

## Environmental and Social Review Summary (ESRS) TRECSA - GUATEMALA

**Original language of the document:** Spanish  
**Issuance date:** May 2021

### 1. General Information of the Project and Overview of Scope of IDB Invest's Review

Empresa Transportadora de Energía de Centroamérica S.A. ("TRECSA", the "Company" or the "Client"), a subsidiary of Grupo Energía Bogotá ("GEB") of Colombia, is constructing the PET-01-2009 Project (the "Project") in Guatemala.

The Project, which is part of the Transportation System Expansion Plan (PET, for its acronym in Spanish) in Guatemala, consists of the construction and maintenance of 783 km of 230 kV power transmission lines (TLs), as well as 11 new transformer substations (SSs) and the expansion of 12 existing substations. The Project is organized into six lots (the "Lots"): (i) Lot A (Anillo Metro Pacífico), located in the departments of Guatemala, Escuintla, Sacatepéquez, and Santa Rosa; (ii) Lot B (Anillo Hidráulico), located in the departments of Huehuetenango and Quiché; (iii) Lot C (Anillo Atlántico), located in the departments of Zacapa and Izabal; (iv) Lot D (Anillo Atlántico), located in the departments of Izabal, Alta, and Baja Verapaz; (v) Lot E (Anillo Hidráulico y Atlántico), located in the departments of Alta Verapaz, Baja Verapaz, and El Progreso; and (vi) Lot F (Anillo Occidental), located in the departments of Chimaltenango, Sacatepéquez, Guatemala, Sololá, Suchitepéquez, and Retalhuleu. The Project started construction in May 2010 and was 86.62% complete as of December 31, 2020.

The scope of the IDB Invest Environmental and Social Due Diligence (ESDD) included an analysis of the Company's information and documents, as well as online meetings with the staff responsible for handling TRECSA's management, human resources, and operating systems. It focused on a review of the following documents: i) the Environmental Impact Studies (EIS) for each of the Lots that comprise the Project; ii) the environmental and social management system, including the environmental and social management programs and plans<sup>1</sup> contemplated for each of the sections that comprise the Project; iii) the registry of properties affected by the construction of the TL easement; iv) the proposed construction procedures and techniques; v) the design criteria for the substations; vi) the internal and external grievance and complaint mechanisms; vii) the main contractor and subcontractor contracts; viii) the Guatemalan legislation applicable to the scope of the Project; ix) the cumulative impact analysis; x) the process for releasing the easement in indigenous territories and the compensations made; and xi) the community compensation agreements for all of the Lots. Due to travel restrictions arising from the COVID-19 pandemic, the

---

<sup>1</sup> Including, among others, the following: Archaeological Management Plan; Vehicle Traffic Management Plan; Ecosystem Management Plan; Emergency Response Plans; Risk Management Plan for more common threats; protocols for work at heights; Community Participation Plan; Archaeological Recovery Plans and Chance Finds Procedures.

ESDD did not include an in-person visit to the works by the IDB Invest team; however, this was done by an environmental and social consultant hired for this purpose.<sup>2</sup>

## **2. Environmental and Social Categorization and Rationale**

The Project has been classified as a Category A operation according to BID Invest's Environmental and Social Sustainability Policy since it will likely generate several impacts that include: i) potential impacts on occupational health and safety issues for workers; ii) solid and liquid waste generation; iii) alteration of air quality as a result of substation construction activities; iv) increased noise and vibration levels due to the use of heavy machinery during substation construction; v) possible increased risk of soil contamination from hazardous substances to be used during Project construction; vi) start of possible erosion processes due to earthworks; vii) disruption of vehicular traffic at substations; viii) possible impact on the biological environment and biodiversity, particularly bird life due to possible bird crashes or electrocutions; ix) loss of vegetation with possible impacts on fauna, flora and natural habitats as a result of the construction of the right-of-way; x) permanent alteration of the landscape due to the presence of the TL; xi) possible impacts to communities due to the establishment of the easement and the presence of the TL structures; and xii) possible impacts to cultural heritage due to the planned earthworks. These are considered high intensity impacts and risks.

The Performance Standards (PS) triggered by the Project are: i) PS1: Assessment and Management of Environmental and Social Risks and Impacts; ii) PS2: Labor and Working Conditions; iii) PS3: Resource Efficiency and Pollution Prevention; iv) PS4: Community Health, Safety, and Security; v) PS5: Land Acquisition and Involuntary Resettlement; vi) PS6: Biodiversity Conservation and Sustainable Management of Living Natural Resources; vii) PS7: Indigenous Peoples; and viii) PS8: Cultural Heritage.

## **3. Environmental and Social Context**

### **3.1 General characteristics of the Project's site**

The Project works are located in the southern and western part of Guatemala. This zone is characterized by a warm, temperate climate dominated by Temperate Rain Forest and Subtropical Low Montane Rain Forest, interspersed with vast agricultural areas.

One of the most relevant structural forms in the region is the discontinuity of the Motagua Fault, a left-lateral displacement fault system that is part of the fault system between the North American and Caribbean plates. The Motagua Fault zone is a source of shallow seismic events with intensities greater than V on the modified Mercalli Scale, with long recurrence periods (60 years or more) and maximum ground accelerations of 2.2 m/s<sup>2</sup> to 2.4 m/s<sup>2</sup>.

---

<sup>2</sup> This visit took place between March 14 and 19, 2021 and included a tour of several work fronts (Chiantla-Covadonga, Sololá-Brillantes, among others), including the Chiantla and San Juan substations.

Although the Project is located relatively close to the country's volcanic chain (in some places only about twenty kilometers away) and contains several active volcanoes (Volcán de Fuego, Volcán de Pacaya, Volcán Santiaguito and Volcán Tacaná), it is estimated that the activity, products, and emissions generated by any volcanic episode would not compromise the structures to be implemented since, historically, these effects have tended to move away from the Project area.

Almost one third of the Project's area of direct influence consists mainly of mixed oak grove forests. In other parts of the area, year-round agricultural activities take place.

### 3.2 Contextual risks

Guatemalan society is made up of 23 ethnic groups, each with its own language and worldview. This makes Guatemala a multi-ethnic, multicultural, and multilingual country. The Mayas,<sup>3</sup> Xincas,<sup>4</sup> Garifuna,<sup>5</sup> and Ladinos<sup>6</sup> account for more than 40% of the population. In addition, about 54% of the nearly 17 million Guatemalans live in rural areas.

Guatemala has huge gaps in its nutrition, health, education, employment, and population well-being indicators. The country exhibits great contrasts: while in the metropolitan region there are sectors with a Human Development Index (HDI) similar to first world countries, in rural areas there are sectors comparable to less-developed countries.

Seventy-six percent of Guatemalans do not have the income to secure a basic basket of goods and services. In addition, 73% of the population does not have any type of health insurance and shows highly precarious conditions in terms of sanitation and housing quality. Most households in Guatemala are not covered by health insurance or social security, even those in the upper echelon.

Although gaps in educational coverage are tending to close, at present, almost six out of every 10 adults have not completed primary school and one out of every five children has a high probability of not completing primary school. The intensity of economic and health deprivation exceeds 50%, indicating widespread and profound impoverishment.

Poverty and inequality have a particular impact on rural populations, indigenous peoples, and women. These groups, who survive with high rates of multidimensional poverty, do not have access to basic sanitation services, education, productive assets, or sources of decent employment. For some of the baseline indicators, deprivation in rural and indigenous populations reaches 90% of the population.

---

<sup>3</sup> A millenary culture from Mesoamerica (Guatemala and the Yucatan Peninsula), direct descendants of Mayan culture.

<sup>4</sup> Amerindian ethnic group, nearly vanished, located in what is now Guatemala, Belize, and El Salvador. They are characterized by speaking the Xinca language, a language of unknown parentage and unrelated to any Mayan language.

<sup>5</sup> An ethnic group descended from Africans and Carib and Arawak Indians originating in various regions of the Caribbean, also known as Garinagu, Black Indians, or Black Caribs.

<sup>6</sup> The Ladino people are a mixture of mestizo or Hispanic peoples in Latin America, mainly in Central America. The Guatemalan Ministry of Education defines it as "...a people characterized as a heterogeneous population that expresses itself in the Spanish language as its mother tongue, possesses specific cultural traits of Hispanic origin mixed with indigenous cultural elements, and dresses in a style commonly considered Western".

According to the 2014 National Survey of Living Conditions (ENCOVI, for its acronym in Spanish), more than 3.2 million people live in homes with no connection to a power grid (2.5 million in rural areas), even though the country was already positioned as the largest electricity provider in Central America. It is expected that by 2022, 46 new hydroelectric power plants will be in operation, totaling an installed capacity of 166 MW.

The scarcity of financial resources to cover household expenses has resulted in the incorporation, from an early age, of children and adolescents into family work to generate income and cover current expenses. This, in addition to impeding access to the educational system, has also been the cause of an increase in cases of mistreatment and sexual abuse.<sup>7</sup>

According to the Inter-American Commission on Human Rights<sup>8</sup> (IACHR), Guatemala has a high level of conflict due to poor administration of services, impunity, legal uncertainty regarding land ownership, unconsented exploitation of natural resources, lack of implementation of Convention 169 of the International Labor Organization (ILO), and unresolved structural problems. This situation severely affects the human rights of its inhabitants, especially those of its native peoples who, on several occasions, have seen their rights to their ancestral lands undermined and have been victims of exclusion, inequity, racism, and discrimination.

Guatemala has high levels of violence and insecurity, with high homicide and femicide rates, as well as high rates of crimes against the physical integrity of people and property. Crime is the result of a long process of institutional undermining, marginalization, and inequality. The dismantling of state structures that exercised violence during armed conflict created a vacuum that the state has not been able to fill, to the benefit of parallel power groups and organized crime.

The country's biodiversity and natural resources are not used in a sustainable manner and the population is constantly exposed to the effects of climate change and recurrent natural disasters.

