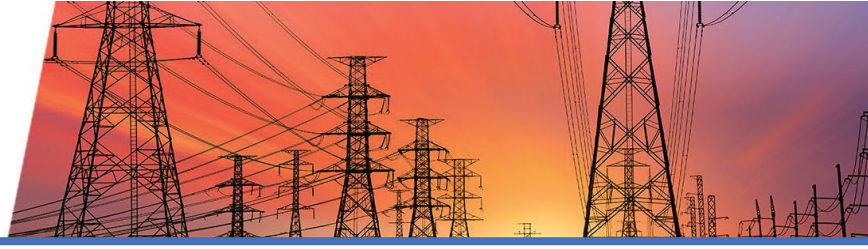


DOE/EIS-0414-S1-SA-1

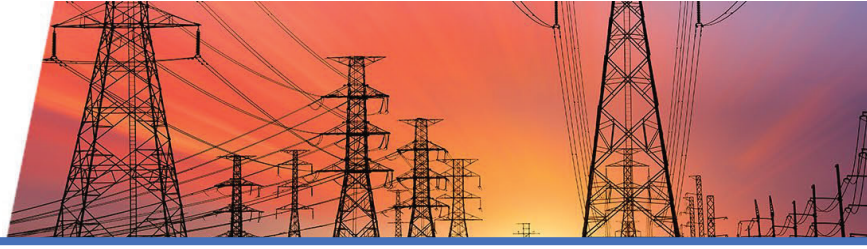
SUPPLEMENTAL ANALYSIS

Regarding the Energia Sierra Juarez U.S. Transmission Line Project Final Environmental Impact Statement

Prepared by:

U.S. Department of Energy
Grid Deployment Office
Washington, D.C.

September 25, 2023



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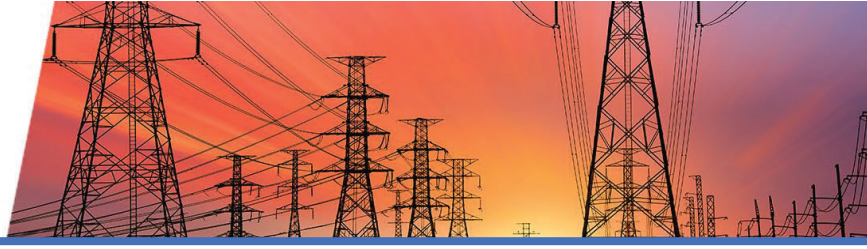

ACRONYMS

BGEPA	Bald and Golden Eagle Protection Act
CAISO	California Independent System Operator
CFR	Code of Federal Regulations
CIM	Cimarron Wind, phase 2 and 3 of the ESJ Wind Project
dBA	Decibels on an A-weighted scale
DOE	Department of Energy
EA	Environmental Assessment
ECO	East County Substation
EIA	Environmental Impact Authorization
EIS	Environmental Impact Statement
E.O.	Executive Order
ESA	Endangered Species Act
ESJ	Energia Sierra Juarez U.S. Transmission, LLC
ESJ Mexico	Energia Sierra Juarez, S. de R. L. de C.V., a Mexican affiliate of ESJ
ESJ Tie Line	A double-circuit 230-kV electric transmission line originating at San Diego Gas and Electric's planned ECO Substation in San Diego County, interconnecting with the Imperial Valley-Miguel segment of the Southwest Powerlink, extending approximately 0.65 miles southward, crossing the U.S.- Mexico border near Jacumba, California, then continuing approximately 1 mile (1.6 km) to an interconnection point inside Mexico.
ESJ Wind Project	A wind generating facility in Mexico owned and operated by ESJ Mexico.
FEIS	Final Environmental Impact Statement
GDO	Grid Deployment Office
GHG	Greenhouse gases
kV	Kilovolt
MBTA	Migratory Bird Treaty Act
MIA	Manifestación de Impacto Ambiental
MW	Megawatt
NEPA	National Environmental Policy Act
ROD	Record of Decision
SA	Supplemental Analysis
SEIS	Supplemental Environmental Impact Statement
SEMARNAT	Secretaría de Medio Ambiente y Recursos Naturales, equivalent to the federal Environmental Protection Agency in the U.S.
U.S.	United States
U.S.C.	United States Code

1. INTRODUCTION

The Department of Energy (DOE), Grid Deployment Office (GDO) has prepared this supplement analysis (SA) to evaluate the existing environmental impact statements (EISs) listed below in light of changes that could have bearing on the potential environmental impacts previously analyzed. The Council on Environmental Quality (CEQ) NEPA regulations direct agencies to prepare a supplement to either a draft or final EIS when a major Federal action remains to occur and either the "agency makes substantial changes to the proposed action that are relevant to environmental concerns" or there are "significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts." (40 CFR 1502.9(d)(1)(i)–(ii)). DOE's NEPA regulations state that when it "is unclear whether or not an EIS supplement is required, DOE shall prepare a Supplement Analysis." (10 CFR 1021.314(c)). This SA provides sufficient information for DOE to determine whether (1) to supplement an existing EIS, (2) to prepare a new EIS, or (3) no further NEPA documentation is required. (10 CFR 1021.314(c)(2)(i)–(iii)).

The existing EISs evaluated in this SA are:

- Energia Sierra Juarez U.S. Transmission Line Project Final Environmental Impact Statement (DOE/EIS-0414)
- Supplemental to the Energia Sierra Juarez U.S. Transmission Line Project Final Environmental Impact Statement (DOE/EIS-0414-S1)

1.1. Permit Background

GDO has the responsibility for implementing Executive Order (E.O.) 10485, as amended by E.O. 12038, which requires the issuance of a Presidential permit for the construction, operation, maintenance, or connection of electric transmission facilities at the United States (U.S.) international border. DOE may issue such a permit if it determines that issuance of the permit is consistent with the public interest and after obtaining favorable recommendations from the U.S. Departments of State and Defense. In determining whether the issuance of a Presidential Permit is in the public interest, DOE considers the environmental impacts of the proposed action pursuant to the National Environmental Policy Act of 1969 (NEPA) (42 United States Code [U.S.C.] 4321 *et seq*.).

On December 18, 2007, Energia Sierra Juarez U.S. Transmission, LLC (ESJ), a subsidiary of Sempra U.S. Gas and Power, applied to DOE for a Presidential Permit to construct, operate, maintain, and connect either a single-circuit, 500-kilovolt (kV) electric transmission line or a double-circuit 230-kV electric transmission line across the U.S.-Mexico border (ESJ Tie Line). Either planned line would originate at San Diego Gas and Electric's planned East County (ECO) Substation in San Diego County and interconnect with the Imperial Valley-Miguel segment of the Southwest Powerlink 500-kV transmission line. The line would then extend approximately 0.65 miles southward within the U.S. The ESJ Tie Line would transition to a generation tie line (gen-tie line) at the border, to be constructed and operated by Energia Sierra Juarez, S. de R. L. de C.V. (ESJ Mexico), a Mexican affiliate of ESJ. The gen-tie line would extend approximately

one mile south to an interconnection point for a wind generating facility in Mexico (ESJ Wind Project) owned and operated by ESJ Mexico. The California Independent System Operator (CAISO) would schedule delivery of ESJ Wind Project's output within California.

