Ysidro Elementary	4,264	3,076	72.1%
REFERENCE GEOGRAPHY			
San Diego County	481,102	234,438	48.7%

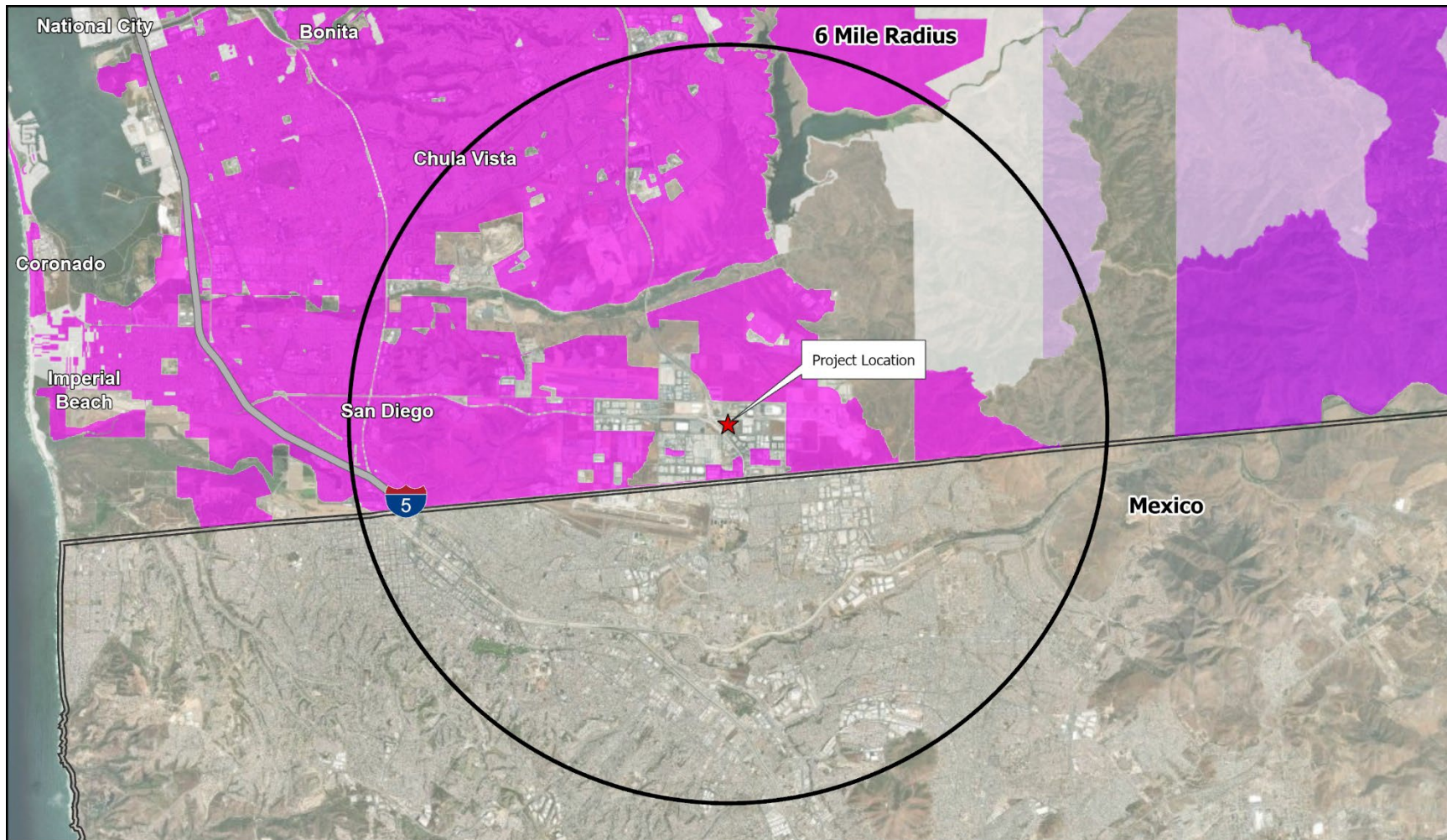
Source: CDE 2022. California Department of Education, DataQuest, Free or Reduced-Price Meals, District level data for the year 2021-2022, <http://dq.cde.ca.gov/dataquest/>.

The following technical areas (if affected) consider impacts to EJ populations: Air Quality, Cultural Resources (indigenous people), Hazardous Materials Management, Land Use, Noise and Vibration, Public Health, Socioeconomics, Soil and Water resources, Traffic and Transportation, Transmission Line Safety and Nuisance, Visual Resources, Waste Management, and Worker Safety and Fire Protection.

### **Environmental Justice Conclusions**

For this petition, the following technical areas considered impacts to EJ populations: Air Quality, Cultural Resources, Hazardous Materials Management, Land Use, Noise and Vibration, Public Health, Socioeconomics, Soil and Water Resources, Traffic and Transportation, Transmission Line Safety and Nuisance, Visual Resources, Waste Management, and Worker Safety and Fire Protection. For these technical areas, staff concludes that impacts would be less than significant, and thus would have a less than significant impact on the EJ population represented in **Environmental Justice Figure 1, Figure 2, and Table 1.**

In the Cultural Resources and Worker Safety and Fire Protection analyses, staff proposes new conditions of certification to mitigate potentially significant impacts on the environment. Staff has determined that by adopting the proposed modified and new conditions of certification, the proposed project change would not cause significant impacts for any population in the project’s six-mile radius, including the EJ population. Impacts to the EJ population are less than significant.



★ Project Location  
 ◻ 6 Mile Radius

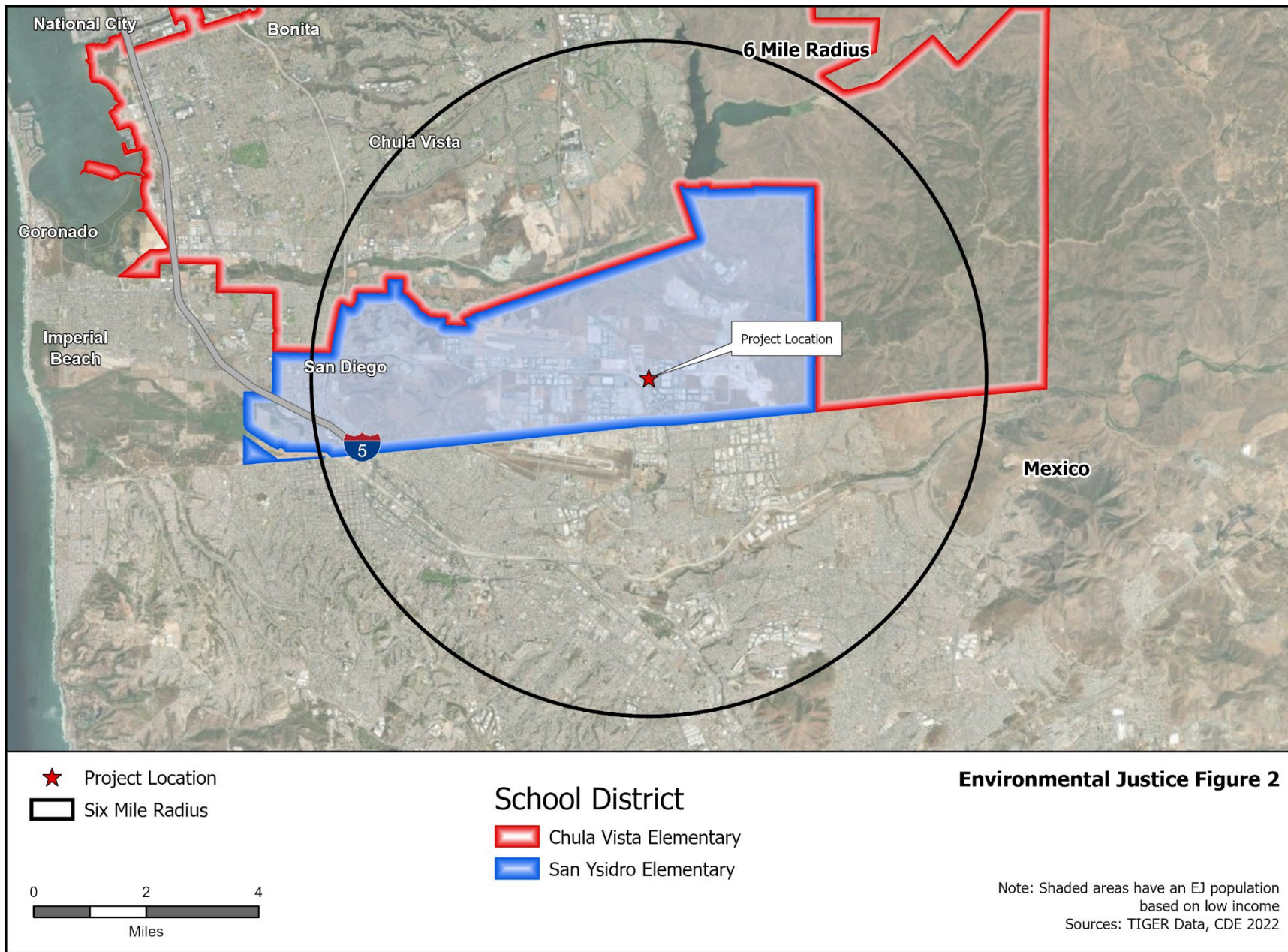
2020 Census  
 Percent Minority Population by Census Block

