

Building Innovation Through Investment

# SUSTAINABLE INFRASTRUCTURE DEBT FUND

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ESG  
REPORT  
**2023**

**Cifi**



Prepared by CIFI's ESG Team

***Cifi***

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# Prologue



**Javier Escorriola**  
Managing Partner of CIFI  
Asset Management.

Sustainable infrastructure has been an increasingly promising arena for promoting environmental stewardship and community well-being, while attracting investment. At CIFI, we are proud to highlight the current successes from the creation of the Sustainable Infrastructure Debt Fund (SIDF), which has enabled financing for a variety of impactful projects in Latin America and the Caribbean.

The Fund serves as a landmark transaction for the region where institutional investors are able to invest in development. Climate Change is a greater threat globally, now more than ever, and CIFI's pursuit of the Sustainable Development Goals (SDGs) and commitments from the Paris Agreement further ensure that funding goes where it will be most impactful. Additionally, the SIDF addresses a pressing need for governments in the region that may lack the public funds to allow for infrastructure development.

CIFI has worked diligently to ensure the SIDF reflects our quality of work while involving some of the world's most strategic financing partners. We have great capacity to generate investment opportunities in this sector wherein, only five months of operation, the fund was able to commit 53% of the fund's first closing. For this level of success, it is crucial to work with financial entities that share our value for implementing the highest standards of sustainability. The SIDF received vital support from its Shareholders Norfund (Norway) and Finnfund (Finland), and European development financial institutions, DEG (Germany), Proparco (France), and OeEb (Austria).

Additionally, CIFI's focus on risk assessment and management was crucial to ensuring project success, while ensuring promising returns for investors. Private banks were crucial for the SIDF's successful implementation resulting in positive investment returns with low volatility.

Finally, we extend our thanks to all of our partners for working towards achieving our vision for success for the SIDF. In putting in the meticulous work into addressing risk factors, implementing risk mitigation strategies, and monitoring and measuring impact, sustainable infrastructure projects throughout the region are operating with success, with plans for more in the near future. Together we are further amplifying the message of sustainability in development throughout the region.

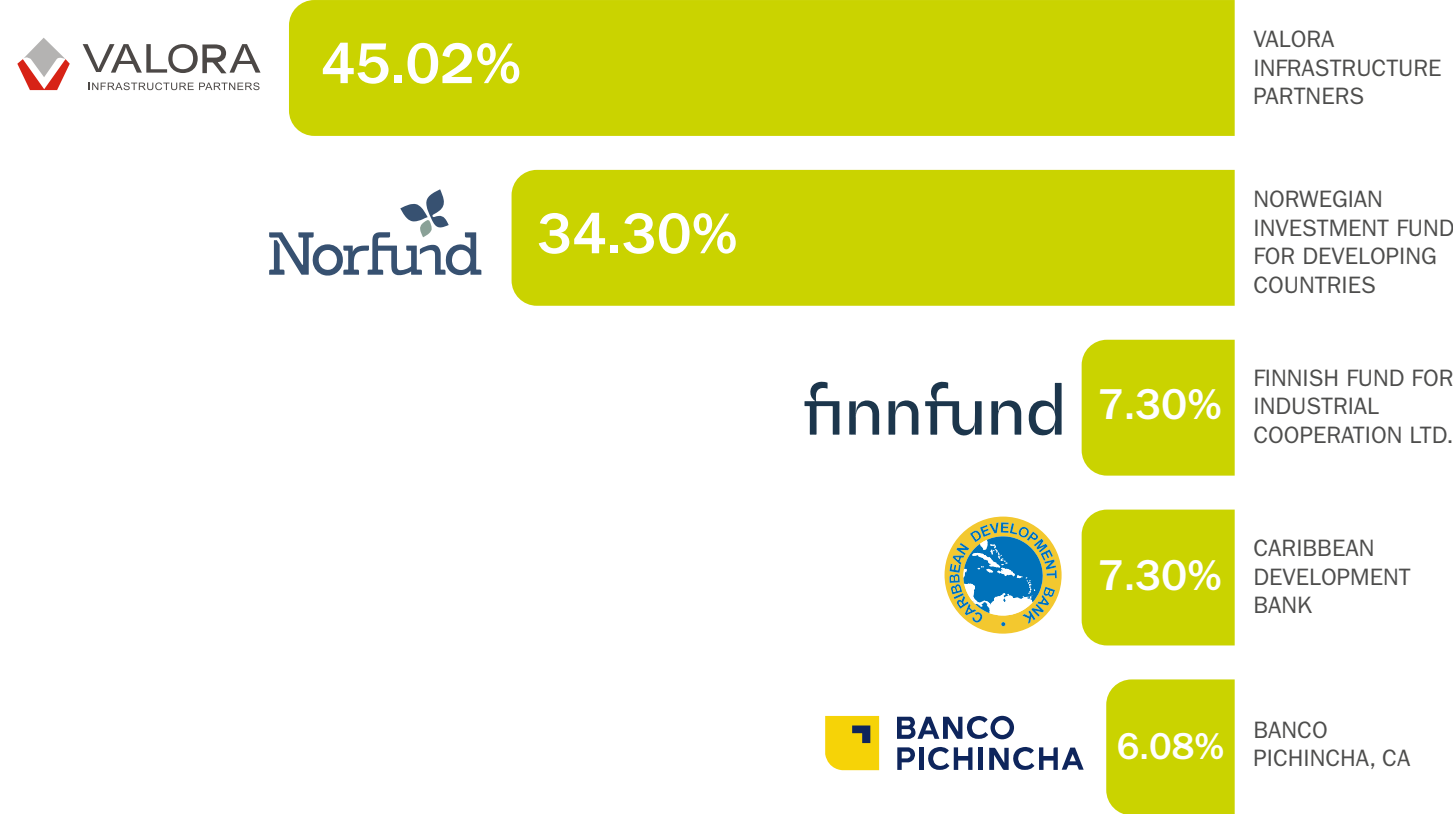
# About CIFI

CIFI leads the private sector as a non-banking entity dedicated to facilitating sustainable investment solutions and financing through channeling funding into initiatives that promote a positive long-term social and environmental impact for communities throughout Latin America and the Caribbean. Founded in 2001 in Washington, DC, and based in Panama since 2016, CIFI advises and finances middle-market infrastructure projects that advance renewable energy solutions and alternative fuels in addition to promoting energy efficiency.

Economic sectors that have been reached through investment in sustainable infrastructure projects have included: energy, telecom, smart cities, construction, leisure and recreation, water and sanitation, transportation and logistics, healthcare, education, public services, and waste management.

CIFI's shareholder structure is composed of development financial institutions, and commercial banks, along with Valora, a company owned by CIFI's senior management.