#### **4. Environmental Risks and Impacts and Proposed Mitigation and Compensation Measures**

##### **4.1 Assessment and Management of Environmental and Social Risks**

###### **4.1.a E&S Assessment and Management System**

TRECSA has adopted an Environmental and Social Management System (ESMS) that is in line with international best practices (ISO<sup>9</sup> 14001). This system includes: i) a policy; ii) risk and impact identification; iii) various management programs; iv) the required organizational capacity and competency; v) emergency preparedness and response plans and programs; vi) stakeholder engagement plans; and vii) monitoring and review mechanisms.

---

<sup>7</sup> Data from the National Commission Against Child Abuse (CONACMI, for its acronym in Spanish), the Attorney General's Office and the Human Rights Ombudsman's Office.

<sup>8</sup> Situation of Human Rights in Guatemala: Diversity, Inequality and Exclusion. Inter-American Commission on Human Rights (IACHR), 2015.

<sup>9</sup> International Organization for Standardization.

The ESMS contains procedures to assess the relative importance of identified environmental and social impacts and risks, making it possible to ensure that the commitments undertaken in the EISs are implemented as planned. The system, which also contains appropriate mechanisms and procedures to identify unforeseen impacts in a timely manner and formulate the corresponding management measures, uses dynamic mechanisms (internal inspections and audits) for continuous improvement.

In 2018, TRECSA certified its quality system under ISO 9001:2015. At the same time, it is in the incorporation phase of the "Vision Zero" strategy of the International Social Security Association<sup>10</sup> (ISSA), whose objective is to achieve zero workplace accidents, illnesses, or injuries. The adoption of Vision Zero is the Company's first step towards the certification of its Occupational Health and Safety System under ISO 45001:2018 (which replaces OHSAS<sup>11</sup> 18001).

In 2021, TRECSA has adopted a Contractor Management Program that includes: i) a series of measures to ensure that all workers engaged by third parties receive appropriate contracts and working conditions, which are included in (a) its Contracting Manual, (b) its Management and Control Manual, and (c) the schedules to the contract (occupational health and safety and minimum environmental requirements for contractors); ii) regular scheduled and unscheduled audits conducted by a third party to conduct assessments that include the contracting process and contractor compliance with environmental, social, and occupational health and safety requirements; iii) follow-up of contractors for engineering, procurement, and contracting services, which evaluates, among other aspects, compliance with (a) the work commissioned (scope, schedule, etc.), (b) associated administrative processes (timely delivery of policies, reports, etc.), (c) occupational health and safety requirements, (d) associated environmental requirements, and (e) quality of work; and iv) the review of all complaints registered by contractor and subcontractor employees.

#### 4.1.b Policy

TRECSA has an Integrated Management System Policy that is aligned with the Sustainability Policy of Grupo Energía Bogotá (GEB) and the requirements of PS 1. This policy expresses the Company's commitment to quality customer service, protection of life and health at work, care for the environment, and strengthening relations with the community, framed within an optimal administration of its financial resources. The policy is communicated to TRECSA's employees and suppliers and is reviewed annually under the leadership of senior management.

#### 4.1.c Identification of Risks and Impacts

##### 4.1.c.i Direct and indirect impacts and risks

The EISs for the six Lots that comprise the Project were developed in adherence to Guatemalan regulations and the specific terms of reference approved by the Ministry of Environment and

---

<sup>10</sup> The International Social Security Association (ISSA), created in 1927, has nearly 370 member organizations in more than 150 countries. Its purpose is to assist its clients in the areas of cooperation and research, production and transfer of knowledge, and promotion of social security.

<sup>11</sup> The International Standard for Occupational Health and Safety Management Systems.

Natural Resources (MARN, for its acronym in Spanish). These studies present the environmental and social risks and impacts of the TLs and SSs for each Lot in considerable detail, including those generated by the associated facilities. For example, the EISs contemplate the need to improve access routes to the towers and include material access and transportation management plans, as well as practices or measures to enable access roads.

The Project, for each of its Lots, maintains a matrix of environmental and social impacts and risks that are continuously updated as new risks or impacts are identified.

#### 4.1.c.ii Analysis of alternatives

The main corridors for TL alignment were determined based on an analysis of the areas of least impact for each alignment. Within these, and in consultation with the potentially affected population, adjustments were made to the final layouts to avoid direct adverse effects on the population or on areas of ecological interest.

From the start of construction to date, the Company has made 96 variants of the TL layouts. These changes were made in response to issues related to the optimization of the layout; specific requests from affected communities expressed in public participation processes; intersections with public and private protected areas; and technical readjustments due to the unsuitability of the sites originally selected for the Project's structures.

#### 4.1.c.iii Cumulative impact analysis

The cumulative impact analysis (CIA) for the Project is based on the identification of the departments and municipalities where the TLs and SSs included in the Project are located. With this information and that obtained from these jurisdictions' development plans, the CIA generates an inventory of the 101 past, present, and future public projects that intercept the Project's area of influence.

Once the projects are identified by lot and municipality, the analysis eliminates projects completed prior to the completion of the Project's EISs, as their incremental impacts are incorporated into the Project's environmental baseline, and groups the projects that were not eliminated by theme, considering the materiality that the incremental impacts could cause in the Project's area of influence. The three groups of projects on which the CIA focuses are: 10 road improvement projects; 5 drinking water and sanitation projects; and 17 electric power distribution and public lighting projects.

The CIA identifies Valued Environmental and Social Components (VECs) by assessing which environmental parameters identified in the Project EISs are most likely to be impacted by the projects identified via the above-described process. These selected environmental components (which are transformed into VECs for the purposes of the CIA) are the following: i) gases and air particles (dust); ii) vibrations (noise); iii) vegetation cover (vegetation); iv) culture (cultural aspects); v) birds; and vi) landscape. The CIA assesses cumulative impacts using a matrix methodology, rating each incremental impact based on the following parameters: i) nature (beneficial or detrimental); ii) intensity; iii) extent; iv) duration; v) magnitude; vi) reversibility; and vii) probability of occurrence.

The CIA uses a matrix method to evaluate cumulative impacts, which assumes that the projects analyzed would not be executed at the same time (i.e., their start dates and construction periods would not coincide) and that they would not have incorporated management measures in their activities to reduce or avoid undesirable impacts. After the corresponding analysis, the CIA concludes that the incremental impacts generated by the analyzed projects on the selected VECs are not material,<sup>12</sup> given that they would only represent a fraction<sup>13</sup> of those that would be generated by the Project.

Nevertheless, the CIA formulates a series of actions to be carried out by the project developers included in the analysis to manage the identified incremental impacts, which are condensed in a cumulative impact mitigation plan. This plan identifies the following for each action: the VEC it will influence, the description of the action, those responsible for the implementation and monitoring of the action, the implementation phase and frequency with which the action should be implemented, and the indicators to track the effectiveness of the proposed action.

#### 4.1.c.iv Gender risks

Guatemala has several mechanisms for the comprehensive inclusion and protection of women and children from violence and discrimination, such as: i) the Office for the Defense of Indigenous Women (DEMI, for its acronym in Spanish) and the Presidential Secretariat for Women (SEPREM, for its acronym in Spanish); ii) a set of laws enacted to that effect (comprehensive development of women, domestic violence, sexual violence, and trafficking and exploitation, femicide and other forms of violence); and iii) a series of policies in force, such as the National Policy for the Promotion and Comprehensive Development of Women. The Secretariat against Sexual Violence, Exploitation and Trafficking of Persons (SVET, for its acronym in Spanish) generates statistics<sup>14</sup> for the entire Guatemalan territory, both on sexual exploitation and abuse, as well as on gender violence; the National Institute of Statistics (INE, for its acronym in Spanish) generates statistics on domestic violence.<sup>15</sup> However, Guatemala has a marked deficiency among public institutions in the handling of gender issues: despite the instruments it has adopted for the protection of women, children, and adolescents, the practical results of their application have been rather modest.

The EISs identify impacts generated by the Project that specifically affect women or children. However, given that the Energy Transportation Expansion Plan (PET, for its acronym in Spanish) covers 17 of the country's 22 departments in a cross-cutting and indirect manner, the EISs present some of the risk factors for these human groups. These factors would be more related to poverty, indigenous exclusion, and food insecurity than to the Project itself.

---

<sup>12</sup> Had the analysis assumed that the projects analyzed had already incorporated the necessary management measures to mitigate or avoid undesirable impacts, the incremental impacts would have been much smaller (almost negligible).

<sup>13</sup> The 10 road improvement projects as a whole would generate incremental impacts of about 5% of those generated by TRECESA; the five drinking water and sanitation projects would produce about 2% of the Project's impacts; and the 17 power distribution and public lighting projects would barely add 4% to the effects generated by TRECESA.

<sup>14</sup> <https://www.svet.gob.gt/estadistica>.

<sup>15</sup> <https://www.ine.gob.gt/ine/estadisticas/bases-de-datos/violencia-intrafamiliar/>

As part of its public participation<sup>16</sup> and information dissemination process, TRECSA carried out, among others, the following gender-related activities: (i) stakeholder mapping, identifying women's groups and their formal and informal roles as leaders; (ii) invitations to women to Project socialization events; (iii) dedicated meetings with women or diverse groups in the predominant languages; iv) inclusion of facilitators to ensure that women and representatives of diverse groups can present their views without any obstacle; v) consultations with the DEMI and the SEPREM; and vi) a review of the statistics generated by the SVET and the INE regarding gender violence, intimate partner violence, and the protection of children and adolescents.

TRECSA has incorporated provisions to ensure the proper treatment of women working on the Project in terms of: i) provision of suitable working environments for pregnant women; ii) adoption of a zero tolerance policy towards sexual exploitation and gender-based violence; and iii) compliance with local legislation and adherence to additional international practices regarding issues related to: a) breastfeeding periods, b) prohibition of forced labor, c) non-discrimination on the basis of gender, d) equal opportunities for workers regardless of gender, and e) wages and benefits.

#### 4.1.c.v Climate change exposure

The slopes in the area where the Project works are located are moderate to steep. Added to the intense rainfall in the area, several of the Project sites are prone to landslides. The region, with its high deforestation rates and poor soil conservation, is also susceptible to erosion processes in these areas.

