

D.1 Introduction to Environmental Analysis

D.1.1 Introduction/Background

This section provides discussion and full public disclosure of the environmental impacts of the East County (ECO) Substation Project, the Tule Wind Project, and the Energia Sierra Juarez U.S. Generator-Tie Project (ESJ Gen-Tie Project), collectively referred to as the Proposed PROJECT, and alternatives, including the No Project/No Action alternatives. As described in Section A of this EIR/EIS, the California Public Utilities Commission (CPUC) and Bureau of Land Management (BLM) have determined that the proposed Campo, Manzanita, and Jordan wind energy projects are sufficiently developed to analyze impacts where feasible. Therefore, for purposes of this EIR/EIS, these three wind energy projects are qualitatively evaluated at a programmatic level because sufficient project-level information has yet to be developed. The proposed Campo, Manzanita, and Jordan wind energy projects will still require project-specific environmental review and evaluation under all applicable environmental regulations once sufficient project-level information is developed. By including these nascent wind projects as components of the proposed wider PROJECT, it allows the lead agencies to further consider broad impacts, mitigation and consequences of the ECO substation project specifically, and the wider PROJECT as a whole.

Section D analyzes the potential environmental impacts associated with the Proposed PROJECT, including the proposed Campo, Manzanita, and Jordan wind energy projects as they relate to the following 17 areas of environmental analysis:

- D.2 Biological Resources
- D.3 Visual Resources
- D.4 Land Use
- D.5 Wilderness and Recreation
- D.6 Agriculture
- D.7 Cultural and Paleontological Resources
- D.8 Noise
- D.9 Transportation and Traffic
- D.10 Public Health and Safety
- D.11 Air Quality
- D.12 Water Resources
- D.13 Geology, Mineral Resources, and Soils
- D.14 Public Services and Utilities
- D.15 Fire and Fuels Management
- D.16 Social and Economic Conditions
- D.17 Environmental Justice
- D.18 Climate Change.

Analysis within each issue area also includes consideration of project alternatives as described in Section C of this EIR/EIS, decommissioning of the Tule Wind Project, and addresses potential biological, visual resources, and fire impacts to the United States associated with the proposed Phase I ESJ Wind turbines constructed in Mexico.

Within each issue area in this section, the discussion of project impacts is provided in the following format:

- Environmental setting/affected environment
- Methodology and assumptions
- Applicable regulations, plans, and standards
- Environmental impacts/environmental effects
 - Definition of California Environmental Quality Act (CEQA) significance criteria/~~indicators under the National Environmental Policy Act (NEPA)~~
- Direct, indirect, and cumulative effects (cumulative effects are discussed in Section F of this EIR/EIS)
- Proposed mitigation monitoring, compliance, and reporting
- Residual effects
- References cited in the specific section.

In addition to the No Project/No Action alternatives, Section D of this EIR/EIS includes environmental analysis of the alternatives including the ECO Substation Project site alternative and 138 kV transmission design, routing, and underground alternatives; Tule Wind Project design, alternative location/configurations, and undergrounding; and an undergrounding alternative to the ESJ Gen-Tie Project.

A brief summary of each of the proposed alternatives is provided as follows.

- **ECO Substation Alternative Site.** Under this alternative, the proposed ECO Substation would be located 700 feet east of the proposed ECO Substation site (see Figure C-1B, ECO Substation Project and ESJ Gen-Tie Alternatives Map). This alternative would change the configuration of the SWPL Loop-In and extend the 138 kV transmission line to a total length of 13.4 miles. Under this alternative, the access road to the ECO Substation would go along the west and southern side of the substation site, rather than along the north; and the northwest corner of the western ECO Substation pad would be removed to reduce permanent impacts to waters of the U.S. (see Figure C-4B, ECO Substation Alternative Site). Furthermore, the location of steel poles 76, 77, 91, 99, 102, 104, and 105 along the

138 kV transmission line would be shifted to avoid impacts to cultural resources (SDG&E 2011). Other changes include one additional staging area, three additional pole sites, minor additions in new access roads, and permanent maintenance pads, as well as one retention pond instead of two. All other elements of the proposed ECO Substation Project would remain as described in Section B, Project Description, of this EIR/EIS.

