

#### **Public Disclosure**

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A. Investment Summary	
Disclosure Date:	April 28, 2020
Project Name:	La Pimienta A/B Bond Solar Project
Project Number:	12893-01
Investment Type:	Long term Financing
E&S Category:	В
Projected Board Approval Date:	July 14 <sup>th.</sup> , 2020
Company Name (Borrower):	La Pimienta Solar S. de R.L. de C.V.
Sponsoring Entity (if any):	Atlas Renewable Energy México, S. de R.L. de C.V.
Sector:	Energy
Financing Requested:	Up to US\$50,000,000
Financing Currency:	US Dollars (US\$)
Project Country:	Mexico
Team leader:	Gian Franco Carassale
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### **B.** Environmental and Social Review Summary

#### 1. Scope of Environmental and Social Review

The Project consists of the design, construction, commissioning and operation of a 444 megawatt-peak ("MWp") solar photo-voltaic ("PV") plant, that will be connected to the Mexican *Comisión Federal de Electricidad* ("CFE") national grid system through a 2.17 km transmission line ("TL"), and all the associated transmission and interconnection facilities. The Project has a 30-year life expectancy for energy production.

The Project is developed by La Pimienta Solar, S. de R.L. de C.V., a special purpose company organized under the laws of Mexico (the "Company"), and its shareholders, Atlas Renewable Energy México S. de R.L. de C.V., (the "Sponsor").

IDB Invest together with RINA Consulting INC., acting as the Independent Environmental and Social Consultants ("IESC"), and environmental and social ("E&S") officers of Bancomext reviewed, among other documents provided by the Company, the following : i) environmental permits; ii) Environmental

Impact Assessment (*Manifestación de Impacto Ambiental Regional* -MIA-R); and iii) Social Impact Assessment (*Evaluación de Impacto Social* - EvIS). The Environmental and Social Due Diligence ("ESDD") process included a field appraisal mission conducted between January 28 and 29, 2020. During the ESDD several meetings where conducted (both in Atlas office in Mexico City, and in the Project's site and its area of influence) with the Project site's owners and other stakeholders, including representatives of the Community of Vista Alegre, Justo Sierra and Tres Valles.

## 2. Environmental and Social Categorization and Rationale

The Project has been classified as a Category B operation, in accordance with IDB Invest's Environmental and Social Sustainability Policy, since it is expected that, in general, its E&S impacts and risks will be reversible and can be mitigated using available measures and existing technologies.

The potential key environmental, social and health and safety ("ESHS") negative impacts and risks identified for the Project's construction phase, are inherent to this type of project and are related to: (i) the generation of solid waste, both hazardous and non-hazardous; (ii) air emissions; (iii) noise pollution; (iv) wastewater generation; (v) movement of soils; (vi) ground vibrations; (vii) the removal of natural vegetation; (viii) the potential alteration and displacement of fauna; (ix) occupational health and safety of workers; and (x) community health and safety concerns related to: (i) occupational health and safety of workers, (ii) generation of solid waste, both hazardous and none-hazardous; and (iii) use of resources mainly water for services and cleaning the PV cells. Natural disasters such as earthquakes, natural fires, floods and electric storms, might also pose limited risks to the Project, both from the potential of risk to workers and in terms of structural and environmental damage to physical infrastructure, resulting in loss of business.

The Project will trigger the following International Finance Corporation ("IFC") Performance Standards ("PS"): PS-1. Evaluation and Management of Environmental and Social Risks and Impacts; PS-2. Labor and Working Conditions; PS-3. Resource Efficiency and Pollution Prevention; PS-4. Community Health, Safety and Security; PS-5. Land Acquisition and Involuntary Resettlement; PS-6. Biodiversity Conservation and Sustainable Management of Living Natural Resources; and PS-8. Cultural Heritage.

## 3. Environmental and Social Context

The Project is in the municipalities of Ciudad del Carmen and Palizada, state of Campeche, Mexico in a surface of approximately 1,230 hectares (ha) which has been used mainly for agriculture and livestock grazing. The site is partially flat; therefore, no major ground works are expected. According to the Koppen climate classification, in the Preliminary Area of Influence ("PAI") or Regional Environmental System ("SAR", for its acronym in Spanish), the type of climate is Am (f) corresponding to the warm sub-humid with summer rain and high percentage of winter rain. It has an average annual rainfall range between 1,000 and 1,500 mm. Based on the average monthly temperature, the area has a range of 26 to 28°C per year. Minimum monthly temperature is 23.6°C in January and the maximum monthly temperature is 28.6°C during May.

According to the land use and vegetation types ("USV", for its acronym in Spanish) Map of INEGI<sup>1</sup> series VI-Land Uses & Vegetation, the types of savanna vegetation and secondary tree vegetation of mediumsized subperennifolia forest are presented on the Project Site area (PA) covering 97.48% and 1.06% respectively, while the land uses present are cultivated grassland with a 0.10% of the total PA, and annual irrigation agriculture, covering only 1.36%.

<sup>&</sup>lt;sup>1</sup> Instituto Nacional de Estadística y Geografía.

The Project area is not urbanized and consists mainly of agricultural fields with some remnants of secondary forests, distributed disorderly within the terrain. In terms of the socio-economic outreach, the two municipalities involved are Palizada and Ciudad del Carmen, both in the state of Campeche. Nobody is currently living within the Project area, which is located far away from the main cities of these municipalities; however, the nearest communities (beyond a radius of 2 km) are: Tres Valles, Vista Alegre and Justo Sierra from the municipality of Carmen; The total population of these communities are 160 people, and all are engaged in the primary sector activities such as agriculture and livestock.