DOE originally noticed ESJ's application in the Federal Register for public comment on February 22, 2008, and requested comments, protests, and motions to intervene by March 24, 2008 (73 Fed. Reg. 9782).[1] DOE subsequently issued a Notice of Intent to Prepare an Environmental Impact Statement (EIS) on February 25, 2009 (74 Fed. Reg. 8517), which requested comments by March 27, 2009.[2] No responses to these notices were received.

In accordance with NEPA, DOE's assessment of environmental impacts was documented in a draft Environmental Impact Statement (EIS), which was published for agency and public review and comment in September of 2010, followed by the *ESJ Transmission Line Project Final Environmental Impact Statement* (FEIS) dated May 2012.[3] The FEIS included a detailed evaluation of direct, indirect, and cumulative effects from the construction and operation of the ESJ Tie Line. The assessment of potential environmental impacts from the operation of the ESJ Tie Line documented in the FEIS was not constrained by any limit on the rate of transmission over the line. The evaluation in the FEIS was based on the originally planned capacity of the line to transmit up to 1,250 megawatts (MW) (see FEIS, Section 2.2 Applicant's Project Overview).

On August 17, 2012, DOE issued a Record of Decision (ROD), announcing its decision to issue a Presidential Permit to ESJ to construct, operate, maintain, and connect their requested facilities (77 Fed. Reg. 49789).[4]

On August 31, 2012, DOE issued Presidential Permit No. PP-334, which authorized the construction, operation, maintenance, or connection of the following facilitates (Article 2 of PP-334)[5]:

> A double-circuit 230-kV electric transmission line originating at San Diego Gas and Electric's planned ECO Substation in San Diego County, interconnecting with the

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[1] U.S. Dep't of Energy, Notice of Application for Presidential Permit, Baja Wind U.S. Transmission, LLC, Docket No. PP-334 (Feb. 22, 2008), available at: https://www.govinfo.gov/content/pkg/FR-2008-02-22/pdf/E8-3333.pdf.
[2] U.S. Dep't of Energy, Notice of Intent to Prepare an Environmental Impact Statement, 74 Fed. Reg. 8517 (Feb. 25, 2009), available at: https://www.federalregister.gov/documents/2009/02/25/E9-4049/notice-of-intent-to-prepare-an-environmental-impact-statement-energia-sierra-juarez-us-transmission.
[3] U.S. Dep't of Energy, Energia Sierra Juarez U.S. Transmission Line Project Final Environmental Impact Statement, DOE/EIS-0414 (May 2012), available at: https://www.energy.gov/nepa/articles/eis-0414-final-environmental-impact-statement.
[4] U.S. Dep't of Energy, Record of Decision for Issuing a Presidential Permit to Energia Sierra Juarez U.S. Transmission, LLC, for the Energia Sierra Juarez U.S. Transmission Line Project, 77 Fed. Reg. 49789 (Aug. 17, 2012), available at: https://www.federalregister.gov/documents/2012/08/17/2012-20234/record-of-decision-for-issuing-a-presidential-permit-to-energia-sierra-juarez-us-transmission-llc.
[5] *Energia Sierra Juarez U.S. Transmission, LLC*, Presidential Permit No. PP-334 (Aug. 31, 2012), available at: https://www.energy.gov/sites/prod/files/PP-334 ESJ_2.pdf.

Imperial Valley-Miguel segment of the Southwest Powerlink, extending approximately 0.65 miles southward, crossing the U.S.- Mexico border near Jacumba, California, then continuing approximately 1 mile (1.6 km) to an interconnection point inside Mexico.

DOE issued the permit on the condition that the maximum non-simultaneous rate of transmission over the permitted facilities was not to exceed 400 MW (Article 3 of PP-334).

DOE's issuance of PP-334 was challenged in an action filed in the U.S. District Court for the Southern District of California ("the Court") in December 2012. In August 2017, the Court remanded the case to DOE for preparation of a Supplemental EIS (SEIS) to address two deficiencies in DOE's FEIS.[6] The Court determined that the cited deficiencies were not serious, were not likely to have resulted in an erroneous permitting decision, and could be addressed in a SEIS by incorporating analyses previously performed by other regulatory agencies in the U.S. and Mexico. The Court did not vacate PP-334 pending DOE's completion of this SEIS. In response to the Court's August 2017 order, the DOE issued a SEIS for the Energia Sierra Juarez U.S. Transmission Line Project (DOE/EIS-0414-S1) on September 26, 2018.[7]

2. CHANGES TO THE PROPOSED ACTION OR NEW CIRCUMSTANCES OR INFORMATION

As described in PP-334 (Article 4), CAISO studies for a Phase 2 and Phase 3 of the planned ESJ Wind Project, now called Cimarron Wind (CIM), had not been completed at the time the permit was issued. As a result, the potential impact of those subsequent phases on the reliability of the U.S. power grid could not be assessed at that time.

In November 2020, CAISO completed an interconnection study that evaluated the impact of an incremental additional 300 MW injection of generation from CIM. On May 18, 2022, ESJ submitted an application requesting that DOE amend Article 3 of PP-334 to increase the maximum authorized rate of transmission across the approved facilities to 700 MW.[8] For purposes of this SA, the new generation and proposed permit amendment will be referred to as the CIM Project.

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[6] *Backcountry Against Dumps v. Chu*, Judgment in a Civil Case, No. 12-cv-03062-L-JLB (S.D. Cal. Aug. 29, 2017), available at: https://www.energy.gov/sites/prod/files/2018/09/f55/08_29_2017 ESJ_judgment_0.pdf.

[7] U.S. Dep't of Energy, Supplemental to the Energia Sierra Juarez U.S. Transmission Line Project Final Environmental Impact Statement, DOE/EIS-0414-S1 (Sept. 2018), available at: https://www.energy.gov/sites/prod/files/2018/09/f55/U.S. DOE_Supplemental for Energia Sierra Juarez Final Environmental Impact Statement_September 2018.pdf [hereinafter SEIS].

[8] Energia Sierra Juarez U.S. Transmission, LLC, Application for Amendment to Presidential Permit No. PP-334, Docket No. PP-334 (May 18, 2022), available at: https://www.energy.gov/sites/default/files/2022-06/ESJ Application for Amendment to PP-334 %2805.18.22%29.pdf.

DOE published a notice of ESJ's application in the Federal Register on August 10, 2022 (87 Fed. Reg. 48652)[9], inviting comments, protests, or and motions to intervene. No comments, protests, or motions to intervene were received.