- ECO Substation Project 138 kV transmission design, routing, and undergrounding alternatives:
 - **ECO Partial Underground 138 kV Transmission Route Alternative.** For this alternative, the proposed ECO Substation Project would be the same as described in Section B, Project Description, of this EIR/EIS with the exception that the approximately 4-mile-long portion of the proposed 138 kV transmission line between the SWPL and Boulevard Substation (from milepost 9 to Boulevard Substation, see Figure C-1B) and the proposed 138 kV transmission line between approximate MP 0.3 and 2.4 would be installed underground and where possible within existing roadways rather than overhead on transmission line poles. Between MP 0.3 and 2.4, the proposed 138kV transmission would be rerouted and installed underground along Old Highway 80 and Carrizo Gorge Road (for a distance of approximately 2.7 miles) and would then rejoin the proposed 138 kV transmission line.
 - **ECO Highway 80 138 kV Transmission Route Alternative.** For this alternative, the proposed ECO Substation Project would be the same as described in Section B, Project Description, of this EIR/EIS with the exception that this alternative replaces the proposed 138 kV transmission line route from approximately milepost 5.8 to 13.3 and instead would install the proposed 138 kV transmission line along Old Highway 80 where it would generally follow and overbuild an existing electrical distribution line (see Figure C-1B). The proposed Old Highway 80 segment would connect the 138 kV transmission line from near the intersection of Highway 80 and the SWPL right of way (ROW) to the Boulevard Substation. Overbuilding along the distribution line would require the removal and replacement of wooden poles with taller, steel poles. The new poles would support the existing distribution lines on the lower arms of the structures, with the 138 kV transmission line on the upper arms. Total length of the proposed 138 kV transmission line would be 10.6 miles, compared with the proposed 13.3-mile-long, 138 kV transmission line.

- **ECO Highway 80 Underground 138 kV Transmission Route Alternative.** This alternative would be the same as described for the ECO Highway 80 138 kV Transmission Route Alternative with the exception that the proposed 138 kV transmission line would be generally installed underground within the existing ROW along Old Highway 80 (see Figure C-1B). Installation of the new 138 kV line underground along the utility ROW would include removal of wooden poles and the transfer of existing lines to underground conduit within the utility ROW.
- Tule Wind Project alternative design, location/configurations, and undergrounding:
 - **Tule Wind Alternative 1, Gen-Tie Route 2 with Collector Substation/Operations and Maintenance (O&M) Facility on Rough Acres Ranch.** Under this alternative, the proposed Tule Wind Project would consist of 128 turbines and be the same as described in Section B, Project Description, of this EIR/EIS with the exception that the proposed O&M and collector substation facilities would be co-located on Rough Acres Ranch (T17S R7E Sec. 9), approximately 5 miles south of the originally proposed site (see Figure C-2B). In addition, the temporary 5-acre concrete batch plant would be moved from its proposed location on BLM jurisdictional lands to Rough Acres Ranch (Figure C-2B) and the proposed overhead collector line located west of Lost Valley Rock would be relocated to east of Lost Valley Rock and constructed within the proposed Tule Wind Project 138 kV alignment that would be vacated as a result of the O&M facility and collector substation location shift. Moving the O&M and collector substation facilities to this alternative location would result in an increase in the length of the 34.5 kV overhead collector lines and a number of collector line poles to connect the wind turbines to the substation. The overhead collector line system would increase by 7.7 miles, from 9.3 miles (proposed) to 17 miles, and include an additional 202 collector line poles. However, the underground collector lines would decrease in distance by approximately 6.2 miles, from 28–35.1 miles (proposed) to 27–28.9 miles, and the 138 kV transmission line would decrease in distance as a result of this alternative by approximately 5.4 miles, from 9.2 miles (proposed) to 4–3.8 miles, and the number of transmission line poles would decrease from 126–80 poles (proposed) to 49–44 poles. Under this alternative the 138 kV gen-tie transmission line would run from the alternate collector substation approximately 1 mile east, south along McCain Valley Road, and then west along Old Highway 80 until connecting to the proposed Boulevard Substation rebuild component of the ECO Substation Project. This alternative would increase the land disturbance by 1249.3 acres, from 712–725.3 acres (proposed) to 724–774.6 acres (Iberdrola Renewables 2011).

