

C.11 Noise

This section analyzes whether the Revised Project and PG&E Upgrades would result in any new significant impacts to noise that were not previously identified and disclosed in the 2010 Final EIR, or whether there would be a substantial increase in the severity of any previously identified impacts to noise. As part of this analysis, the section considers changes to the existing noise levels in the study area, changes to the intensity or duration of noise generated by the project, and changes to potential noise impacts and related mitigation measures.

C.11.1 Environmental Setting

This section describes changes to the environmental setting that have occurred since 2010. Section C.11.1.1 describes changes to the environmental setting that was presented in the 2010 Final EIR. Section C.11.1.2 describes the environmental setting for the area surrounding the PG&E transmission system upgrades.

C.11.1.1 Revised Solar Project

The environmental setting for noise impacts related to the Revised Project site has remained substantially unchanged since approval of the 2010 Final EIR. The Panoche Valley remains generally undeveloped and pastoral in character, with scattered residential and agricultural buildings located around the valley. No new development has occurred, and no major new structures have been built in the valley. No new sensitive receptors have been identified in the project area, and all of the residences that were identified within one mile of the Approved Project still lie within one mile of the Revised Project. Nighttime noise restrictions defined by the County remain unchanged.

C.11.1.2 PG&E Upgrades

The PG&E Upgrades associated with the Revised Project include installation of approximately 17 miles of optical ground wire (OPGW) on existing transmission towers between the Panoche Valley Solar Project site and the existing Panoche Substation in Fresno County. The telecommunications system upgrades also include construction of up to three new microwave communication towers and upgrades to an existing microwave tower. The PG&E transmission system upgrades would include eight new transmission structures that are required to tie the existing Moss Landing–Panoche 230 kV transmission line into the proposed PG&E switchyard, located within the Revised Project site boundaries. The new transmission structures would be installed by PG&E after site preparation is completed by the Applicant.

The environmental setting for these upgrades includes the area surrounding the Moss Landing–Panoche 230 kV transmission line between the project site and the Panoche Substation, the Call Mountains (west of the Panoche Valley), Panoche Mountain (east of the Panoche Valley), and the area surrounding the Helm Substation (approximately 13 miles southwest of the City of Fresno).

There are no hospitals, schools, or libraries within one mile of the PG&E ROW or microwave communication tower sites. The Panoche Elementary School is located more than one mile away from the PG&E ROW. Seven residences have been identified within one mile of the PG&E ROW within San Benito County. All seven residences are located south of the existing Moss Landing–Panoche 230 kV transmission line. Five of these residences are located along or just off of Panoche Road in the eastern portion of the Panoche Valley. Two residences are located towards the center of Panoche Valley, southeast of the proposed Panoche Valley Solar Project Substation and microwave tower.

Through a visual review of aerial imagery, two possible residences have been identified within one mile of the PG&E ROW within Fresno County. One possible residence (APN 02706056S) is located adjacent to the PG&E ROW boundary, less than 500 feet northwest of the Panoche Substation. The second possible residence (APN02711001S) is located 0.08 miles north of the centerline of the PG&E ROW near the southwest corner of the intersection of W Panoche Road and Panoche Road.

The PG&E Upgrades are located in agricultural areas and open space used for grazing, other agricultural purposes, and backcountry recreation. Natural noise conditions dominate the area because human activity is so limited, which means ambient noise levels are expected to be approximately 35 dBA Ldn or lower, except in the immediate vicinity of the roads. Noise levels are occasionally elevated due to aircraft over flights and from other nearby activity, like traffic along the local roadways or I-5. Noise near the local roadways varies depending on traffic conditions.

C.11.2 Applicable Regulations, Plans, and Standards

No changes have occurred to the regulatory setting for noise in San Benito County since 2010. Similar to temporary construction noise regulations in San Benito County, noise generated by daytime construction work is considered exempt in Fresno County because of its temporary nature provided such activities occur between 7:00 a.m. and 7:00 p.m. Monday through Saturday, except federal holidays.