CIM Facilities (U.S)

Each of the two existing 230-kV circuits on the ESJ Tie Line have a thermal capacity limit of 1,250 MW. No physical changes would be needed to the ESJ Tie Line to allow electrical transmission from the planned 300 MW CIM Project in Mexico into the U.S., in addition to the 400 MW currently authorized by PP-334. The CIM Project would be able to utilize either of the two ESJ Tie Line circuits by connecting a tie line from the Cimarron Substation to the available circuit of the ESJ Tie Line located in Mexico.

The assessment of potential environmental impacts from the operation of the ESJ Tie Line documented in the FEIS and SEIS were not constrained by any limit on the rate of transmission over the line. The evaluation was based on the originally planned capacity of the proposed line to transmit up to 1,250 MW.[10] The permit condition limiting the rate of transmission to 400 MW was not based on any concerns about environmental impacts disclosed in the FEIS or related mitigation measures. Rather, this limit was included in the permit because grid reliability studies at the time were completed only for the interconnection of the initial 400 MW of electrical output from ESJ Wind.

CIM Facilities (Mexico)

The generation component of the proposed CIM Project would be located within the municipality of Tecate, Baja California on land leased from the towns of Jacume and Aubanel Vallejo, and private land approximately two miles south of La Rumorosa.

The layout of the project would affect up to roughly 2,558 acres of land. Approximately 1,100 acres are expected to experience temporary impacts, in addition to 1,458 acres of permanent disturbance.

The CIM Project would include an estimated 68 wind turbines, a step-up substation, overhead collector lines, a transmission line, meteorological towers, internal roads, operational offices, and temporary and permanent maneuvering areas. From the U.S. border south into Mexico, CIM would share a 0.9-mile portion of the existing ESJ Tie Line. From that point, roughly 19.4 miles

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[9] U.S. Dep't of Energy, Notice of Application, 87 Fed. Reg. 48653 (Aug. 10, 2022), available at: https://www.federalregister.gov/documents/2022/08/10/2022-17188/application-to-amend-presidential-permit-energia-sierra-juarez-us-transmission-llc.

[10] *See* SEIS at 2-1, describing the project being evaluated as "either a double-circuit 230,000 volt (230-kV) transmission line or a single circuit 500-kV transmission line which would connect up to 1,250 MW of electric power from renewable energy generators (the ESJ Wind project) to be located in the general vicinity of La Rumorosa, Northern Baja California, Mexico."

of new gen-tie line would extend southwest and ultimately connect to the new Cimarron Substation (*See* **Appendix A** for a Project Map).

2.1. Mexican Permits and Approvals

Based upon information received from ESJ, DOE understands that the construction and operation of the CIM Project triggers environmental reviews and project approvals by a number of Mexican governmental agencies, principally an environmental review and permit by Secretaría de Medio Ambiente y Recursos Naturales (SEMARNAT). SEMARNAT is equivalent to the federal Environmental Protection Agency in the U.S. A Manifestación de Impacto Ambiental (MIA; Environmental Impact Manifest) was prepared for CIM. Similar to an EIS under NEPA, a MIA presents the results of comprehensive analysis and studies of potential environmental impacts associated with a project, including site preparation, construction, operation, and decommissioning, as well as an assessment of measures to mitigate environmental impacts and an analysis demonstrating compliance with Mexican laws and regulations.

Based on its review of the MIA, on July 24, 2023, SEMARNAT issued an Environmental Impact Authorization (EIA) for the CIM Project. The EIA specifies the terms and conditions of the authorization, including measures required to mitigate potential environmental impacts (*see* **Appendix B** for Summary of Environmental Impact Authorization (Mexico)). Enforcement of EIA conditions fall under the jurisdiction of the Procuraduria Federal de Proteccion al Ambiente (PROFEPA, Federal Environmental Attorney), an independent branch of SEMARNAT.

2.2. Resource Areas Not Analyzed in Detail in this Supplemental Analysis

The environmental impacts subject to analysis in this SA are limited to those direct and indirect impacts that would occur in the U.S. and those that affect the global commons, such as global climate change that results from emissions of greenhouse gases (GHGs). This SA does not analyze potential environmental impacts associated with elements of the CIM Project that would occur within the sovereign territory of Mexico.

NEPA does not require an analysis of environmental impacts that occur within another sovereign nation that result from actions approved by that sovereign nation. E.O. 12114 (Jan. 4, 1979)[11] requires federal agencies to prepare an analysis of significant impacts from a federal action in certain defined circumstances and exempts agencies from preparing analyses in others. The E.O. does not require federal agencies to evaluate impacts outside the U.S. when the foreign nation is participating with the U.S. or is otherwise involved in the action [Section 2- 3(b)]. Here, the CIM Project meets the criteria as evidence by the Mexican permits and approvals described in Section 2.1. Additionally, the federal action would not affect the global commons because there are no

[11] E.O. 12114, Environmental Effects Abroad of Major Federal Actions, 44 Fed. Reg. 1957 (Jan. 4, 1979), available at: https://www.energy.gov/nepa/articles/eo-12114-environmental-effects-abroad-major-federal-actions-1979.

GHG emissions associated with the CIM Project, other than minor construction related impacts in Mexico.

2.2.1. Environmental Impacts (Mexico)

The SEIS incorporated by reference a comprehensive assessment of the impacts of the ESJ Wind Project by the Mexican government. The analysis performed by the Mexican government in permitting the CIM Project is acknowledged and summarized in **Appendix B**.

2.2.2. Environmental Impacts (U.S.)

The resource areas identified in Table 1 will not experience a changed direct or indirect impact beyond those impacts disclosed in the FEIS and SEIS. A brief description of the previously analyzed impacts, as well as a citation to the relevant environmental analysis, is contained in the table below.

Table 1: CIM Project Environmental Impacts (U.S.)