- **Tule Wind Alternative 2, Gen-Tie Route 2 Underground with Collector Substation/O&M Facility on Rough Acres Ranch.** This alternative would consist of 128 turbines and would essentially be the same as described in Section C.4.2.1 for the Tule Alternative Gen-Tie Route 2 with Collector Substation/O&M Facility on Rough Acres Ranch with the exception that the proposed 138 kV gen-tie transmission line would run underground from the alternate collector substation approximately 1 mile east, south underground along McCain Valley Road, and then west underground along Old Highway 80 until reaching the Boulevard Substation rebuild component of the ECO Substation Project.
- **Tule Wind Alternative 3, Gen-Tie Route 3 with Collector Substation/O&M Facility on Rough Acres Ranch.** This alternative would consist of 128 turbines and would essentially be the same as described in Section C.4.2.1 for the Tule Alternative Gen-Tie Route 2 with Collector Substation/O&M Facility on Rough Acres Ranch with the exception that the proposed 138 kV gen-tie transmission line would, as shown in Figure C-2B, run from the alternate collector substation approximately 3 miles west to Ribbonwood Road, continue south—along Ribbonwood Road, and then east along Old Highway 80 until connecting to the proposed Boulevard Substation rebuild component of the ECO Substation Project. As a result of this alternative, the 138 kV gen-tie transmission line would decrease in distance by approximately 3.8 miles from 9.2 miles (proposed) to 5.4 miles. Additionally, under this alternative, transmission line poles would decrease from 126-80 poles (proposed) to 59-60 poles. The overhead collector line system would increase by 7.7 miles, from 9.3 miles (proposed) to 17 miles, and include an additional 202 collector line poles. This alternative would increase the land disturbance by 16-54.7 acres, from 712-725.3 acres (proposed) to 728-780 acres (Iberdrola Renewables 2011).
- **Tule Wind Alternative 4, Gen-Tie Route 3 Underground with Collector Substation/O&M Facility on Rough Acres Ranch.** This alternative would consist of 128 turbines and would essentially be the same as described in Section C.4.2.4 for the Tule Alternative Gen-Tie Route 3 with Collector Substation/O&M Facility on Rough Acres Ranch with the exception that the proposed 138 kV transmission line would run underground from the alternate collector substation approximately 3 miles west to Ribbonwood Road, continue south underground along Ribbonwood Road, and then east underground along Old Highway 80 until reaching the Boulevard Substation.
- **Tule Wind Alternative 5, Reduction in Turbines.** Under this alternative, the proposed Tule Wind Project would consist of 65 turbines with the removal of 63

specific turbines to include six (6) turbines adjacent to the In-Ko-Pah ACEC being S1, R4, (R8), R8, R9, and R10 and 57 turbines on the western side of the project site including all turbines in the J, K, L, M, N, P, and Q strings. ~~be the same as described in Section B, Project Description, of this EIR/EIS with the exception that this alternative would remove 62 turbine locations.~~