	0 - 49%
	50 - 100%

**Environmental Justice Figure 1**

0      2      4  
 Miles

Sources: Census 2020 PL 94-171 Data



## **CEC STAFF RECOMMENDATIONS AND CONCLUSIONS**

---

Consistent with California Code of Regulations, title 20, section 1769, staff has reviewed the petition for potential environmental effects and consistency with applicable LORS. Staff concludes that the proposed changes to Border Project would not have a significant effect on the environment, or cause the project to fail to comply with any applicable LORS, with the adoption of new or modified conditions of certification in the areas of Cultural Resources, Transmission System Engineering, and Worker Safety and Fire Protection.

Staff also concludes the findings specified in California Code of Regulations, title 20, section 1748(b) do not apply to the proposed changes.

Lastly, staff concludes the proposed changes do not meet any of the criteria requiring the production of subsequent or supplemental review pursuant to Public Resources Code, section 21166. The existing extensive framework of mitigation covering the original project along with some BESS specific conditions of certification address potential impacts from the construction and operations of the BESS.

Staff recommends the Commission approve the petition and adopt the new or modified conditions of certification.

**BORDER PROJECT (01-EP-14C)**  
**Request to Amend Final Commission Decision**  
Cultural Resources  
Melissa Mourkas and Patrick Riordan

## **INTRODUCTION**

---

Calpeak Power-Border, LLC filed a petition to amend (PTA) on August 19, 2022, requesting approval to install a 52-megawatt (MW) battery energy storage system (BESS) operated by Hermes BESS, LLC to provide power to the grid on Border Project property (BPP 2022).

## **ANALYSIS**

---

The August 2022, Petition to Amend (TN: 245506-1), proposes to construct a 52-megawatt (MW) BESS project at the existing 52-MW Border Project located on Otay Mesa at 2060 Sanyo Avenue in San Diego, California. Ground disturbance necessary for site levelling, drainage control, and foundation construction on the BESS site/switchyard and construction laydown areas is estimated to require a maximum cut depth of 4 feet. Additionally, installation of the 13.8-kV connection line from the BESS switchyard to the Border Project generator step-up unit (GSU) with both the overhead and underground options, fiber optic communication line, and Border Project entrance access road repair is not expected to exceed 4 feet in depth (CalPeak 2022, Appendix A, Table A-1).

Staff reviewed the materials submitted for the PTA (CalPeak 2022; Rotella et al. 2022) and the results of literature searches and surveys conducted in May 2001 and March and April, 2022 (CEC 2001b, p.18; Rotella et al. 2022, p.25) and found that 68 cultural resources have been identified within one mile of the project site. The April 2022, pedestrian survey of the project site identified one new prehistoric isolate and marine clam shells and fragments in the project area (Rotella et al. 2022, p.35; Fuerstenberg 2022). Two previously recorded prehistoric isolates located near the project site were unable to be located during the field investigation.

The previously recorded archaeological site nearest to the project area, CA-SDI-12377, is a large multicomponent site with an expansive prehistoric component covering over 1,000 acres, located approximately 300 feet from the Border BESS project area. Recorded in 1989 by Martin Rosen, the site is lithic scatter with small amounts of marine shell and fire affected rock, likely associated with extensive prehistoric quarrying or processing of plant resources (Rosen, 1989). Lithic scatters within the site have been characterized as widely dispersed with light to moderate concentrations of locally derived metavolcanic stone (Cook and Ellis, 1987).

The boundaries of CA-SDI-12337 have been expanded four times (in 2002, 2007, 2010, and again in 2016) (Manchen, 2016), and archaeologists have noted the potential for the site to continue to expand into the area which now includes the Border BESS project area (Manchen, 2016; Rosen, 1989). The presence and density of both the marine clam shells and lithics within the Border BESS project area is consistent in

character with the type of cultural constituents and their density observed within CA-SDI-12377.

On their own, the cultural resources identified within the project area are characterized as prehistoric isolates, none of which are eligible for listing on the California Register of Historical Resources (CRHR) or considered a significant resource by the City of San Diego (San Diego 2001, p.13). It is not known if any cultural resource discoveries were made during the original construction of the Border Project, however, the presence of marine clam shells and fragments observed scattered along the eastern portion of the southern boundary of the project (Fuerstenberg, 2022; Rotella et al. 2022, p.35 ) suggests it is possible that cultural deposits were encountered and unreported in the past.

The existing Condition of Certification **CUL-1** was developed in 2001 based on the assumption that there was a low probability of encountering subsurface cultural resources during construction of the Border Project. Therefore, no monitoring was required, and **CUL-1** only required evaluation by an archaeologist if there was an inadvertent discovery. It is now understood that the Otay Mesa plateau is relatively rich in archaeological resources, and the repeated expansion of CA-SDI-12337 places the site within 300 feet of the project area.

The project owner recognizes that there exists a moderate to high risk of encountering subsurface archaeological deposits because of the project area's proximity to known archaeological sites and the project's associated ground-disturbing activities (Rotella et al. 2022, p.42). Further, the project owner concluded that the existing Condition of Certification for the original project is insufficient to protect potentially present sensitive cultural resources for the BESS project. Therefore, the project owner determined that additional measures were necessary to mitigate impacts to inadvertent discoveries that may be encountered during construction (Rotella et al. 2022, p.27). These include a Worker Environmental Awareness Program ("WEAP") for cultural resources, archaeological monitoring of ground disturbances, and adherence to standard conditions for the treatment of unanticipated discoveries of both archaeological resources and human remains.

## **CONCLUSIONS AND RECOMMENDATIONS**

---

Staff agrees with the project owner's assessment of risk for encountering subsurface archaeological deposits, as well as the owner's conclusion that the existing Condition of Certification **CUL-1** is insufficient given our current understanding of the archaeological sensitivity of the project area. Therefore, staff proposes the following Conditions of Certification **CUL-2** through **CUL-9** for the BESS project so that, if cultural resources are encountered during construction, adequate measures would be in place to mitigate any project-level impacts to less than significant and that the project would conform to all applicable laws, ordinances, regulations and standards.