Resource Area	**Summary of Potential Impacts resulting from the Changed Proposed Action/New Circumstances or Information**
Land Use	Ongoing operation of the transmission line would not directly affect existing land uses along the alternative corridors or surrounding areas, as described in Section 3.3 of the FEIS. Construction and operation of the CIM Project in Mexico would not change land uses or preclude the use of any land in the U.S.
Recreation	Continued operation of the transmission line would not preclude any recreational activities or result in any direct impacts to surrounding recreational areas. However, the presence of the transmission line may have resulted in indirect adverse effects to recreational areas due to alterations to existing scenic vistas and increases in ambient noise levels during foul weather (due to corona noise). No new or changed impacts to recreation would occur, beyond those previously described in Section 3.4 of the FEIS.
Cultural	There are no known sites listed or eligible for listing on the National Register of Historic Places within the transmission line's operational area. Section 3.5 of the FEIS indicates that long-term maintenance activities would entail occasional activity within the previously disturbed footprint of development. No ground disturbances associated with operation of the transmission line would occur outside of those areas. Therefore, no impacts to cultural resources during operation of the transmission line are anticipated.
Noise	Operation of the transmission line may have introduced sporadic low noise as a result of the corona effect. Inspection, maintenance, and repair of the transmission line likely generates periodic increases in sound levels during the life of the project, and operation of the project would result in a long-term increase in sound levels in the vicinity of the transmission lines. No changes these operational noises are expected. As described in Section 3.6 of the FEIS, the 230-kV configuration was expected to result in an approximate maximum

	of 8.8 dBA (decibels on an A-weighted scale) at the nearest receptor site located approximately 1,600 feet west of the property line. This is below the county ordinance for nighttime property line sound level limit of 45 dBA. During construction of the ESJ Wind Project in Mexico, DOE expected minimal construction noise impacts to reach the border. The ESJ Wind Project facilities were constructed directly at the border and extended south for approximately 0.9 miles. The CIM facilities with share this existing infrastructure and new construction will extend roughly 18.4 miles further south, to the proposed wind turbine locations. Due to the relatively further distance of CIM facilities from the border DOE again expects minimal construction noise impacts to reach the border and certainly, less noise than was experienced during the ESJ Wind Project construction (see Section 3.6 of the FEIS).
Transportation and Traffic	The area near the existing transmission lines is frequented by low-flying aircraft operated by the U.S. Border Patrol and by the California Department of Forestry and Fire Protection. The risk of adverse impacts to air traffic safety remains unchanged from impacts described in Section 3.7 of the FEIS.
Fire and Fuels Management	Operation and maintenance of the transmission line potentially increased the risk associated with wildfire as a result of new ignition sources, introduction of invasive non-native plants, and the creation of a potential obstacle to firefighting. This risk remains as described in Section 3.9 of the FEIS.
Air Quality and Climate Change	DOE expects that air emissions during construction of CIM Project would result in minor, short-term local or regional increases in criteria pollutants such as, organic gases, carbon monoxide, nitrogen oxides, sulfur oxides and fugitive dust, consistent with the analysis presented in Section 3.10 of the FEIS. Because the transmission line transmits electricity generated from a renewable energy generating source (wind turbines), operation of the transmission line could facilitate a reduction in GHG emissions from other sources.
Water Resources	As described in Section 3.11 of the FEIS, no impacts to surface water quality or groundwater were anticipated during the operational life of the transmission line project. Construction and operation of the CIM Project would not result in effects in the U.S. related to surface water hydrology and water quality. Further, any potential impacts on groundwater supply and/or quality associated with construction of the CIM Project would be localized due to the distance between the wind turbine work areas and the U.S. border. No new or changed impacts to water resources would occur.
Geology and Soils	No new physical impacts to geology or soils are expected because no physical modifications to the existing transmission line are necessary. Section 3.12 of the FEIS identified a minor potential for structural damage or failure as a result of seismic ground-shaking during operations of the

	transmission line. However, manufacturers have designed the transmission line and overhead structures to exceed earthquake loads, resulting in minimal potential for damage.
Socioeconomics	The construction of wind turbines in Mexico could affect property values in the U.S. if property buyers and sellers reassessed property values downward as a result of perceived negative changes in the viewshed from U.S. properties. The nature and severity of potential visual impacts are addressed in Section 3.2 of the FEIS (Visual Resources). The effect of views of wind turbines on property value is highly subjective and case-specific, depending on a number of factors including the distance of wind turbines to affected properties, existing conditions prior to development of the wind turbines, and the general economic climate. Section 3.13 of the FEIS indicated that the presence of the transmission line could indirectly reduce the value of nearby properties. Because the transmission line is currently existing and no physical changes to the infrastructure are planned, DOE expects the property value impacts to remain as described previously. Due to the increased distance of the CIM Project from U.S. property, compared to the previously analyzed ESJ Project, the impacts to socioeconomic factors are expected to be less than those described in Section 3.13 of the FEIS.
Environmental Justice	Both minority and low-income populations are present in the project area. No new or changed disproportionately high or adverse impacts to minority and/or low-income populations are expected, beyond those previously described in Section 3.14 of the FEIS.
Services and Utilities	ESJ Project operations were not expected to increase demand or public services or utilities. No new or changed impacts to services and utilities would occur due to the CIM Project, beyond those previously described in Section 3.15 of the FEIS.

2.3. Resource Areas Analyzed in Detail in this SA

For all resource areas considered in the FEIS and SEIS, DOE evaluated the direct potential impacts in the U.S. and indirect potential impacts to the U.S. as a result of related activities in Mexico. The two areas with the greatest potential for indirect cross-boundary impacts are biological resources and visual resources. Additionally, one resource area – possible exposure to electromagnetic fields – is potentially directly relevant to the rate of transmission. Each of these resource areas are discussed in further detail in the proceeding sections.

2.3.1. Biological Resources

ESJ intends to utilize existing infrastructure to transmit the newly planned 300 MWs from the CIM Project, and DOE had previously determined that the transmission lie would have "no effect" to listed species (see FEIS' Appendix C). The operational impacts of the existing transmission line are expected to continue at the previously analyzed intensities (up to 1,250 MW) as described in Section 3.1.2.3 of the FEIS and therefore, DOE has determined that initiation of consultation under Section 7 of the ESA is not warranted as none of the re-initiation triggers are met.

Potential impacts to biological resources in the U.S. could occur if construction or operation of the CIM Project and the associated transmission lines in Mexico impeded the cross-border movement of wildlife or caused mortality to wildlife, including birds afforded international protection under international treaties such as the Migratory Bird Treaty Act (MBTA), the Bald and Golden Eagle Protection Act (BGEPA), or species protected under the Endangered Species Act (ESA). The USFWS is responsible for enforcing the MBTA and BGEPA; however, the USFWS does not have responsibility for enforcement of these regulations outside of the U.S. (see Appendix C.9 of the FEIS). Migratory birds, including golden eagles, are protected by international treaties, including the 1937 Convention for the Protection of Migratory Birds and Game Mammals (50 Stat. 1311; TS 912, as amended in 1972). The Mexican government is a signatory to this treaty and is responsible for addressing impacts to species protected pursuant to the MBTA within Mexico. The U.S. government as a signatory to this treaty also has an interest in potential impacts to "birds denominated as migratory, whatever may be their origin, which in their movements live temporarily in the United States of America and the United Mexican States." DOE notes that the Mexican EIA permit (see summary in **Appendix B**) requires ESJ to implement several construction and operational conditions and requirements. Of note, ESJ is required to implement an Environmental Monitoring Program, which is composed of the following individual plans for mitigation measures to reduce the identified adverse impacts that could occur during the different stages of the project:

- Bird and Bat Monitoring Plan
- Fauna Study, Rescue and Protection Plan
- Flora Study, Rescue, Protection and Rehabilitation Plan
- Construction, Operation and Maintenance Support Plan
- Waste Management Plan
- Erosion and Sedimentation Control Plan
- Noise Study
- Carrion Management and Disposal Plan

2.3.2. Visual Resources

Section 3.2 of FEIS discussed potential visual impacts of the transmission line during operations and maintenance activities. The long-term presence of the transmission line has resulted in a moderate adverse impact to the viewshed, which will remain unchanged regardless of the operational voltage.