- Alternatives to the ESJ Gen-Tie Project:
 - **ESJ 230 kV Gen-Tie Underground Alternative.** Under this alternative, the 230 kV gen-tie line would be placed underground rather than aboveground. It would follow the same proposed path as described in the Proposed PROJECT.
 - **ESJ Gen-Tie Overhead Alternative Alignment.** Under this alternative, both the 230 kV and 500 kV gen-tie options would shift approximately 700 feet east of the Proposed PROJECT to connect with the ECO Substation Alternative Site.
 - **ESJ Gen-Tie Underground Alternative Alignment.** Under this alternative, the 230 kV gen-tie line would shift approximately 700 feet east of the Proposed PROJECT site and would be undergrounded to connect with the ECO Substation Alternative Site.
- No Project/No Action Alternatives:
 - **No Project Alternative 1 – No ECO Substation, Tule Wind, or ESJ Gen-Tie Projects.** This alternative would result in the ECO Substation, Tule Wind, and ESJ Gen-Tie projects not being constructed.
 - **No Project Alternative 2 – No ECO Substation Project.** This alternative would result in the ECO Substation Project not being constructed. The proposed Tule Wind and ESJ Gen-Tie projects would be constructed; however, each of these projects would be required to interconnect to existing substations elsewhere in the project area or to construct their own transmission substations.
 - **No Project Alternative 3 – No Tule Wind Project.** Under this alternative, the right-of-way would not be granted by the BLM and the Tule Wind Project would not be constructed. The ECO Substation and ESJ Gen-Tie projects would be constructed.
 - **No Project Alternative 4 – No ESJ Gen-Tie Project.** Under this alternative, the ESJ Gen-Tie Project would not be constructed, and the renewable energy generated in Baja California would not reach the U.S. market via the ECO Substation. The ECO Substation and Tule Wind projects would be constructed.

Alternatives to the proposed Campo, Manzanita, and Jordan wind energy projects are evaluated in this EIR/EIS under the No Project/No Action Alternative. Project-specific information has not been developed in order to provide for a full evaluation of these wind energy projects and any alternatives developed in respect to these projects would be speculative. Once sufficient project-specific information has been developed, a comparison of alternatives will be provided in future environmental review of these wind projects.

D.1.2 Environmental Assessment Analysis CEQA/NEPA Methodology

D.1.2.1 Environmental Baseline

For the purpose of this document and pursuant to the CEQA Guidelines (Section 15125(a)), the environmental setting used to determine the impacts associated with the Proposed PROJECT and alternatives is based on the environmental conditions that existed in the project area on December 28, 2009, at the time the Notice of Preparation (NOP) was published.

D.1.2.2 CEQA vs. NEPA Criteria

A joint EIR/EIS must comply with both federal National Environmental Policy Act (NEPA) and state CEQA Guidelines. CEQA requires that each effect having a significant impact be identified in the EIR. Therefore, reference to “significant” or “less-than-significant” environmental effects in this EIR/EIS is considered a CEQA-related finding consistent with CEQA Guidelines, Section 21082.2 (14 CCR 15000 et seq.). NEPA does not require such a finding for an EIS, rather it requires an agency avoid or minimize adverse effects to the extent practicable. Under NEPA, a Record of Decision supported by an EIS may include a determination by the lead agency that the project may have a “significant effect” on the quality of the environment. Consequently, references to significant impacts in this document are made to fulfill the requirements of CEQA pursuant to the standards of California law. Under NEPA, impacts, whether significant or not, are disclosed and analyzed. No representation as to significance is made that represents an assessment as to the magnitude or intensity of an individual resource impact under the requirement of federal law. To reflect the requirements of CEQA, a qualitative assessment of impacts is used in this EIR/EIS to disclose whether the impacts are considered significant under CEQA.

While the criteria for determining the significance of an impact under CEQA are unique to each area of the environmental analysis, the following classifications were uniformly applied to denote the significance of environmental impacts under CEQA. NEPA does not require such a finding. Under NEPA, since significance is evidenced by the preparation of an EIS, impacts are either adverse or not. Classification of impacts under CEQA are as follows:

- Class I:** Significant – cannot be mitigated to a level that is less than significant
- Class II:** Significant – can be mitigated to a level that is less than significant

- Class III:** Less than significant – no mitigation required
Class IV: Beneficial impact
No Impact: No impact identified.