The area where the Project is located is prone to medium intensity rainfall, mainly due to phenomena such as Eastern Waves and other more intense cyclonic systems (which occur mainly between May and August). The Atlantic coast, mainly from August to November, is exposed to prolonged rains caused by the passage of nearby cyclonic systems in the Caribbean Sea.

The design of the transmission towers and the SS has considered the Project's exposure to the effects of the weather, incorporating safety factors that triple the resistance of these structures to hurricane-force winds. These designs ensured that the last two hurricanes in the area (Eta and Iota) did not damage the Project's towers or SS.

Based on the above and considering that all of these factors have been included in the designs of the planned structures, the Project's overall vulnerability to climate change is low.

#### 4.1.d Management Programs

TRECSA's ESMS includes procedures for managing the following issues: occupational health and safety; waste; wildlife; stakeholder relations; biodiversity; critical habitats; vehicular traffic; road safety; housing relocation; physical security; and chance (archaeological) finds.

---

<sup>16</sup> The term "citizen participation" shall henceforth be understood as how the Performance Standards define the "consultation" process. This change has been necessary to differentiate it from the "prior consultation" process associated with the International Labor Organization (ILO) Convention 169.

#### 4.1.e Organizational Capacity and Competency

TRECSA has adequate organizational capabilities to manage environmental, social, and occupational health and safety issues. The Company's ESMS is overseen by its Sustainable Development Management, which is in charge of the following areas: (i) Environmental Management,<sup>17</sup> consisting of an Environmental Leader, two Environmental Professionals, and three Environmental Managers; (ii) Shared Value,<sup>18</sup> consisting of a Leader; (iii) Social Relations,<sup>19</sup> consisting of a Leader, two Technical Social Managers, and six Project Social Managers; iv) Occupational Health and Safety (OHS),<sup>20</sup> consisting of one OHS Professional and six Environmental, Health and Safety (EHS) Technicians; and v) Land Management,<sup>21</sup> headed by a Land Management Methodology Professional.

The human group that makes up the ESMS is complemented by external consultants, depending on the needs of the Project. The management system also has the necessary physical and financial resources to carry out its tasks.

Each contractor has civil works field supervisors, quality delegates, and a resident engineer to ensure compliance with applicable environmental, social, and OHS regulations.

#### 4.1.f Emergency Preparedness and Response

TRECSA's emergency management plans are implemented at different levels and include: i) preventive risk monitoring through a Risk and Opportunity Matrix; ii) the implementation of a Crisis Manual and a COVID-19 Action and Response Plan; iii) training of its collaborators and contractors through daily talks given prior to the start of work at the work fronts; iv) contingency plans for each risk scenario identified (e.g., earthquakes, volcanic eruptions, and operational accidents); and v) emergency insurance policies for the entire project infrastructure.

Regarding the measures adopted to deal with the health emergency generated by the COVID-19 pandemic, all persons entering the Project's offices or work areas must submit to the following protocol: i) taking and recording of their body temperature at the entrance and exit of the offices or work fronts; ii) distancing, use of a mask and glasses, application of hand sanitizer, and disinfection of shoes with chlorinated water; iii) frequent hand washing; and iv) isolation in an area exclusively for this purpose, in the event of registering any symptoms associated with COVID-19.

---

<sup>17</sup> It is in charge of the following tasks, among others: identifying, evaluating and assessing environmental aspects and impacts; managing the issuance and renewal of environmental licenses and permits; following up on environmental commitments made to the MARN; complying with environmental regulations and environmental requirements; managing the archeological release of construction sites; managing the release of sites with forest cover in the easement strip and construction sites for substations; and obtaining the required licenses from the competent environmental and forestry authorities.

<sup>18</sup> It is in charge of proposing, implementing and evaluating projects that contribute to improving living conditions and promoting organizational development in the Project's areas of direct influence.

<sup>19</sup> Its objective is to manage engagement, intervention, and social relations with the different stakeholders, authorities, and communities.

<sup>20</sup> Designed to implement occupational health and safety controls to improve health and safety in the work areas, establishing the necessary requirements aimed at preventing incidents, accidents and occupational diseases, promoting a culture of self-care.

<sup>21</sup> It is responsible for evaluating, monitoring and validating the land management process to ensure the fulfillment of the compensation amounts for the damages caused by the development of the Project.

This protocol is disseminated through banners placed in TRECSA's buildings, in the SSs, and at the Project's fronts.

#### 4.1.g Monitoring and Review

Since its inception, the Project has been supervised by a redundant system of internal and external agents. The internal teams comprise the environmental and social teams of the Company and of each of the contractors, which, in order to keep track of the environmental and social commitments required by the Project, use an Environmental Commitments Database with the data that is routinely collected through the oversight activities at each work front. This is complemented by annual internal audits conducted by the Integrated Management System, which, in addition to verifying the correct environmental and social monitoring of the Project, produces data for the continuous improvement of the management system.

The external agencies are: MARN, which carries out environmental audits and reviews TRECSA's Annual Environmental Compliance Reports; the environmental and social teams of the Lenders, which do so directly and through the firm Ramboll Environ US Corporation ("Ramboll"), which acts as the Project's Independent Environmental and Social Consultant (IESC); and the audits that are periodically carried out to maintain TRECSA's various environmental and social certifications in force.

#### 4.1.h Stakeholder Engagement

Relations with different stakeholders are maintained by a team of social managers located in the different areas and communities where the Company operates, thus keeping TRECSA's presence in these communities constant. These managers are familiar with the culture, traditions, customs, and language of the respective communities, which facilitates feedback and two-way communication.

TRECSA has used various approaches (meetings, workshops, surveys) to reach out to government officials, leaders, community members, and representatives of the Community Development Councils (COCODE, for its acronym in Spanish) and Municipal Development Councils (COMUDE, for its acronym in Spanish). In this regard, it has carried out public participation processes in the departments of Huehuetenango, Quiché, Quetzaltenango, Totonicapán, Zacapa, Izabal, Alta Verapaz, Baja Verapaz, El Progreso, Guatemala, Sacatepéquez, Chimaltenango, Sololá, Totonicapán, Quiché, Quetzaltenango, Sta. Catarina Ixtlahuacán, Nahualá, Olintepeque and Totonicapán; many of these processes were held in native languages such as Qánjob'al, Quiché, and Ixil.

These events were attended by representatives of most of the communities located in the Project's area of influence, such as: Morela, Residencias Celilia I, Montecristo, La Periquera, La Ciénaga, San Rafael las Flores, La Laguna, Palín, San Pedro Ayampuc, San Raymundo, San Pedro Sacatepéquez, Santiago Sacatepéquez, Santa Cruz Barillas, Morales, Rio Hondo, Gualán, Los Amantes, Morales, Tamahú, Tacurú, Panzós, El Estor, Livingstone, San Cristóbal Verapaz, Tactic, Purulhá, San Jerónimo, Guastaloya, San Cruz Verapaz, and Morazán.

Because the results of the public participation process were mixed (some communities were in favor of the Project, others were indifferent, and still others strongly disagreed), TRECSA hired a

consulting firm specializing in conflict resolution to obtain majority social acceptance of the Project by implementing various stakeholder engagement strategies.

One community participation mechanism to date has been the Shared Value Program,<sup>22</sup> through which projects are developed to address the needs prioritized by the communities.

#### 4.1.h.i Disclosure of Information

Project information is disclosed to communities in accordance with the Social Relationship Procedure (SRP), which includes a social stakeholder map. This map assigns to each stakeholder the type and format of communication to be used (meetings, workshops, official correspondence, presentations,<sup>23</sup> printed material, audiovisual material, reports, telephone calls, text messages, etc.), the internal responsibility for approaching the stakeholder in question, the duration of the process, and the specific dates on which the dissemination events are to take place.

The dissemination process is carried out by social managers located in the different zones and communities of the Project's area of influence. These managers are familiar with the culture, traditions, customs, and language of the communities, which facilitates feedback and two-way communication.

TRECSA has two positions in charge of stakeholder management: the Social Relationship Leader, who oversees the preparation or updating of stakeholder maps in the communities where it operates, and of social management in the field; and the Head of Communication, who is in charge of relations with figureheads, entities, associations, and organizations.

Internally, TRECSA also discloses information, both to its personnel and its contractors, using the following channels: the Code of Ethics, the institutional website, e-mails, training events, and printed communications.

#### 4.1.h.ii Informed Consultation<sup>24</sup> and Participation

Although public participation for development projects is not regulated in Guatemala, in compliance with MARN's Instructions for Public Participation<sup>25</sup> (IPP), TRECSA has carried out (and continues to carry out) an ongoing socialization and citizen participation process. The Company has a Stakeholder

---

<sup>22</sup> Shared value projects are implemented through 4 axes: i) support for education, which includes the improvement or reconstruction of school facilities; ii) road infrastructure, which includes the opening or improvement of roads; iii) community infrastructure, which includes the improvement or construction of community halls, parks, health centers, among others; and iv) water and sanitation, whose main objective is to provide access to drinking water.

<sup>23</sup> Although most of the presentations are in Spanish, the social managers explain them in the language of the region, as decided by the interest group.

<sup>24</sup> To differentiate it from the term used in ILO Convention 169, the term "consultation" has been replaced in this document by "citizen participation", with the same meaning as that used in the Performance Standards.

<sup>25</sup> This instrument indicates that all participation processes must be informed, transparent and inclusive; that citizen contributions must be respected; that consultation processes are not for decision making but to provide elements for decision making; that the process is eminently local; that this process must be developed in a planned and documented manner; that it generates shared responsibilities; and that it requires openness on the part of the parties throughout the process. As part of this process and prior to the approval of an EIS by the MARN, the project developer must also publish an edict in a national newspaper for 20 working days, including details of the works to be carried out and inviting the population to comment on them.

Participation Plan (SPP) for this that identifies the most relevant stakeholders and defines how to inform them and organize their participation.

In accordance with the SPP and prior to the Project's public participation activities, TRECSA held hearings and meetings with representatives of departmental and municipal governments, as well as several indigenous authorities.