Views of construction equipment and activity occurring in Mexico could result in a temporary moderate adverse impact to viewers in the U.S., similar to the extent of construction impacts described in Section 3.2 of the FEIS. Wind turbines planned for construction in Mexico as part of the CIM Project, including associated safety lighting, could be visible from several viewing points in the U.S., resulting in a potential long-term impact to individuals in the U.S. Such construction and operational impacts remain substantially the same as previously described in the FEIS, if not slightly reduced due to the increased distance from the border of the CIM Project than the previously analyzed infrastructure. See also, discussion of Socioeconomic impacts in Table 1.

2.3.3. Public Health and Safety (Electromagnetic Fields)

Electric and Magnetic Fields (EMF) are phenomena that occur both naturally and because of human activity. Naturally occurring EMF is generated by electrical currents flowing deep in the earth and by air turbulence and other atmospheric activity. Human-induced fields are generated by communications equipment, appliances, and the generation, transmission, and local distribution of electricity.

EMF impacts, as described in Section 3.8 of the FEIS, were presented based on "typical" magnetic field levels for transmission lines of different voltages (115-kV, 230-kV, and 500-kV) at various distances from the conductors (*see* Table 3.8-1 of the FEIS). Ultimately, the FEIS concluded that because "there are no public trails, recreational areas, or other developments to cause visitors to linger in the vicinity of the transmission lines, . . . little public exposure is expected and what exposure does occur would be brief" (FEIS at 3-153).

The FEIS further noted that the nearest potential residence was an unoccupied mobile home approximately 1600 feet to the west of the ESJ Tie Line and that "EMF levels at this distance would be below typical household levels." *Id*. The FEIS concluded that "no impact to public health and safety is expected due to magnetic fields generated during operation of the Project" (FEIS at 3-154).

The area in the vicinity of the ESJ Tie Line remains undeveloped, and no residences are located any closer to the line than the unoccupied mobile home discussed in the FEIS. The findings of the FEIS regarding impacts from EMF therefore remain valid for the operation of the ESJ Tie Line, regardless of an increased rate of transmission.

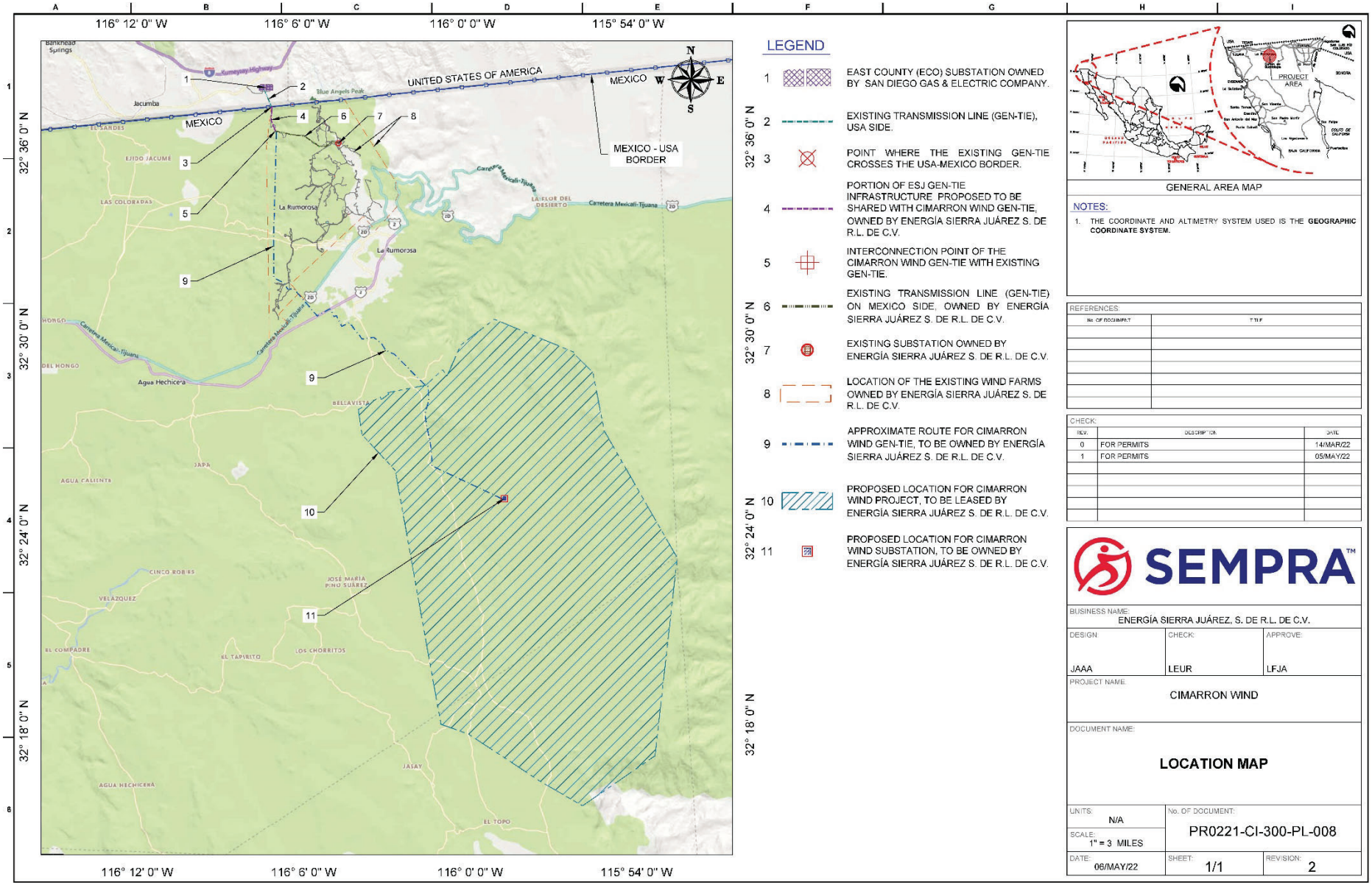
3. DETERMINATION

As required by the criteria at 40 CFR 1502.9(d), DOE analyzed whether modifying PP-334 to increase the maximum authorized rate of transmission from 300 MW to 700 MW would result in any substantial changes relevant to environmental concerns, or whether there were significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts.

