DOCKETED	
Docket Number:	23-OPT-02
Project Title:	Darden Clean Energy Project
TN #:	260005
Document Title:	Supplemental Data Requests for the Darden Clean Energy Project
Description:	N/A
Filer:	Marichka Haws
Organization:	California Energy Commission
Submitter Role:	Commission Staff
Submission Date:	11/13/2024 2:52:23 PM
Docketed Date:	11/13/2024

November 13, 2024

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IP Darden I, LLC and Affiliates
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Supplemental Data Requests for the Darden Clean Energy Project (23-OPT-02)

Dear Becky Moores:

California Energy Commission (CEC) staff confirmed receipt on November 9, 2023, of an Opt-In Application for the Darden Clean Energy Project (23-OPT-02). CEC staff finished its review of the project application and all supplemental application filings[1] pursuant to California Code of Regulations, title 20, section 1877, which specifies the required contents of an application, and Public Resources Code, section 25545.4(a), which states, "within 30 days of the submission of the application, the commission shall review the application and make a determination of completeness." Based on this review, staff filed a Determination of Complete Application on September 19, 2024 (TN 259218).

On October 3, 2024, the applicant docketed a memo as official notice that the Darden Clean Energy Project no longer includes a green hydrogen generation component as a part of the project. On October 9, 2024, the applicant submitted a detailed updated project description to the CEC which documented the removal of the green hydrogen production facility from the project. CEC staff has additional data requests regarding the changes to the project. In addition, the applicant informed staff during a project site visit on October 17, 2024, that it would be seeking incidental take authorization for the western burrowing owl (*Athene cunicularia hypugaea*). The applicant's opt-in application must be supplemented with the information required by the Fish and Game Code for incidental take authorization.

1 Staff filed the Executive Director's initial Determination of an Incomplete Application and Request for Information on December 11, 2023, to which the applicant filed supplemental application materials between February 9 and May 10, 2024. Staff filed the Executive Director's second Determination of an Incomplete Application and Request for Follow-up Information on June 10, 2024, to which applicant filed supplemental application materials between August 14 and August 20, 2024.

In addition, comments were received in response to the Notice of Preparation (NOP) of a Draft Environmental Impact Report for the Darden Clean Energy Project (TN 259258) which was sent to State Clearinghouse and mailed to responsible and trustee agencies as well as Fresno County Clerk on September 23, 2024. Pursuant to Public Resources Code, section 25545.4(d), the executive director may request additional information from the applicant to address comments by public agencies on the scope and content of the information that is required to be included in an environmental impact report for certification. CEC staff has additional data requests in response to agency comments received during the NOP comment period, which ended for responsible and trustee agencies on October 24, 2024.

All requested information is reasonably necessary to prepare an Environmental Impact Report as part of a CEC Staff Assessment and to support a decision on the application, including all the findings required in Chapter 6.2 of Division 15 of the Public Resources Code (Sections 25545 et seq). Per Public Resources Code, section 25545.4, the applicant shall provide the CEC with the requested information specified in Attachment A of this letter within 30 days of receiving the request.

If you have any questions about the information identified as necessary, please email Ann Crisp, project manager, at ann.crisp@energy.ca.gov

Sincerely,

Drew Bohan
Executive Director

Attachment
Attachment A: Supplemental Data Requests

Attachment A: Supplemental Data Requests

AIR QUALITY

The updated Project Description, Section 2.1.11 (TN 259510), states that there would be up to three emergency liquid petroleum gas (LPG)-fired gensets to the substation (Option 1 or Option 2) when electric power is not available. These LPG gensets would be powered by approximately 150-ekW[2] rated engines. These changes affect several parts of Section 5.7 of the application (TN 252983). CEC staff hereby requests clean and redlined versions of an updated Section 5.7 of the application and appendices. The clean and redlined versions must include all necessary changes to the application, including but not limited to changes necessary to respond to data requests SUP DR AQ-1 through SUP DR AQ-7 below.

SUP DR AQ-1. Please provide an updated Figure 1 of Data Request Response Set 3 (TN 255907).