### CIFI'S SHAREHOLDER STRUCTURE



**Cesar Cañedo-Arguelles**  
Chief Executive Officer



**Javier Escorriola**  
Managing Partner CIFI AM



**Ramon Candia**  
Chief Investment Officer



**Carla Chizmar**  
Head of Environmental, Social and Governance



**José Salaverría**  
General Counsel



**Fabio Arciniegas**  
Chief Operating Officer

CIFI's corporate governance structure is comprised of a highly experienced board of directors, with extensive knowledge of banking and investment, to provide effective and strategic management and oversight. Our diverse team works efficiently, upholding policies and guidelines while ensuring transparency, all of which have contributed to CIFI's stellar reputation as leaders in the field of sustainable investment. The Board of Directors employs Credit and Risk Committees in an effort to oversee E&S performance risks within the portfolio and throughout the project cycle. Effectively, CIFI serves as a bridge between institutional investors and the real economy maximizing decades of experience to provide confident low-risk investment options while advising clients on implementation of internationally recognized sustainability standards, including the International Financial Corporation (IFC) Performance Standards and Equator Principles, that address global environmental and social needs.

Throughout its 20-year history, CIFI has lived up to its reputation in returning on investments, inspiring confidence and continued interest from regional institutional investors. Since its beginnings, CIFI has facilitated investment in over 215 infrastructure projects throughout Latin America and the Caribbean, resulting in over USD 2.3 billion in total disbursements while mobilizing more than USD 21 billion, all due in large part to our solid investment process.

CIFI's role centers on offering advisory support to project developers and investors while offering financial services for up-and-coming infrastructure projects, including loan structuring and syndication, asset management, and direct financing. Our investment process begins with identifying such projects and ensuring that they fit with our investment criteria. After analyzing the project's potential and risks, the CIFI team and external advisors perform due diligence in assessing the market strengths and challenges that exist. An investment proposal is then created and strengthened to make the transaction bankable. Once the deal is presented and negotiations occur with the project sponsor and legal advisors, final steps can be taken to allow for disbursements to be made along with implementation of investment and compliance monitoring. This strategic process ensures that projects can be planned and implemented in accordance with risk, ESG, and market standards while ensuring the highest profitability of returns during the investment cycle.

CIFI incorporates an ESG Policy Framework that considers climate change, human rights, and gender equality factors for analysis and risk assessment. A set of risk mitigation actions in addition to sustainability indicators ensure compliance with CIFI's standards and are integrated throughout the investment process. CIFI's policy framework is based on international standards for sustainability including the Equator Principles, the IFC Performance Standards on Environmental and Social Sustainability, the World Bank Environmental Health, and Safety (EHS) Guidelines, ILO Fundamental Conventions, The United Nations (UN) Guiding Principles on Business and Human Rights, and national policies and legislation in project site countries that regulate local Environmental, Social, and Labor standards.

With our highly specialized background as sustainable investment champions in the region, CIFI continues to fulfill a crucial role as an innovative catalyst for promoting long-term impact investments within countries in Latin America and the Caribbean.



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# About the SIDF

**USD 300M**  
goal debt fund for  
transactions with CIFI

**50%**  
of renewable energy  
and related  
infrastructures



As countries in the region seek economic growth opportunities, infrastructure continues to play a pivotal role in their development. Traditionally, countries in Latin America and the Caribbean have relied on contributions from the private sector to implement more costly infrastructure projects in addition to performing more specialized advisory functions that contribute to project implementation success.

CIFI identified a clear opportunity in this dynamic to create a debt fund focused specifically on the sectors that contribute to sustainable social and economic infrastructure. The Sustainable Infrastructure Debt Fund (SIDF) seeks to provide attractive long-term investment returns by investing in a diversified portfolio of sustainable infrastructure projects in Latin America and the Caribbean.

The goal was to create a USD 300 million debt fund that would participate in transactions with CIFI. The fund aimed at a minimum of 50% of renewable energy and related infrastructures, with a target IRR of 11% in USD with low volatility. The total debt is measured at USD 150 million and total capital at USD 150 million, with the first closing (USD 138M) in June of 2023 and the second closing (USD 162M) in Q3 of 2024.



Multiple situational factors served as justification for the creation of the SIDF. Globally, private-sector funding had become a pressing need to meet environmental and social development goals. The World Bank estimated a financing gap of USD 90 trillion by 2030. Private entities such as CIFI are crucial to closing that gap through allowing for private investment to reduce poverty and address environmental concerns. Funding contributes to the pursuit of global sustainability goals including reducing GHG emissions and allowing for adaptation and further resiliency in the face of climate change threats that are already occurring.

From an investment perspective, financing sustainable initiatives has all the promising factors for sound investment. As both governments and the private sector contribute to reaching global sustainable development objectives, an investment in sustainability becomes an investment in a better future. In times of uncertainty, it is considered a solid measure for managing risk, while offering positive performance. Studies conducted have shown that sustainable investments have proven to be just as effective, if not more effective, than conventional investments. They have strong capital preservation and are among those investments with the highest recovery rate of any asset class. Sustainable infrastructure investment is considered to have low volatility and correlation with other financial markets and noted for adequate risk-adjusted returns.

Ultimately, CIFI views the development of the SIDF as a clear method of achieving the highest impact in terms of sustainability for communities in the region. For this reason, our investment criteria incorporate internationally recognized and utilized standards for Sustainable Infrastructure. The criteria incorporate a focus on the Sustainable Development Goals (SDGs) and projects thus far have demonstrated a clear and measurable impact of meeting these goals. The fund additionally incorporated recommendations and actions from the Paris Agreement, to ensure that funded projects incorporate characteristics and operational measures that address climate change mitigation and adaptation. In its monitoring of projects thus far, CIFI has successfully measured avoided emissions in addition to a variety of sustainable socio-economic factors that have proven the fund to be an important contributor to building resilient communities that are prepared to face the environmental and social challenges of the future.

**Fund Size**  
USD 300M

**Total Debt**  
USD 150M

**Total Capital**  
USD 150M

**First Closing**  
USD 138M  
(June 2023)

**Debt**  
USD 75M

**Capital**  
USD 63M

**Second Closing**  
USD 162M  
(Q3 2024)

**Debt**  
USD 75M

**Capital**  
USD 87M

### Proposal

- Raise a \$300 million debt fund that will participate in transactions with CIFI.
- Focus on sustainable social and environmental infrastructure sectors.
- Regional fund in search of good credit structures in all countries.
- Fund aimed at a minimum of 50%, with a target IRR of 11% in USD with low volatility.

### Market Opportunity

- Infrastructure is a key factor in the Latin American and Caribbean region for economic growth.
- Regional governments rely heavily on private sector investment to support growth.
- Social and good corporate governance (ESG) factors outperformed traditional benchmarks in sustainable investments that focus on positive impact or integrate environmental factors.
- Climate change mitigation and adaptation becomes a great opportunity for the economy and for private sector investment.

### Sustainable Infrastructure

- Our fund meets all the criteria that define Sustainable Infrastructure.
- ESG risk management + positive impact = responsible investment
- We are aligned with the Sustainable Development Goals and the Paris Agreement.

### Added Value of CIFI

- Strong origination capacity with a senior team on the ground.
- Proven track record executing the same strategy consistently for 20 years.
- Solid credit structure with low credit loss ratio for investors.