C.11.3 Environmental Impacts and Mitigation Measures

This section addresses whether the changes to the Approved Project will result in any new significant noise impacts or increase the severity of previously identified noise impacts. Section C.11.3.1 restates the significance criteria used in 2010 to determine whether any project changes result in new or more severe significant impacts to the Revised Project or the PG&E Upgrades. Section C.11.3.2 summarizes the impacts and mitigation measures presented in the 2010 Final EIR for ease of reference. Section C.11.3.3 presents the updated impact analysis for the Revised Project, and Section C.11.3.4 addresses proposed changes to two adopted mitigation measures. Section C.11.3.5 addresses the environmental impacts that would occur as a result of the PG&E Upgrades, and Section C.11.3.6 describes cumulative impacts.

C.11.3.1 Significance Criteria

The following significance criteria for noise were derived from the Environmental Checklist in CEQA Appendix G. These significance criteria were used for the 2010 Final EIR and are also applied to this Supplemental EIR. They have been amended or supplemented, as appropriate, to address the nature of solar photovoltaic (PV) facilities and transmission line upgrades in general, and the full range of potential impacts related to this Revised Project in particular. An impact of the Revised Project and PG&E Upgrades would be considered significant and would require mitigation if:

- Construction noise would result in a substantial temporary or periodic increase in ambient noise levels which would substantially disturb sensitive receptors.
- Construction noise would violate local rules, standards, and/or ordinances.
- Construction activity would temporarily cause excessive groundborne vibration or groundborne noise.

- Permanent noise levels would substantially increase due to operation of project-related stationary noise sources above levels existing without the project.
- Routine inspection and maintenance activities would substantially increase ambient noise levels in the project vicinity above levels existing without the project.

Significance conclusions are presented regarding the significance of each identified noise impact, per the significance classification system provided in Section C.1 (Introduction to Environmental Analysis).

C.11.3.2 Approved Project Impacts and Mitigation Measures

Table C.11-1 presents a summary of the impacts and mitigation measures applicable to the Approved Project.

Table C.11-1. Summary of Impacts and Mitigation: Noise

Impact No and Text	Mitigation Required	CEQA Conclusion
Impact NS-1: Construction noise would result in a substantial temporary or periodic increase in ambient noise levels which would substantially disturb sensitive receptors.	NS-1.1: Shield construction staging areas. NS-1.2: Implement noise-reducing features and practices for construction noise. NS-1.3: Provide advanced notice of construction. NS-1.4: Limit pile driving activities. BR-16.2: Minimize impacts of foundation support installations.	Class I
Impact NS-2: Construction noise may violate local rules, standards, and/or ordinances.	NS-1.1: Shield construction staging areas. NS-1.2: Implement noise-reducing features and practices for construction noise. NS-1.3: Provide advanced notice of construction. NS-2.1: Limit decommissioning activities to daytime.	Class I
Impact NS-3: Construction activity would temporarily cause excessive groundborne vibration or groundborne noise.	None.	Class III
Impact NS-4: Permanent noise levels would substantially increase due to operation of project-related stationary noise sources above levels existing without the project.	NS-4.1: Locate PV inverters and transformers away from the project's property line.	Class II
Impact NS-5: Routine inspection and maintenance activities would substantially increase ambient noise levels in the project vicinity above levels existing without the project.	NS-5.1: Limit panel washing activities.	Class II for panel washing; Class III for other activities
Impact NS-6: Contribute to cumulatively considerable noise levels.	None.	Class III

C.11.3.3 Revised Solar Project Impacts

Five noise impacts are addressed in this section; cumulative impacts are evaluated in Section C.11.3.6.

Impact NS-1: Construction noise would result in a substantial temporary or periodic increase in ambient noise levels which would substantially disturb sensitive receptors (Class I)

The Revised Project would include installation of approximately 1 million PV panels, compared to the installation of approximately 3 to 4 million PV panels under the Approved Project. The construction schedule for the Revised Project would be compressed to approximately 18 months, which is more akin