## **PROPOSED CULTURAL RESOURCES CONDITIONS OF CERTIFICATION**

---

### **CUL-2 APPOINTMENT AND QUALIFICATIONS OF CULTURAL RESOURCES SPECIALIST (CRS)**

#### **A. CULTURAL RESOURCE SPECIALIST**

##### 1. Appointment and Qualifications

The project owner shall assign a Cultural Resources Specialist (CRS) to the project. The project owner may elect to assign one or more alternate CRSs as well. The project owner shall submit the resumes of the proposed CRS and Alternate CRS(s), with at least three references and contact information, to the California Energy Commission's (CEC's) Compliance Project Manager (CPM) for review and approval.

The CRS and Alternate CRS(s) shall have training and background that conform to the U.S. Secretary of the Interior's Professional Qualifications Standards, as published in Title 36, Code of Federal Regulations, part 61. In addition, the CRS and Alternate CRS(s) shall have the following qualifications:

- a. A background in anthropology, archaeology, history, architectural history, or a related field;
- b. At least 10 years of archaeological or historical experience (as appropriate for the project site), with resources mitigation and fieldwork;
- c. At least one year of field experience in California; and
- d. At least three years of experience in a decision making capacity on cultural resources projects in California and the appropriate training and experience to knowledgably make recommendations regarding the significance of cultural resources.

The project owner may replace the CRS only as directed in the verification below.

##### 2. Duties of Cultural Resources Specialist

The CRS shall manage all cultural resource monitoring, mitigation, curation, and reporting activities, and any preconstruction cultural resource activities, unless management of these is otherwise provided for in accordance with the cultural resource conditions of certification (conditions). The CRS shall serve as the primary point of contact on all cultural resource matters for the CEC. The CRS may elect to obtain the services of Cultural Resource Monitors (CRMs), Native American Monitors, and other technical specialists,

if needed, to assist in monitoring, mitigation, and curation activities. The project owner shall ensure that the CRS makes recommendations regarding the eligibility for listing in the California Register of Historical Resources (CRHR) of any cultural resources that are newly discovered or that may be affected in an unanticipated manner. After all ground disturbances are completed and the CRS has fulfilled all responsibilities specified in these cultural resources conditions, the project owner may discharge the CRS, after receiving approval from the CPM.

## **B. CULTURAL RESOURCES MONITORS**

### 1. Appointment and Qualifications

The CRS may assign Cultural Resources Monitors (CRMs). CRMs shall have the following qualifications:

- a. B.S. or B.A. degree in anthropology, archaeology, historical archaeology, or a related field; and one year of archaeological field experience in California; or
- b. A.S. or A.A. degree in anthropology, archaeology, historical archaeology, or a related field, and four years of archaeological field experience in California; or
- c. Enrollment in upper division classes pursuing a degree in the fields of anthropology, archaeology, historical archaeology, or a related field, and two years of archaeological field experience in California.

## **C. NATIVE AMERICAN MONITORS**

### 1. Appointment and Qualifications:

Preference in selecting Native American Monitors shall be given to Native Americans with:

- a. traditional ties to the area to be monitored, and
- b. the highest qualifications as recommended by the Native American Heritage Commission (NAHC).

## **D. CULTURAL RESOURCES TECHNICAL SPECIALISTS**

The resume(s) of any additional technical specialist(s), e.g., geoarchaeologist, historical archaeologist, historian, architectural historian, and/or physical anthropologist, shall be submitted to the CPM for approval. The resume of each proposed specialist shall demonstrate that their training and background meet the U.S. Secretary of Interior's Professional Qualifications Standards for their specialty (if applicable), as published in Title 36, Code of Federal Regulations, part 61, and show the



completion of appropriate graduate-level coursework. The resumes of specialists shall include the names and telephone numbers of contacts familiar with the work of these persons on projects referenced in the resumes and demonstrate to the satisfaction of the CPM that these persons have the appropriate training and experience to undertake the required research. The project owner may name and hire any specialist prior to certification. All specialists are under the supervision of the CRS.

**Verification:**

1. The project owner shall submit the prospective CRS's and any Alternate CRS's qualifications at least 75 days prior to the start of ground disturbance associated with site mobilization and construction (as defined in the Compliance Conditions section).
2. The project owner may replace a CRS by submitting the required resume, references, and contact information to the CPM for review and approval at least ten working days prior to the termination or release of the then-current CRS. In an emergency, the project owner shall immediately notify the CPM to discuss the qualifications and approval of a short-term replacement while a permanent CRS is proposed to the CPM for consideration.
3. At least 20 days prior to Cultural Resources Ground Disturbances, the CRS shall provide proof of qualifications for any anticipated CRMs and additional specialists for the project to the CPM.
4. If efforts to obtain the services of a qualified Native American Monitor are unsuccessful, the project owner shall inform the CPM of this situation in writing at least 30 days prior to the beginning of post-certification cultural resources field work or construction-related ground disturbance.
5. At least 5 days prior to additional CRMs or Native American Monitors beginning on-site duties during the project, the CRS shall review the qualifications of the proposed CRMs or Native American Monitors and send approval letters to the CPM, identifying the monitors and attesting to their qualifications.
6. At least 10 days prior to any technical specialists beginning tasks, the resume(s) of the specialists shall be provided to the CPM for review and approval.
7. At least 10 days prior to the start of construction-related ground disturbance, the project owner shall confirm in writing to the CPM that the approved CRS will be available for onsite work and is prepared to implement the cultural resources conditions.
8. No Cultural Resources Ground Disturbances shall occur prior to CPM approval of the CRS and alternates, unless such activities are specifically approved by the CPM.

### **CUL-3 INFORMATION TO BE PROVIDED TO CRS**

Prior to the start of ground disturbance, the project owner shall provide the CRS with copies of the application or petition, data responses, confidential cultural resources reports, all supplements, the CEC cultural resources staff assessments, and the current cultural resources conditions for the project, if the CRS does not already possess copies of these materials. The project owner shall also provide the CRS and the CPM with maps and drawings showing the footprints of the power plant, all linear facility routes, all access roads, and all laydown areas. Maps shall include the appropriate USGS quadrangles and a map at an appropriate scale (e.g., 1:24,000 and 1 inch = 200 feet, respectively) for plotting cultural features or materials. If the CRS requests enlargements or strip maps for linear facility routes, the project owner shall provide copies to the CRS and CPM. The CPM shall review map submittals and, in consultation with the CRS, approve those that are appropriate for use in cultural resources planning activities. No ground disturbance shall occur prior to CPM approval of maps and drawings, unless such activities are specifically approved by the CPM.

Maps shall include any cultural resources, including any historic built environment resources, identified in the archaeological project area of analysis.

If construction of the project would proceed in phases, maps and drawings not previously provided shall be provided to the CRS and CPM prior to the start of each phase. Written notice identifying the proposed schedule of each project phase shall be provided to the CRS and CPM.

Weekly, until ground disturbance is completed, the project construction manager shall provide to the CRS and CPM a schedule of project activities for the following week, including the identification of area(s) where ground disturbance will occur during that week.

The project owner shall notify the CRS and CPM of any changes to the scheduling of the construction phases.

The project owner shall provide the documents described in the first paragraph of this condition to new CRSs in the event that the approved CRS is terminated or resigns.

#### **Verification:**

1. At least 40 days prior to the start of ground disturbance, the project owner shall provide the CPM notice that the aforementioned materials have been provided to the CRS, if needed, and the subject maps and drawings to the CRS and CPM. The CPM will review submittals in consultation with the CRS and approve maps and drawings suitable for cultural resources planning activities.