D.1.2.3 Impacts and Mitigation Measures

This EIR/EIS analyzes the potential direct, indirect, and cumulative environmental impacts of the Proposed PROJECT and alternatives. Analysis within each issue area includes consideration of construction and operation of the ECO Substation Project, Tule Wind Project, and ESJ Gen-Tie Project, as well as the combined Proposed PROJECT and project alternatives. The analysis within each issue area also considers decommissioning of the Tule Wind Project. For purposes of this EIR/EIS, the proposed Campo, Manzanita, and Jordan wind energy project components of the Proposed PROJECT are qualitatively evaluated at a programmatic level as sufficient project-level information has yet to be developed. The impacts identified were compared with predetermined, specific significance criteria, and were classified according to significance categories listed in each issue area. The same methodology was applied to each alternative. A comparative analysis of the Proposed PROJECT and the alternatives is provided in Section E of this EIR/EIS.

CEQA requires that a diligent effort be taken to identify mitigation measures that would reduce identified significant impacts to less than significant. Under NEPA, mitigation is required for identified adverse impacts by the Council on Environmental Quality (CEQ) Regulation 40 CFR 1508.20. The impact analysis in this EIR/EIS assumes implementation of all applicant proposed measures (APMs) as part of the applicant's project description. However, where other impacts are identified that are not addressed by these APMs or where the APMs are not considered adequate under both CEQA and NEPA to reduce impacts, additional mitigation measures are recommended. The mitigation measures presented in this EIR/EIS are identified in the mitigation monitoring, compliance, and reporting tables at the end of each individual area of environmental analysis (Sections D.2 through D.18). For a discussion of mitigation monitoring and reporting, refer to Section H of this EIR/EIS.

During preparation of this EIR/EIS, APMs were assumed to be part of the Proposed PROJECT description and are not included as CPUC or BLM-recommended mitigation measures. However, APMs will be compiled with the CPUC-recommended and BLM-recommended mitigation measures into the final Mitigation Monitoring, Compliance, and Reporting Program, which will be completed upon adoption of the final EIR/EIS. Tables B-7, B-14, and B-18 in Section B, Project Description, of this EIR/EIS, provide a list of APMs for each project. In addition, each environmental topic area in Section D lists applicable APMs relevant to the topic area.

D.1.3 References

14 CCR 15000–15387 and Appendix A–L. Guidelines for Implementation of the California Environmental Quality Act, as amended.

40 CFR 1500–1518. Protection of Environment; Chapter V: Council on Environmental Quality.

Iberdrola Renewables, Inc. 2011. “Comments of Iberdrola Renewables, Inc. regarding the Tule Wind Project Draft DEIR/DEIS–Modified Project Layout” and “Comments of Iberdrola Renewables, Inc. on the Joint Draft Environmental Impact Report – Draft Environmental Impact Statement (DEIR/DEIS) for the East County Substation/Tule Wind/Energia Sierra Juarez Gen-Tie Projects.” Comment letters and EIR/EIS revisions package from J. Durocher (Iberdrola Renewables, Inc.) to I. Fisher (California Public Utilities Commission) and G. Thomsen (Bureau of Land Management). March 4, 2011.

SDG&E (San Diego Gas & Electric). 2011. “Re: Joint Draft Environmental Impact Report/Environmental Impact Statement (EIR/EIS) for East County Substation Project (State Clearinghouse No, 2009121079; DOI-BLM CA-D070-2010-0027-EIS (ECO SUB).” Comment letter from M.R. Niggli (SDG&E) to I. Fisher (California Public Utilities Commission) and G. Thomsen (Bureau of Land Management). March 4, 2011.

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