# The context of Sustainable Infrastructure

Latin America and the Caribbean faces more challenges than ever as a region in terms of promoting growth through economically turbulent times, while addressing unprecedented environmental threats. The COVID-19 pandemic left developing nations struggling economically, due to the unforeseen need for public spending in response to the crisis (IDB, 2020). The need for private investment became crucial to help those nations build back, focusing on a sustainable future with more efficient infrastructure solutions. Additionally, the threats of climate change have become more evident over time, with countries in the region attempting to navigate a new landscape and promote resiliency for the environment and local communities, while still working towards global sustainability targets. With challenges faced so far, it is estimated that developing nations and emerging markets still require

twice as much investment in SDGs to reach them by 2030 (Bhattacharya, 2023). Latin American and Caribbean countries require investment opportunities now more than ever to get back on track to a positive future.

Sustainable infrastructure (SI) offers the potential for investment in the areas that are most crucial for developing economies in addition to addressing environmental challenges. Maximizing the possibilities of implementing the latest technologies, there becomes a tremendous opportunity for innovation in terms of not only providing basic services to countries in the region, but providing better-quality services that offer longer-term returns and a more stable future (Bhattacharya, 2023). The key for effective investment is conducting a thorough analysis of the impact of SI ensuring that it addresses the areas most needed.

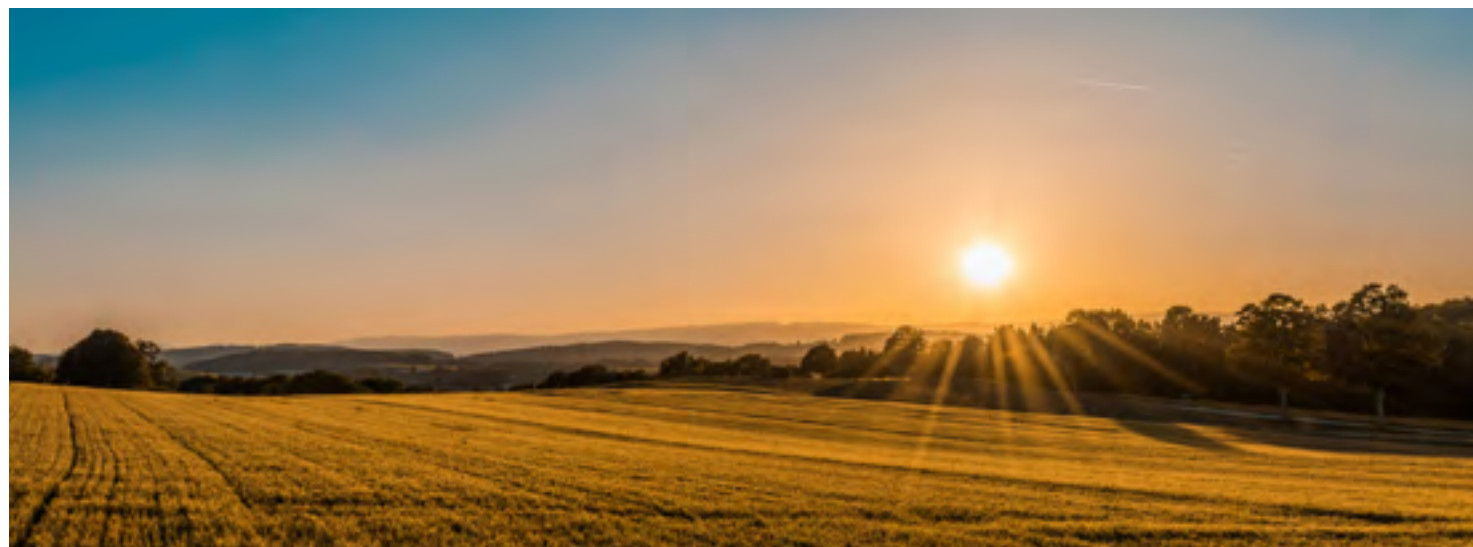


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Photo by Ivan Bandura on Unsplash

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Sustainable infrastructure (SI) offers the potential for investment in the areas that are most crucial for developing economies in addition to addressing environmental challenges.

The Multilateral Development Bank (MDB) Infrastructure Cooperation Platform (ICP) defines SI through a set of indicators within four overarching categories: (1) Environmental sustainability and resilience; (2) Social sustainability; (3) Institutional sustainability; and (4) Economic and financial sustainability (IDB, 2020). The indicators are derived from standards based on the SDGs and the Paris Agreement, and additionally form the basis for CIFI's investment criteria for the SIDF.

Within the category of environmental sustainability and resilience, climate change is a main focus with indicators that include the reduction and avoidance of greenhouse gas emissions along with measuring climate risk, developing of resilience, and employing disaster risk management measures (IDB, 2020). Additionally, waste management measures, including pollution control and monitoring and efficient use of materials, energy and water are also included as indicators along with protecting biodiversity (IDB, 2020). As such there are opportunities for infrastructure projects to consider their environmental impact throughout the different phases of the project cycle.

In considering social sustainability, indicators focus on different aspects of society in terms of their incorporation into project planning and execution. Considerations for integrating gender, disability awareness, and human and labor rights in infrastructure projects are included as indicators while also considering the accessibility and affordability of services (IDB, 2020). Finally, the engagements of stakeholders and impacts on health and safety are also incorporated (IDB, 2020).

Sustainability of infrastructure projects in terms of management and operations also must include a focus on institutional sustainability. This includes both anticorruption protocols and procedures along with corporate sustainability disclosure (IDB, 2020). By ensuring a clean and well-managed operation throughout the project cycle, SI can expect to be long-lasting and well-maintained.



Finally, in terms of economic and financial sustainability, SI is determined by its ability to provide positive economic and social return while stimulating job creation (IDB, 2020). The latter can occur through employment generated in different phases of the project or through the emergence of industries that utilize that infrastructure.

In incorporating these indicators for the basis of investment criteria, the SIDF becomes all the more relevant in terms of ensuring investment with the greatest potential impact in terms of sustainability. Furthermore, positive impacts of SI can already be observed in different economic sectors within the region.

In the transportation sector, SI is defined as those projects that promote efficiency and reduce overall dependence on fossil fuels, which can include larger projects like cable car or tram systems and freight rail, often utilizing electricity as an alternative (Frisari & Messervy, 2021). The government of Chile in 2018 launched a USD 9 billion SI fund that resulted in investment in a variety of sustainable public transportation projects (Frisari & Messervy, 2021). The governments of Colombia and Mexico as well have also set aside significant SI funding to focus on the transportation sector (Frisari & Messervy, 2021). As a leader in promoting more sustainable transportation, the government of Brazil developed an initiative for USD 33 billion of investment in the transportation sector (Frisari & Messervy, 2021). In the city of São Paulo, the city has set the goal to utilize 2,600 e-buses by 2024, while eliminating all buses that run on diesel fuel and reducing their pollutant emissions by 50% in 2028 (Riedemann, 2023). Overall, there is much need and simultaneously much action being taken to explore opportunities in investment in sustainable transportation systems.