2. At least 15 days prior to the start of ground disturbance, if there are changes to any project-related footprint, the project owner shall provide revised maps and drawings for the changes to the CRS and CPM. At least 15 days prior to the start of each phase of a phased project, the project owner shall submit the appropriate maps and drawings, if not previously provided, to the CRS and CPM.
3. Weekly, during ground disturbance, a schedule of the next week's anticipated project activity shall be provided to the CRS and CPM by letter, e-mail, or fax.
4. Within 5 days of changing the scheduling of phases of a phased project, the project owner shall provide written notice of the changes to the CRS and CPM.
5. If a new CRS is approved by the CPM as provided for in CUL-1, the project owner shall provide the CPM notice that the aforementioned materials have been provided to the new CRS within 10 days of such approval.

#### **CUL-4 CULTURAL RESOURCES MITIGATION AND MONITORING PLAN (CRMMP)**

Prior to the start of ground disturbance, the project owner shall submit the CRMMP, as prepared by or under the direction of the CRS, to the CPM for review and approval. The CRMMP shall follow the content and organization of the draft model CRMMP, provided by the CPM, and the authors' name(s) shall appear on the title page of the CRMMP. The CRMMP shall identify measures to minimize potential impacts to sensitive cultural resources. Implementation of the CRMMP shall be the responsibility of the CRS and the project owner. Copies of the CRMMP shall reside with the CRS, alternate CRS, each CRM, Native American Monitors, and the project owner's on-site construction manager. No ground disturbance shall occur prior to CPM approval of the CRMMP, unless such activities are specifically approved by the CPM. Portions of the CRMMP that describe or map the location(s) of cultural resources shall be designated as confidential.

The CRMMP shall include the following elements and measures.

1. The following statement included in the Introduction: "Any discussion, summary, or paraphrasing of the Conditions of Certification in this CRMMP is intended as general guidance and as an aid to the user in understanding the Conditions and their implementation. The conditions, as written in the Commission Decision, shall supersede any summarization, description, or interpretation of the conditions in the CRMMP. The Cultural Resources Conditions of Certification from the Commission Decision are contained in Appendix A."
2. A proposed general research design that includes a discussion of archaeological research questions and testable hypotheses specifically applicable to the project area, and a discussion of artifact collection, retention/disposal, and curation policies as related to the research questions formulated in the research design. The research design will

specify that the preferred treatment strategy for any buried archaeological deposits is avoidance. A specific mitigation plan shall be prepared for any unavoidable impacts to any CRHR-eligible (as determined by the CPM) resources. A prescriptive treatment plan may be included in the CRMMP for limited data types.

3. Specification of the implementation sequence and the estimated time frames needed to accomplish all project-related tasks during the ground-disturbance and post-ground-disturbance analysis phases of the project.
4. Identification of the person(s) expected to perform each of the tasks, their responsibilities, and the reporting relationships between project construction management and the mitigation and monitoring team.
5. A description of the manner in which Native American monitors will be included, the procedures to be used to select them, and their role and responsibilities.
6. A description of all impact-avoidance measures (such as flagging or fencing) to prohibit or otherwise restrict access to sensitive resource areas that are to be avoided during ground disturbance, construction, and/or operation, and identification of areas where these measures are to be implemented. The description shall address how these measures would be implemented prior to the start of ground disturbance and how long they would be needed to protect the resources from project-related effects.
7. A statement that all encountered cultural resources over 50 years old shall be recorded on Department of Parks and Recreation (DPR) 523 forms and mapped and photographed. In addition, all archaeological materials retained as a result of the archaeological investigations (survey, testing, data recovery) shall be curated in accordance with the California State Historical Resources Commission's (SHRC's) Guidelines for the Curation of Archaeological Collections (1993, or future updated guidelines from the SHRC), into a retrievable storage collection in a public repository or museum.
8. A statement that the project owner will pay all curation fees for artifacts recovered and for related documentation produced during cultural resources investigations conducted for the project. The project owner shall identify three possible curation facilities that could accept cultural resources materials resulting from project activities.
9. A statement demonstrating when and how the project owner will comply with Health and Human Safety Code 7050.5(b) and Public Resources Code 5097.98(b) and (e), including the statement that the project owner will notify the CPM and the NAHC of the discovery of human remains.

10. A statement that the CRS has access to equipment and supplies necessary for site mapping, photography, and recovery of any cultural resource materials that are encountered during ground disturbance and cannot be treated prescriptively.
11. A description of the contents, format, and review and approval process of the Closing Cultural Resource Report (CCRR), which shall be prepared according to Archaeological Resource Management Report (ARMR) guidelines.

**Verification:**

1. Upon approval of the CRS proposed by the project owner, the CPM will provide to the project owner an electronic copy of the draft model CRMMP for the CRS.
2. At least 30 days prior to the start of ground disturbance, the project owner shall submit the CRMMP to the CPM for review and approval.
3. At least 30 days prior to the start of ground disturbance, in a letter to the CPM, the project owner shall agree to pay curation fees for any materials generated or collected as a result of the archaeological investigations (survey, testing, data recovery).
4. Within 90 days after completion of ground disturbance (including landscaping), if cultural materials requiring curation were generated or collected, the project owner shall provide to the CPM a copy of an agreement with, or other written commitment from, a curation facility that meets the standards stated in the SHRC's Guidelines for the Curation of Archaeological Collections (1993, or future updated guidelines from SHRC), to accept the cultural materials from this project. Any agreements concerning curation will be retained and available for audit for the life of the project.

**CUL-5 CULTURAL RESOURCES WORKER ENVIRONMENTAL AWARENESS PROGRAM (WEAP)**

Prior to and for the duration of ground disturbance, the project owner shall provide Worker Environmental Awareness Program (WEAP) training to all new workers within their first week of employment at the project site, along the linear facilities routes, and at laydown areas, roads, and other ancillary areas. The cultural resources part of this training shall be prepared by the CRS, may be conducted by any member of the archaeological team, and may be presented in the form of a video. The CRS is encouraged to include a Native American presenter in the training to contribute the Native American perspective on archaeological and ethnographic resources. During the training and during construction, the CRS shall be available (by telephone or in person) to answer questions posed by employees. The training may be discontinued when ground disturbance is completed or suspended, but must be resumed when ground disturbance, such as landscaping, resumes.

The training shall include:

1. A discussion of applicable laws and penalties under law;
2. Samples or visuals of artifacts that might be found in the project vicinity;
3. A discussion of what such artifacts may look like when partially buried, or wholly buried and then freshly exposed;
4. A discussion of what prehistoric and historical archaeological deposits look like at the surface and when exposed during construction, and the range of variation in the appearance of such deposits;
5. Instruction that the CRS, Alternate CRS, and CRMs have the authority to halt ground disturbance in the area of a discovery to an extent sufficient to ensure that the resource is protected from further impacts, as determined by the CRS;
6. Instruction that employees, if the CRS, Alternate CRS, or CRMs are not present, are to halt work on their own in the vicinity of a potential cultural resources discovery, and shall contact their supervisor and the CRS or CRM, and that redirection of work would be determined by the construction supervisor and the CRS;
7. An informational brochure that identifies reporting procedures in the event of a discovery;
8. An acknowledgement form signed by each worker indicating that they have received the training; and
9. A sticker that shall be placed on hard hats indicating that environmental training has been completed.

No ground disturbance shall occur prior to implementation of the WEAP program, unless such activities are specifically approved by the CPM.

**Verification:**

1. At least 30 days prior to the beginning of ground disturbance, the CRS shall provide the cultural resources WEAP training program draft text and/or training video, including Native American participation, and graphics and the informational brochure to the CPM for review and approval.
2. At least 15 days prior to the beginning of ground disturbance, the CPM will provide to the project owner a WEAP Training Acknowledgement form for each WEAP-trained worker to sign.
3. Monthly, until ground disturbance is completed, the project owner shall provide in the Monthly Compliance Report (MCR) the WEAP Training Acknowledgement forms of workers who have completed the training in the prior month and a running total of all persons who have completed training to date.