The public participation process itself began with a local perception survey on the Project, in which the opinions of the populations closest to the layout of the transmission line and the substations, or located in the vicinity of the accesses to the works, were assessed by means of a questionnaire that was applied as a survey. TRECSA then held meetings with community leaders, with whom it had approached beforehand to inform them of the purpose of the visits to their communities, with an emphasis on those who chaired the COCODE, as well as deputy mayors and other people with leadership capacity and responsibility for disseminating information in their respective communities.

The agendas for the public participation events included: i) an introduction of the participants; ii) a description of the objectives of both the meeting and the PET, as well as an explanation of its background; iii) a detail of the activities and stages of the Project, including the results of the EISs (likely impacts and ways to manage them); and iv) a space at the end of the meeting for questions, answers, and concerns. The concerns, suggestions, and comments of the local participants, collected on flip charts or field notes, were later classified and recorded in the reports of each participation event, which in turn were supplemented by attendance lists and several photographs to document the process.

To date, TRECSA has held more than 3,000 community engagement events with an average of 10 to 15 attendees per meeting. For example, the city of Antigua alone hosted 70 events in 2018 and more than 100 in 2019.

The Project has a Voluntary Community Benefit Projects Program (VCBP), the objective of which is to promote the participation of communities in the identification, decision making, and implementation of projects that will benefit them, considering seven central themes: i) improvement of schools; ii) community health centers; iii) support for income production programs; iv) improvement of services to community centers; v) improvement of public spaces; vi) improvement or construction of community day care centers; and vii) home improvement supplies.

Since March 2013, TRECSA, in collaboration with the Guatemalan government and the United Nations Children's Fund (UNICEF), has been implementing a program to combat chronic child malnutrition in 74 municipalities and 15 departments in the country.

#### 4.1.h.iii Indigenous Peoples

In compliance with the provisions of the IPP, the socialization and public participation processes included indigenous peoples.

Given that the Stakeholder Engagement Plan adopted by TRECSA considers indigenous peoples as an essential part of the public participation process, the Company has held (and continues to hold) individualized events for indigenous communities with local facilitators who speak the community's own language.

#### 4.1.h.iv Private Sector Responsibilities Under Government-Led Stakeholder Engagement

The Project was solely responsible for executing the stakeholder participation process, without any involvement by the government.

#### 4.1.i External Communication and Grievance Mechanisms

##### 4.1.i.i External communication

TRECSA has a solid communication strategy, both locally and nationally, that seeks to generate public awareness of the Project, emphasize its importance for the country, and disclose details of its construction. To reach the majority of the population and convey general information about the Project, the Company uses, among others, the following media: i) radio (in five different Mayan languages); ii) television; iii) print media (newspapers); iv) social media (website, Facebook fan pages, Instagram and Twitter); v) business forums; vi) formal meetings; and vii) guided tours.

##### 4.1.i.ii Community grievance mechanism

TRECSA has a formal, robust, complex, and systematized mechanism for capturing and resolving questions, complaints, claims, and requests (QCCR): the "Ethics Channel." Its corporate policies and procedures: i) explain the principles under which the Grievance Mechanism operates; ii) define the objective pursued; iii) identify the personnel responsible for responding to complaints; iv) describe the procedure for capturing and handling complaints and grievances; v) identify the methods for submitting complaints (e-mail, telephone, ethics channel, suggestion box at the head office and verbally through social managers covering rural and isolated communities); vi) provide timeframes for responding to complaints; vii) include a tool to capture complaints in rural and isolated communities (suggestion boxes located in the community centers of the main communities within the Project's areas of influence); and viii) provide a list of the main criteria used by the Project to determine the location of the suggestion boxes, their accessibility, the number of communities that will have access to them, etc. Complaints can be anonymous.

Since the implementation of this mechanism, 97 cases have been received of which six (6) have been received in the period from October 2019 to September 2020, all of them in Lot B. Of the latter, three (3) were related to contractor behavior; two (2) with miscellaneous requests; and one (1) with discrepancies during the right-of-way process. All these QCCRs were duly resolved.

##### 4.1.i.iii Provisions for addressing vulnerable groups' grievances

In order to capture and process complaints from vulnerable groups (which in this case are mainly indigenous populations), the Grievance Mechanism offers the possibility of collecting complaints verbally and in any of the languages spoken in the Project's area of influence. For this purpose, the

Company has social managers who, in their periodic tours within the area of direct and indirect influence of the Project, disseminate educational and informative material on the works being carried out and are responsible for collecting the QCCRs of vulnerable groups, usually in person and in the local language. The Grievance Mechanism also includes a process to capture QCCRs from rural and isolated communities through mobile mailboxes located in the main community centers in the areas of influence.

## 4.2 Labor and Working Conditions

### 4.2.a Working Conditions and Management of Worker Relationships

TRECSA currently has 143 direct employees, of which 38 (almost 27%) are women. Of the 143 direct employees, 7 are foreigners (2 women) and almost a third are field personnel.

#### 4.2.a.i Human Resources Policies and Procedures

TRECSA is a signatory to the UN Global Compact<sup>26</sup> and, as such, has aligned its operations and trade strategies with the UN's 10 principles of sustainable development. They focus on the protection of human rights and the total prohibition of child labor, forced labor, and discrimination.

The Company is developing a Talent Management Policy that regulates, among other aspects, the procedures for attracting, selecting, and retaining human resources, and which demonstrates TRECSA's commitment to: i) the free association right of its employees to form labor organizations or join those already existing; ii) the non-discrimination of workers based on their religious or sexual affinity, social status, political affiliation, disability status, etc.; iii) the provision of equal opportunities to all its workers, including by adopting measures to prevent and respond to harassment, intimidation, or exploitation, especially of women; iv) the analysis of alternatives to workforce retrenchment, if necessary; v) the adoption of a grievance mechanism for all its direct and indirect employees; vi) the total rejection of all forms of child and forced labor; and vii) the safeguarding of the health and safety of its direct and indirect workers (including the supply chain).

Contracts may be permanent or fixed term (usually for one-year, renewable contingent upon a positive evaluation of the employee's performance). All workers have signed contracts that comply with local laws and international labor and human rights conventions and treaties signed by Guatemala. The contracts detail issues such as: i) work schedules, shifts, and overtime;<sup>27</sup> ii) paid annual leave and legally mandated rest days; iii) paid and unpaid leaves of absence; iv) medical services, safety measures, occupational risks, first aid, and OHS standards; v) worker duties and prohibitions; vi) grounds for termination; vii) disciplinary offenses and sanctions; viii) mechanisms for preventing workplace harassment; and ix) grievance mechanisms for workers.

As part of the Quality Management System, in 2020 TRECSA approved the "Diversity and Inclusion Policy," which covers all its employees. This policy addresses commitments regarding Human Rights;

---

<sup>26</sup> United Nations (UN) initiative that encourages companies around the world to adopt sustainable and socially responsible policies and report on their implementation.

<sup>27</sup> Overtime is paid in accordance with local legislation.

the promotion of equality (without distinctions regarding characteristics such as sex, gender or gender identity, ethnicity, race, nationality, culture, age, marital status, parental status, political affinity, religion, or sexual orientation); respect for diversity; sanctioning discrimination; the prevention, handling, punishment and eradication of workplace and sexual harassment; the creation of a work environment free of violence; the promotion of the reconciliation of work, personal, and family life; the promotion of diversity, inclusion, and conditions of equality between men and women; and the assurance of inclusive and non-sexist communications.

#### 4.2.a.ii Working Conditions and Terms of Employment

The working day in the office is from Monday to Thursday from 7:00 to 17:00 (1 hour for lunch) and on Fridays from 7:00 to 14:00. There are 12-hour shifts for the Operation and Maintenance area only. At the Project, working hours do not exceed 10 hours per day and the mandatory rest days established by Guatemalan law are respected. Remuneration is in line with internal equity and market valuation for the position held by the employee. TRECSA pays social security and, in addition, health insurance, accident insurance, and a life insurance policy to its employees.

Given the proximity of several communities to the route of the TLs, the Project did not need to establish camps for its employees.

#### 4.2.a.iii Workers' Organizations

The Guatemalan Labor Code allows for the free association of workers to form unions. Consistent with Guatemalan law, TRECSA has no restrictions on the formation of this type of association. However, there is no labor union in the Company to date.

#### 4.2.a.iv Non-discrimination and Equal Opportunity

The Code of Ethics prohibits discrimination of persons based on race, creed, religion, color, origin, nationality, ancestry, physical handicap, mental condition, medical condition, marital status, pregnancy status, sex, gender, age, sexual orientation, political affiliation, or military status.

#### 4.2.a.v Retrenchment

The Project does not have a formal personnel retrenchment plan because most of its workers are part of the contractors' staff. As a result, once construction sites experience a lower demand for labor, these workers are often reassigned by contractors to other projects.

Regarding TRECSA's plant workers, those with permanent contracts will most likely be retained when the Project enters its operation phase. The relevance of maintaining workers on fixed-term contracts will be evaluated based on the performance of such workers and the requirements of the Project once it enters its operation phase. It is not expected, however, that the transition from construction to operation will result in a substantial decrease in the number of personnel with permanent contracts with the Company.

#### 4.2.a.vi Grievance Mechanism

TRECSA's "Ethics Channel" has a subsystem to capture internal QCCRs and, through this channel, to prevent, detect, investigate, and remedy instances of fraud or corruption; and to consult and resolve ethical dilemmas that may involve the Project's personnel. This procedure, which functions similarly to the Grievance Mechanism that captures and processes the community's QCCRs, guarantees non-retaliation for the people who use it and can receive and process anonymous complaints.

#### 4.2.b Protecting the Workforce

##### 4.2.b.i Child Labor

The employment of minors is regulated in Guatemalan legislation through various legal instruments, including the Political Constitution, the Labor Code, the Civil Code, the Law for the Integral Protection of Children and Adolescents, and Governmental Agreement Number 250-2006 of the Ministry of Labor and Social Security, which regulates the application of ILO Convention 182 on the Worst Forms of Child Labor. These provisions set the minimum working age at 14 years and regulate the type of activities that workers between the ages of 14 and 16 may perform.

Despite this, TRECSA does not hire people under 18 years of age. For this purpose, during the personnel selection process, the Company verifies the age of applicants by means of the Personal Identification Document (PID). Similarly, a qualified person from the Talent Management area conducts a job interview with the candidate and validates that all the information provided by the latter is true.

