

GIACOTE AND CASABLANCA SOLAR PROJECTS- URUGUAY

ENVIRONMENTAL AND SOCIAL STRATEGY (ESS)

I. SUMMARY

Country:	Uruguay
Sector:	Energy
Project Name:	Casablanca Solar Project
Project Number:	UR-L1100
Borrowers:	Three Uruguayan Special Purpose Companies
Sponsor:	Sky Solar Holdings, Ltd.
Proposed A Loan:	Up to US\$51 million

II. PROJECT DESCRIPTION

- 2.1** The Project consists of the construction, operation and maintenance of six solar photovoltaic (PV) power projects, totaling 74.25 megawatts (MW), as well as their associated facilities, including transmission lines, substations, and road construction and improvement (the “Project”) in northern Uruguay (see Figure 1). The projects include: Dicano (11.25 MW); Fenima (9.5 MW); Raditon (9.5 MW) and; Petilcoran (8.0 MW) [known as the “Casa Blanca Projects”] as well as Young (24 MW) and Arapey (12 MW) [known as the “Giacote Projects”]. The Dicano, Fenima, and Petilcoran facilities are located in the Department of Paysandu, approximately 7.5 km north of the town of Casa Blanca, Uruguay (see Figure 2). The Raditon facility is located with the Paysandu industrial complex (see Figure 3). The Young and Arapey projects are located approximately 200 km north of Casa Blanca. The project will occupy a total area of approximately 139 hectares of which 100 hectares will be impacted by construction activities, which will require verification during due diligence process due to changes in project scope. The Project will be connected to the national grid with the Government of Uruguay at the Casa Blanca Substation. The concession issued by the Government of Uruguay allows for production up to 75 MW. Two PPAs have been awarded for the development of the Projects; a 32 year PPA for the Casa Blanca projects and a 30 year PPA for the Giacote projects.
- 2.2** The Project signed the two PPAs with UTE in August 2012; however, these may have to be amended to account for increased production capacity. The Project is expected to generate approximately 116 GWh per year at an estimated construction cost of US\$ 129.2 million. Construction of the Casa Blanca projects is expected to start in October 2014 and construction of the Giacote facilities is expected to begin in December 2014.

- 2.3** The Project encompasses the installation or construction of the following components: i) erection of approximately 307,000 solar photovoltaic panels (exact number to be verified) with a combined capacity of 74.2 MW; ii) construction of one new substation and upgrades to two existing substations iii) construction of one, shared 150 kV transmission line of approximately 8.5 km tying into the new substation, and two other transmission lines for the Giacote Project (lengths and alignments to be verified during due diligence), all to connect the various solar facilities to the national grid; iv) several smaller underground electrical lines within the project area; v) construction and maintenance of new and existing service roads (length and alignment to be verified during due diligence) exiting the highway and within the solar facilities; and vi) construction of support buildings, including support offices.
- 2.4** The Project is estimated to have an approximate 12 month construction period. Start of construction was originally expected to occur in October 2014 and reach Technical Completion by September 2015. The project timetable will have to be investigated and updated during the due diligence process.