## **CUL-6    UNDISCOVERED CULTURAL RESOURCES**

The project owner shall ensure that a CRS, alternate CRS, or CRM(s) shall be on site for any ground disturbance that would occur in sediments or soils below artificial fill during the following activities or construction of the following project components:

- Demolition
- Site leveling/grading
- Preparation of construction laydown areas
- Drainage control
- Foundation construction on BESS site/switchyard
- Installation of the 13.8 kV connection line from BESS switchyard to Border Project GSU (low side)
- Fiber optic communication line
- Repairs to Border Project entrance access road

Prior to the start of ground disturbance, the project owner shall notify the CPM, who will notify all interested Native Americans of the date on which ground disturbance will ensue. The project owner is not required to monitor construction of other project components (that is, those not listed immediately above) unless the CRS or CPM determine that observable conditions in the field warrant monitoring. Where excavation equipment is actively removing dirt and hauling the excavated material farther than 50 feet from the location of active excavation, full-time archaeological monitoring shall require at least two monitors per excavation area. In this circumstance, one monitor shall observe the location of active excavation and a second monitor shall inspect the dumped material. For excavation areas where the excavated material is dumped no farther than 50 feet from the location of active excavation, one monitor shall observe both the location of active excavation and inspect the dumped material.

In the event that the CRS believes that the required number of monitors is not appropriate in certain locations, a letter or e-mail detailing the justification for changing the number of monitors shall be provided to the CPM for review and approval prior to any change in the number of monitors.

The project owner shall obtain the services of one or more Native American Monitors to monitor construction-related ground disturbance in areas slated for excavation into non-fill (native) sediments, as described in the previous bulleted list. Contact lists of interested Native Americans and guidelines for monitoring shall be obtained from the NAHC. Preference in selecting a Native American Monitor shall be given to Native Americans with traditional ties to the area that shall be monitored. If efforts to obtain the services of a qualified Native American Monitor are unsuccessful, the project owner shall

immediately inform the CPM. The CPM will either identify potential monitors or will allow construction-related ground disturbance to proceed without a Native American Monitor. The research design in the CRMMP shall govern the collection, treatment, retention/disposal, and curation of any archaeological materials encountered. CRMs shall keep a daily log of any monitoring and other cultural resources activities and any instances of non-compliance with the Conditions and/or applicable LORS.

The daily monitoring logs shall at a minimum include the following information:

- First and last name of the CRM and any accompanying Native American Monitor.
- Time in and out.
- Weather. Specify if weather conditions led to work stoppages.
- Work location (project component). Provide specifics - .e.g., power block, landscaping.
- Proximity to site location. Specify if work conducted within 1000 feet of a known cultural resource.
- Work type (machine).
- Work crew (company, operator, and foreman).
- Depth of excavation.
- Description of work.
- Stratigraphy.
- Artifacts, listed with the following identifying features:
  - Field artifact #: When recording artifacts in the daily monitoring logs, the CRS shall institute a field numbering system to reduce the likelihood of repeat artifact numbers. A typical numbering system could include a project abbreviation, monitor's initials, and a set of numbers given to that monitor: e.g., AEC-MB-123.
  - Description.
  - Measurements.
  - Universal Transverse Mercator (UTM) coordinates.
  - Whether artifacts are likely to be isolates or components of larger resources.
- Assessment of significance of any finds.
- Actions taken.
- Plan for the next work day.



- A cover sheet shall be submitted with each day's monitoring logs, and shall at a minimum include the following:
  - Count and list of first and last names of all CRMs and of all Native American Monitors for that day.
  - General description (in paragraph form) of that day's overall monitoring efforts, including monitor names and locations.
  - Any reasons for halting work that day.
  - Count and list of all artifacts found that day: include artifact #, location (i.e., grading in Unit X), measurements, UTM's, and very brief description (i.e., historic can, granitic biface, quartzite flake).
  - Whether any artifacts were found out of context (i.e., in fill, caisson drilling, flood debris, spoils pile).

If requested by the CPM, copies of the daily monitoring logs and cover sheets shall be provided by email from the CRS to the CPM, as follows:

- Each day's monitoring logs and cover sheet shall be merged into one PDF document
- The PDF title and headings, and emails shall clearly indicate the date of the applicable monitoring logs.
- PDFs for any revised or resubmitted versions shall use the word "revised" in the title.

Daily and/or weekly maps shall be submitted along with the monitoring logs as follows:

- The CRS shall provide daily and/or weekly maps of artifacts at the request of the CPM. A map shall also be provided if artifact locations show complexity, high density, or other unique considerations.
- Maps shall include labeled artifacts, project boundaries, previously recorded sites and isolates, aerial imagery background, and appropriate scales.
- The Cultural Resources section of the MCR shall be prepared in coordination with the CRS, and shall include a monthly summary report of cultural resources-related monitoring. The summary shall:
  - List the number of CRMs and NAMs on a daily basis, as well as provide monthly monitoring-day totals.
  - Give an overview of cultural resource monitoring work for that month, and discuss any issues that arose.
  - Describe fulfillment of requirements of each cultural mitigation measure.

- Summarize the confidential appendix to the MCR, without disclosing any specific confidential details.
- Include the artifact concordance table (as discussed under the next bullet point), but with removal of UTMs.
- Each MCR, prepared under supervision of the CRS, shall be accompanied by a confidential appendix that contains completed DPR 523A forms for all artifacts recorded or collected in that month. For any artifact without a corresponding DPR form, the CRS shall specify why the DPR form is not applicable or pending (i.e. as part of a larger site update).
- A concordance table that matches field artifact numbers with the artifact numbers used in the DPR forms shall be included. The sortable table shall contain each artifact's date of collection and UTM numbers, and note if an artifact has been deaccessioned or otherwise does not have a corresponding DPR form. Any post-field log recordation changes to artifact numbers shall also be noted.
- DPR forms shall be submitted as one combined PDF.
- The PDF shall organize DPR forms by site and/or artifact number.
- The PDF shall include an index and bookmarks.
- If artifacts from a given site location (in close proximity of each other or an existing site) are collected month after month, and if agreed upon with the CPM, a final updated DPR for the site may be submitted at the completion of monitoring. The monthly concordance table shall note that the DPR form for the included artifacts is pending.

The CRS or alternate CRS shall daily send a brief email to the CPM, reporting whether monitoring occurred (or a statement that no ground disturbance occurred if monitoring did not transpire) and confirming that no cultural resource discoveries occurred that day.

In the event that the CRS believes that the current level of monitoring is not appropriate in certain locations, a letter or e-mail detailing the justification for changing the level of monitoring shall be provided to the CPM for review and approval prior to any change in the level of monitoring.

The CRS, at his or her discretion, or at the request of the CPM, may informally discuss cultural resources monitoring and mitigation activities with CEC technical staff.

Cultural resources monitoring activities are the responsibility of the CRS. Any interference with monitoring activities, removal of a monitor from duties assigned by the CRS, or direction to a monitor to relocate monitoring activities by anyone other than the CRS shall be considered non-compliance with these conditions.

Upon becoming aware of any incidents of non-compliance with the conditions and/or applicable LORS, the CRS and/or the project owner shall notify the CPM.

The CRS shall also recommend corrective action to resolve the problem or achieve compliance with the conditions. When the issue is resolved, the CRS shall write a report describing the issue, the resolution of the issue, and the effectiveness of the resolution measures. This report shall be provided in the next MCR for the review of the CPM.