##### 4.2.b.ii Forced Labor

TRECSA does not use any forced labor practices.

#### 4.2.c Occupational Health and Safety

TRECSA's OHS program, implemented as an element of its ESMS, uses Vision Zero - ISO 45001-2018 as a benchmark.

TRECSA has an Integrated Management System Policy in which it adopts a vision of zero accidents. A record of the number of accident-free days since the last incident is kept at each construction site. For example, as of March 16, 2021, the Chiantla SS had registered 590 days without accidents,<sup>28</sup> while the San Juan SS in West Guatemala had not registered any accidents since construction began 184 days prior. The last accident with work lost at the Project occurred in February 2020 in Tower 80 of the Huehuetenango II TL, when a worker cracked a bone in his chin and required a recovery period of 1.5 months.

Before starting a new construction front, the Company informs workers about the critical points of the tasks to be performed, the tools and equipment involved, the probable sources of possible

---

<sup>28</sup> The last was in August 2019, when the number of days without accidents returned to zero.

accidents or incidents, the hazards of each task, and the control measures adopted to eliminate or reduce potential risks. Every day prior to starting work, all workers receive a health and safety reinforcement talk, as well as the protocol for managing COVID-19.

TRECSA's Worker Training Program, applicable to all its direct and contracted employees, includes the following topics: i) emergency procedures in case of bee stings or snake bites; ii) precautions for handling Africanized bees; iii) handling fire extinguishers; iv) handling heat stroke: why it occurs, risk factors, symptoms, and what to do if a worker falls due to it; and v) handling environmental, social, and OHS issues. TRECSA keeps records of the training provided, either directly or through its various contractors.

The work fronts are controlled in terms of access and OHS considerations. There is at least one OHS technician from each contractor on each work front. All workers are required to wear appropriate personal protective equipment (PPE) such as hard hats, safety vests, steel-toed boots, safety glasses, and gloves. This also occurs in the substations where, prior to entering the facilities, a safety talk is conducted and visitors are equipped with the appropriate PPE. Documentation related to OHS regulations and programs, the Accident Prevention Plan, and the Occupational Risk Analysis Program is available at the work fronts and substations.

During the construction phase, each SS is equipped with a battery of toilets and portable toilets separated into men's and women's toilets. These are maintained by a company with an environmental license and an operating permit issued by MARN.<sup>29</sup> Once in operation, the final sanitary facilities will also be separated between men and women. The TL work fronts are equipped with latrines.<sup>30</sup> Therefore, when the worksite is close to communities, some of the workers, especially the few women, prefer to use the toilets in these communities rather than these sanitary facilities.

The SSs in operation are equipped with 125-pound, robot-type extinguishers. Similarly, in places where hazardous substances could leak, there are spill control kits and facilities to assist workers who could be affected (washbasins, eye washing equipment). In addition, the transformation facilities have explosion-proof equipment, emergency lights, and security cameras controlled remotely from TRECSA's offices in Guatemala City.

Contractors provide their workers with drinking water in bags for direct consumption and in bulk for hand washing and personal hygiene.

#### 4.2.d Provisions for people with disabilities

Although TRECSA has not established hiring quotas for people with disabilities, it has no restrictions or impediments to do so. All of the Company's facilities have ramps, routes, restrooms, and equipment compatible with the needs that may be required by personnel with some type of disability.

---

<sup>29</sup> For example, Ambiotec, which has facilities for the treatment of sludge from portable toilets, is currently providing this service in the San Juan SS.

<sup>30</sup> The design, construction, and sealing (after use) of latrines is done in accordance with Pan American Health Organization (PAHO) standards.

#### 4.2.e Workers Engaged by Third Parties

Although the construction of towers and substations requires skilled labor, sometimes unskilled labor is also required and is hired directly from the neighboring communities. For example, the assembly of each tower requires between 10 and 15 employees, two or three of whom are outsiders (Guatemalans from outside the community or foreigners) and the rest local labor (usually hired in the community). The construction of a substation, on the other hand, requires approximately 150 workers, almost half of which are local.

All workers engaged by third parties receive the same treatment and have the same duties as direct workers.

#### 4.2.f Supply Chain

TRECSA verifies that all locally sourced materials and inputs have been legally extracted or manufactured. It requires its suppliers to maintain the corresponding environmental permits in force and uses secondary means to verify that these suppliers are not involved in child labor or the use of exploitative practices. However, due to the impossibility of doing so, this analysis is not performed for supplies obtained from abroad.

### 4.3 Resource Efficiency and Pollution Prevention

#### 4.3.a Resource Efficiency

##### 4.3.a.i Greenhouse Gases

While construction activities do not generate a large amount of greenhouse gases, TRECSA has calculated that greenhouse gas emissions for 2020 were approximately 144.99 tons of CO<sub>2</sub> equivalent.

##### 4.3.a.ii Water and electricity consumption

Water consumption in the Project is considered low, given that during the construction phase it is used only for human consumption and the manufacture of hydraulic concrete. Water for human consumption is supplied directly to the work fronts through individual bags (for direct ingestion) or in bulk for personal hygiene. Water for concrete production is supplied by tanker trucks from municipal sources.

Because the active fronts move as work on the TLs progresses, the logistics for placement and subsequent handling of chemical toilets becomes more complex as the fronts move away from accessible points, and the volumes of sewage generated there are low, the Project uses latrines to dispose of the wastewater produced at the TL work fronts. These temporary structures, which have an approximate use life of 15 days (corresponding to the period during which the front is active),

are definitively sealed before being abandoned, following the standards of the Pan American Health Organization.

In 2020, water consumption in offices and substations, which is supplied from the municipal networks, was around 930 m<sup>3</sup>, while energy consumption was approximately 2.4 million KWh.

#### 4.3.b Pollution Prevention

TRECSA routinely monitors noise and air (PM<sub>10</sub>) at the Project's active work fronts, and to date has not detected values that exceed the permissible limits included in Guatemalan and international legislation. It also has a water and soil monitoring system.

##### 4.3.b.i Wastes

Solid waste generated at the Project's work fronts is managed directly through the contractors, who are responsible for keeping local permits valid and for collecting, reusing, recycling,<sup>31</sup> or disposing of the waste in authorized municipal landfills. Solid waste is collected twice a week at the substations and weekly at the construction sites. Between October 2019 and September 2020, domestic waste generated at the Project's TLs totaled just 250 m<sup>3</sup>, while that generated at the transformer stations reached just over 1,000 m<sup>3</sup>.

The waste from the pruning or vegetation removal process along the TL right of way is placed in sites adjacent to the extraction site so that the local population can use it as fuel.

For its transformers, the Project uses only dielectric oil<sup>32</sup> that has been previously tested in the United States of America. Any surplus oil is used and containers are emptied and punctured to avoid them from being used as water containers before donating them to the community as part of the environmental awareness program. For the transmission structures, the Project uses anticorrosive paint of a standard technical specification. For the management of electronic waste, TRECSA has consolidated an alliance with e-Waste, a non-profit association endorsed by the UN. The waste is collected in a special container (identified with the e-Waste logo), which is subsequently retrieved and its contents taken to recycling centers abroad. From October 2019 to September 2020, TRECSA produced almost 4,300 kg of e-waste.

The project will have 12 three-phase anaerobic wastewater treatment plants<sup>33</sup> (one for each new substation), of which seven are in operation: Pacífico, La Vega II, Palestina, Huehuetenango II, San Agustín, Morales and Izabal. The sludge from these plants is removed and treated every six months by a company duly certified by MARN. Wastewater from TRECSA's headquarters in Guatemala City is disposed of through the city's municipal sewer system.

---

<sup>31</sup> TRECSA has implemented a program to reuse or recycle waste produced by the Project and to recycle paper at its central offices.

<sup>32</sup> Dielectric oil or insulating oil is a material derived from petroleum with a naphthenic hydrocarbon composition. It is used in transformers and serves as an electrical insulator and coolant.

<sup>33</sup> Soapy water and excrement.

#### 4.3.b.ii Hazardous Materials Management

Except for dielectric oil and paints used for transmission or transformer structures, the Project does not handle materials that could be considered hazardous.

TRECSA has two strategically located warehouses that facilitate the storage and supply of dielectric oil to the Project's substations. These sites comply with national and international regulations and all of them have environmental kits for the containment of possible spills or leaks.

In 2018, TRECSA received a certificate from MARN's Directorate of Environmental Management classifying the dielectric oil and equipment used by the project as "Low PCB" in compliance with Guatemalan regulations.<sup>34</sup> In September 2020, TRECSA successfully eliminated the use of polychlorinated biphenyls (PCBs) dielectric oils from its operations and became the first PCB-free energy transportation company in Guatemala.

#### 4.3.b.iii Pesticide Use and Management

Since its inception, the Project has not used herbicides, pesticides, or similar chemical substances (fertilizers, defoliators, etc.). At present, vegetation control both in the easement and in the transformer stations is done manually and without the use of herbicides.

#### 4.3.b.iv Management of non-ionizing radiation

The design of the TLs complies with the requirements established by the Technical Standards for the Design and Operation of Guatemalan Distribution Facilities. As a result, there are no buildings located under the TL or within its easement. However, since the easement allows the owners or users of the affected land to use these areas to develop agricultural or forestry activities or low-stem fruit trees, since 2018, TRECSA has periodically carried out Non-Ionizing Radiation (NIR) monitoring on the Project's transmission lines and electrical substations in operation. The radiation values obtained are below the electric and magnetic field strength limits established by Guatemalan regulations.

### 4.4 Community Health, Safety and Security

#### 4.4.a Community Health and Safety

The EISs identify the following as the most likely potential impacts: electrocution risks, electromagnetic interference, visual impact, noise, ozone production, and aircraft navigation safety risks. To manage these impacts, the studies propose measures such as: placing fences around the SSs and signage on the towers to prevent electrocution risks; adjusting the TL alignments or relocating some dwellings to avoid exposing the population to non-ionizing magnetic fields; use of less conspicuous paint shades to reduce visual impact; use of small wires around the conductor to generate an ultra-crown; use of conductors covered with a layer of insulation or use of conductors

---

<sup>34</sup> Regulation for the Integrated Management of Polychlorinated Biphenyls (PCBs) and Equipment Containing Polychlorinated Biphenyls (PCBs), Governmental Agreement 194-2018.

covered with insulating tubing to control noise; maintenance of a minimum distance to mitigate the effects of ozone; and location of TLs outside the interference range of ground-based instrumentation aids that facilitate aircraft navigation.