SUP DR AQ-2. Please confirm that all the emission rates in Data Request Response Set 3 (TN 255907) would remain the same with the exception of the deleted larger green hydrogen facility gensets. If not, please provide the updated emission rates.

But for the CEC's jurisdiction and in lieu authority set forth in Public Resources Code section 25545.1(b)(1), any state or local air quality permit that would have been issued from the San Joaquin Valley Air Pollution Control District (District or SJVAPCD) will be incorporated into the CEC's certification. To facilitate the District's review of the project, the applicant can file with the District, the information that would have otherwise been required to obtain relevant permits. To ensure the District's requirements and mitigation are contained in the CEC's Environmental Impact Report (EIR) and certification, if the project is approved, staff needs copies of all correspondence between the applicant and the District in a timely manner to stay up to date on any issues that arise prior to completion of the environmental document.

SUP DR AQ-3. Please indicate whether the remaining gensets would otherwise still be required to get a permit from the SJVAPCD, but for the CEC's exclusive jurisdiction. If so, please provide the information necessary to obtain relevant permits and confirmation that this information has been submitted to the SJVAPCD.

In the updated Project Description, the green hydrogen production facility has been removed. Staff needs the updated emissions to complete the analysis, as shown in Section 5.7 of the application (TN 252983).

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2 ekW is the total generator output after efficiency losses or the loss from mechanical to electrical energy. https://thompsonpowersystems.com/resources/blog/a-guide-to-generator-ratings/

SUP DR AQ-4. Please provide clean and redlined versions of an updated Section 5.7 of the application and associated appendices, including but not limited to, updates to the following Air Quality Tables included in Section 5.7: Table 5.7-6, Table 5.7-7, Table 5.7-8, Table 5.7-9, Table 5.7-10, Table 5.7-12, and Table 5.7-13.

In the updated Project Description (TN 259510), three 150-ekW emergency LPG-fired generators would provide backup power to the project substation. Staff needs to confirm the necessary information for air quality modeling.

SUP DR AQ-5. Please confirm the number of planned backup generators and provide their specifications and locations.

SUP DR AQ-6. Please provide updated CalEEMod results for both the construction and operation phases or justify why an updated analysis is not needed.

SUP DR AQ-7. Please provide updated AERMOD results for both the construction and operation phases or justify why an updated analysis is not needed.

BIOLOGICAL RESOURCES

The updated Project Description, Section 2.1.1, page 2-1 (TN 259510) indicates that overall project size remains the same as before the applicant removed the green hydrogen production facility from the project. The solar facility, BESS, and substation would be located on 9,100 acres. Staff needs clarifications regarding the size of the overall project (in acres), as well as the size of each proposed project component (in acres). It is unclear what, if any, or type of project component is now proposed in the areas where the green hydrogen facility was previously proposed in the Option 1 and 2 sites or the alternate green hydrogen site. In addition, the updated Project Description (TN 259510) states the utility-owned switchyard would now be located on approximately 50 acres instead of the previous 45 acres; however, Table 2 of the applicant's Data Request Response, Set 6 (TN 258571) shows 45 acres of impact for the switchyard.

SUP DR BIO-1. Please update and resubmit Table 2 submitted in response to REV 1 DR BIO-1, included as part of Data Request Response, Set 6 (TN 258571), to reflect the current temporary and permanent impacts by project component and land cover type, duration (temporary and permanent), and size (acres). Please clarify the total acres for the solar facility, BESS, and substation (for both Option 1 and Option 2 separately) as well as the gen tie corridor and utility switchyard. Please ensure the expanded area for the switchyard is fully described and describe any additional changes to the existing setting (e.g., land cover type).

SUP DR BIO-2. Please describe what, if any, type of project component is proposed to occupy the area in Option 1 and 2 where the green hydrogen

production facility was previously proposed. Confirm if the Alternate Green Hydrogen Site would be left undeveloped.

SUP DR BIO-3. Please update Appendix C to Data Request Response Set 4 (TN 256296), including all relevant tables, and any other biological resources management plan to reflect the changes to the project description, including removal of the green hydrogen facility and update the acres of impacts by project component.