The Project, nor its area of influence, affects any protected natural area ("ANP"), Priority Terrestrial Region ("RTP"), Areas of Importance for Bird Conservation ("AICA"), or RAMSAR Sites.

Permits granted by the Secretariat of Energy ("SENER"), the Secretariat of Environment and Natural Resources ("SEMARNAT"), the National Institute of Archaeology and History ("INAH"), the National Center for Energy Control ("CENACE"), the National Water Commission ("CONAGUA"), the Energy Regulatory Commission ("CRE"), Municipal Licenses for use of land and environmental viability, and Municipal construction permit, have been awarded. However, during the ESDD review, the following documents were not available for revision:

- Approval from the General Direction of Civil Aviation ("DGAC"),
- The road intersection design permit from the Secretariat of Communications and Transportation ("SCT"),
- Register of the Project with the Secretariat of Labor and Social Welfare ("STPS"),

After having reviewed the corresponding EvIS, the SENER granted the Project the Social License (Resolution 117.-DGISOS.1920/2019 of July 10, 2019). Also, after reviewing the MIA-R, the SEMARNAT granted the Project its Environmental License (Official Letter SGPA/DGIRA/DG 08529 of November 6, 2018).

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

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

#### 4.1.a Environmental and Social Assessment and Management System

Atlas has elaborated a draft Manual for the Environmental and Social Management System ("ESMS") at the Corporate Level. The Company has defined guidelines to be followed by its projects in Latin America which requires them to generate and implement a series of plans and procedures to ensure the proper identification and mitigation of their environmental and social risks. This Corporate ESMS comprises a set of policies, procedures, and instructions that aim at achieving the Company's E&S objectives and targets.

Although this system is well structured according to the elements required for a typical EHS management system, Atlas has not yet elaborated a project-specific ESMS, with detailed plans and procedures to be implemented in the Project, nor has used as reference the IFC PS and the IFC General Environmental, Health and Safety ("EHS") Guidelines.

Atlas has also developed a document "EHS Management System", which contains a higher level of detail than the Manual, and general actions related to EHS risk and impacts. However, it is still at the Corporate level like the Manual.

Therefore, in order to fully achieve compliance with PS-1, Atlas will develop a project-specific ESMS compliant with the IFC PS, WBG EHS Guidelines and the IFC Implementation Manual and Toolkit<sup>2</sup>. The project-specific ESMS will also have to comply with the applicable requirements contained in the General Law of Ecological Balance and Environmental Protection ("GLEBEP") and the Federal Labor Law ("FLL") of Mexico.

## 4.1.b Policies

Atlas at the Corporate Level has prepared a generic Environmental Policy, which is recognized as a framework for its environmental and social performance and its activities of construction, operation, and maintenance of solar and wind power plants. Additionally, as part of the EvIS Atlas has included another E&S Policy based on social sustainability principles.

However, to fully comply with PS-1, Atlas will update its project-specific ESHS Policy, identifying: (i) who, within Atlas's organization, will guarantee compliance with the policy and be responsible for its execution; (ii) a program that establishes how the policy will be monitored and communicated to all levels of the organization; and (iii) a program to measure continuous improvement in its implementation.

## 4.1.c Identification of Risks and Impacts

The Project's MIA-R and EvIS, in compliance with Mexican environmental impact regulations<sup>3</sup>, address the Project's main impacts. In addition, as part of its Corporate ESMS draft Manual, Atlas must identify and assess the environmental and social risks and impacts in its projects. However, the procedure is not project-specific nor detailed enough to include a complete ESHS risk and impacts analysis in the Project's area of influence ("AoI").

The MIA-R does not include impacts on the quality and quantity of water that the Project may cause, especially during the construction and maintenance phases, as well as possible alterations to the drainage system and impacts on the health and safety of workers and the community. Therefore, Atlas will update the procedure for identifying the ESHS risks and impacts of the Project, and ensure that the full scope of its risks (environmental, social, labor, health, safety, and security, including any cumulative impacts) are identified comprehensively; including the impacts on water quality and quantity based on the activities of maintenance of the solar panels, as well as water requirements during construction.

According to the MIA-R, there is a potential flood risk in the Project's AoI, and, hence, it requires measures to be designed and adopted should this event occur. Given the latter, an Emergency Preparedness and Response Plan ("EPRP") will be developed and implemented as well as an updated Flood Risk Analysis using hydrological studies as a reference, including return periods with a conservative range (100 years) and considering the hydrological balance of the "*La Laguna de Término*" hydrological system near the Project as well as hurricane historical records. Although pre-feasibility studies were done for several site options for the development of the Project, a comparative analysis of alternative sites was not explicitly done regarding environmental and social aspects.

Given that the execution and operation of the Project is dynamic, Atlas, in compliance with PS-1, will perform a continuous update of the ESHS risks matrix for each phase of the Project (design, construction, O&M and decommissioning), of all its operations, in order to obtain, monitor and control the operating permits or licenses.

<sup>&</sup>lt;sup>2</sup> Environmental and Social Management System, Implementation Manual - General; IFC; version 2.1; November 2015. Environmental and Social Management System Toolkit - General; IFC; version 1.2; November 2015.

<sup>&</sup>lt;sup>3</sup> Regulation of the General Law of Ecological Balance and Environmental Protection in matters of Environmental Impact Assessment (DOF, 10.31.2014)

#### 4.1.d Management Program

The Project's MIA-R and EvIS were developed to comply with Mexico's E&S legal requirements. In addition, the EHS Management System only includes measures to mitigate and monitor the EHS impacts for any new Atlas PV Solar Projects, at the Corporate Level.