To mitigate the effects on vehicular traffic that will be generated during the construction of the Project due to the transportation of cargo and personnel, TRECSA has developed a Traffic Mitigation Plan, which includes a schedule of transportation shifts to keep road congestion levels low. At the same time, the contractors have implemented a Worker and Material Transportation Plan that, in order to reduce the risk of accidents and decongest the access roads to the Project, contemplates the transportation of workers to and from their work sites using a consolidated transportation method (buses). This plan also provides guidelines for efficient fuel consumption, transportation of materials, transportation of personnel, and loading and unloading of materials.

#### 4.4.a.i Infrastructure and Equipment Design and Safety

Both the TL and the SSs have been designed to the highest standards. For example, the SSs include fire extinguishing systems and grounding connections to prevent the generation of sparks due to static electricity buildup. In addition, all transmission structures are grounded.

#### 4.4.a.ii Hazardous Materials Management and Safety

TRECSA does not transport hazardous materials for the construction and operation of the Project.

#### 4.4.a.iii Ecosystem Services

The layout of the TL has undergone several modifications to avoid impacts on natural areas that provide ecosystem services. As a result, the presence of the Project's structures will not result in a substantial modification of ecosystem services.

#### 4.4.a.iv Community Exposure to Disease

Given the number of workers required at each of the work fronts and that most of the labor will come directly from neighboring communities, the Project is not expected to be a source of community illness.

#### 4.4.a.v Emergency Preparedness and Response

The EISs identify fires, floods, and landslides as the main risks. The Contingency Plan for each Lot contains measures to prevent the materialization of such risks, as well as actions to be taken during their occurrence and after they have materialized. The plan is very solid and contemplates the ongoing training of workers and emergency drills and simulations to provide regular feedback on the plan.

#### 4.4.b Security Personnel

TRECSA employs a private security firm to safeguard personnel throughout its facilities and within them. The contracting was carried out after the Company: i) evaluated the risks that having a security company could generate in the populations adjacent to the Project; ii) verified that the guards assigned to the Project were not involved in past abuses; iii) required the company to train the guards in the proper use of force and firearms; and iv) required the firm to guarantee that the guards would maintain appropriate conduct towards workers and the local community, and full respect for applicable laws.

The guards guarding TRECSA's facilities are not armed. However, those in charge of safeguarding the work fronts and other Company facilities carry weapons. All guards are trained in the preventive use of force and the use of weapons as a last resort.

In keeping with Guatemalan regulations, the national police also maintain a presence at construction sites and substations. In order to avoid the risks that could arise from this, TRECSA has been coordinating with relevant authorities to disclose to the public the security arrangements reached with the national police.

#### 4.5 Land Acquisition and Involuntary Resettlement

##### 4.5.a General

##### 4.5.a.i Project Design

TRECSA has made a real effort to design the best route for the TLs and locate the substations to minimize adverse impacts to the 340 communities along the 783 km to be intervened. Some of the criteria used included: i) avoiding communities in highly populated areas; ii) routing the TL through non-populated areas; iii) avoiding impacts on private land with multiple owners; and iv) avoiding impacts on any type of community infrastructure. However, the Project has had to manage more than 6,500 easements (involving almost 8,700 landowners), of which more than 6,000 have been legalized.

##### 4.5.a.ii Compensation and Benefits for Displaced Persons

The Project implemented the following procedure for the acquisition of land for the SSs or for the establishment of the TL easement: i) Compliance with environmental, social and technical requirements, with which TRECSA, after completing the public participation process and obtaining the support and approval of the municipalities, communities, and landowners, was able to begin the process of releasing the easement; ii) Evaluation of the ownership of the land for which, upon agreement of the community or the landowner with the establishment of the easement and once the information necessary to make a fair evaluation<sup>35</sup> of the land was ready, TRECSA negotiated with the landowner or the community the amount of the compensation; iii) Compilation of all legal

---

<sup>35</sup> To this end, TRECSA used an objective formula developed for "homogeneous zones", by means of which it established the property appraisal based on the real value of similar properties in similar locations.

information necessary prior to the formalization of the easement agreements; iv) Preparation of the public deed for the formalization of the easement; and v) Preparation of the final requirements that the Guatemalan government demanded to close the process to release the easement.

#### 4.5.a.iii Community Engagement

TRECSA has been very respectful of community decisions to allow the Project to pass (or not) through their lands. Thus, because of the broad public participation process carried out by the Company with the communities, which included several focused meetings to discuss issues related to the establishment of the easement, it had to modify the route of the TLs several times to respect the community's decisions and avoid adverse impacts.

#### 4.5.a.iv Grievance Mechanism

Although the Project lacked a mechanism for capturing and resolving QCCRs exclusively for the process of establishing the easement strip or acquiring the land for the easements, the Grievance Mechanism adopted by TRECSA to address the community's concerns also served this purpose.

#### 4.5.a.v Resettlement and Livelihood Restoration Planning and Implementation

The release of the easement required the termination of easement contracts with more than 8,700 landowners and the relocation of 25 families.

This process included the following main stages: i) Analysis of the environment and outreach, whereby the social management team engaged in a constructive dialog with the community and the owner or holder of the property that is the subject of a right-of-way negotiation; ii) Property survey, which contemplated the effective entry of property appraisal experts, topography crews, and social management personnel to determine the boundaries and possible effects; iii) Appraisal, which included the hiring of expert appraisers to determine the commercial value of the properties to be affected; iv) Negotiation, which contemplated the incorporation of negotiators with clear instructions on the terms and limits of such negotiations, in order to achieve the transfer of the land in question; v) Title search, which verified the documents provided by the holder or owner to corroborate the ownership or possession of the property in question; vi) Deeding, the purpose of which was to prepare the respective easement deed; vii) Signing of the deed, which involved the execution of the deed between TRECSA and the owner or possessor of the intervened property and the formalization of which authorized the right of way; viii) INAB Registration (LUCS), which compiled the registration of the Land Use Capacity Study (LUCS) at the National Forest Institute (INAB, for its acronym in Spanish), and which enabled TRECSA to remove the forest cover of the property; and ix) Documentary control, which included the creation of a documentary record that ensures the traceability of the process and makes it possible to know the real situation of each property at all times.

#### 4.5.b Displacement

##### 4.5.b.i Physical Displacement

The Project has affected more than 6,500 properties.<sup>36</sup> Of these, only 11.6% have been affected (use restrictions) by more than 60% of the plot size in the 783 km of the TL.

Despite efforts to avoid involuntary displacement, the Project had to relocate 25 families: 6 in Lot C (all of them of Ladino origin), 13 in Lot D (all of them of mixed indigenous origin) and 6 in Lot E (of Ladino origin). In all cases, the Company provided the owners of these properties with monetary compensation that was used to build or buy a new house in a different location, but close to the one that was intervened, so as not to impact the family's social connectivity. All land values were determined by an independent appraiser hired by TRECSA and agreed upon with the corresponding lot owners.

Although TRECSA developed adequate procedures aligned with international land acquisition standards and hired experts to support it in this process, the Company did not initially have a formal Land Acquisition Plan. This was subsequently formalized<sup>37</sup> prior to the materialization of the land acquisitions for the easements or the release of the right of way.

##### 4.5.b.ii Economic Displacement

Despite having physically displaced 25 families, the Project has not generated economic displacement because these families were relocated within their own properties or very close to them. In this sense, there were no material impacts on the economic, social, or cultural heritage of the families.

Although this process affected almost 8,700 landowners (6,500 easements), it generally resulted in limiting the use of the land<sup>38</sup> on these properties so that the crops grown there would not pose a threat to the transportation of energy.

#### 4.5.c Private Sector Responsibilities Under Government-Managed Resettlement

According to the contract signed with the State of Guatemala, TRECSA is responsible for negotiating the acquisition of the rights and the land for the substations, with no government intervention.

---

<sup>36</sup> A total of 6,587 properties, distributed as follows: 1,078 plots in Lot A; 1,950 in Lot B; 399 in Lot C; 733 in Lot D; 656 in Lot E; and 1,771 in Lot F.

<sup>37</sup> Since 2019, TRECSA adopted a methodology based on the IFC Performance Standards and World Bank practices.

<sup>38</sup> This limitation implies the prohibition of tall stem crops or reforestation activities.

## 4.6 Biodiversity Conservation and Sustainable Management of Living Natural Resources

### 4.6.a General

The design of the layout of the transmission lines contemplated in the Project was made in such a way as to avoid or minimize impacts on biodiversity or living natural resources. However, in some cases and despite the efforts that were made, this could not be fully achieved.

### 4.6.b Protection and Conservation of Biodiversity

In order to minimize impacts on protected areas, the Project, after coordinating with the competent authorities, modified some of the layout of the TL. However, it could not avoid passing through peripheral zones of some sensitive areas, such as Río Dulce Park (PNRD, for its acronym in Spanish), the Lake Atitlán Watershed Multiple Use Reserve (RUMCLA, for its acronym in Spanish) and the Sierra de los Cuchumatanes Special Protected Area (APESCUCH, for its acronym in Spanish). As a compensation measure, TRECSA agreed with the National Council of Protected Areas (CONAP, for its acronym in Spanish) and the INAB to reforest these areas with native forest species, as well as to pay a forestry fee (based on the extent of forest cover cut in each Lot) that feeds the National Private Forestry Fund<sup>39</sup> (FFPN, for its acronym in Spanish), which is administered by the INAB. To date, the Company has paid CONAP the equivalent of almost US\$2.5 million in compensation for vegetation cutting.