The utility switchyard would not be under CEC's jurisdiction but instead would be under the California Public Utilities Commission's jurisdiction, and the applicant would be retaining an approved Pacific Gas and Electric Company (PG&E) contractor to build the switchyard per PG&E standards and then deeded over to PG&E to operate and maintain.

SUP DR BIO-4. Appendix D to Data Request Response Set 4 (TN 256296) contains the "Utility Switchyard and Alternate Green Hydrogen Site Biological Resources Management Plan" in response to DR BIO-7. Please revise this plan to reflect the removal of the green hydrogen production facility and update all tables and figures – including Table 1. Please clarify if the mitigation measures included in the plan should incorporate the Standard PG&E Construction Measures that were included as part of responses to DR TSD-1 (TN 256296) for the PG&E downstream network upgrades.

SUP DR BIO-5. The updated shapefiles submitted via Kiteworks on October 11, 2024, display the utility switchyard as 35.34 acres not 50 acres as described in the updated Project Description, Section 2.2.4.1 (TN 259510), or the 45 acres described in Data Request Response, Set 6 (TN 258571). Please submit updated shapefiles that include all project changes (e.g. increased size of utility switchyard from 40 to 50 acres).

At the time the opt-in application was filed in November 2023 (TN 252974), the western burrowing owl was listed as a California Department of Fish and Wildlife (CDFW) Species of Special Concern, and CDFW and CEC staff were considering it accordingly. As of October 2024, the species has now been upgraded to candidate species under the California Endangered Species Act (CESA) for consideration as threatened or endangered by the California Fish and Game Commission. While a candidate species, it enjoys the same protections as a state-listed threatened or endangered species. During a site visit with the applicant on October 17, 2024, attended by CEC and CDFW staff, the applicant mentioned that they would now be seeking take authorization for western burrowing owl. Staff needs to understand how applicant intends to proceed.

SUP DR BIO-6. If requesting take authorization for western burrowing owl, and pursuant to California Code of Regulations, title 20, section 1877, Contents of an

Opt-in Application, please provide the items required in California Code of Regulations, Title 14, section 783.2(a)(1)-(a)(10). They are the 13 listed items on the CDFW website at: https://wildlife.ca.gov/Conservation/CESA/Permitting/Incidental-Take-Permits. Some of this information may have already been provided previously but please resubmit in one package identifying these items specific to burrowing owl. Please note that staff and CDFW prefer a standalone application document(s) such as what was already provided for Swainson's hawk.

Please provide a clean and a redline strikeout version of the take authorization form for Swainson's hawk included as Appendix U in the opt in application (TN 252929), as well as TN 253060-1 through TN 253060-3 with the request for incidental take authorization for burrowing owl added.

CLIMATE CHANGE/GREENHOUSE GAS EMISSIONS

The Annual GHG Emissions for the project, included in Appendix N Air Quality and Greenhouse Gas Emissions Study Volume 1 Darden Clean Energy, (TN 253031-1), rely on the annually displaced GHG emissions that would result from the green hydrogen facility. Without this displacement staff needs updated information to include in staff's Climate Change analysis. The updated Project Description, including removal of the green hydrogen facility, affects several parts of Appendix N, Volume 1 (TN 253031-1). CEC staff hereby requests clean and redlined versions on an updated Appendix N, Volume 1. The clean and redlined versions must include all changes to that document necessitated by the updated Project Description (TN 259510), including but not limited to changes necessary to respond to data requests SUP DR GHG-1 through SUP GHG-4 below.

SUP DR GHG-1. Please update the Annual GHG Emissions to reflect the removal of the green hydrogen facility and submit redline versions of Appendix N, Volume 1, including but not limited to, an updated Table 19, included on page 65 of the Air Quality and Greenhouse Gas Emission Study (TN 253031-1).

SUP DR GHG-2. Please update the table titled "Displaced Energy Production during 35-year Project Life", included on page 201 of the Air Quality and Greenhouse Gas Emissions Study (TN 253031-1).