However, according to the environmental license, Atlas will develop specific programs for each of the impacted environmental components and should compile a project-specific Environmental and Social Management Plan ("ESMP"), for both the construction and operation phases. For that purpose it must use as reference documents the Corporate EMP, the approved MIA-R and EvIS E&S Programs, and World Bank EHS Guidelines, and include the following: i) water quality management and conservation actions; ii) air quality monitoring and noise control program; iii) vehicles and machinery maintenance programs; and iv) closure and decommissioning program. These specific programs will ensure that all major ESHS impacts and risk are fully addressed, and that the Project in all its phases, has a detailed description of the objectives, actions, timeline, responsible party, methodology, monitoring schedules and locations, and key performance indicators, among other requirements.

## 4.1.e Organizational Capacity and Competence

Although Atlas has a basic organizational structure for its operations in Mexico, the Project's organogram includes three on-site, E&S project staff (an Environmental Officer, a Social Officer for Communities, and a Social Officer for Labor Issues) that report directly to country-based Environmental, Social and Governance ("ESG") Manager and indirectly to the Project Manager. These three Officers are supported by four supervisors and two technicians, which are also to be located on-site. None of the Officers positions has been filled yet, but the Project has hired a local Social Coordinator (*Gestor Social*) to start engaging with communities and serving as the main point of contact between the latter and the Project. Therefore, before the commencement of construction, Atlas will establish and implement an organizational structure, with specific personnel and clear lines of responsibility and authority for the implementation of the ESMS, as well as a Safety and Hygiene Commissions, in compliance with the Federal Labor Law and its Regulations<sup>4</sup>. The Company will also ensure that ESMS personnel possess the knowledge, skills, experience, and resources to implement the specific measures and actions required to comply with the national laws and applicable standards, and be able to implement a training and awareness program with specific sessions on IFC PS to align the Project -at management level- with these requirements, and request that the EPC Contractor provides a manager responsible for ESHS performance.

Hence, to fully comply with PS-1, Atlas will ensure that: i) all local E&S staff are hired for the projectspecific Environmental and Social Unit, which will be responsible for planning, implementing and monitoring all the E&S actions required by the GLEBEP; and ii) functions, responsibilities and faculties of each E&S manager of such unit are defined. Likewise, an introductory and refresher training program will be required at least once a year for all personnel responsible for ESHS and labor matters compliance. Additionally, Atlas will ensure adequate financial resources, within the ESMS, for this project-specific Environmental and Social Unit, and appoint as many qualified Environmental and Social Coordinators or Supervisors (or similar position depending on the responsibilities) for each work front, who, together with the Safety and Hygiene Commissions Coordinator, must directly and independently inform Atlas's General Management about ESHS compliance.

## 4.1.f Emergency Preparedness and Response

Atlas has included in the ESMS Manual and the EHS Management System, generic elements of an Emergency Preparedness and Response Plan ("EPRP"), which provide guidelines to handle and respond to

<sup>&</sup>lt;sup>4</sup> Federal Labor Law (DOF, 04-01-1970); last published revision (DOF, 11-30-2012) and the Federal Regulation for Workplace Safety and Health (DOF, 11-13-2014)

emergency situations. However, an evaluation of all major possible risks for the Project has not been yet performed (for example, flooding and hurricanes), nor are there detailed instructions and actions in case of emergency.

Therefore and before the construction starts, Atlas will prepare a project-specific EHS Risk Assessment and EPRP that includes, at least, the following: i) organizational structure; ii) activation plan; iii) response procedures; iv) training and drills; v) description of potential emergencies; vi) reporting and communications during the emergency; vii) responsibilities; viii) incident investigation and follow-up procedures; ix) contact information for emergency and support services; x) map of the workplace showing evacuation routes and meeting locations; xi) location of emergency equipment; xii) first aid station; xiii) rescue plan evaluation; and xiv) periodic revision of the plan. Also, it will prepare and adopt a projectspecific EPRP for the O&M phase, considering the experience and lessons learned during the implementation of the ESMP for the construction phase.

This project-specific EPRP will consider the limited public resources available to respond to a possible major accident or event, for which the Company should evaluate the nearest health care facility area in case of a medical emergency and, whenever there are work teams in the area, to maintain first aid stations, or a means of rapid evacuation. Additionally, it must provide local authorities, emergency services, and neighboring communities with information on the nature and extent of environmental and human health effects that may result from emergencies associated with the Project, inside and outside the premises, as well as behavioral and safety measures to be taken in the event of an incident.

The project-specific EPRP should include an evaluation of the firefighting system using as a reference the following guidelines: (i) CFE-H1000-38 Mexican guideline for fire prevention, control and suppression in electrical substations; and (ii) NFPA<sup>5</sup> 850 standard, Recommended Practice for Fire Protection for Electric Generating Plants and High Voltage Direct Current Converter Stations.

## 4.1.g Monitoring and Review

Atlas is responsible for ensuring the implementation of the monitoring and control plans and programs described in the Project's ESMP or Action Plans and contained in the MIA-R. In response, in the Corporate (draft) ESMS Manual the Company has included the document "ESMS Monitoring and Self-Evaluation Procedure" which will include internal inspections, audits, and Key Performance Indicators ("KPIs"). However, project-specific guidelines will be elaborated and implemented. Also, Atlas has created a general guideline requiring the Contractor's management to supervise and monitor the E&S performance of the contractor and subcontractors, and request that all activities will be carried out in accordance with Atlas E&S requirements, the national regulatory framework, and international best practices.