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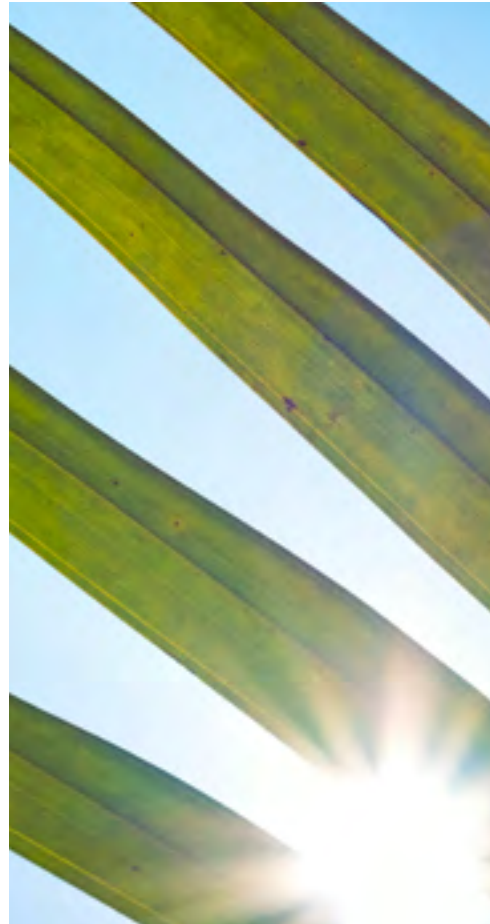


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The SIDF becomes all the more relevant in terms of ensuring investment with the greatest potential impact in terms of sustainability.

As the region becomes more globalized, improvements to the logistics sector become crucial to ensure a smooth and effective flow of goods and services along the supply chain. Therefore, taking sustainability into consideration is necessary to ensure that logistics operations work in favor of meeting SDGs instead of deviating or delaying countries' progress.

Working in unison with other economic sectors (i.e., transportation and services), sustainable tourism proves to be a sector that can greatly benefit from investment in sustainable infrastructure. While the World Travel and Tourism Council estimated that the travel and tourism industry accounted for 10.2% of GDP in the Latin America and Caribbean region in 2020, infrastructure gaps still limit provision of tourism services to its fullest potential (Hillyer, 2020). Additionally, based on the 2021 Travel & Tourism Index, economic recovery post-pandemic becomes more challenging for small and medium-sized enterprises as they cannot meet the investment needs to make infrastructure improvements on their own (World Economic Forum, 2022). Investment into SI can future support the tourism sector in Latin America and the Caribbean to recover and thrive, while preserving the environmental and social integrity that is culturally essential for the region.

With measurable efforts being taken throughout the region in promoting SI in a variety of sectors, private investments such as the SIDF have become essential and preferred for furthering advancements in environmental and social development while ensuring that financial performance goals are met.



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# Investment Criteria

## ELIGIBILITY CRITERIA TO BE APPLIED

The partnership will focus on sustainable infrastructure projects that meet the following eligibility criteria:

Portfolio	Main Structure	Type of Instruments
Diversified portfolio of direct private middle-market sustainable infrastructure loans focused on <b>Latin America and the Caribbean</b> .	Secured project finance infrastructure projects and highly structured corporate finance loans.	Senior secured and subordinated/mezzanine facilities.

**Instruments**

Mezzanine Investments, without excluding other similar type of products, shall include subordinated loans, project holding company loans, any type of mezzanine loans that could be issued with IOD or PIK elements, mezzanine loans that could have enhanced return mechanisms such as warrants, additional interest in form of an EBITDA percentage participation, or other types of “equity kickers”. Senior Secured Loans that might have a return enhancement mechanism shall not be considered as subordinated or mezzanine debt products. Subordinated loans shall be subject to a five-year make whole amount prepayment penalty for the Partnership to attain projected returns on such instruments.

Diversification	Rating	Term
<b>Minimum of 10 deals.</b> Single maximum exposure per Project of 15% of Actively Invested Capital.	The Partnership will aim for a portfolio composition of approximately <b>B+</b> .	Loan maturities up to <b>18 years.</b>

Main Type of Projects	Cap
<b>Participation in greenfield and brownfield</b> (expansion) infrastructure projects up to 100% of Available Capital (“greenfield” includes Projects operating for less than 12 months).	Maximum 30% of Available Capital for subordinated/mezzanine facilities.
	Refinance infrastructure projects up to 30% of Available Capital.

## Sectors

All percentages are with respect to Available Capital, except as otherwise stated:

**Renewable energy, no less than 50%**  
of Actively Invested Capital by the third anniversary of the Initial Closing.

**Up to 50%**

- Telecommunications.
- Transport & Logistics.

**Up to 20%**

- Smart Cities.
- Construction.
- Leisure and Recreation.
- Healthcare.
- Education.
- Water and Sanitation.
- Waste Management.

**Projects in the following sectors are excluded:**

- fossil fuels (coal, crude oil and natural gas),
- hydropower projects over 25MW and
- carbon intensive projects (high carbon footprint;  $\geq 25,000$  tCO<sub>2</sub> e per year). \*In addition to CIFI’s Exclusion list.

## Collateral

The loans will generally be collateralized through the following, among others:

- corporate assets;
- cash;
- multi-jurisdictional corporate guarantees; and/or
- cash flows (project finance)

Loans may also be secured with personal guarantees, personal cash, and personal assets, among others.

## Country limits

**Maximum 30% of Available Capital**

for subordinated/mezzanine facilities.

## Sustainability Standards

- The International Finance Corporation’s Performance Standards on Social & Environmental Sustainability, dated January 1st, 2012,
- ILO Fundamental Conventions (the ILO Basic Terms and Conditions of Employment, and provision on violence and harassment prevention),
- The Environmental, Health, and Safety Guidelines and Industry Sector Guidelines for General from the World Bank Group (April 30th, 2007), and
- the Equator Principles IV dated June, 2020.

## PROJECT SELECTION CRITERIA

The projects selection criteria involve a combination of factors including financial, technical, and sustainability. The project must adhere to the Sustainability Policy of the Fund, cannot be listed in the prohibited activities, must meet the sustainability conditions to apply for each sector and subsector, and be conducted in a way that contributes to positive and measurable social and environmental gains, including alignment with the Paris Agreement and the Sustainable Development Goals.

The current portfolio is comprised by four solar energy projects meeting all the conditions to apply, specifically determined for the Energy Sector, Renewable Energy Subsector.

### Social Infrastructure Sectors



EDUCATION



ECOTOURISM



TELECOMMUNICATION

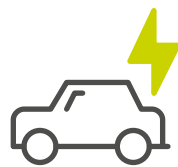


SMART CITIES



HEALTH

### Environmental Infrastructure Sectors



EVs



LOGISTICS



RENEWABLE ENERGY



WASTE MANAGEMENT



ENERGY STORAGE



ALTERNATIVE FUELS



WATER AND SANITATION



### Sustainability

- Critical infrastructure that supports human wellbeing.
- Design, construction, and operation of assets that do not diminish social, economic, and environmental processes.
- Carefully selected projects that align with our vision and support sustainable development.
- Mainstreaming Gender Equality, Human Rights, and Climate Change as part of our assessment to qualify for the Fund.