TRECSA has a voluntary reforestation program in several communities, such as the Magdalena Chancol and Milicianos Community in Huehuetenango where, with the participation of the ASILBVO Chancol Association, an area of 10 hectares was reforested with pinabete<sup>40</sup> (*Abies guatemalensis*), Hartweg's pine (*Pinus hartwegii*), and white cedar (*Cupressus lucitanica*); and the Siete Lagunas Village, where the Company planted one hectare of pine (reforestation).

Although Guatemalan regulations required TRECSA to develop Biodiversity Management Plans (BMPs) only for Lots A, C, E, and F, the Company also did so for Lots B and D. Thus, all Project Lots have a BMP that includes wildlife management measures.

In terms of managing flora, the BMPs include the following measures: i) clearing of forest cover only in places strictly necessary for the construction and operation of the Project; ii) training of field personnel to maintain a respectful attitude towards wild or cultivated flora; iii) the prohibition of the extraction of wild flora species from the Project area; iv) the comprehensive use of forest products (logs, brushwood, and firewood); v) controlled natural regeneration of vegetation in disturbed areas within the Project area; vi) the relocation of endangered plant species; vii) financial compensation to landowners for damage caused to crops or forest on their property; and viii) payment to the INAB's FFPN as compensation for reforestation according to the land use change study.

---

<sup>39</sup> Created by Decree 101 of 1996 (Forestry Law). It is made up of tax, economic and financial resources generated by the application of the Forestry Law, as well as donations, specific credits, and those acquired to reduce deforestation, promote reforestation, increase the productivity of existing forests, and conserve the forest ecosystem.

<sup>40</sup> Endemic protected species.

In the case of wildlife, the BMPs include: i) training and awareness-raising for field personnel to maintain a respectful attitude towards wildlife in the Project area; ii) the prohibition of unnecessary cutting of vegetation; iii) the protection of trenches for structural foundations in order to avoid trapping wildlife; iv) the placement of bird flight diverters at points identified as vulnerable; (v) the performance of regular inspections to detect possible bird strikes with the transmission lines; and vi) the relocation of fauna species that are not capable of migrating to adjacent areas that will not be affected.

Follow-up on the implementation of the BMPs is reported periodically in each Environmental and Social Compliance Report that TRECSA is required to provide to MARN. At the same time, the IESC, in its Environmental and Social Monitoring Reports that it submits periodically to the Project's financiers, also evaluates the execution status of these plans and the effectiveness of the measures contained therein.

#### 4.6.b.i Modified Habitat

Except for the TL plots near forests and protected areas, the rest of the Project is developed in habitats that are heavily intervened by urbanization activities (near towns or human settlements) or by agricultural or livestock activities.

The passage of the "line guide" used in the layout of the TL conductors is done with drones. Therefore, vegetation removal in the easement has been significantly reduced to less than half of what was authorized by MARN. The actual clearing of the affected strip is done by selective pruning of tree branches that could intercept the safety distance of drivers or could do so in the future. This procedure is done under the strict supervision of a knowledgeable forester. The removal of vegetation on the tower platforms (affected area varies between 12 m<sup>2</sup> and 20 m<sup>2</sup>) and on the sites where the SSs are located is carried out in accordance with the corresponding authorizations.

TRECSA continuously monitors flora and fauna species (birds, mammals, amphibians, and reptiles) in the Project's area of influence and submits an annual species richness report to MARN. Since it began this activity in 2013, the Project has recorded more than 5,500 birds, 1,300 mammals, 1,000 amphibians and reptiles, and 4,600 plant specimens. The process has also identified the most common bird migration routes and intersection points with the layout of the TL. This has made it possible to determine the stretches of the LT in which it has been necessary to place bird flight diverters to avoid deaths due to collisions.

To determine the potential impact of the Project on ecosystems, TRECSA hired a team of professionals to monitor changes in forest cover and connectivity. This monitoring, which began in 2016, focuses on four ecosystems: i) Flooded Forest of the Bocas del Polochic Wildlife Refuge; ii) Coniferous Forest of Totonicapán; iii) Climax Altimontane Shrubland of the Sierra de Los Cuchumatanes; and iv) Thorny Forest of the Motagua River Valley.

#### 4.6.b.ii Natural Habitat

TRECSA modified the route of the TL in Lot A to avoid possible impacts to the Cordillera Alux Springs Protected Reserve. However, this stretch of the TL intersects the La Antigua Important Bird Area

(IBA), where 14 endemic species are reported to be present. In this Lot, the EISs have identified the tropical climbing or web-footed lungless salamander (*Bolitoglossa kaqchikelorum*) as a species of interest. Although it is not included in the Red List of the International Union for Conservation of Nature (IUCN), it could be classified as an endemic or restricted-range species, although it is mobile enough to easily leave the areas to be intervened.

The route of the TL in Lot B was altered to avoid the Visis Cabá Biosphere Reserve, the Xalbal River watershed, and the Cerro Mano de León Regional and Municipal Park. However, this new route could not avoid intercepting some regions of three internationally recognized zones: the Cuchumatanes IBA (a stretch of about 10 km), the Alliance for Zero Extinction (AZE) zone of the Sierra Cuchumatanes (a stretch of about 20 km), and the Sierra de los Cuchumatanes Special Protected Area (a stretch of 10 km). Although these areas are considered high in endemism,<sup>41</sup> the EISs do not report any endemic or restricted range species.

The route of the TL in Lot C was adjusted to avoid possible impacts to the only protected area it originally intercepted: the Álvaro Portillo Private Natural Reserve. However, the new route touches part of the Sierra de las Minas-Motagua IBA,<sup>42</sup> which registers the presence of the golden-cheeked warbler (*Dendroica chrysoparia*), the Guatemalan spiny-tailed iguana (*Ctenosaura palearis*), the giant whiptail (*Cnemidophorus motaguae*), the Mexican beaded lizard (*Heloderma horridum*), and Davy's naked-backed bat (*Pteronotus davyi*), all species catalogued as "important." In the area intercepted by this Lot, there are flora species such as holywood (*Guaiacum sanctum*) and irayol blanco (*Blepharidium guatemalense*) that are considered "important."

The layout of the TL in Lot D was modified to avoid possible impacts to the AZE Chajmaic River - Sierra Santa Cruz - Semuy and around the area near the community of Aldea Chichipate, in the municipality of El Estor. Additionally, as a precautionary measure to avoid collisions of avian fauna with the TL conductors in the associated wetlands of Lake Izabal, Río Polochic, and Río Dulce, the Project has installed flight diverters along 37 km of the entire line. The Alta Verapaz spikethumb frog (*Plectrohyla teuchestes*), an endangered species, is also present in the vicinity of this lot, but with a relatively low probability of extinction because its presence is restricted primarily to undisturbed mountain forests. The route of the TL in Lot D could not avoid crossing the PNRD, a protected area that hosts one of the most important migratory bird routes in Guatemala (which is also part of the Mesoamerican Land Corridor) and is home to the endangered Yucatan black howler monkey (*Allouata pigra*).

The layout of the TL for Lot E was modified to avoid possible impacts to the Santa Rosa and Llano Largo Private Nature Reserve, the Monte Alto Private Nature Reserve, and the Los Cerritos - El Portezuelo Municipal Regional Park. However, this modification was not enough to prevent the TL from intercepting part of the Yalijux, Sacranix, and Sierra de las Minas-Motagua IBAs, important sites for the restricted-range birds of the North-Central American Highlands, including the endangered highland guan (*Penelopina nigra*) and the endangered golden-cheeked warbler

---

<sup>41</sup> The Sierra de los Cuchumatanes is considered a region of endemism (19% floristic species, 23% amphibians, 16% reptiles, 63% birds, and 52% mammals).

<sup>42</sup> The Sierra de las Minas is a mountain range located in northeastern Guatemala that crosses the departments of Baja Verapaz, Alta Verapaz, El Progreso, Zacapa, and Izabal. The mountain range has different types of habitat, including the most extensive cloud forest reserve in Central America. Most of the mountain range was declared a Biosphere Reserve in 1990.

(*Dendroica chrysoparia*). Although this stretch is mainly found in mountain areas with a high degree of intervention (agriculture, mainly), some specimens of these species could use these modified habitats as part of their area of origin or as a source of food.

The layout of the TL in Lot F was adjusted and altered to avoid possible impacts to the Molino Helvetia Private Nature Reserve and San José Yalú Private Nature Reserve. However, the TL intercepts about 15 km of the RUMCLA and 10 km of the IBA of the same name, which harbors specimens of the golden-cheeked warbler (*Dendroica chrysoparia*). Although no endemic species have been identified in this section, there are at least 13 endangered species (3 flora species, 1 reptile and 9 mammals), although none are in danger of extinction.

#### 4.6.b.iii Critical Habitat

Given that: i) interventions on the soil of the TLs are restricted to the foundations of the transmission towers; ii) most of the species of interest that have been recorded in the easement are highly mobile; and iii) the width of the easement is relatively narrow (30 m in total, 15 m on each side of the TL); it is estimated that the Project will not affect any critical habitat, even though several of its sections cross or are located near areas that are habitats of endemic and endangered species.

#### 4.6.b.iv Legally Protected Areas and Internationally Recognized Areas

The final route of the TLs contemplated in the Project was modified to avoid intercepting the following areas that are under some type of protection: i) the Cordillera Alux Springs Protected Reserve; ii) the Visis Cabá Biosphere Reserve; iii) the Xalbal River watershed; iv) the Cerro Mano de León Regional and Municipal Park; v) the AZE zone of the Sierra Cuchumatanes; vi) the Álvaro Portillo Private Natural Reserve; vii) the AZE Chajmaic-Sierra Santa Cruz-Semuy; viii) the wetlands associated with Lake Izabal, Río Polochic, and Río Dulce; ix) the Santa Rosa and Llano Largo Private Nature Reserve; x) the Monte Alto Private Nature Reserve; xi) the Los Cerritos - El Portezuelo Municipal Regional Park; xii) the Molino Helvetia Private Nature Reserve; and xiii) the San José Yalú Private Nature Reserve.

However, a section of the TL intercepts certain sectors of the following protected areas; i) the Río Dulce National Park; ii) the Yalijux and Sacranix IBAs; iii) the Sierra de las Minas-Motagua; iv) the RUMCLA; and v) Sierra de los Cuchumatanes Special Protected Area.