According to the environmental license, Atlas needs to update the Environmental Surveillance or Monitoring Plan (PVA, for its acronym in Spanish), containing the project-specific ESMP.

Although all documents mentioned above will provide a guide for the elaboration of a Monitoring Plan, Atlas will develop a project-specific PVA for the construction phase and ensure that the procedures for monitoring and measuring the effectiveness of the management programs are in place. These procedures will monitor (i) Project's the key risks and impacts on employees, stakeholders and the natural environment as identified in the MIA-R general PVA and the EvIS; (ii) a project-specific ESHS Compliance Matrix; and (iii) progress in implementation of the ESMP. Atlas will also develop a similar project-specific PVA for the O&M phase, considering the experience and lessons learned during the implementation of the PVA during the construction phase.

<sup>&</sup>lt;sup>5</sup> National Fire Protection Association

For each phase of the Project, Atlas will include monitoring processes and measure key indicators and other performance measures over time, to register the Project's performance and alert should significant increase in pollutant emissions occur or new impacts environmental impacts have been produced so that corrective actions can be adopted. Periodic progress reports and monitoring results should be submitted to the Company's management with the necessary information to determine compliance with the relevant legal requirements.

Atlas will develop a project-specific ESHS Compliance Matrix with its set of key performance indicators to measure the effectiveness of the ESMP and assure compliance with all legal and contractual obligations during its execution and O&M phases. The information in such matrix will include, among other, the following: (i) contractual E&S obligations; (ii) status and validity of all necessary permits and licenses; (iii) the name of competent authority that should grant the authorization or issue the required permit or license; (iv) the dates of issuance and validity of the license or permit; (v) the name and position of the person in Atlas in charge of the monitoring and assuring the compliance; and (vi) future communication and compliance procedures. Also, the Company will develop a project-specific Contractor Management Plan, or a Contractor Supervision Procedure, which will include: (i) procedures on how and when the contractor's E&S performance will be reviewed; (ii) the mechanisms that will be used to supervise work in the field, and measure the contractor performance; and (iii) the KPI against by which contractors will be measured.

Finally, to fully comply with PS 1, Atlas will prepare internally (internal audit) or through an external independent environmental and social expert endorsed by the National Environmental Authority (external audit), an Annual Consolidated ESHS Report on the compliance status with all environmental, social, and OHS policies and measures applicable to the Project's works, including the progress of the ESMS actions regarding the established key performance indicators, as well as the compliance status of IDB Invest's Environmental and Social Sustainability Policy, and of Mexico's environmental, social and OHS legislation.

#### 4.1.h Stakeholder Engagement

Since the beginning of the Project, Atlas has maintained a good relationship with the different stakeholders. The EvIS which describes a Social Management System ("SMS") with policies, code of conducts, social responsibility strategies, etc. However, as per the resolution issued by SENER, Atlas has to conduct several meetings to inform stakeholders, including neighbors, about the life cycle of the Project and its potential positive and negative impacts for the community; and to inform to the community about the grievance mechanism for the resolution of possible conflicts.

Therefore, the Company has developed a project-specific Stakeholder Engagement Plan ("SEP"), ranging from federal and state government and relevant institutions, to suppliers and local communities including vulnerable groups, to establish and maintain a constructive relationship with the Project's stakeholders. The SEP include a project-specific communication plan with the surrounding neighbors, settlers located inside or outside the Project site, local farmers, local land users, people who use the access roads and potentially affected trails, and representatives of local organizations and local authorities, among others. The SEP also address the management of any potential impacts on livelihoods, access to land or assets, and access to water.

Atlas will also provide documented evidence of public consultation and information disclosure to be undertaken through the project-specific SEP, considering that consultation should be a two-way process, focused on inclusive engagement, producing results that are taken into account in the identification and assessment of risks and impacts, and describing how the complaints mechanism can be accessed. It also should address that local communities have realistic expectations about what they can expect from the project in terms of employment opportunities and investments in healthcare and other community development activities (during both construction and operations). All concerns or potential adverse impacts on disadvantaged or vulnerable groups should be clearly documented and addressed.

## 4.1.i External Communication and Grievance Mechanisms

Through a Social Consultant, Atlas has developed a project-specific Community Grievance Mechanism ("CGM") that is well organized and explained, in compliance with PS1.

Atlas will continue improving the project-specific CGM by: (i) including the necessity of producing periodic reports based on the project-specific communication plan (included in the SEP), through which information regarding the progress of the Project and the most significant environmental and social aspects of it, are made public; (ii) reinforcing the implementation of the existing CGM by installing multiple mailboxes in strategic points to facilitate their access and guarantee the possibility of anonymous use; and (iii) launching a general outreach and training campaign among the affected communities within the PAI to promote the use of this CGM and ensure its operationalization.

# 4.1.j Ongoing Reporting to Affected Communities

So far, Atlas has not been providing periodic reports to the potential affected communities or the public in general regarding the ESHS performance of the Company. However, through the implementation of the project-specific communication plan within the SEP, the ongoing reporting of ESHS performance to the affected communities or the public in general, will be activated.

## 4.2 Labor and Working Conditions

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

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

Atlas has a Human Resources ("HR") Policy which sets forth a general set of basic requirements on all its projects; it includes an Onboarding Process (orientation); Performance Management (personnel evaluation); and a Compensation Policy. The Company also has a separate Code of Conduct, Anti Bribery and Anti-Corruption Policy, Staff Handbook, a Supply Chain (Procurement) Policy, and a Recruiting Policy.