### Infrastructure

- Direct Lending provides secured transactions.
- Strong capital preservation mechanisms.
- Amongst the highest recovery rate of any asset class.
- Low volatility and correlation with other financial markets.
- Adequate risk-adjusted returns.



### Risk Management and Impact Investing

- Follows the risk management framework of the Equator Principles and IFC Performance Standards for Sustainability.
- Measurable impact towards the Sustainable Development Goals.
- Climate Investments supporting the transition to a low carbon economy.
- Offers full transparency and accountability through TCFD framework for climate related risks.

The General Partner will adhere to the Sustainability Policy set out in the E&S Management System, including the following:

POLICIES	SUSTAINABILITY STANDARDS
<ul style="list-style-type: none"> <li>■ ESG Policy</li> <li>■ Climate Change Policy</li> <li>■ Human Rights Statement</li> <li>■ Gender Equality Policy</li> <li>■ External (EGM) and Internal (IGM) Grievance Mechanisms</li> <li>■ Exclusion List</li> </ul>	<ul style="list-style-type: none"> <li>• The Equator Principles (EP), version IV.</li> <li>• The International Finance Corporation's Performance Standards on Environmental and Social Sustainability.</li> <li>• World Bank/IFC Environmental Health and Safety (EHS) Guidelines.</li> <li>• The United Nations Guiding Principles on Business and Human Rights.</li> <li>• ILO Fundamental Conventions.</li> <li>• National Laws and Regulations affecting Environmental, Social, and Labor matters.</li> </ul>

## GENERAL PARTNER EXCLUSION LIST

The partnership shall not provide any loans, either directly or through participations, or through purchase of existing loans, to any project or company that is engaged in any of the following activities:

- 1** Production or trade in any product or activity deemed illegal under host country laws or regulations or international conventions and agreements, or subject to international phase-out or bans, such as pharmaceuticals, pesticides/herbicides, ozone depleting substances, PCBs, wildlife or products regulated under the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).
- 2** Production or trade in weapons and munitions<sup>(1)</sup>.

- 3** Production or trade in alcoholic beverages (excluding beer and wine)<sup>(1)</sup>.
- 4** Production or trade in tobacco<sup>(1)</sup>.
- 5** Gambling, casinos and equivalent enterprises<sup>(1)</sup>.
- 6** Production or trade in radioactive materials<sup>(2)</sup>.
- 7** Production or trade in unbonded asbestos fibers. This does not apply to purchase and use of bonded asbestos cement sheeting where the asbestos content is less than 20%.
- 8** Drift net fishing in the marine environment using nets more than 2.5 km. in length.
- 9** Production or activities involving harmful or exploitative forms of forced labor<sup>(3)</sup>/harmful child labor<sup>(4)</sup>.
- 10** Commercial logging operations for use in primary tropical moist forest.
- 11** Production or trade in wood or other forestry products other than from sustainably managed forests.
- 12** Such other projects as the Company shall determine are inconsistent with its policies and objectives.
- 13** Cross-border trade in waste and waste products, unless compliant with the Basel Convention and the underlying regulation.
- 14** Destruction<sup>(5)</sup> of High Conservation Value areas<sup>(6)</sup>.
- 15** Pornography and/or prostitution.
- 16** Racist and/or anti-democratic media.



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1. This does not apply to project sponsors who are not substantially involved in these activities. "Not substantially involved" means that the activity concerned is ancillary to a project sponsor's primary operations. For companies, "substantial" means more than 10 % of their consolidated balance sheets or earnings. For financial institutions and investment funds, "substantial" means more than 10% of their underlying portfolio volumes.

2. This does not apply to the purchase of medical equipment, quality control (measurement) equipment and any equipment where CIFI considers the radioactive source to be trivial and/or adequately shielded.

3. Forced labor means all work or service not voluntarily performed that is extracted from an individual under threat of force or penalty.

4. Harmful child labor means the employment of children that is economically exploitive, or is likely to be hazardous to, or to interfere with, the child's health, or physical, mental, spiritual, moral, or social development.

5. Destruction means the (1) elimination or severe diminution of the integrity of an area caused by a major, long-term change in land or water use or (2) modification of a habitat in such a way that the area's ability to maintain its role is lost.

6. High Conservation Value (HCV) areas are defined as natural habitats where these values are considered to be of outstanding significance or critical importance (See <http://www.hcvnetwork.org>).



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## FOSSIL FUEL EXCLUSION LIST

- 1** Coal prospection, exploration, mining, or processing.
- 2** Oil exploration or production.
- 3** Stand-alone fossil gas exploration and/or production <sup>(7)</sup>.
- 4** Transport and related infrastructure primarily<sup>(8)</sup> used for coal for power generation.
- 5** Crude Oil Pipelines.
- 6** Oil Refineries.
- 7** Construction of new or refurbishment of any existing coal-fired power plant (including dual).
- 8** Construction of new or refurbishment of any existing HFO-only or diesel-only power plant<sup>(9)</sup>. Producing energy for the public grid and leading to an increase of absolute CO<sub>2</sub> emissions<sup>(10)</sup>.
- 9** Any business with planned expansion of captive coal and oil (excluding gas) used for power and/or heat generation <sup>(11)</sup>.

7. Gas extraction from limnically active lakes is excepted from this exclusion.

8. "Primarily" means more than 50% of the infrastructure's handled tonnage.

9. For indirect equity through investment funds, investments (up to a maximum of 20% of the fund) in new or existing HFO-only or diesel-only power plants are allowed in countries that face challenges in terms of access to energy and under the condition that there is not economically and technically viable gas or renewable energy, alternative.

10. Where energy efficiency measures do not compensate any capacity or load factor increase.

11. This does not apply to coal used to initiate chemical reactions (e.g., metallurgical coal mixed with iron ore to produce iron and steel) or as an ingredient mixed with other materials, given the lack of feasible and commercially viable alternatives.

# Our Partners

## LIMITED PARTNERS



**Prival Bank S.A.** is a financial institution founded by long-standing businesspeople and bankers who identified in the Central American market the need for a personalized banking service for important clients in the region (Prival Securities, 2024). It has presence in Panama and Costa Rica.



**Triodos** is a globally active impact investor who sees impact investing as a driving force in the transition to a more inclusive and sustainable world (Triodos, nd).



**MMG Bank Corporation** is a financial and strategic advisory firm for institutional and private clients that holds a general, brokerage house and fiduciary banking license, with an active brokerage position in Panama and a presence in The Bahamas (MMG Bank, 2023).



**Norfund** is the Norwegian Investment Fund for developing countries. Its mission is to create jobs and to improve lives by investing in businesses that drive sustainable development (Norfund, nd). Norfund is owned and funded by the Norwegian Government and is the Government's most important tool for strengthening the private sector in developing countries, and for reducing poverty (Norfund, nd).