Figure 1. General Location Map

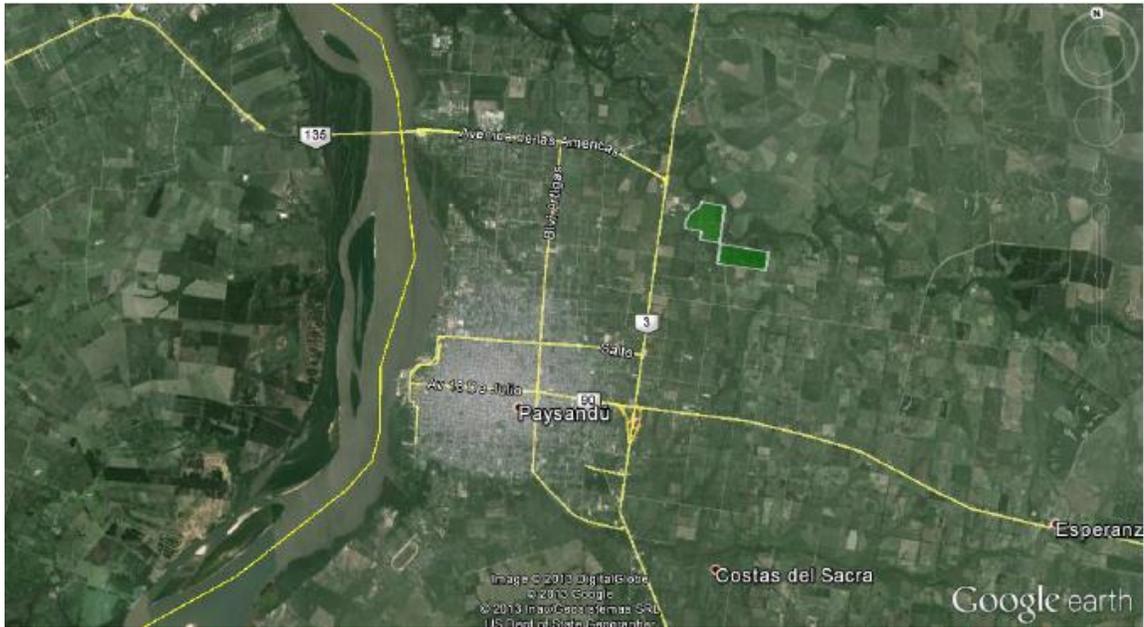


Figure 2. Project Location Map - Dicano, Fenima, and Petilcoran



Figure 3. Project Location Map - Raditon



III. INSTITUTIONAL AND REGULATORY CONTEXT

- 3.1** The regulatory framework in Uruguay establishes that electricity generation is an open market in which any generator meeting certain conditions can connect to the public grid. In practice, however, all private generation companies have entered the market through contracts with UTE. Decree#133/2013 of the Government of Uruguay instructs UTE to sign PPAs with private solar energy generators for a nominal capacity of up to 200 MW. The call for proposals will conclude on September 2nd and PPAs expected to be signed on September 9th. Until today the process has been transparent and no objections were presented by any participant.
- 3.2** On December 27, 2013 the Informe de Comunicación y Viabilidad de Localización de Proyecto (VAL) for the Dicano, Fenima, and Petilcoran facilities was presented to DINAMA in accordance with the Decreto 178/009 and the Decreto 349/005 “Reglamento de Impacto Ambiental y Autorizaciones Ambientales”. DINAMA has yet to respond to the submittal and an EIA has not yet been prepared for the Project. The VAL for the Raditon project was approved by DINAMA in December 2011. Individual VALs have also been approved by DINAMA for the Young and Arapey facilities. These documents and their approvals will be assessed during the due diligence process.

- 3.3** The Project triggers the following directives of IDB's OP-703 Environmental and Safeguards Policy: B.2, Country Laws and Regulations; B.3, Screening and Classification; B.5, Environmental Assessment Requirements; B.6., Consultations; B.7, Supervision and Compliance; B.9, Natural Habitats and Cultural Sites; B.10, Hazardous Materials; B.11, Pollution Prevention; B.12, Projects Under Construction; and B.15, Co-Financing Operations. The OP-102, Disclosure of Information Policy also applies for this Project. Based on available information, the Project had been classified by the Bank as a Category B operation.

IV. ENVIRONMENTAL AND SOCIAL SETTING

- 4.1** Based on available project documentation, the Casa Blanca solar facilities will potentially occupy a total area of approximately 100 ha (of a 139 ha parcel) between the four facilities, and the Giacote facilities will occupy approximately 90 ha combined, which will be permanently affected by the erection of the solar panels, substation, transmission line, offices, maintenance roads and other construction works. Based on aerial imagery, much of the terrain surrounding the Project area and vicinity has already been impacted by human activities, particularly agriculture. The entire Project area is currently used for soy production. The grazing of cattle and horses is common on surrounding lands. Some patches of larger vegetation, including native trees in an arroyo, occur within the project area as will be preserved with a 100 meter buffer. The surrounding landscape appears to be mostly composed of agricultural and cattle ranching lands. Due Diligence will investigate the potential impacts to the area from the placement of the solar facilities.
- 4.2** The Casa Blanca project area lies approximately 3.5 km northeast of the city of Paysandu, the nearest city. Currently, there is no precise information available on the scale of economic activities occurring within the project area and surrounding community, such as agricultural activities or cattle grazing; however, the VAL does state that the entire Project area is currently used for the cultivation of soy. Aerial imagery indicates that there are no homes or other infrastructure located within the project area. An existing agricultural operation with many hectares of planted grounds and several large silos exists directly west of the Project area. The Giacote Projects are located approximately 200 km north of Casa Blanca and 20 km from the City of Young in the department of Rio Negro. Other nearby communities include: Pueblo Menafra (6 km), Paso de la Cruz (6 km), and Algorta (20 km).
- 4.3** It is currently unknown if affected people have been consulted on the Project; this will have to be identified before the due diligence process begins and at least one public consultation will be required according to Bank policies. Residents in the local community will be interviewed during the Due Diligence process to gauge the

effectiveness of the consultation process and gain an understanding of the local resident's perceptions of the Project. The procedures implemented during this process, and the subsequent results, including land purchase or lease agreements, will be investigated during the Due Diligence. Social programs implemented by the Project to benefit the local community will also be investigated; currently, no social programs have been proposed or presented.