Since during construction, the Engineering, Procurement and Construction ("EPC") Contractor will be the main employer, Atlas has included within the bidding documents and contract, a chapter with a set of requirements on labor and working conditions, and H&S to be complied with.

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

The Project will require a peak construction workforce of approximately 2,000 employees, who are expected to be sourced mainly from local communities. As such, it will not be requiring a temporary construction camp.

Nonetheless, the EPC contract requirements include specific reference to PS2 for worker's accommodations, as well as IFC/EBRD<sup>6</sup> guidance note on the same subject, such as: (i) HR policies & procedures; (ii) internal grievance management; (iii) prohibition of child and forced labor; (iv) a human rights and labor policy; (v) an OHS Plan; (vi) community H&S; (vii) nondiscrimination; (viii) worker accommodations; and (ix) retrenchment.

<sup>&</sup>lt;sup>6</sup> International Finance Corporation / European Bank for Reconstruction and Development

During operation, Atlas estimates to hire a team of supervisors to oversee the maintenance and monitoring activities of the Project and manage the supervision of contractors and subcontractors.

Atlas ensures that their workers know their labor rights and are fully informed about them. During the hiring stage, all workers will receive written contracts.

However, Atlas will elaborate a project-specific Recruitment Plan in accordance with local regulations and those of the International Labor Organization ("ILO"), that sets a minimum local hiring target (provided that required qualifications are available locally), accurate breakdowns of skilled/unskilled workers, an assessment of the local labor pool, opportunities for incorporating women and vulnerable groups, and that clearly describes relevant information to manage expectations from local communities such as available positions, types of jobs, required qualifications and skills, and job duration and retrenchment.

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

It is likely that the Project will use unionized construction labor, but the EPC contract requirements do include Freedom of Association and Collective Bargaining clauses compliant with Mexican regulatory framework and ILO standards emphasizing the workers' right to participate in collective bargaining with their employers.

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

The Project will abide by Mexican Law that requires non-discrimination and equal opportunity. Also, the Company will be working with an international organization (FUNDES) to promote gender equity.

#### 4.2.a.v Retrenchment

Construction work, by its very nature, is generally understood to be temporary and this message has begun to be shared with prospective workers as part of the Project's initial community engagement.

#### 4.2.a.vi Grievances Mechanism

To address labor complaints, EPC contract requirements include the setting up of an Internal Grievance Mechanism for the EPC's workers and for those of any subcontractors. Such mechanism must: (i) be clearly described and communicated to workers; (ii) ensure anonymity; (iii) be documented and (iv) be auditable.

However, Atlas will ensure that the project-specific Internal Grievance Mechanism is available for all workers, employed either directly or by third parties, and should receive regular reporting on the grievances raised by workers. It will be disclosed at the time of recruitment and made easily accessible to the workers at any time and at no cost to the complainant. The grievance mechanism will allow for anonymous complaints and will not impede access to other judicial or administrative remedies that might be available under the law, or to existing arbitration procedures. Atlas will also launch a general outreach and training campaign among the working population to promote said Internal Grievance Mechanism and ensure its operationalization.

### **4.2.b Protecting the Workforce**

Mexico is a signatory to several ILO conventions and international treaties related to workers' rights<sup>7</sup>, and has extensive labor legislation that regulates, among other aspects, the duration of the workday, schedules, overtime, paid rest days, minimum remuneration, family allowance, legal bonuses, and the minimum

<sup>&</sup>lt;sup>7</sup> Conventions No. 138 on minimum age, Convention No. 182 on the worst forms of child labor, Convention No. 29 on forced labor and Convention No. 105 on the abolition of forced labor.

aspects of OH&S at work. Based on this, the EPC contract requires the Contractor to avoid child labor and forced labor.

# 4.2.c Occupational Health and Safety

Atlas has created the following corporate documents in which Health and Safety ("H&S") provisions are included: (i) Environment, Health & Safety, Security and Loss Prevention Roadmap Standards; (ii) EHS Management System; and (iii) ESMS Manual. In these documents are included general guidelines to avoid or mitigate potential adverse Occupational, Health and Safety ("OHS") impacts that may arise from Project-related activities and provide preventive measures covering all identified risks.

Despite these documents provide reasonable guidance on the actions to be taken to identify and manage the OHS risks of the Project, they are still at the Corporate Level. Therefore, Atlas will develop a project-specific OHS Plan for the construction phase, identifying and evaluating risks and potential hazards arising from the activities to be carried out in accordance to job functions and the preventive measures that will be taken in each case in order to eliminate or control them. Also, Atlas will prepare a similar project-specific OHS Plan for the O&M phase, considering the experience and lessons learned during the implementation of the OHS Plan during the construction phase.

Also, in order to fully comply with PS2, Atlas will develop a procedure for notifying emergency response services and local authorities should a major accident or fatality occur. Such procedure will include a root cause analysis, as well as the description of necessary corrective actions to minimize the risk of a new occurrence.

OHS requirements have been incorporated as part of EPC's contractual clauses, which define minimum requirements for contractors and sub-contractors working on behalf of Atlas, to minimize ESHS risks associated with procurement of products and equipment as well as contracted services.

## 4.2.d Workers Engaged by Third Parties

Atlas has developed a document entitled *EHS Contractors Engagement Instructions La Pimienta* that defines minimum requirements to be followed by contractors and sub-contractors. To minimize risks and liabilities to the Project, the Company imposes the same safety requirements on its employees as it does on its subcontractors'. A procedure for monitoring the contractor's performance vis-à-vis the implementation of OHS requirements has been developed.