**Prival Bond Fund S.A.** works as a closed firm that utilizes a 100% fixed income strategy, focused on investment within Panama and Central America (Prival Securities, 2020). They seek to facilitate sustainable cash flows offering stability and higher returns.

## LENDERS



**DEG** is a reliable partner to private-sector companies and financial service providers operating in developing markets (DEG, 2024a). Customers are mainly based in developing and emerging-market countries as well as in Germany and other industrialized nations (DEG, 2024a). Since 2001, it has been a subsidiary of KFW. They reach private enterprises in developing countries in two ways: One way is to finance them directly with loans and equity investments (DEG, 2024b). The other is to invest in local banks and financiers, which in turn supply mainly small and medium-sized enterprises (SMEs) on the ground with financing (DEG, 2024b). As a development finance institution, DEG brings a unique advantage with specialized solutions for companies, loans, and equity investments.



**OeEB** serves as the investment bank overseas in developing countries and emerging markets and is based in the Republic of Austria (OeBD, 2024). Through providing capital, both credit and equity, to companies that lack financial resources, OeEB provides economic growth opportunities for communities where it is most needed around the globe (OeBD, 2024).

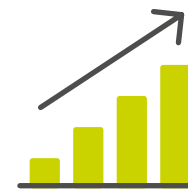


**Proparco** is the private sector financing arm of Agence Française de Développement Group (AFD Group). It has been promoting sustainable economic, social, and environmental development for over 45 years. Proparco provides funding and support to both businesses and financial institutions in Africa, Asia, Latin America, and the Middle East. Its action focuses on the key development sectors: infrastructure (mainly for renewable energies), agribusiness, financial institutions, health, and education (Proparco Groupe AFD, nd). Its operations aim to strengthen the contribution of private players to the achievement of the Sustainable Development Goals (SDGs) adopted by the international community in 2015.



**finnfund** is a development financier and impact investor that builds a sustainable future and generates lasting impact by investing in businesses that solve global development challenges. They provide businesses operating in Africa, Asia, and Latin America with risk capital, long-term investment loans, mezzanine financing and expertise on how to invest in the developing markets (Finnfund, 2024). They invest only in developing countries as defined by OECD/DAC. They expect projects to be profitable, socially and environmentally responsible, and produce measurable development impact in their target countries.

## Initial Closing Completed in June 2023



On June 23<sup>rd</sup> 2023 the LP's signed Subscription Agreements and LPA



On July 28<sup>th</sup> 2023 the lenders signed TFA



**USD 126 million**

TOTAL AMOUNT CLOSED



**USD 63 million**

TOTAL AMOUNT LPs



**USD 63 million**

TOTAL AMOUNT LENDERS

### LIMITED PARTNERS

Prival Bond Fund S.A.	USD 10 million
Pival Bank S.A.	USD 10 million
Norfund	USD 20 million
Triodos	USD 5.6 million
MMG Bank Corp.	USD 1.0 million
CIFI LP	USD 15 million
CIFI GP	USD 1.5 million

### LENDERS

DEG	USD 16.8 million
OeEB	USD 15.8 million
Proparco	USD 16.8 million
Finfund	USD 12.8 million

## METRICS TO MEASURE REAL IMPACT

Once the sector, subsector, and eligibility criteria to apply were defined for each feasible, sustainable financing opportunity, it was important for CIFI to define how to measure and prove the sustainability of each project. Thus, establishing proper indicators is crucial to closely tracking the progress of a project, quickly identifying and addressing the impact of the investment, and timely improving a project's management and to obtain better results.

The projects financed in 2023, belong to the energy sector and the renewable energy subsector, powered by solar photovoltaic energy projects. The indicators defined for renewable energy projects, are composed by four leading indicators:

- i. installed capacity
- ii. energy generation
- iii. tCO<sub>2</sub>e emissions avoided, and
- iv. number of people benefited from access to clean energy.

Additional impact indicators can be measured, according to data availability and the investment's impact, location, or disclosure allowance of information: number of households benefited from renewable energy generation, revenue generated (USD), percentage of electricity generation increased, number of Municipalities benefited from renewable energy projects, and percentage of growth in renewable energy in the energy matrix.

The data to measure impact indicators is obtained from reports that all clients must deliver on a quarterly and annual basis. The reports are either prepared by the client or a third-party E&S consultant. This is an obligation defined in the loan agreement.

Something to highlight is that for the definition of the four main indicators, all projects are required to present information on Installed capacity (MW) and Energy generation (MWh) on a quarterly basis. With this information, and using internal tools under CIFI's ESG policies, both the number of tons of tCO<sub>2</sub>e avoided and the number of people who benefited from access to clean energy are calculated internally using reliable GHG emission and energy consumption factors/indexes for each country.

Photo by Robert Collins on Unsplash



## FUND'S PORTFOLIO AS OF JANUARY 2024



### Monte Plata / Dominican Republic

SOLAR POWER

Total Project Cost  
**USD 97.3 MM**

Total Debt **USD 57.9 MM**      SIDF Amount Invested **USD 18.9 million**      Tenor **16 years**

### OEnergy/ Chile

SOLAR POWER

Total Project Cost  
**USD 85.3 MM**

Total Debt **USD 63.8 MM**      SIDF Amount Invested **USD 14.4 million**      Tenor **16 years**

### Origo/ Brazil

SOLAR POWER

Total Project Cost  
**USD 24.8 MM**      Total Debt **USD 19 MM**

SIDF Amount Invested **USD 12.7 million**      Tenor **12 years**

### AXS/ Brazil

SOLAR POWER

Total Project Cost  
**USD 52.5 MM**      Total Debt **USD 31.3 MM**

SIDF Amount Invested **USD 17.6 million**      Tenor **16 years**

# Portfolio of Investments

CIFI's Policy Framework incorporates the policies, plans, and standards adopted to advance its commitment to sustainability regarding internal governance as well as those that are specifically applicable to its procedures for screening, assessment, and approval of projects for potential funding.

Accordingly, CIFI has fully incorporated an Environmental and Social Management System (ESMS) into its investment cycle founded upon its Environmental, Social, and Governance (ESG) policy commitments, performance standards enunciated in the latest version of the Equator Principles (EPs), and the Performance Standards on Environmental and Social Sustainability of the International Finance Corporation 2012 (IFC PS). Through the ESMS, CIFI seeks to ensure the projects it finances rest on sound, equitable environmental and social systems that contribute to sustainable growth in Latin America and the Caribbean.

The SIDF Sustainability Report assesses CIFI's environmental and social performance and compliance with its Environmental and Social Management System and the SIDF requirements for the 2023 fiscal year (January through December).

CIFI prepared this report internally as a self-assessment of alignment with its policies, the SIDF requirements, and to identify opportunities for continuous improvement and effectiveness in E&S risk management. This section provides the annual individual review of the E&S performance of the SIDF-financed portfolio for 2023. Information on the results of the E&S assessment, as well as the level of completion of the E&S Action Plan, and ESMS implementation, is presented for each project.