After an evaluation of the impacts in the U.S., DOE has determined that the environmental impacts resulting from the continued operation of the ESJ Tie Line at an increased rate of transmission will be no different from the operational impacts previously addressed in the FEIS and SEIS. Moreover, the construction, operation, and maintenance of CIM facilities in Mexico will be subject to environmental avoidance, minimization, and mitigation requirements as described in the EIA (summarized in **Appendix B**).

Therefore, no further NEPA documentation is required.

Appendix A: Project Map



LEGEND

1	EAST COUNTY (ECO) SUBSTATION OWNED BY SAN DIEGO GAS & ELECTRIC COMPANY.
2	EXISTING TRANSMISSION LINE (GEN-TIE), USA SIDE.
3	POINT WHERE THE EXISTING GEN-TIE CROSSES THE USA-MEXICO BORDER.
4	PORTION OF ESJ GEN-TIE INFRASTRUCTURE PROPOSED TO BE SHARED WITH CIMARRON WIND GEN-TIE, OWNED BY ENERGÍA SIERRA JUÁREZ S. DE R.L. DE C.V.
5	INTERCONNECTION POINT OF THE CIMARRON WIND GEN-TIE WITH EXISTING GEN-TIE.
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7	EXISTING SUBSTATION OWNED BY ENERGÍA SIERRA JUÁREZ S. DE R.L. DE C.V.
8	LOCATION OF THE EXISTING WIND FARMS OWNED BY ENERGÍA SIERRA JUÁREZ S. DE R.L. DE C.V.
9	APPROXIMATE ROUTE FOR CIMARRON WIND GEN-TIE, TO BE OWNED BY ENERGÍA SIERRA JUÁREZ S. DE R.L. DE C.V.
10	PROPOSED LOCATION FOR CIMARRON WIND PROJECT, TO BE LEASED BY ENERGÍA SIERRA JUÁREZ S. DE R.L. DE C.V.
11	PROPOSED LOCATION FOR CIMARRON WIND SUBSTATION, TO BE OWNED BY ENERGÍA SIERRA JUÁREZ S. DE R.L. DE C.V.

GENERAL AREA MAP

NOTES:

1. THE COORDINATE AND ALTIMETRY SYSTEM USED IS THE **GEOGRAPHIC COORDINATE SYSTEM.**

REFERENCES:

No. OF DOCUMENT	TITLE

CHECK:

REV.	DESCRIPTION	DATE
0	FOR PERMITS	14/MAR/22
1	FOR PERMITS	05/MAY/22

SEMPRA™

BUSINESS NAME: ENERGÍA SIERRA JUÁREZ, S. DE R.L. DE C.V.

DESIGN:	CHECK:	APPROVE:
JAAA	LEUR	LFJA

PROJECT NAME: CIMARRON WIND

DOCUMENT NAME: **LOCATION MAP**

UNITS:	No. OF DOCUMENT:	
N/A	PR0221-CI-300-PL-008	
SCALE: 1" = 3 MILES		
DATE: 06/MAY/22	SHEET: 1/1	REVISION: 2

Appendix B: Summary of Environmental Impact Authorization (Mexico)

DOE maintains a complete version of the EIA, which is available upon request. DOE has made reasonable efforts to verify the analysis contained therein and the information presented below is a summary of the relevant portions.

SUMMARY DESCRIPTION OF AFFECTED ENVIRONMENT, IMPACT ANALYSIS AND MITIGATION FOR THE CIMARRON WIND PROJECT IN MEXICO

Affected Environment

The proposed Cimarron Wind Project will be located within the municipality of Tecate, Baja California on land leased from the towns of Jacume and Aubanel Vallejo, and private land approximately two miles south of La Rumorosa.

The geographic coordinates of the project are: 32° 29' 51.436 "N, 116° 07' 12.119 "W and 32° 37' 15.617 "N, 116° 04' 18.66 "W. The main urban areas near the project are La Rumorosa, Mexicali and Tecate. The project can be accessed from the Tecate-Mexicali section of Federal Highway #2.

The layout of the project will affect up to 1,035 hectares of land, with temporary disturbance of 445 hectares and 590 hectares of permanent character changes. The elevation of the project site ranges from approximately 3,200 feet (1,000 meters) to 4,550 feet (1,387 meters).

The project includes the installation of a power generation plant consisting of wind turbines, a step up substation, overhead collector lines, a transmission line, meteorological towers, internal roads, operational offices, and temporary and permanent maneuvering areas.

Mexican Permits and Approvals

The construction and operation of the Cimarron Wind Project require environmental reviews and project approvals by a number of Mexican governmental agencies, principally an environmental review and permit issued by Secretaría de Medio Ambiente y Recursos Naturales (SEMARNAT). SEMARNAT is equivalent to the federal Environmental Protection Agency (EPA) in the United States.

A Manifestación de Impacto Ambiental (MIA; Environmental Impact Manifest) was prepared for Cimarron Wind, which is equivalent to an Environmental Impact Statement under the U.S. National Environmental Policy Act. The MIA included comprehensive analysis and study of potential environmental and socioeconomic impacts of the project, as well as an analysis demonstrating compliance with Mexican laws. Topics addressed in the MIA include: Agricultural and Soil; Air Quality; Biological Resources; Geological Hazards; Land Use; Noise; Public Health and Safety; Socioeconomics; Transmission System Safety for Wildlife and Nuisance; possible shadow effect of wind turbines; Visual Resources; Waste Management / Hazardous Materials Handling and Water Resources. The MIA process also included an extensive public involvement component, including notices published in the newspaper, through which interested parties were invited to request a public hearing and submit comments.

During the MIA review, SEMARNAT evaluated potential impacts resulting from construction, operation, and decommissioning of the facility. Prevention and mitigation measures were provided as appropriate and included requirements such as reforestation/replanting of certain impacted species and bird and bat monitoring.

Based on its review of the MIA, on August 1, 2023, SEMARNAT issued an Environmental Impact Authorization (EIA) for the Cimarron Wind Project which specifies the terms and conditions of the authorization, including measures required to mitigate potential environmental impacts.

ESJ has submitted copy of the original Spanish-language EIA for the record in this permit proceeding. The EIA is 119 pages and consists of the following three primary elements:

1. Pages 1 though 5 ("**Resultando**") present a detailed summary of the procedural history of the EIA permitting process. Key facts from the procedural summary include the following:

    - The application for the EIA was submitted to SEMARNAT's General Directorate of Environmental Impact and Risk ("DGIRA") on October 14, 2022.

    - DGIRA formally initiated the EIA review process on October 20, 2022, publishing the MIA on its website and establishing a document repository for public review. In addition, Cimarron Wind published a public notice for the project in the local newspaper on October 18, 2022.

    - DGIRA solicited and received comments on the project from various federal, state and local governmental bodies (listed in the table on pages 2-3 of the EIA under Paragraph V).

    - DGRIA solicited and received additional information from Cimarron Wind regarding the project.