## 4.2.e Supply Chain

The risks of child and forced labor among large, reputable construction contractors is low, in part because these same prohibitions are part of local legal requirements and are relatively easy to enforce. Nonetheless, the Project has included prohibitions against child and forced labor as part of its EPC Contract requirements.

## 4.3 Resource Efficiency and Pollution Prevention

## 4.3.a Resource Efficiency

## 4.3.a.i Greenhouse Gases

At the corporate level, Atlas has adopted the guidelines laid-out in the document "Environment, Health & Safety, Security and Loss Prevention Roadmap Standards", which contains some considerations regarding greenhouse gas emissions ("GHG") when implementing the roadmap, and well as a Company GHG

protocol to estimate emissions under its control (Scope 1<sup>8</sup> and Scope 2 emissions<sup>9</sup>). Since these documents are at the Corporate Level, Atlas will develop and implement a project-specific GHG protocol to estimate GHG Emissions Inventory from the facilities owned or controlled within the physical Project boundary (Scope 1) as well as indirect emissions associated with the off-site production of energy during construction (Scope 2), and to define strategies for reducing emissions during the Project lifecycle.

### 4.3.a.ii Water Consumption

According to the MIA-R (2018), water to be used during the construction phase will be mainly for road irrigation (dust control) and will be supplied by water tanks (also named as water tanker truck or cistern truck). However, details of the source, the quantity to be used and the cleaning method for the panels were not available during the ESSD.

Therefore, Atlas will elaborate and implement a project-specific Water Management Strategy during the lifecycle of the Project, aiming at pursuing an efficient consumption of water by making an analysis of the demand, water quality, frequency, types of use, efficient use, records of water consumption and monitoring measures. The Company will include a comparative analysis of Project's water demands the versus those of other solar projects in the region and evaluate the water consumption by the communities in the area of influence. The Company will avoid any conflict among users of the same water resources. It will also engage other stakeholders to motivate the rational use and conservation of water.

### 4.3.b Pollution Prevention

At the corporate level, Atlas has created the following procedures for pollution prevention: i) Environmental Management; ii) Waste Management; iii) Hazardous Material Management; iv) Water Management; v) Emissions Management; and vii) Noise Monitoring. In addition, as part of the MIA's EMP, environmental mitigation actions have been prepared in alignment with requirements of the host country regulations.

Atlas will compile a project-specific ESMP for this Project using the Corporate environmental procedures, the MIA's and EvIS E&S programs, and the World Bank EHS Guidelines, as reference.

### 4.3.b.i Waste Management

The MIA's EMP includes a Program for the Management of Solid Waste, which consists of two subprograms: "Management of Urban Solid Waste and Special Management" and "Management of Hazardous Waste".

However, Atlas will update the MIA's EMP and develop and implement a project-specific Waste Management Plan ("WMP") which will ensure an integrated waste management during the project lifecycle, for both hazardous and non-hazardous waste. In compliance with applicable country environmental laws and IDB Invest's Sustainability Policy, the updated plan will set specific instructions and requirements for a proper segregation, transportation, storage and the final disposal site, of waste generated during the execution of works. Hazardous wastes will be treated with certified service providers, maintain a chain of custody, and generate treatment manifestos.

Atlas will also develop a project-specific Solar Panel Final Disposal Plan, which will promote the recycling of damaged or discarded solar panels and contain strategies for the final disposal of non-recyclable panels.

<sup>&</sup>lt;sup>8</sup> Scope 1, direct GHG emissions that occur from sources that are owned or controlled by the EPC Contractor (for example, emissions from combustion in owned or controlled vehicles, machinery, generators, boilers, etc.).

<sup>&</sup>lt;sup>9</sup> Scope 2, indirect GHG emissions from the generation of purchased electricity consumed by Atlas and the EPC Contractor. Purchased electricity is defined as electricity that is purchased or otherwise brought into the organizational boundary of the company. Scope 2 emissions physically occur at the facility where electricity is generated.

### 4.3.b.ii Hazardous Material Management

Atlas will update the MIA's EMP to adjust it to the Project's WMP. Such plan will identify opportunities throughout the Project's lifecycle to use non-hazardous materials instead of hazardous ones by means of a Hazardous Material Substitution Program.

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

Atlas will not use agrochemicals for the removal of the vegetation in the solar panel areas. However, considering that it may be necessary to use and manage pesticides or other chemical products for pest control during construction or operation, the Company will formulate and implement an Integrated Pest and Vector Management Program, targeting economically significant pest infestations and disease vectors of public health significance.

Atlas will design its pesticide application regime to avoid or minimize (i) damage to natural enemies of the target pest, and (ii) risks associated with the development of resistance in pests and vectors. In addition, the Company will not purchase, store, use, manufacture, or trade in products that fall in World Health Organization ("WHO") Recommended Classification of Pesticides by Hazard Class Ia (extremely hazardous); or Class Ib (highly hazardous), and all other chemical shall only be accessible to personnel with proper training, equipment, and facilities to handle, store, apply, and dispose of these products properly.

# 4.4 Community Health, Safety and Security

## 4.4.a Community Health and Safety

Atlas has prepared an EvIS for the Project, which includes community health and safety considerations related to noise, particulate matter, radiation, traffic accidents, local workers health conditions and security within the communities. Thereafter, the Community Health and Safety Management Procedure which is part of the Stakeholder Engagement Plan will be established.