to a typical large scale construction project compared to the Approved Project, which proposed a schedule of approximately 5 years. Although construction of the Revised Project would result in a shorter period during which construction noise would occur, the compressed construction schedule would result in higher average daily noise levels due to the additional heavy equipment that would be need to construct the project in a shorter timeframe. Construction would also cause noise off-site, primarily from commuting construction workers and from haul trucks bringing materials to the construction site. The noise level for each haul truck pass-by is between 74 to 76 dBA Lmax. The peak traffic volume for the Revised Project is substantially higher than the peak traffic volume for the Approved Project, and consequently off-site noise for the Revised Project would be higher than the off-site noise levels that were analyzed in the 2010 Final EIR. As noted in the 2010 Final EIR, the existing ambient noise levels in the project area range from 35 dBA Ldn to 60 dBA Ldn along Panoche Road and Little Panoche Road. The 2010 Final EIR also estimated that noise levels generated from construction would be approximately 95 dBA Leq at 50 feet from the construction activity and would range from 52 dBA Leq to 83 dBA Leq at the nearest sensitive receptor (which is located approximately 200 feet from the closest work area), which could result in a substantial temporary increase of the existing ambient noise levels by more than 5 dBA Ldn. While the Revised Project construction activities would be intermittent and more short-term and temporary in nature than the Approved Project, on-site and off-site construction noise would be considered significant and unavoidable. Although this impact cannot be reduced to less than significant, several mitigation measures are recommended to reduce the severity of the impact, including: Mitigation Measures NS-1.1 through NS-1.4, Mitigation Measure BR-16.2, Mitigation Measures TR-1.1 and TR-1.4, and Applicant Proposed Measure (APM) N-1 (restrict use of fuel-operated generators between 7:00 p.m. and 7:00 a.m.; full text of all APMs is in Section B.10). Residual construction noise levels from the Revised Project would exceed ambient noise levels by more than 5 dBA Ldn and would remain significant and unavoidable (Class I).

Impact NS-2: Construction noise may violate local rules, standards, and/or ordinances (Class I)

Construction of the Revised Project would involve construction on a smaller area over a shorter period of time (as described above for Impact NS-1). However, the peak construction activity noise levels for the Revised Project would increase compared to the Approved Project. Similar to the Approved Project, the operation of heavy equipment during Revised Project construction, assuming a worst case scenario of simultaneous pile driving and grading activities, is expected to generate a combined maximum noise level of up to approximately 95 dBA Leq at 50 feet from the construction activity and between 52 dBA Leq to 83 dBA Leq at the nearest sensitive receptor even with the increase in the amount of heavy equipment required for the Revised Project. Peak noise levels at sensitive receptors near the Revised Project site would be comparable to peak noise levels under the Approved Project, but these peak levels may occur more frequently during the Revised Project construction period than they would have occurred during construction of the Approved Project. While impacts are expected to be significant and unavoidable, it is important to note that the Revised Project will be constructed in a much shorter timeframe (roughly 3.5 years less than the Approved Project) and San Benito County and Fresno County exempt construction noise for applicable noise standards. Nonetheless and due to the rural nature of the Panoche Valley and the increase in the number of amount of heavy equipment on-site during construction, construction noise levels from the Revised Project, like the Approved Project, would be considered significant and unavoidable even though construction noise levels would be reduced with implementation of Mitigation Measures NS-1.1 through NS-1.4, Mitigation Measure BR-16.2, Mitigation Measures TR-1.1 and TR-1.4, and APM N-1. Construction noise would continue to exceed the County noise level standards at various times throughout the 18-month construction period resulting in a significant and unavoidable impact (Class I).

Impact NS-3: Construction activity would temporarily cause excessive groundborne vibration or groundborne noise (Class III)

The same impact-pile driving or drilling for the Approved Project would be utilized for the Revised Project for installation of the PV array foundation support posts and could cause vibration impacts at close distances. Implementation of Mitigation Measure NS-1.4 would also introduce the potential use of sonic or vibratory pile drivers, which would also result in vibration impacts. The Revised Project would result in 1,888 acres of permanent disturbance, compared to 2,203 acres under the Approved Project. The number of installed PV panels and therefore the intensity of groundborne vibration or groundborne noise impacts would be reduced. However, Revised Project construction activities would still result in minor amounts of groundborne vibration. These vibrations would attenuate rapidly from the source and would not be perceptible outside of the construction areas. This impact would remain less than significant (Class III).

Impact NS-4: Permanent noise levels would substantially increase due to operation of project-related stationary noise sources above levels existing without the project (Class II)

The long-term noise resulting from operation of the project would result from equipment at the substation and from the approximately 151 inverters and transformers that would be located at regular intervals within the solar field. The Revised Project substation components would be the same as described for the Approved Project and would result in adverse but less than significant noise impacts (Class III).