As of January 2024, the SIDF-financed portfolio comprised 4 projects: Origo, Monte Plata, AXS and oEnergy. CIFI was the mandated lead arranger in 3 projects (except Monte Plata) and was assisted by external consultants to conduct Environmental and Social Due Diligence (ESDD) in all of them.

The review presented in this report is based on available documentation for each project, site visits, and communications with CIFI's stakeholders, including but not limited to the following:

**Due Diligence Assessment**

**CIFI's ESG Questionnaire**

**Environmental and Social Impact Assessments**

**Environmental and Social Management System**

**Environmental and Social Due Diligence Reports Monitor and Compliance**

**Environmental and Social Action Plans and Corrective Action Plans**

**Executed Loan Agreement**

**Annual Monitoring Report**

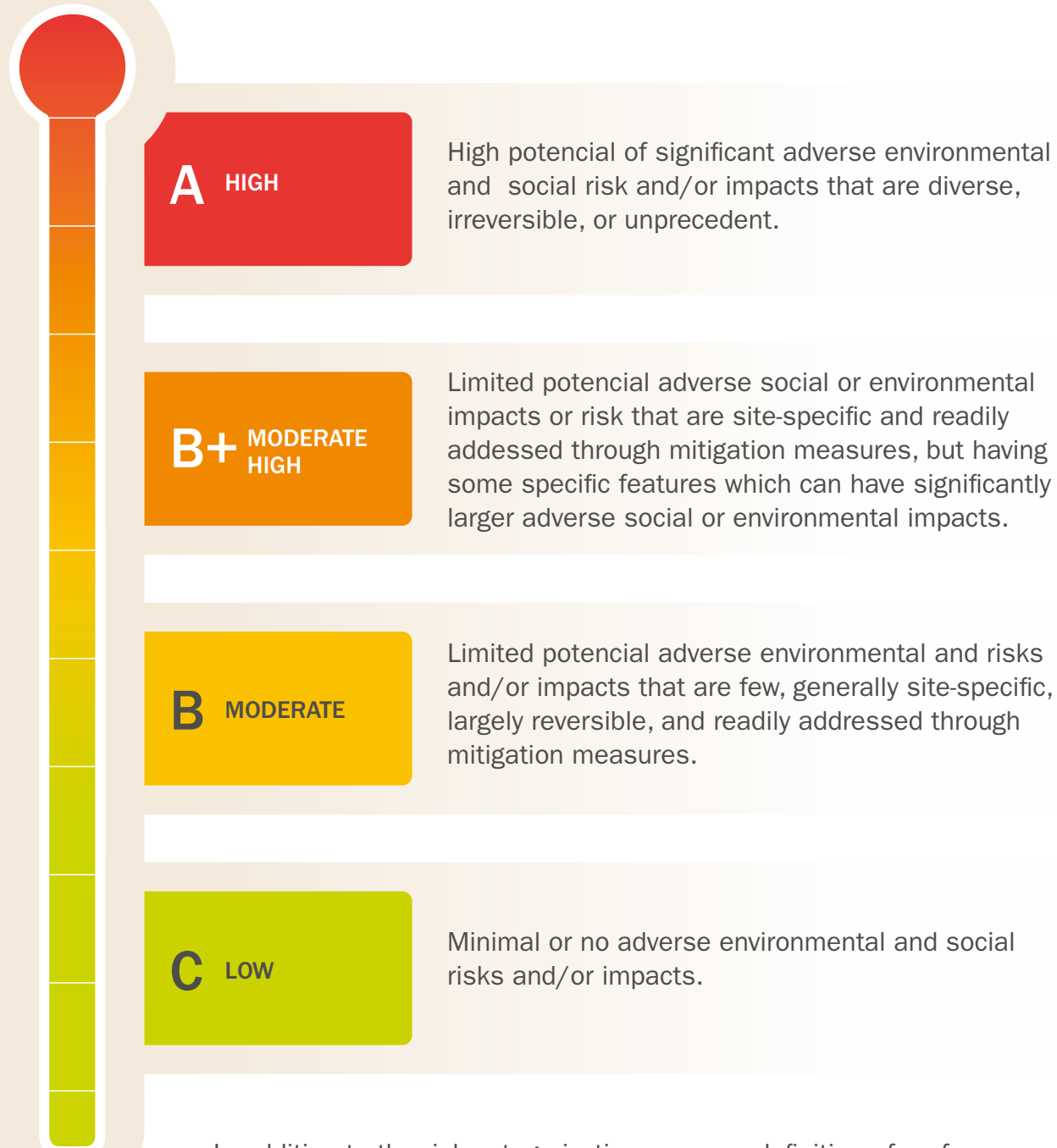
**Incident notifications (if applicable)**

Any social, labor, health and safety, security or environmental incident, accident, or circumstance that has had, or that could reasonably be expected to have, a Material Adverse Effect or material adverse impact in the project in accordance with the E&S Requirements or on the environment, the health, safety, and security situation, or the social and cultural context.



## CATEGORIZATION

Risk categorization of projects is defined by International Standards (A, B+, B, and C) in accordance with our Risk Scoring System (proprietary of CIFI) prior to the credit committee and confirmed during the Environmental and Social Due Diligence.



In addition to the risk categorization, our own definition of performance in portfolio is defined by **Tiers (I, II, ES Watchlist, and III)**.

	Definition	Level of Compliance
<b>Tier I</b>	The borrower is executing E&S requirements as per the loan agreement including but not limited to the environmental and social action plan, national regulations, reporting obligations, excluded activities, and following IFC performance standards and Equator Principles requirements as applicable.	<b>Full compliance</b> with E&S requirements.
<b>Tier II</b>	The borrower has experienced difficulties or delays in executing E&S requirements as per the loan agreement including but not limited to increased incidents, changes in local conditions, construction delays, unforeseen events, or limited organizational capacity.  Additional mitigation measures or requirements may apply until compliance is fully achieved.	<b>Partially in compliance</b> with E&S requirements.
<b>Watchlist</b>	The borrower has not been able to redirect its efforts towards acceptable compliance with its E&S obligations or has increased the level of risk due to social or environmental impacts mismanagement.  Additional mitigation measures, requirements or penalties will apply until compliance is acceptable or the risk level is reduced. After improvements, a cure period will be enforced before upgrading to Tier II.	Limited or reduced compliance with E&S requirements.
<b>Tier III</b>	The project is in E&S default, which might result in credit default, and transfer to the Credit Risk Officer and General Counsel to take the appropriate measures.	<b>Non-compliance</b> with E&S requirements.

As of December 2023, **100% of the SIDF-financed portfolio was Tier I**, demonstrating good performance.