Even though the Corporate EHS Management System includes some considerations related to potential impacts to the community, a project-specific Community Health and Safety Plan, which includes general guidance to respond to potential impacts<sup>10</sup> identified in the EvIS and MIA-R, has not yet been developed. Therefore, Atlas will conduct an identification and assessment process of all major potential risks and impacts on the community's health and safety during the Project's lifecycle and produce a project-specific Community Health and Safety Plan that will address them. Such plan will be reviewed and disseminated to the communities potentially affected by the Project, as part of the SEP.

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

Due to the nature of the Project, equipment design and layout do not represent safety risks for surrounding communities. However, the transportation of material and human resources to the Project sites presuppose an increase in local transit. Therefore, Atlas will elaborate and implement a project-specific Traffic Management Plan, which will identify major potential risks associated with traffic increase and include relevant management measures, such as access roads, signaling, speed limits, and control.

<sup>&</sup>lt;sup>10</sup> These potential impacts include change in: i) the community health profile (including exposure to disease); ii) the availability and quality of water resources; iii) livelihoods and income-generating opportunities and subsequent effects on community access to social and physical infrastructure; and iv) community safety profile related to traffic, emergency responses, unplanned events, crime, and conflict.

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

The EvIS requires the preparation of an Emergency Report Plan based on the national regulation (NOM-030-STPS-2009). Framed in the "Atlas ESMS Manual" and the "EHS Management System", Atlas will prepare, before the construction starts, a project-specific EPRP that factors in the nature, scale, and full scope of the foreseen activities. This plan will consider the limited public resources available to support a potential major accident and provide local authorities, emergency services, and neighboring communities with information on the nature and extent of environmental and human health effects that may result from emergencies associated with the Project, inside and outside the premises, and behavioral and safety measures to be taken in the event of an incident.

### 4.4.b Security Personnel

Atlas will retain the services of a private security company to protect their workers and assets, and for preventive and defensive purposes. However, it has not yet developed and adopted a Security Forces Management Plan for the Project. Therefore, the Company will prepare and implement a project-specific Security Forces Management Plan using as a reference the IFC's *Good Practice Handbook Use of Security Forces: Assessing and Managing Risks and Impacts*, which shall include a risk and impact identification process considering political, economic, legal, military, and social issues. This plan will also include community engagement and disclosure, awareness training around gender-specific culture, appropriate behavior of security personnel, instructions on when and how force may be used, firearms protocols (if applicable), human rights requirements, and investigation and reporting of security incidents in alignment with the voluntary principles of security and human rights.

In Mexico, security companies usually establish procedures and provide a record of investigation for every guard they hire. Atlas will provide a copy of the contracts subscribed with the security companies to verify, among other things, that conditions have been included allowing the Company to perform: (i) reasonable investigations to ensure that security personnel do not have a criminal record and have not been involved in past cases of abuse; (ii) verify details of necessary training in relation to the use of force; (iii) verify restrictions on the use of firearms; and (iv) identify details of environmental and social awareness training, including issues of respect for human rights.

## 4.5 Land Acquisition and Involuntary Resettlement

There will be no involuntary resettlement or economic displacement as a result of land acquisition for the Project site. Atlas has leased 1,221 ha of land for the Project through real state rights agreements, formalized by a Public Notary. However, the Company will require an extension of 3.2 ha of land for the construction of the electrical substation, that will be purchased from the same owner of the land already leased and is adjacent to the area originally projected for the electrical substation. Therefore, it is expected that this land acquisition will not generate involuntary resettlement or economic displacement.

## 4.6 Biodiversity Conservation and Natural Habitats

#### 4.6.a General

The Project is in the Sub-Province of the Plains and Swamps Sub-province of Tabasco with a landscape modified by agricultural and livestock use, which is confirmed by the soil and vegetation maps of INEGI (2016), Series II – (National Database). The National Institute of Statistic and Geography ("INEGI", for its acronym in Spanish) identified the main types of vegetation which correspond to 9.65% medium sub-perennifolia forest, 7.51% savanna, and 17.91% of secondary vegetation, while the dominant land use is cultivated grassland and agricultural land, with a combined 63.40%.

#### 4.6.b Protection and Conservation of Biodiversity

Biodiversity baseline surveys were developed for the Project Site area and its Preliminary Area of Influence<sup>11</sup> according with the criteria established by the Mexican Environmental Authority, through one biological campaign developed in August 2018, defined as wet season. The MIA-R provides an overview of the biodiversity features of the area affected by the Project. However, the sampling effort was limited to 17 sampling stations for a PA of 1,230 ha; it does not have the a good degree of detail; and does not follow international good practices require that biological surveys be conducted in at least one dry and one wet seasons to provide a complete baseline data.

Therefore, to fully comply with PS6 requirements, Atlas will update the Biodiversity Baseline Survey by following the guidelines contained in the Good Practices for the Collection of Biodiversity Baseline Date Guideline<sup>12</sup>, including a sampling process during the dry season and increasing the number and location of sampling stations to ensure that samples of the different vegetation units are considered.

Once the Biodiversity Baseline Survey is updated, Atlas will develop an alternative analysis for the final layout of Project's facilities, performing micro-routing and micro-siting surveys to minimize the impacts on local biodiversity. Also, the Company will prepare a Procedure for Flora Control during O&M, including the activities to control the growth of the vegetation in the solar panel area, avoiding the use of agrochemicals or justifying their use as a last resort.