- 4.4** The existing environmental documentation does not identify any protected habitats in the area and much of the land has been disturbed by previous activities including the cultivation of soy. Some of the projects sites lie adjacent to or nearby a river which may provide important habitat for various species. The Due Diligence investigation will verify that no sensitive or protected habitats or species exist in or near the Project area which may be adversely affected by the project. It appears that baseline surveys were not conducted and information in the VALs rely on literature review. The VALs also did not identify any sensitive animal species within the project area; however, proper surveys do not appear to have taken place. This information and surveys should be presented in additional environmental documentation which will be reviewed as part of the Due Diligence process and before any analysis mission occurs.
- 4.5** The VALs do not contain any information regarding archaeological surveys. Archaeological clearance surveys should be conducted and the Project will require the implementation of a Chance Find Procedure during initial excavations.
- 4.6** Uruguay does not require an EIA to be prepared on energy generation facilities of less than 10 MW. As this Project consists of six separate facilities, only three of which will generate more than 10 MW, it is likely an EIA will only be prepared for submittal to DINAMA for some of the individual projects. Discussions have already occurred with the Borrower to inform them that IDB will require an Environmental Assessment covering the entire Project, including all six sub-projects.

V. KEY POTENTIAL ENVIRONMENTAL AND SOCIAL IMPACTS AND RISKS

- 5.1** Potential environmental impacts and risks associated with solar facilities during the construction phase are mainly linked to the installation of the solar panels, foundations, and transmission line as well as the substation and access roads. Main construction impacts are: (i) habitat disturbance; (ii) soil erosion; (iii) dust generation; (iv) increased heavy traffic; (v) loss of vegetation and; (vi) occupational health and safety hazards for the workforce. Of specific importance for the project may be encountering archeological

sites or artifacts during construction or disturbing unknown sites, the risk of temporarily affecting the livelihoods of communities, and safety issues arising from increased traffic.

- 5.2** Once in operation, main impacts and risk associated with solar facilities are: (i) loss of vegetation; (ii) loss of valuable farmland; and (iii) water consumption.
- 5.3** Baseline conditions including flora and fauna present and presence/absence of archaeological sites, is currently weak. Additional studies to help identify potential impacts related to the Project may be required; however, both Project sites are described as heavily impacted agricultural and industrial zones.
- 5.4** The Due Diligence will determine with more certainty the extent of anticipated impacts of the Project. It is expected that the Borrower will apply mitigation measures that correspond to best industry practices for the solar power sector.

VI. ENVIRONMENTAL AND SOCIAL DUE DILIGENCE STRATEGY

- 6.1** Based on the requirements outlined in IDB's OP-703 Environmental and Safeguards Compliance Policy, the Team proposes that the Casa Blanca / Giacote Solar Power Project be classified as a Category B.
- 6.2** The Bank will perform an Environmental and Social Due Diligence ("ESDD") in order to confirm that all of the Project's relevant impacts and risks have been, or will be, properly and adequately evaluated, and mitigated.
- 6.3** The ESDD will specifically address the following aspects:
 - a.** Determine the need for additional environmental studies including additional flora and fauna surveys to gather baseline data;
 - b.** Investigate the potential impacts of the transmission line, provided more details on the alignment;
 - c.** Assess potential adverse socio-economic impacts of construction activities such as temporary, or permanent, loss of access to agricultural or grazing lands for farmers and herders or any involuntary resettlement;
 - d.** Determine if the land purchase and/or lease agreements have been completed in accordance with IDB policies;
 - e.** Assess the adequacy and timely consultation and information dissemination process with affected parties of the current project;

- f.** Ensure appropriate archaeological surveys have been conducted and a Chance Find Procedure will be implemented during construction;
- g.** Assess the adequacy of the Traffic Plan to ensure road safety is maintained despite the temporary increase in traffic, particularly heavy trucks and equipment through small communities;
- h.** Assess the adequacy of the health and safety procedures of the company;
- i.** Review the Environmental and Social Management Plan (ESMP) to ensure the avoidance, minimization, and mitigation of any potential impacts;
- j.** Determine if the Project has been developed and implemented in compliance with the environmental laws and regulations of Uruguay;
- k.** Assess the Project's compliance with IDB's Environmental and Safeguards Compliance Policy (OP-703) and if needed develop an Action Plan in order to resolve any observed non-compliance.

6.4 An Environmental and Social Management Report (ESMR) will be prepared by the Project Team as part of the ESDD to analyze the management of the environmental and social aspects of the project.