Although fewer inverters and transformers would be installed under the Revised Project compared to the Approved Project, the inverters and transformers that would be installed for each power array could potentially exceed San Benito County's daytime noise level standard of 45 dBA Leq for rural residential land uses because they are not proposed to be enclosed. Implementation of Mitigation Measure NS-4.1 (Locate PV inverters and transformers away from the project's property line) as modified in Section C.11.3.2 would reduce the potential for permanent noise levels to exceed the County's daytime noise level standards or to exceed the ambient noise levels by more than 5 dBA Ldn at the nearest residences to less than significant (Class II).

Impact NS-5: Routine inspection and maintenance activities would substantially increase ambient noise levels in the project vicinity above levels existing without the project (Class II)

With the exception of panel washing, all operational noise associated with inspection and maintenance of the Revised Project would be similar to that described in the 2010 Final EIR, and would remain adverse but less than significant (Class III). As defined for the 2010 Final EIR, washing of panels outside of the daytime hours (7:00 a.m. to 7:00 p.m.) could result in significant operational noise impacts. Implementation of Mitigation Measure NS-5.1 (Limit panel washing activities) would reduce this potential adverse impact to less than significant (Class II).

C.11.3.4 Changes to Adopted Mitigation Measures

The applicant has proposed two changes to the mitigation measures adopted from the 2010 Final EIR for noise. These changes are shown below (modified text is shown in ~~strikeout~~ for removed text and underline for added text). Mitigation Measures and APMs not shown in this section have not changed and are presented for reference only in Appendix 3.

The changes to Mitigation Measure NS-1.3 reflect the changes to the project construction schedule and would not increase the severity of any impacts. In the Revised Project, the applicant has proposed not to

enclose the PV inverters and transformers. As a result, Mitigation Measure NS-4.1 is proposed to be modified as shown below. With this modification, the Revised Project impacts remain less than significant (Class II) because the same noise performance standards that were required for the enclosed inverters and transformers are required for the unenclosed inverters and transformers.

MM NS-1.3 Provide advance notice of construction. The Applicant shall provide advance notice of construction and decommissioning ~~for each phase (Phases 1 through 5)~~ between two and four weeks prior to the start of construction or decommissioning activities to all residences located within 5 miles of the project phase boundary, and the Principal of the Panoche Elementary School. The notices shall be mailed directly to residences and the Principal of the Panoche Elementary School, as well as posting signs at the project site in areas accessible to the public. The announcement shall state where and when construction would occur; provide tips on reducing noise intrusion (e.g., closing windows facing the planned construction); and provide a point of contact for any noise complaints. The Applicant shall provide to the Department of Planning and Building (Environmental Monitor) within 48 hours of any complaints received a report that documents the complaints and the strategy for resolution of any noise complaints, which may include limiting the hours of construction in the particular location of concern, putting up additional noise barriers, or otherwise implementing means to reduce and resolve to the extent feasible the issue brought forth. The County's Environmental Monitor shall verify implementation of agreed upon strategy.

MM NS-4.1 Locate PV inverters and transformers away from the project's property line. ~~Each inverter/transformer enclosure shall be placed~~ Locate PV inverters and transformers away from the project's property line at least 180 feet from the project's property line and at least 300 feet apart from each other ~~or as~~ unless as follows. ~~If multiple inverter/enclosures are to be placed immediately adjacent to each other, then the nearest enclosure shall be at least 480 feet from the project's property line. These distances are needed to meet the County's daytime hourly noise level standard of 45 dBA Leq at the project's property line. Should hourly daytime noise level standards (45 dBA Leq) be exceeded or ambient noise levels increase by more than 5 dBA Ldn, enclosures or other operations utilizing the offending inverters and transformers shall stop until adequate noise attenuation measures are~~ will be installed to meet these requirements. Any measure installed shall remain in good working order throughout project operations.