**Verification:**

1. At least 30 days prior to the start of ground disturbance, the CPM will notify all Native Americans with whom the CEC communicated during the project review of the date on which the project's ground disturbance will begin.
2. At least 30 days prior to the start of ground disturbance, the CPM will provide to the CRS an electronic copy of a form to be used as a daily monitoring log.
3. While monitoring is on-going, and if required by the CPM, the project owner shall submit each day's monitoring logs and cover sheet merged into one PDF document by email within 24 hours.
4. The CRS and/or project owner shall notify the CPM of any incidents of non-compliance with the conditions and/or applicable LORS by telephone or email within 24 hours.
5. The CRS shall provide daily maps of artifacts along with the daily monitoring logs if more than 10 artifacts are found per day, or as requested by the CPM.
6. The CRS shall provide weekly maps of artifacts if there more than 50 artifacts are found per week, or as requested by the CPM. The map shall be submitted within two business days after the end of each week.
7. Within 15 days of receiving from a local Native American group a request that a Native American Monitor be employed, the project owner shall submit a copy of the request and a copy of a response letter to the CPM. The project owner shall include a copy of this condition in any response letter.
8. While monitoring is on-going, the project owner shall include in each MCR a copy of the monthly summary of cultural resources-related monitoring prepared by the CRS and attach any new DPR 523A forms, under confidential cover, completed for finds treated prescriptively, as specified in the CRMMP.
9. Final updated DPRs with sites (where artifacts are collected month after month) can be submitted at the completion of monitoring, as agreed upon with the CPM.
10. At least 24 hours prior to implementing a proposed change in monitoring level, the project owner shall submit to the CPM, for review and approval, a letter or e-mail (or some other form of communication acceptable to the CPM) detailing the CRS's justification for changing the monitoring level.

11. Within 15 days of receiving them, the project owner shall submit to the CPM copies of any comments or information provided by Native Americans in response to the project owner's transmittals of information.

## **CUL-7 POWERS OF CRS**

The CRS shall have the authority to halt ground disturbance in the event of a discovery. Redirection of ground disturbance shall be accomplished under the direction of the construction supervisor in consultation with the CRS. In the event that a cultural resource over 50 years of age is found (or if younger, determined exceptionally significant by the CRS), or impacts to such a resource can be anticipated, ground disturbance shall be halted or redirected in the immediate vicinity of the discovery sufficient to ensure that the resource is protected from further impacts. If the discovery includes human remains, the project owner shall comply with the requirements of Health and Human Safety Code § 7050.5(b) and shall additionally notify the CPM and the NAHC of the discovery of human remains. No action with respect to the disposition of human remains of Native American origin shall be initiated without direction from the CPM. Monitoring, including Native American monitoring, and daily reporting, as provided in other conditions, shall continue during the project's ground-disturbing activities elsewhere, while the halting or redirection of ground disturbance in the vicinity of the discovery shall remain in effect until the CRS has visited the discovery, and all of the following have occurred:

1. The CRS has notified the project owner, and the CPM has been notified within 24 hours of the discovery, or by Monday morning if the cultural resources discovery occurs between 8:00 AM on Friday and 8:00 AM on Sunday morning, including a description of the discovery (or changes in character or attributes), the action taken (i.e., work stoppage or redirection), a recommendation of CRHR eligibility, and recommendations for data recovery from any cultural resources discoveries, whether or not a determination of CRHR eligibility has been made.
2. If the discovery would be of interest to Native Americans, the CRS has notified all Native American groups that expressed a desire to be notified in the event of such a discovery.
3. The CRS has completed field notes, measurements, and photography for a DPR 523 "Primary Record" form. Unless the find can be treated prescriptively, as specified in the CRMMP, the "Description" entry of the DPR 523 "Primary Record" form shall include a recommendation on the CRHR/NRHP eligibility of the discovery. The project owner shall submit completed forms to the CPM.
4. The CRS, the project owner, and the CPM have conferred, and the CPM has concurred with the recommended eligibility of the discovery

and approved the CRS's proposed data recovery, if any, including the curation of the artifacts, or other appropriate mitigation; and any necessary data recovery and mitigation have been completed.

5. Ground disturbance may resume only with the approval of the CPM

### **Verification:**

1. At least 30 days prior to the start of ground disturbance, the project owner shall provide the CPM and CRS with a letter confirming that the CRS, Alternate CRS, and CRMs have the authority to halt ground disturbance in the vicinity of a cultural resources discovery, and that the project owner shall ensure that the CRS notifies the CPM within 24 hours of a discovery, or by Monday morning if the cultural resources discovery occurs between 8:00 AM on Friday and 8:00 AM on Sunday morning.
2. Unless the discovery can be treated prescriptively, as specified in the CRMMP, completed DPR 523 forms for resources newly discovered during ground disturbance shall be submitted to the CPM for review and approval no later than 24 hours following the notification of the CPM, or 48 hours following the completion of data recordation/recovery, whichever the CRS decides is more appropriate for the subject cultural resource.
3. Within 48 hours of the discovery of a resource of interest to Native Americans, the project owner shall ensure that the CRS notifies all Native American groups that expressed a desire to be notified in the event of such a discovery, and the CRS must inform the CPM when the notifications are complete.
4. No later than 30 days following the discovery of any Native American cultural materials, the project owner shall submit to the CPM copies of the information transmittal letters sent to the Chairpersons of the Native American tribes or groups who requested the information. Additionally, the project owner shall submit to the CPM copies of letters of transmittal for all subsequent responses to Native American requests for notification, consultation, and reports and records.
5. Within 15 days of receiving them, the project owner shall submit to the CPM copies of any comments or information provided by Native Americans in response to the project owner's transmittals of information.

### **CUL-8 FILL SOILS**

If fill soils must be acquired from a non-commercial borrow site or disposed of to a non-commercial disposal site, the CRS shall survey the borrow or disposal site(s) for cultural resources and record on DPR 523 forms any that are identified. This survey shall not be required if there is a survey of the location that is less than five years old and if the site is approved by the CPM.

When any non-commercial borrow site or non-commercial disposal site survey is completed, the CRS shall convey the results and recommendations for further action to the project owner and the CPM. The CPM shall determine, in

his/her sole discretion, whether significant archaeological resources that cannot be avoided are present at the borrow or disposal site. If the CPM determines that significant archaeological resources that cannot be avoided are present at the borrow or disposal site, the project owner must either select another borrow or disposal site or implement CUL-7 prior to any use of the site. The CRS shall report on the methods and results of these surveys in the final CRR.

**Verification:**

As soon as the project owner knows that a non-commercial borrow site and/or disposal site will be used, he/she shall notify the CRS and CPM and provide documentation of previous archaeological survey, if any, dating within the past five years, for CPM approval. In the absence of documentation of recent archaeological survey, at least 30 days prior to any soil borrow or disposal activities on the non-commercial borrow and/or disposal sites, the CRS shall survey the site/s for archaeological resources. The CRS shall notify the project owner and the CPM of the results of the cultural resources survey, with recommendations, if any, for further action.

**CUL-9 CLOSING CULTURAL RESOURCES REPORT (CCRR)**

The project owner shall submit the CCRR to the CPM for approval. The CCRR shall be written by or under the direction of the CRS and shall be provided in the ARMR format. The CCRR shall report on all field activities including dates, times and locations, results, samplings, and analyses. All survey reports, DPR 523 forms, data recovery reports, and any additional research reports not previously submitted to the California Historical Resources Information System (CHRIS) shall be included as appendices to the CCRR.

If the project owner requests a suspension of all construction activities for more than 30 days, then an interim CCRR that covers all cultural resources activities associated with the project shall be prepared by the CRS and submitted to the CPM for review and approval on the same day as the suspension/extension request. The interim CCRR shall be retained at the project site in a secure facility until construction resumes or the project is withdrawn. If the project is withdrawn, then a final CCRR shall be submitted to the CPM for review and approval at the same time as the withdrawal request.

**Verification:**

1. Within 30 days after requesting a suspension of construction activities, the project owner shall submit an interim CCRR to the CPM for review and approval.
2. Within 90 days after completion of ground disturbance (including landscaping), the project owner shall submit the CCRR to the CPM for review and approval. If any reports have previously been sent to the CHRIS and the Museum of Us, then receipt letters from the CHRIS and the Museum of US or other verification of receipt shall be included in an appendix.