2. Pages 5 to 66 ("**Considerando**") present a detailed discussion of DGIRA's evaluation of the project, including information from the MIA, technical comments received from the commenting governmental bodies, and supplemental information submitted by Cimarron Wind.

    - Paragraph 12 (beginning on page 58 of the EIA), entitled (in translation) "**Identification, description and evaluation of cumulative and residual environmental impacts to the regional environmental system; and measures for the prevention and mitigation of cumulative and residual environmental impacts to the regional environmental system**," includes a table summarizing the potential project impacts to various environmental resources together with a description measures proposed by Cimarron Wind, as specified in the MIA, to avoid and mitigate such impacts. A translation of this table is provided at Exhibit A hereto.

    - On pages 64 to 66, the EIA states the DGIRA's conclusions that (i) the Project satisfies applicable legal requirements, (ii) with the implementation of and compliance with the mitigation measures incorporated into the EMP, the Project will minimize the environmental impacts identified to the extent possible, and (iii) the Project is authorized subject to terms and conditions specified below.

3. Pages 66 to 119 ("**Terminos**") set out the specific terms of the EIA, including a detailed description of the nature and location of the Cimarron Wind Project facilities (pages 66 to 94). Paragraph 8 of the terms section (pages 97 to 117) imposes thirteen numbered conditions or obligations related to the construction and operation of the Project. In particular, Condition Number 7 (beginning on page 99) includes the following requirements related to environmental matters:

    - Implementation and compliance with (i) all of the mitigation measures set forth in the MIA to mitigate environmental impacts from Project construction and operation, (ii) all applicable environmental laws, and (iii) all terms and conditions specified in the EIA for the protection of environmental resources.

    - Implementation of the Environmental Monitoring Program, which is composed of the following individual plans for mitigation measures to reduce the identified adverse impacts that could occur during the different stages of the project:
        - Bird and Bat Monitoring Plan
        - Fauna Study, Rescue and Protection Plan
        - Flora Study, Rescue, Protection and Rehabilitation Plan
        - Construction, Operation and Maintenance Support Plan
        - Waste Management Plan
        - Erosion and Sedimentation Control Plan
        - Noise Study
        - Carrion Management and Disposal Plan

    - Reporting of information obtained through the Environmental Monitoring Program.

Enforcement of all EIA conditions falls under the jurisdiction of the Procuraduria Federal de Proteccion al Ambiente (PROFEPA; Federal Environmental Attorney), an independent branch of SEMARNAT. Reports of compliance with environmental regulation and permit terms and conditions must be submitted both to SEMARNAT and PROFEPA. PROFEPA is entitled to perform verification visits to ensure compliance with all applicable environmental regulations, as well as the terms and conditions of the environmental permits. If a project is noncompliant, PROFEPA may issue warnings or fines, depending on the severity of the noncompliance, and may terminate a project if there are continued violations of the regulation.

Environmental Impacts and Mitigation

In accordance with the requirement of the EIA, Cimarron Wind will implement the following environmental best practices:

1. Identify project activities that result in environmental system change or with the potential to produce a change. Identify actions that can be carried out to prevent, avoid, mitigate, correct, cancel or compensate for significant adverse environmental impacts produced by the project.

2. Carry out follow-up and monitoring actions of the mitigation measures proposed, as well as those established in the corresponding authorization.

3. Follow-up by specialized and trained personnel to apply the proposed mitigation measures, as well as to establish corrective measures in case of deviations.

The following table presents a comprehensive summary of the specific mitigation measures to be implemented for various Project activities (including measures identified in the MIA and required by the EIA):

Activity	Factor / impact	Preventive measure
Clearing and grubbing	Erosive processes	Plan carefully and well in advance the areas that need to be free of vegetation to avoid exceeding the intended area
	Abundance of Fauna	1. Only the areas of occupation of the components of this project will be cleared. 2. A Bird and Bat Monitoring Plan will be carried out, as well as a prospective study to locate terrestrial fauna, before the site preparation begins, to protect sensitive areas. 3. The monitoring will be adjusted to the needs of the project, to the vulnerability of the subsystems that are in the project area. 4. Currently, bird and bat monitoring is being carried in the general area of the project. 5. Personnel involved in clearing tasks will be trained regarding the fragility and care of wildlife, special species that are under some protection category in NOM-059-SEMARNAT- 2010. In case personnel involved in the clearing works finds any wildlife specimen that is protected under NOM-059-SEMARNAT-2010, they will notify trained personnel for proper handling.
	Fauna species in NOM-059-SEMARNAT-2010	
	Abundance of Flora	1. Only the areas of occupation of the components of this project will be cleared. 2. The personnel involved in the clearing tasks will be trained, in the fragility and care of the flora, especially the species that are under some protection category under NOM-059-SEMARNAT-2010. 3. In the event that personnel involved in the clearing find any specimen of flora that is protected under NOM-059-SEMARNAT-2010, they will notify trained personnel for proper handling.
	Flora species in NOM-059-SEMARNAT-2010	Before the beginning of the clearing and grubbing, verify if there is any species present, mentioned under NOM-059-SEMARNAT-2010 in the clearing and grubbing area any.
Mechanical Excavation	Type of soil	1. Plan geotechnical studies carefully and in advance, avoiding digging in places where it is not feasible to carry out the work to place the wind turbine. Support Plan for Construction, Operation and Maintenance. 2. Avoid placing organic soil from a specific area in another area with a different type of soil; The same case applies to rock debris that is not used.
	Erosive processes	1. Plan geotechnical studies carefully and in advance, avoiding digging in places where it is not feasible to carry out the work to place the wind turbine. 2. Support Plan for Construction, Operation and Maintenance.
	Abundance of Fauna	Prepare and implement Study, Rescue, and Fauna Protection Plan and Support Plan for Construction, Operation and Maintenance.
	Fauna species in NOM-059-SEMARNAT-2010	Verify if there are fauna species in the excavation area under NOM-059-SEMARNAT-2010.
Cutting, Filling, Compaction and Leveling	Type of soil	1. Avoid placing organic soil from a specific area in another area with a different type of soil. 2. Ensured that organic soil that is not used in landfills be used in surrounding areas where the type of soil is the same and/or very similar. 3. In the event that there are leftovers of unusable rock, they will be disposed in sites authorized by current regulations. 4. Special handling waste will be placed in designated and confined places and in accordance with current regulations.
	Erosive processes	1. Plan carefully and in advance the places that require cuts. 2. Containment barriers will be placed. 3. Prepare and implement Support Plan for Construction, Operation and Maintenance.
	Visual quality	Plan cutting, filling, compaction and leveling activities to take precautionary measures and communicate them to those involved, in advance. Support Plan for Construction, Operation and Maintenance.