SUP DR GHG-3. In the table titled "Displaced Energy Production during 35-year Project Life", included on page 201 of the Air Quality and Greenhouse Gas Emissions Study (TN 253031-1), please replace the 2021 CA Power Mix in the table with the updated 2023 CA Power Mix available at: https://www.energy.ca.gov/data-reports/energy-almanac/california-electricity-data/2023-total-system-electric-generation, and give an expected power mix over the 35-year project life, with the consideration of the requirements in Senate Bill 32 (California Global Warming

Solutions Act of 2006) and Assembly Bill 1279 (The California Climate Crisis Act [2021-2022]).

SUP DR GHG-4. Please include assumptions that would lead to the degradation of the battery, over the 35-year project life span, leading to the loss of capacity and reduced battery performance. Please describe the type of lithium-ion battery that is expected to be used (LFP or NMC). Include the amount of charge cycles that would be typical for the battery system.

HAZARDOUS MATERIALS

Tables 5-9-1, 5-9-2 and 5-9-3 in Section 5.9 Hazardous Materials from the opt-in application were updated in CEC Data Request Response Set 2 (TN 255082). Since then, the applicant has removed the green hydrogen facility from the project description.

SUP DR HAZ-1. Please update Tables 5-9-1, 5-9-2, and 5-9-3 to reflect the changes in the hazardous materials from removal of the green hydrogen facility from the project.

The redline version of the updated Project Description (TN 259510), identified two options for the location of the step-up substation and the BESS (Figure 2-2). CEC Data Request Response Set 6 (TN 258570) included detailed project design drawings of Option 1, Option 2, and the Alternate Green Hydrogen Site but only showed the Option 1 location for the BESS and Step-up Substation. The project design drawings (TN 258570), submitted in response to REV 1 DR HAZ-2, only displayed the green hydrogen production facility in different locations for different Options (a different location for each of the three Options). These are inconsistent. While the updated Project Description (TN259510) indicates that the BESS could be located in two locations (either Option 1 or Option 2), there were no detailed drawings of these two configurations provided in the updated project design drawing (TN 258570). The updated project design drawings, Sheets G.200 for Option 1 and Option 2 (TN 258570) display the BESS and step-up substation in the same location.

SUP DR HAZ-2. Please submit updated project design drawings at the same scale as those provided in the response to REV 1 DR HAZ-2 (TN 258570) and clarify the correct configurations.

PROJECT DESCRIPTION

In the redline version of the updated Project Description (TN 259510), subsection 2.1.13, the applicant states that the project does not require the use of fossil fuels during normal operations with the exception of diesel fueling equipment. Emergency backup generators have been removed from the list of components that would use fossil fuels. However, subsection 2.1.11 states that the self-contained emergency backup generator sets would use liquid petroleum gas (LPG), which is a fossil fuel.

Therefore, it would appear that subsection 2.1.13 in the project description needs to be revised.

SUP DR PD-1. Please revise the discussion in subsection 2.1.13 of the redline updated Project Description to include the use of LPG for the emergency backup generators as a fossil fuel used by the project. Please also add this updated discussion to the clean version of the Project Description (TN 259509) and resubmit with the updated redline version to the docket.

PUBLIC HEALTH

The updated Project Description (TN 259510) subsection 2.1.11 states that three 150-ekW emergency LPG-fired generators would provide backup power to the project substation. Staff needs to confirm the modeling results included in the Health Risk Assessment (HRA) submitted with the opt in application in Appendix N-4 in the Air Quality and Greenhouse Gas Emissions Study (TN 253031-1), which is necessary for public health modeling.

SUP DR PH-1. Please provide updated HRA modeling results for both the construction and operation phases or provide justification why an updated HRA is not needed.

WATER RESOURCES

According to Section 2.1.6.5 of the revised Project Description (TN 259510), water supply would no longer be augmented by surface water surplus and storage and would be solely sourced from groundwater underlying the project site through purchase options with Westlands Water District (WWD). However, Sections 5.13.1.6 and 5.13.3.2 of the application (TN 253035) identified surface water surplus and storage as a secondary water supply source.

SUP DR WATER-1. Please verify that the sole source of water would be groundwater from the project site through purchase options with WWD and not from surface water surplus and storage. In addition, please provide a clean and redlined version of Section 5.13.