#### 4.6.b.v Invasive Alien Species

The project will not introduce invasive alien species.

#### 4.6.c Management of Ecosystem Services

The most important service that the ecosystem provides to communities is perhaps the provision of wood for use as firewood and construction material. Secondary is surface water resources in general (rivers and springs) that provide untreated water to the population. Although the EISs explicitly analyze ecosystem services, the construction and operation of the TL is not expected to adversely

affect priority ecosystem services present in the area where it is located or restrict access to them by local users.

#### 4.6.d Sustainable Management of Living Natural Resources

TRECSA has made a good effort to locate the best sites for the SSs and select the best routes for the TL in order to eliminate the generation of adverse impacts on biodiversity and ecosystem services along the 783 km of the TL. It has also adopted strategies to prevent biodiversity loss, which include: i) the rerouting of the TL to avoid impacts to high-quality ecosystems (protected or biologically sensitive areas); ii) the use of established roads and access routes; iii) the selective felling of vegetation, avoiding cutting down endemic and protected species; iv) the location of transmission towers in the highest places within the watershed in order to prevent deforestation in the lower parts of the watershed; v) the promotion of reforestation activities; and vi) the implementation of a program for the rescue and relocation of sensitive species.

#### 4.6.e Supply Chain

For any input or material of local origin, TRECSA verifies that its extraction or manufacture has been carried out in accordance with Guatemalan laws for the protection of biodiversity. However, because of the difficulty this presents, it does not do so for inputs or materials produced outside the country.

### 4.7 Indigenous Peoples

#### 4.7.a General

Lot A records the presence of indigenous populations belonging to the Kaqchiquel and Pocoman Mayan groups, mainly in the municipalities of Santa María de Jesús, Antigua Guatemala, San Bartolomé Milpas Altas, Magdalena Milpas Altas, Santiago Sacatepéquez, San Pedro Sacatepéquez, San Juan Sacatepéquez, San Raimundo, and San Pedro Ayampuc.

About 70% of the population of Lot B belongs to the Mayan indigenous group; the entire population of Lot C is of Ladino origin (99.5%); 89% and 26% of the population of Alta Verapaz and Izabal of Lot D belong, respectively, to the Mayan and Ladino indigenous groups. The department of Lot E with the largest indigenous population is Alta Verapaz (89% Mayan indigenous population); and more than 70% of the population of Lot F belongs to the Mayan, Xinka, and Garifuna indigenous groups.

#### 4.7.a.i Avoidance of Adverse Impacts

The final layout of the TL sections was designed to avoid generating adverse impacts to indigenous peoples. However, since Guatemala has an indigenous population distributed throughout its territory, this was not possible in all cases. For example, of the 25 families that were displaced by the Project, 13 are indigenous.<sup>43</sup>

---

<sup>43</sup> Considering that the line is 783 km long, this means that one indigenous family is affected every 66 km, an extremely low rate, especially when the indigenous population in Guatemala represents 44% of the total population.

#### 4.7.a.ii Participation and Consent

TRECSA began to incorporate processes of free, prior, voluntary, and informed participation with indigenous peoples in its operations before these types of procedures were required by the PSs. In this regard, considering the ethnic diversity of the country and the importance of the authorities and representatives of indigenous peoples, the Project, since its inception, has held several meetings and activities with indigenous stakeholders and representatives, many of which were in the local language. For this purpose, TRECSA has incorporated, in each of its teams, a social manager<sup>44</sup> who speaks at least one Mayan language of the area. As a result, a better understanding of the message to be communicated is incorporated into the process, in an environment of respect for the culture, social norms, and structure of the community.

The Company also maintains a robust mechanism for receiving and processing complaints and grievances that includes indigenous, rural, and isolated communities in which its members and landowners do not have access to the Internet or landline telephones. This system is enabled to receive oral complaints (since many individuals in the communities are illiterate or simply do not speak Spanish) and, if necessary, anonymous complaints.

#### 4.7.b Circumstances Requiring Free, Prior, and Informed Consent

Although Guatemala is a signatory to ILO Convention 169, the implementation of this agreement has not been regulated by Guatemalan legislation to date. In this regard, TRECSA has carried out, on its own initiative, a public participation process with the indigenous peoples that is substantially compatible with a process of free, prior, and informed consultation in the terms established by ILO Convention 169.

##### 4.7.b.i Impacts on Lands and Natural Resources Subject to Traditional Ownership or Under Customary Use

The Project has not generated impacts on lands or natural resources subject to traditional property or under customary use.

##### 4.7.b.ii Relocation of Indigenous Peoples from Lands and Natural Resources Subject to Traditional Ownership or Under Customary Use

The 13 families of indigenous origin that were physically displaced were relocated either on the same property or in very close proximity, so as not to alter their roots or affinity with the land and its environment.

---

<sup>44</sup> In many cases this person is indigenous and comes from the same area where the communication process takes place.

#### 4.7.c Private Sector Responsibilities Where Government is Responsible for Managing Indigenous Peoples Issues

Under the contract signed with the Guatemalan government, TRECSA is responsible for handling matters related to indigenous peoples and, when circumstances so warrant, may seek the government's support for these purposes.

#### 4.8 Cultural Heritage

##### 4.8.a Protection of Cultural Heritage in Project Design and Execution

The protection of Guatemala's cultural heritage is regulated by the Political Constitution of the Republic, the Law for the Protection of Cultural Heritage, and the Regulations for the Development of Archaeological Projects.

Since 2103, TRECSA has signed archaeological research and recovery agreements with the General Directorate of Cultural and Natural Heritage of Guatemala (DIGEPACUNAT, for its acronym in Spanish) of the Ministry of Culture and Sports (MCD, for its acronym in Spanish), through which the Company undertakes to: i) submit an annual report on archaeological work conducted; ii) provide technical and logistical support to the Department of Prehispanic and Colonial Monuments of the Institute of Anthropology and History for inspections of archaeological work conducted; and iii) follow the chance find procedures identified in the agreement.

To implement the agreements, the Company has set up an Archaeology Department, which has a permanent budget since 2010. This department consists of a group of archaeologists whose mission is to evaluate each area of the Project before the construction team begins its activities. To date, the Archaeology Department has traveled along 70% of the route of the PET-01-2009 Project TL and has conducted archaeological recovery and research excavations at the following sites: i) three sites close to Lot A; ii) five sites in Lot B, freeing up an equal number of areas for the construction of transmission towers; iii) the land where the Chiantla Energy Substation, Lot B, will be built, freeing up the area for construction; iv) three sites near Lot C; v) two finds near Towers 92 and 96 of Lot D, located in the section between Tactic-Izabal in the department of Alta Verapaz, and two additional areas in the section of the Izabal-Morales line; vi) one find at Tower 44, located in the Chixoy II - San Agustín segment of Lot E, in the department of Alta Verapaz; vii) six of the 15 sites of archaeological interest in the area of influence of Lot E, allowing the construction of nearby transmission towers.

##### 4.8.a.i Chance Find Procedures

In accordance with Guatemalan legislation, TRECSA has an Archaeological Management, Control, and Monitoring Plan for both the TL and SS areas, as well as a chance finds procedure that requires it to stop all activities that involve soil removal when archaeological remains are found and to immediately notify DIGEPACUNAT to evaluate the find and determine whether it is advisable to recover the archaeological remains. The procedure indicates that work can only be resumed after DIGEPACUNAT has authorized it.

To date, all of the artifacts recovered in the recovery and research excavations conducted by TRECSA have been delivered to the Institute of Anthropology and History. In addition, the Company has invested in the improvement and enhancement of the Rubén Chévez Van Dorne Museum of Regional Archaeology in La Democracia, Escuintla, where more than 75 archaeological artifacts recovered from the site are on display.

At present, TRECSA is working with the General Directorate of Cultural and Natural Heritage to set up a small temporary museum at the Chiantla Energy Substation, in Lot B, where 45 archaeological artifacts recovered during the archaeological research that TRECSA has carried out during the last 5 years of work will be exhibited.

#### 4.8.a.ii Consultation

One of the objectives of the public participation process with the indigenous community was to find out from them if there were any important heritage sites in their territories, as well as the possibility of finding any archaeological or cultural remains on their lands. The information collected by this means was used either as input to the process of modifying the layout of the lines, or to identify sites where earthworks should be carried out with greater care due to the possible presence of remains.

#### 4.8.a.iii Community Access

TRECSA has supported the remodeling of the Regional Museum of Archaeology of La Democracia, located in the municipality of La Democracia, in the Department of Escuintla, where part of Lot A is located; has built an exhibition hall in Chiantla, Huehuetenango, where part of Lot B is located; and has built an archaeological laboratory in Mazatenango where, in strict coordination with DIGEPACUNAT, more than 40 thousand artifacts found by the Project have been classified; and has supported several archaeological museums in the Project's area of influence.

#### 4.8.a.iv Removal of Cultural Heritage

Under the legislation in force, the removal of replicable and non-replicable cultural heritage is under the authority of DIGEPACUNAT. As a result, TRECSA is only authorized to assist in the recovery and removal of cultural heritage when this institution authorizes it.

#### 4.8.a.v Critical Cultural Heritage

There are three sites in the Project area where the finds could be classified as critical cultural heritage: i) La Alfalfa archaeological site, which is located within the grounds of the Chiantla Electric Power Substation, in Huehuetenango, where it was necessary to obtain a special license to carry out archaeological research and recovery work in the area as a prior step to obtaining the corresponding construction permit; ii) tower 96 of the Tactic-Izabal Line, Lot D; and iii) Towers 23N and 24N of the Brillantes-Solololá Line, Lot F.

The corresponding research, removal, and recovery tasks were carried out in accordance with the requirements of the Guatemalan legislation.

## **5. Local Access of Project Documentation**

The documentation relating to the project can be accessed at the following link: [www.trecca.com.gt](http://www.trecca.com.gt); [www.facebook.com/TreccaGT](https://www.facebook.com/TreccaGT); [www.twitter.com/TreccaGT](https://www.twitter.com/TreccaGT); [www.instagram.com/treccagt/](https://www.instagram.com/treccagt/)