3. Within 10 days after CPM approval of the CCRR, the project owner shall provide documentation to the CPM confirming that copies of the CCRR have been provided to the CHRIS, the Museum of US, the curating institution, if archaeological materials were collected, and to the tribal chairpersons of any Native American groups requesting copies of project-related reports.

## REFERENCES

---

The *tn: 00000* in a reference below indicates the transaction number under which the item is catalogued in the CEC's Docket Unit. The transaction number allows for quicker location and retrieval of individual items docketed for a case or used for ease of reference and retrieval of exhibits cited in briefs and used at Evidentiary Hearings.

- CalPeak 2022**—CalPeak Power-Border LLC (tn 245506-1). Petition for Post-Certification Amendment Border Peaker Project (01-EP-14): Border 52 MW Battery Energy Storage System Project.
- CEC 2001a**—California Energy Commission. Final Decision: CalPeak-Border Project by CalPeak Power-Border, LLC. (01-EP-2001). Sacramento, CA. June 19, 2001.
- CEC 2001b**—California Energy Commission. (tn 21375). Staff Assessment: CalPeak Power-Border, LLC. (01-EP-14). Sacramento, CA. July 6, 2001.
- Cook and Ellis 1987**—J. R. Cook and C. M. Ellis, California Department of Parks and Recreation Archaeological Site Record for CA-SDI-10737 (latter subsumed into CA-SDI-12337). Confidential document on file, South Coast Information Center, San Diego. Prepared by ASM Affiliates, Inc., January 11, 1987.
- Fuerstenberg 2022**—Theadora Fuerstenberg. Email Regarding Border BESS Project Questions about Marine Clam Shells and Fragments. October 6, 2022.
- Manchen 2016**—K. Manchen, California Department of Parks and Recreation Form 523L Archaeological Site Record Continuation Form: Site Update to CA-SDI-12337. Confidential document on file, South Coast Information Center, San Diego. Prepared by ASM Affiliates, Inc., March 23, 2016.
- Rosen 1989**—Martin D. Rosen, California Department of Parks and Recreation 523 Series Forms for CA-SDI-12337. Confidential Document on file, South Coast Information Center, San Diego. Prepared by District 11, Caltrans, August 1989.
- Rotella et al. 2022**—Brianna Rotella, Theadora Fuerstenberg, and Christopher Duran. (tn 246056). *Cultural Resources Technical Report for the Border Battery Energy Storage System Project*. Confidential report on file at the South Coast Information Center, San Diego State University, California. Prepared by Rincon Consultants, Inc., August 2022.
- San Diego 2001**—City of San Diego Municipal Code, Land Development Code, Historical Resources Guidelines. Amended April 30, 2001.  
<https://www.sandiego.gov/sites/default/files/legacy/development-services/industry/pdf/lmhistorical.pdf>

**BORDER PROJECT (01-EP-14C)**  
**Request to Amend Final Commission Decision**  
Transmission System Engineering  
Laiping Ng and Mark Hesters

---

## **INTRODUCTION**

The amendment proposes to install a 52-megawatt (MW) battery energy storage system (BESS) within the existing Border Peaker Project site. The BESS project would be interconnected to the San Diego Gas & Electric Company (SDG&E) transmission grid through the existing SDG&E Border Substation.

---

## **LAWS, ORDINANCES, REGULATIONS AND STANDARDS (LORS) COMPLIANCE**

The LORS from the original CEC Decision and previous amendments to that Decision still apply. No update is required.

---

## **ANALYSIS**

The proposed 52-MW BESS, to be installed at the existing Border Project site, would be connected to the low side of the existing Border Project 13.8/69 kilovolt (kV) transformer. Power would be stepped-up to 69 kV and delivered to the SDG&E grid through the existing Border Project gen-tie line.

An Energy Management System controller would be installed and connected to the existing Border Project control system to control the BESS and Border Project output not to exceed 52 MW. In addition, a Post-COD (Commercial Operation Date) Modification Review was submitted to the California Independent System Operator (California ISO) and approval is anticipated by November or early December 2022.

---

## **CONCLUSIONS AND RECOMMENDATIONS**

Staff concludes that the proposed battery energy storage system, assuming compliance with existing Transmission System Engineering (TSE) Conditions of Certification and the revised **TSE-1** proposed below, would continue to comply with applicable LORS. Proposed condition of certification **TSE-1** ensures the Delegate Chief Building Official and the CEC have a complete set of permits for the interconnection of the BESS by requiring the submittal of the application to the California ISO for a Material Modification Assessment and the approval of that application before energization of the batteries. The proposed BESS would not cause additional downstream transmission impacts other than those identified in the approved Border Project.



## PROPOSED MODIFICATIONS TO CONDITIONS OF CERTIFICATION

---

**TSE-1** The project owner shall ensure that the design, construction, and operation of the proposed transmission facilities will conform to requirements listed below:

The power plant switchyard, outlet line and termination shall meet or exceed the electrical, mechanical, civil and structural requirements of CPUC General Order 95, CPUC Rule 21, Title 8, California Code of Regulations, Articles 35, 36 and 37 of the, "High Voltage Electric Safety Orders", Title 8 CCR, Sections 2700-2974, CPUC Decision 93-11-013, Federal Communications Commission Part 15, Public Resources Code 4292-4296, and National Electric Code (NEC), and the California Independent System Operator (California ISO) Interconnection Procedures.

**Verification:** Prior to the start of construction of any project modification requiring approval of the California ISO, provide the interconnection approval to the CPM. Interconnection approval for modification of existing facilities can be in the form of an approved Material Modification or approval of the proposed changes to project and the existing interconnection facilities. Within 15 days after cessation of construction the project owner shall provide a statement to the CPM from the registered engineer in responsible charge (signed and sealed) that the switchyard and transmission facilities conform to the above listed requirements.

## REFERENCES

---

BPP2022, Petition to amend – BESS Part 1 (TN#:245506-1). Docketed on August 19, 2022.

**BORDER PEAKER PROJECT (01-EP-14C)**  
**Request to Amend Final Commission Decision**  
Worker Safety and Fire Protection  
Brett Fooks

**INTRODUCTION**

---

Calpeak Power-Border, LLC filed a petition to amend (PTA) on August 19, 2022, requesting approval to install a 52-megawatt (MW) battery energy storage system (BESS) operated by Hermes BESS, LLC to provide power to the grid on Border Project property (BPP 2022).

**LAWS, ORDINANCES, REGULATIONS, AND STANDARDS (LORS) COMPLIANCE**

---

**Worker Safety and Fire Protection Table 1**  
**Laws, Ordinances, Regulations, and Standards (LORS)**

<b>Local</b>	
2019 Edition of the California Fire Code (24 CCR Part 9)	The City of San Diego currently enforces the 2019 edition of the California Fire Code (CFC).

**ANALYSIS**

---

Worker safety and fire protection are regulated through LORS, at the federal, state, and local levels. Industrial workers at the facility operate equipment and handle hazardous materials and may face hazards that can result in accidents and serious injury. Protective measures are employed to eliminate or reduce these hazards or to minimize the risk through special training, protective equipment, and procedural controls.

The construction for the installation of the BESS would comply with worker safety and fire safety measures contained in health and safety plans prepared in accordance with existing Condition of Certification **WORKER SAFETY-1** in the Border Project Decision. Updates to the power plant’s existing Operations Fire Prevention Plan, Emergency Action Plan, and Hazardous Materials Management Plan would be required to include sections particular to the BESS in accordance with existing LORS.