The applicant's response to data request DR WATER-17 in CEC Data Request Response Set 4 (TN 256296) states that potable water would be supplied to an estimated 40 employees 365 days a year at the operations and maintenance (O&M) building during project operations. As noted in the water quality section of the Water Supply Assessment (Appendix S of the opt-in application), many areas of the lower aquifer, from where groundwater would be extracted, exceed the secondary maximum contaminant level (SMCL) for total dissolved solids (TDS) of 1000 milligrams per liter (mg/L). This was confirmed by analytical results of groundwater sampled from two local wells (Well #4 and Well #5) approximately 5 miles from the project site, where TDS was detected at concentrations of 1,710 mg/L and 1,190 mg/L, respectively (included

as Appendix K of the response to Data Request Set 4 (TN 256296). Presumably, the reverse osmosis water treatment plant proposed in the original project description (TN 252985) needed to provide water quality sufficient for hydrogen electrolysis would also be used for O&M building water supply. However, all references of the reverse osmosis water treatment plant have been removed from the update Project Description (TN 259510).

SUP DR WATER-2. Please identify what means of water treatment would be used to ensure potable water is provided to project workers during operations. For the identified means of water treatment, please explain how its use would adhere to federal, state and local drinking water requirements.

According to Section 2.1.6.5 of the updated Project Description (TN 259510), water supply for the project would be sourced from project site groundwater conferred by the WWD per a purchase option agreement. However, WWD submitted a letter commenting on the Notice of Preparation (TN 259646), which stated:

"The Project lands shall not include, and the District's rights to such shall include the following reserved rights reserved in the Grant Deed, pursuant to the terms of the Option Agreement:

(iv) all groundwater underlying or otherwise appurtenant to the Project"

As part of the comment letter, WWD later describes the conditions for onsite groundwater extraction, which appears to contradict the previous statement under item (iv).

SUP DR WATER-3. Please provide evidence that all agreements with WWD to extract groundwater during project construction and operations are secure.

According to the WWD NOP comment letter (TN 259646), the applicant may be eligible for Municipal and Industrial (M&I) water services sourced from the Central Water Project (WWD 2023) if exempted from the Compliance Agreement WWD entered into with the California Department of Public Health. The M&I service option for water supply was not discussed in Section 5.13.1.6 of the application (TN 253035).

SUP DR WATER-4. Please indicate if the M&I service option alternative for water supply was evaluated. If so, please explain if this alternative was viable or not and if it was eliminated from further consideration. If the M&I option is proposed for the project, please provide a discussion in the clean and redlined version of Section 5.13 requested above as part of **SUP DR WATER-1**.

REFERENCES CITED

WWD 2023 – Westlands Water District (WWD). Article 19. Regulations Regarding the Application for and Use of Municipal and Industrial Water Within Westlands

Water District. adopted January 14, 2002, revised September 19, 2023. Available online at: https://wwd.ca.gov/wp-content/uploads/2024/06/rules19.pdf

WORKER SAFETY AND FIRE PROTECTION

The updated Project Description, Section 2.1.4.2 (TN 259510), does not mention the specific battery proposed for the Battery Energy Storage System (BESS). This section states that the energy "*storage system would consist of lithium-ion battery packs housed in electrical enclosures and buried electrical conduit. As detailed Project design and engineering continues and the size of the storage system is finalized, a battery vendor would be selected, and details of the lithium-ion technology and battery dimensions would be determined.*" However, the applicant's Data Request Response Set 5 (TN 258490) which provided response to staff's REV 1 DR WS-2 indicated that the Tesla Megapack 2 XL would be used for the BESS.

SUP DR WS-1. Please clarify and update the project description to indicate whether the Tesla Megapack 2 XL would be used for the project. If the Tesla Megapack 2 XL is not the selected product, please provide an updated project description with the new vendor and product. Please include any and all documentation for the new product as it relates to fire protection since a new product would have different potential impacts compared to the Tesla Megapack 2 XL. This is important to know because manufacturers have different approaches to fire protection design and philosophy that could change the analysis and potential impacts of the BESS.