C.11.3.5 PG&E Upgrades Impacts

The temporary and permanent noise impacts for the PG&E Upgrades are analyzed in this section. This analysis is based on the impact statements defined for the solar project, but only two impacts apply to the PG&E Upgrades and are evaluated. The following three impacts would not occur as a result of construction or operation of the PG&E Upgrades:

- Impact NS-3: Construction activity would temporarily cause excessive groundborne vibration or groundborne noise
- Impact NS-4: Permanent noise levels would substantially increase due to operation of project-related stationary noise sources above levels existing without the project
- Impact NS-5: Routine inspection and maintenance activities would substantially increase ambient noise levels in the project vicinity above levels existing without the project

Impact NS-1: Construction noise would result in a substantial temporary or periodic increase in ambient noise levels which would substantially disturb sensitive receptors (Class III)

Construction of the PG&E Upgrades would include the use of heavy machinery, including helicopters, for a period of 12 to 16 weeks, approximately 2 to 3 weeks at any given work area along the alignment. These construction activities (especially the use of helicopters) could result in a temporary increase in ambient noise levels. However, construction activities would be very temporary and limited to daytime hours (generally 7:00 a.m. to 7:00 p.m.) and common operating procedures to reduce noise (i.e., mufflers, and engine shrouds, limits on idling time of construction equipment) would be utilized to reduce noise. As such, this impact would be adverse, but less than significant (Class III).

Impact NS-2: Construction noise may violate local rules, standards, and/or ordinances (Class III)

As stated above for Impact NS-1, construction of the PG&E Upgrades would involve the use of heavy equipment, including helicopters. However, these activities would be temporary and would occur during daytime hours (generally 7:00 a.m. to 7:00 p.m.) and would be exempt from both San Benito and Fresno County noise ordinances. This impact would be adverse but less than significant (Class III).

C.11.3.6 Cumulative Impacts

The projects that have been constructed or proposed in the area of potential cumulative effects have changed since 2010, as described in Section D. However, even considering the new project list, the Revised Project would not combine with impacts of other projects because the timeframe for construction of the other projects would not overlap or the construction activities associated with other projects would occur at a distance from the Revised Project and PG&E Upgrades such that the noise impacts of those other projects would not combine with the noise impacts of the Revised Project or the PG&E Upgrades. Therefore, the contribution of the Revised Project and PG&E Upgrades' construction noise generation would not result in a cumulatively significant impact (Class III).

C.11.4 Summary of Impacts

The significance of impacts for noise for the Revised Project and for the PG&E Upgrades is summarized in Sections C.11.4.1 and C.11.4.2. Section C.11.4.3 summarizes the impacts of all project components.

C.11.4.1 Revised Solar Project

There are no changes to the significance of impacts from the conclusions of the 2010 Final EIR. The impacts summarized in Table C.11-1 remain accurate.

Mitigation Measures NS-1.1 through NS-1.4, BR-16.2, and NS-2.1 are recommended to reduce construction and decommissioning noise levels both on-site and off-site from delivery of equipment and materials; however, even with implementation of these measures, construction activities would result in a significant increase over ambient noise levels and would exceed the County's noise level standards (Class I). Impacts related to groundborne vibration and noise during construction have been found to be less than significant as groundborne vibration or groundborne noise would attenuate rapidly and would not be expected to affect receptors outside of the work areas (Class III). With implementation of Mitigation Measure NS-4.1 (Locate PV inverters and transformers away from the project's property line and other similar equipment), operational noise impacts associated with the solar project stationary noise sources would be less than significant (Class II). Operational activities would not result in a measureable increase in ambient noise levels in the project area; however, panel washing activities and

periodic maintenance activities, especially those occurring at night near the project's property line, could exceed County standards and/or exceed ambient noise levels. With implementation of Mitigation Measure NS-5.1 (Limit panel washing activities), noise impacts from these activities would be reduced to a less than significant level (Class II).

C.11.4.2 PG&E Upgrades

Operation and maintenance of the PG&E Upgrades would not result in any noise impacts. Construction of the PG&E Upgrades would result in temporary, adverse, but less than significant impacts to ambient noise levels (Class III).

C.11.4.3 Overall Significance of Impacts

The overall impacts of the solar project and the PG&E Upgrades would be significant and unavoidable (Class I). For the solar project, construction noise impacts would be significant and unavoidable (Class I). Operational noise impacts would be less than significant with implementation of the adopted mitigation measures, the proposed changes to two of the adopted mitigation measures, and adopted AMPs (Class II). All noise impacts for the PG&E Upgrades would be less than significant (Class III). Cumulative impacts for noise would be less than significant (Class III).