#### 4.6.b.i Modified habitats

The Vegetation Units located at the PA (total extension of 1,229.14 ha) reported in the MIA-R are: (i) cultivated grassland: 493.67 has (40.16% of the PA); (ii) secondary tree vegetation of medium-sized subperennifolia forest: 1.63 has (0.13% of the PA); (iii) savannah: 499.10 has (40.61% of the PA); and (iv) Secondary bush vegetation of medium-sized sub-perennifolia forest: 234.74 has (19.10% of the PA). Outside the AP, but within the property, 2 protected species under the Mexican legislation<sup>13</sup> were found: the glassywood (*Astronium graveolens*), threatened; and the Peach Palm (*Bactris balanoides*) which is in the category of Special Protection.

According to the database of Global Biodiversity Information Facility (GBIF), 257 species of fauna can be found in the region, distributed in 5 classes, 38 orders and 78 families. The best represented class corresponds to birds with 214 species, followed by the mammals with 21 species, fishes with 17 species, reptiles with 3 species and amphibians with 2 species.

According to MIA, 17 species of fauna fall under some category of protection. From those, 2 species are classified as endangered (EN) according to the IUCN Red List: (i) the Yucatan Black Howler Monkey (*Alouatta pigra*); and (ii) the Yellow Headed Amazon (*Amazona oratrix*).

#### 4.6.b.ii Critical Habitats

Three temporary water bodies or wetlands were identified outside but adjacent to the northern border of the AP whose importance must be evaluated for aquatic birds (in particular) and for local wildlife (in general). Also, forest patches were identified both within and adjacent to the PA and considering that endangered species were recorded within the AP; these forest patches must be studied in detail for assessing the potential connectivity and presence of these species.

<sup>&</sup>lt;sup>11</sup> Or Regional Environmental System (SAR, for its acronym in Spanish).

<sup>&</sup>lt;sup>12</sup> Prepared for Multilateral Financing Institutions, Biodiversity Working Group & Cross Sector Biodiversity Initiative; Citation: Gullison, R.E., J. Hardner, S. Anstee, M. Meyer. July 2015.

<sup>&</sup>lt;sup>13</sup> NOM-059-SEMARNAT-2010

Therefore,<sup>14</sup> Atlas will develop a Critical Habitat Assessment which shall identify project-related impacts, especially those on habitat connectivity, outside the boundaries of the project site, and determine ecologically appropriate mitigation options, if applicable, through a Biodiversity Action Plan ("BAP"), that contributes to regional-level conservation goals rather than solely site-level impacts, and designed to achieve net gains for those biodiversity values for which Critical Habitat was designated.

In accordance with best practices in solar power industry, the Company will also develop and implement a Bird Mortality Monitoring Plan that will keep track of bird fatalities due to possible "lake effect" of the solar panels and of collisions with the power line, following the guidelines provided by the "Mortality Monitoring Design for Utility-Scale Solar Power Facilities"<sup>15</sup>, and the IFC EHS Guidelines for Electric Power Transmission and Distribution.

#### 4.6.b.iii Legally Protected Areas

The PA is not located within any Legally Protected Areas or Internationally Recognized Area. The closest legally defined area (12 km far away) is the important bird areas ("IBA") of "*Laguna de Términos*", while the closest priority terrestrial regions ("PTR") is the Lagoons of Catazaja – Emiliano Zapara, which is approximately 4.9 km far away.

#### 4.6.b.iv Invasive Alien Species

The Project foresees no introduction of alien species as it will strictly adhere to Mexican regulations in terms of plants that will be replanted. However, invasive alien species were recorded in the Project baseline (MIA-R, 2018), but this document did not identify their potential risks and the need to implement control measures in the Project site.

Therefore, the Company will develop and implement within the Flora Management Plan of the ESMP, guidelines to monitor the appearance of exotic flora species in roads ways, in the right of way of the transmission line and the solar panel areas during the Project operation, and for defining mitigation measures in case of need.

#### 4.6.c Management of Ecosystem Services

No information on Ecosystems Services is provided in the Project Baseline (MIA-R, 2018). Therefore, Atlas will develop within the updated Biodiversity Baseline Survey an Ecosystem Service Assessment for the water usage and water quality in temporary streams in the PA, during the construction phase.

#### 4.7 Indigenous People

As indicated in the EvIS, the Project will not directly or indirectly impact indigenous communities.

#### 4.8 Cultural Heritage

According to Mexican legislation and as stated in the EvIS, the Project has been granted by the INAH<sup>16</sup> a certificate indicating that it will not produce any effects on archaeological heritage.

Even though no areas of archaeological interest have been identified within the Project's site, Atlas will develop a project-specific Chance Find Procedure ("CFP") which will be implemented by the Contractor(s), as part of the ESMS in the event unknown cultural heritage sites are found as the result of

<sup>&</sup>lt;sup>14</sup> Critical Habitat are area with "high biodiversity value", including habitat of significant importance to critically endangered and/or endangered species.

<sup>&</sup>lt;sup>15</sup> 2016–1087. U.S. Department of the Interior U.S. Geological Survey

<sup>&</sup>lt;sup>16</sup> Instituto Nacional de Antropología e Historia

ground disturbance during the site preparation and construction stage. The need to comply with the CFP will be included in the EPC Contract.

### 5. Local Access of Project Documentation

The documentation relating to the Company can be accessed at the following link: https://www.proyectolapimienta.com/compromiso/

#### 6. Contact Information

For project inquiries, including environmental and social questions related to an IDB Invest transaction please contact the client (see **Investment Summary**), or IDB Invest using the email requestinformation@idbinvest.org. As a last resort, affected communities have access to the IDB Invest Independent Consultation and Investigation Mechanism by writing to mecanismo@iadb.org or MICI@iadb.org, or calling +1(202) 623-3952.