The Border Project relies on the local fire protection services provided by the San Diego City Fire Department (SDCFD). The BESS installations like the one that would be installed at Border Project, are still a new technology for local fire fighters and their designs and technologies vary from installation to installation. Therefore, staff proposes new Condition of Certification **WORKER SAFETY-2**, under which the project owner would be required to submit the fire protection plans for the BESS to the SDCFD for their review and comment before construction could begin.

Staff’s evaluation of the safety of lithium-ion batteries determined that large lithium-ion BESS installations pose potential hazards. Because they store large amounts of energy, one of the principal hazards associated with lithium-ion BESS is fire, which could occur if a charged battery cell was somehow damaged, for example by being opened,

punctured, or crushed. A fire could also be caused if a battery cell is short-circuited, overheated, or experiences thermal runaway. After such an event, it may burn rapidly with flare-burning effect and may ignite other battery cells in proximity. The resulting fire would produce corrosive and/or toxic gases including hydrogen chloride, hydrogen fluoride, and carbon monoxide, similar to a fire involving a like-amount of plastics, requiring first responders to wear self-contained breathing apparatus to control the fire safely. Overheating batteries may also produce flammable gases that have, under certain circumstances, lead to an explosion within the BESS container. Due to the potential for fire and explosion, staff concludes that the Border BESS project would present a significant risk that should be mitigated.

Staff has reviewed the current regulatory framework regarding fire and life safety as related to the proposed lithium-ion BESS. While the current regulatory framework is evolving to address the risks involved with lithium-ion BESS installations, there are several current safety standards for BESSs that have been developed by industry standards groups including Underwriters Laboratories (UL) and the National Fire Protection Association (NFPA). One of the newest, issued in 2019 and revised in September 2022, is NFPA 855: Standard for the Installation of Stationary Energy Storage Systems. Others include UL 9540-2020: Energy Storage Systems and Equipment which lists requirements for BESSs supporting the local-area electric power systems or the electrical utility power grid, and UL 9540A-2019: Test Method for Evaluating Thermal Runaway Fire Propagation in Battery Energy Storage Systems which provides the standard test methodology for determining fire and explosion hazards presented by a given BESS design when undergoing an overheating failure, such as thermal-runaway. The current edition of the California Fire Code (CFC) also contains fire safety requirements for stationary lithium-ion battery energy storage systems. Issuance of these recent standards and codes provide evidence that the regulatory environment is quickly evolving to accommodate new lithium-ion BESS technology and designs as they emerge.

Confirmation of potential hazards posed by BESS installations has been provided through field experience. An explosion in a remote BESS enclosure occurred at the Arizona Public Service (APS) McMicken site in April 2019. There, four first responders were seriously injured upon opening the door to a BESS after a suspected internal fire had subsided. The failure report issued by APS indicated that the suspected fire was an extensive cascading thermal runaway event initiated by an internal failure within one battery cell of the BESS. The BESS's internal fire suppression system discharged a clean agent preventing the fire from spreading to surrounding battery racks. However, the compromised batteries emitted a mixture of combustible gases, which accumulated inside the BESS container. Although the batteries themselves did not explode, upon opening the container door and admitting air into the BESS, the gas mixture exploded. The fire incident at McMicken demonstrates that flammable gases generated during severe overheating of Li-ion batteries must be adequately managed to protect onsite workers and first responders.

While three years have passed since the McMicken site explosion, most published standards and existing fire codes do not yet explicitly address the explosion hazard of

remote outdoor BESS enclosures located away from occupied buildings. To address this risk, staff proposes new Condition of Certification **WORKER SAFETY-3**, which would require that test results from a BESS hazard mitigation analysis performed using the method prescribed by UL 9540A be submitted by the project owner to the SDCFD for review and comment, and to the Compliance Project Manager (CPM) for review and approval. Staff's proposed Condition of Certification **WORKER SAFETY-3** would ensure adequate protection to on-site workers and to first responders by ensuring that explosion risks posed by the BESS are mitigated by the BESS fire protection plans to a level that is less than significant.

More recently, staff inspected the site of the Tesla Megapack fire that occurred on September 20, 2022, at the Elkhorn Battery Energy Storage Facility near Moss Landing, California, where one out of a total of 256 Megapacks caught fire. The North County Fire Protection District (NCFPD) responded to the incident and proceeded to let the fire burn itself out per Tesla's emergency action plan for first responders. The fire department used onsite fire water monitors (water cannons) to cool adjacent modules to prevent them from overheating. Staff learned that during project commissioning, the project owner had provided training opportunities to the NCFPD for practicing on how to deal with a fire at the facility. The important takeaway from this incident is that proper training for first responders and the appropriate fire water supply infrastructure are critical for safely limiting damage and controlling the fire. Therefore, staff proposes new Condition of Certification **WORKER SAFETY-4** which would require the project owner to provide the appropriate fire water supply infrastructure for the BESS and allow access to information about the facility for training of the local fire department.

## **CONCLUSIONS AND RECOMMENDATIONS**

---

Based on the information provided in the petition, staff proposes new Worker Safety Conditions of Certification **WORKER SAFETY-2**, **WORKER SAFETY-3**, and **WORKER SAFETY-4** which would provide adequate protection to on-site workers and would mitigate the fire risks posed to first responders and the offsite public to a level that is less than significant.

With the adoption of new conditions of certification **WORKER SAFETY-2**, **WORKER SAFETY-3**, and **WORKER SAFETY-4** and continued compliance with the existing conditions of certification in the Border Project Decision, staff concludes that the proposed modifications would be in compliance with applicable worker safety and fire protection LORS.

## **PROPOSED MODIFICATIONS TO CONDITIONS OF CERTIFICATION**

---

Staff recommends adoption of the following new conditions of certification:

**WORKER SAFETY-2** The project owner shall submit the fire protection plans for the Battery Energy Storage System (BESS) to the San Diego City Fire Department (SDCFD) for review and comment, to the Delegate Chief Building Official (DCBO) for plan check and inspection, and to the Compliance Project Manager (CPM) for review and approval.

**Verification:** At least sixty (60) days prior to the start of construction of the BESS project, the project owner shall provide the complete set of BESS fire protection drawings and specifications to the SDCFD for review and comment, to the DCBO for plan check approval and construction inspection, and to the CPM for review and approval.

**WORKER SAFETY-3** The project owner shall submit a BESS hazard mitigation analysis per UL 9540A to the SDCFD for review and comment, to the DCBO for plan check and inspection, and to the CPM for review and approval. The hazard mitigation analysis shall include consideration of potential thermal runaway fault conditions occurring within a single battery storage rack, cell module or cell array. The analysis shall include mitigations to prevent flammable gases released during fire, battery overcharging, and other abnormal operating conditions within the BESS from creating an explosion hazard that could injure workers or emergency first-responders.

**Verification:** At least sixty (60) days prior to the start of construction of the BESS project, the project owner shall provide the hazard mitigation analysis to the SDCFD for review and comment, to the DCBO for plan check and inspection and to the CPM for review and approval.

**WORKER SAFETY-4** The project owner shall provide an approved fire water supply for use by first responders when responding to an emergency related to the BESS. The project owner shall also provide access to information and the facility for the local fire department to conduct training.

**Verification:** At least sixty (60) days prior to the start of construction of the BESS, the project owner shall:

- a) Provide the fire water supply plans to the SDCFD for review and comment, to the DCBO for plan check and inspection, and to the CPM for review and approval.
- b) Provide a copy of a letter from the project owner to the SDCFD offering access to information and the facility for training of SDCFD for emergencies that could occur at the BESS facility.

## **REFERENCES**

---

BPP 2022, Petition to amend – BESS Part 1. 23 August 2022, Docket No. 01-AFC-14C (TN#:245506-1).

BPP 2022, Petition to amend – BESS Part 2. 23 August 2022, Docket No. 01-AFC-14C (TN#:245506-2).