Activity	Factor / impact	Preventive measure
Wind Turbine Operation	Noise	NOM-081-SEMARNAT 1994 will be complied with.
	Fauna diversity Abundance of fauna	1. The results of the Bird and Bats Monitoring Plan in the different Areas will be evaluated, which will serve as a basis for continuing and/or modifying the mitigation measures applied to the Areas that are developed later. This will be done in collaboration with universities and research centers. 2. Detect species of birds and bats, especially migratory species that perch in trees and other species that are under some protection category in NOM-059- SEMARNAT-2010, which could be colliding with wind turbines and meteorological towers. 3. Detect the temporality in which this event is happening (during what time of the day and at what season of the year). 4. Evaluate the information obtained from the Bird and Bats Monitoring Plan to identify possible patterns of bird and bat crashes with wind turbines and meteorological towers and evaluate and implement possible measures to reduce these impacts. 5. Particular care will be taken to keep all residues well contained until their final disposal, so as to avoid attracting fauna to the area of operation and maintenance (and in particular that which serves as an attraction to birds and bats).
	Fauna species in NOM-059-SEMARNAT-2010	The Bird and Bats Monitoring Plan and the Study, Rescue and Fauna Protection Plan, will allow continuing and/or modifying precautions, in case of a pattern of collisions of flying organisms, against some wind turbines and meteorological towers, with special emphasis on species found within NOM-059-SEMARNAT-2010. This will be done in collaboration with universities and research centers.
Electrical installations operation	Noise	NOM-081-SEMARNAT-1994 will be complied with. As far as possible, place the substations as far away as possible from the population.
	Fauna diversity Fauna species in NOM-059-SEMARNAT-2010	1. In the event that personnel involved in the operation and maintenance find any fauna specimen, particularly one protected by NOM- 059-SEMARNAT-2010, they will notify trained personnel for proper handling. 2. Within the Bird and Bats Monitoring Plan, special emphasis will be placed on the species of birds and bats that are within NOM-059- SEMARNAT-2010.
Fuel storage	Soil quality	1. The replacement oil for the wind turbines and the fuel for the operation and maintenance vehicles will be transported in accordance with the applicable regulations. 2. Special precautions will be taken to avoid leaks. 3. The equipment under repair/maintenance will be located in an indicated area, as well as the waste that comes from the same activity and will be disposed in specific containers under Mexican regulations, which will be collected periodically by a company authorized by current regulations.

Exhibit A

Translation of Table from Pages 58 to 61 of the EIA

Environmental Factor	Stage	Impact	Measure and/or action
Atmosphere	• Site preparation, construction and operation.	• Alteration of air quality due to the generation of emissions. • Alteration of air quality due to the generation and dispersion of suspended particles. • Increase in noise levels derived from the use of machinery, vehicles and construction personnel.	The petitioner reported that it would carry out the following measures to prevent and mitigate the identified impact: • Prohibit the burning of generated waste, to avoid the emission of atmospheric pollutants. • Control of particulate emissions by means of periodic irrigation with water in the areas of vehicular traffic or places with potential dispersion of dust within the project area. • Comply with the provisions of the Official Mexican Standards NOM-041-SEMARNAT-2015 and NOM-045-SEMARNAT-2017, providing maintenance to machinery and vehicles. • Carry out preventive maintenance for machinery, vehicles and equipment, keeping updated records, for the purpose of avoiding malfunctions that generate noise. • Maintain noise levels within the Maximum Permissible Limits established by the Official Mexican Standard NOM-081-SEMARNAT-1994. • To limit noise levels from motor vehicles in accordance with NOM-080-SEMARNAT-1994, equipment that generates a higher level of noise will be used during normal business hours, avoiding use in night time.
Geoformations		• Modification of the natural relief due to clearing actions and earth movements.	• The petitioner stated that it would restrict excavations and earth movements to exclusively within those areas proposed for construction.

			• Establish and implement a Soil Conservation Program and a Reforestation Program designed to prevent and mitigate project impacts.
Land		• Increase in soil erosion. • Contamination due to inadequate handling, storage and disposal of solid, liquid, and hazardous waste.	• The petitioner stated that it will stockpile organic soil during the site grading process to be used in the areas to restore and stabilize slopes. Likewise, if possible, any excess stockpiled soil will be used to improve the natural conditions of the surrounding areas or areas temporarily disturbed for the project and promote the development of herbaceous vegetation cover. • The petitioner stated that it will carry out the implementation of the Soil Conservation Program and the Reforestation Program.
Water		• Contamination of water runoff due to accidental spills from machinery and equipment used in project activities. • Contamination of water runoff due to mismanagement of waste generated in project activities. • Contamination of groundwater due to the mismanagement of waste generated in project activities. • Reduction in stormwater infiltration or alteration of the pattern of infiltration.	• Vehicles and machinery should be refueled only at service stations located in nearby urban centers. • Potentially hazardous substances that could be spilled will be stored in temporary warehouses for hazardous chemicals, where they can be handled easily and safely. • An integrated waste management program will be implemented to prevent improper waste handling. • Drainage monitoring and management will be carried out to ensure the continuity of the natural drainage of the site. • Develop and implement a Stormwater Pollution Prevention Plan (SWPPP) to control water runoff.
Vegetation		• Effects on the surrounding vegetation for the development of project activities. • Decrease of habitat and loss of coverage vegetable.	• The petitioner stated that it will limit the clearing to those areas destined for construction and operation. • The removal of vegetation (clearing) will be controlled according to the progress of the work.

			• Develop and implement the Rescue and Relocation Program for Flora which will contain specific actions. • Develop and implement the Conservation Program of Soils and the Reforestation Program.
Animals		• Possible collision with individual animals by vehicles and machinery. • Impacts to individuals of slow-moving species and of species with some risk category of the Official Mexican Standard NOM-059-SEMARNAT-2010. • Bird strikes. • Electrocution of birds.	The petitioner will implement a set of measures to prevent and mitigate the impacts, including: • The Animal Disposal, Rescue and Relocation Program will be carried out, prior to the site preparation stage, with emphasis on individuals of protected species under some category of protection, be it the Official Mexican Standard NOM-059-SEMARNAT-2010 and those species of ecological importance or with some commercial or cultural value. • The petitioner post speed limit signs (30 km/hr for small vehicles and 25 km/hr for heavy machinery) to avoid the mortality of terrestrial fauna resulting from vehicle collisions. • Keep the surroundings of the bases of the wind turbines clean; where the area around the footings is covered with earth or gravel, prevent tall vegetation to avoid creating shelter for birds of prey. Both the footing area and the maneuvering platforms must be kept free of carrion. • During the operation stage, the petitioner will remove carrion from the site to prevent birds from trying to come down to feed and put themselves at risk with the blades of the wind turbines. • The petitioner stated that it will install Bird-Flight Diverters in the overhead collector lines of the project, of which the orange color is specifically recommended, due to its greater effectiveness compared to the yellow color.