# IMPACT FROM OUR INVESTMENTS

LIGHT COLOR EXPECTED    DARKER COLOR FY2023



INSTALLED CAPACITY (MW)



MWH/YEAR PRODUCTION



TCO<sub>2</sub>e/AVOIDED EMISSIONS



ACCESS TO ENERGY (PEOPLE)

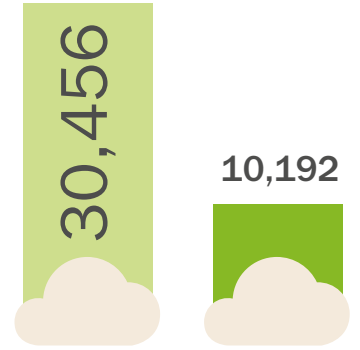
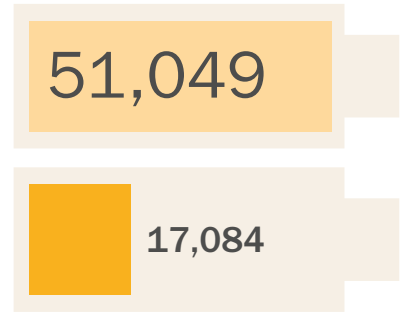
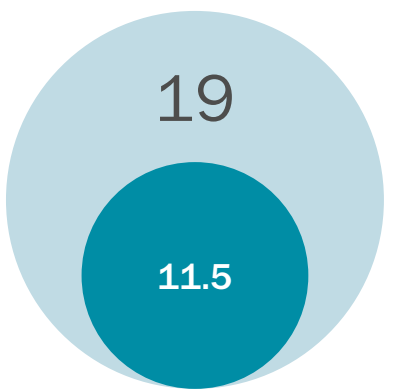


EMPLOYMENT

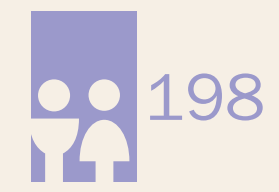
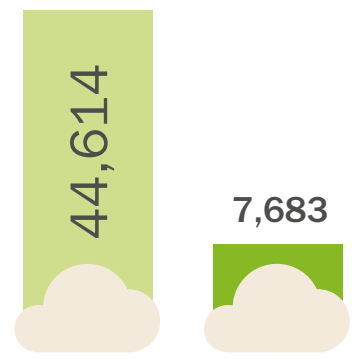
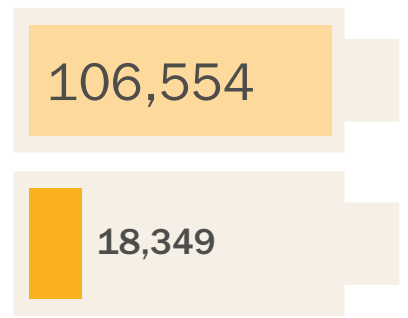
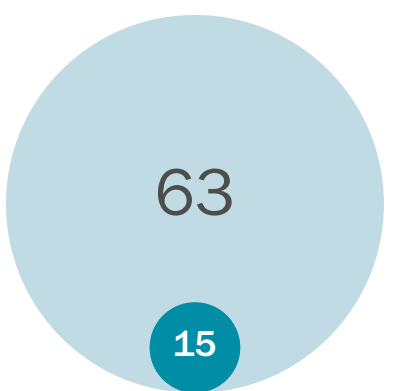


FEMALE EMPLOYMENT

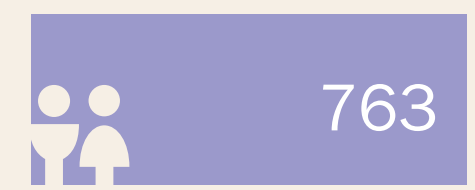
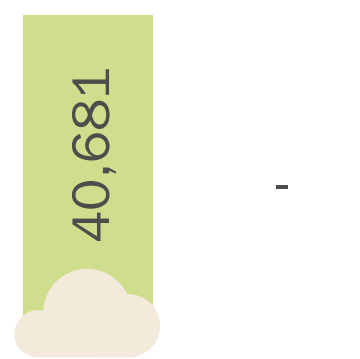
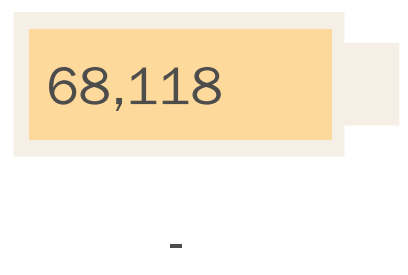
Origo / Brazil



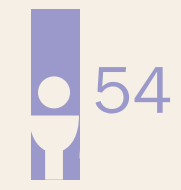
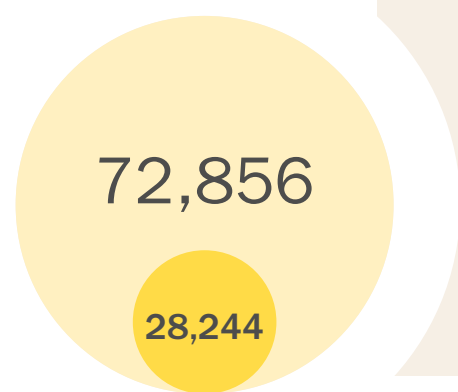
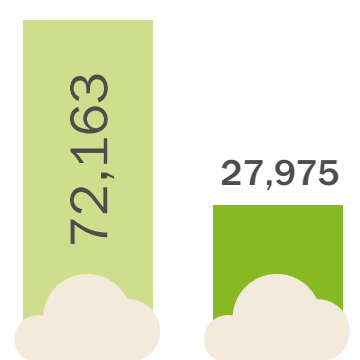
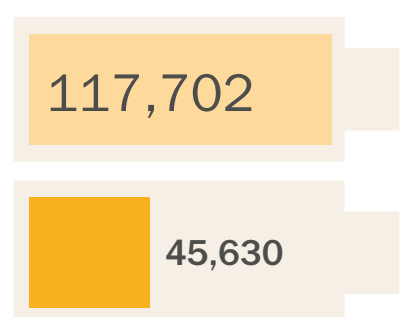
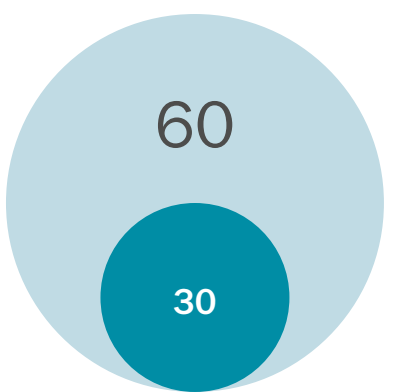
oEnergy / Chile



AXS / Brazil



Monte Plata / Dominican Republic





# oEnergy

oEnergy Holding SpA, the parent company of Pingüino Emperador SpA, is a Chilean business group seeking to transform Chile's energy matrix by developing, constructing, and exploiting Distributed Energy Resources. oEnergy was founded in 2013 to originate high-growth and niche investment opportunities in the Chilean energy market and, in December 2023, celebrated its 10th anniversary. As they continue to expand in production, the company provides substantial contributions both to local communities and to the country's national renewable energy security.

Country	Chile	
Location	Various locations	
Sector	Solar Power	Borrower
		Pingüino Emperador SpA.
Role	Mandated Lead Arranger	
Investment Amount	<b>US\$ 63.8MM</b> US\$ 15.4 MM from SIDF US\$ 14.4 MM from CIFI US\$ 4.0 MM from Triodos US\$ 30.0 MM from CAF	
Total Project Cost	<b>US\$ 83.5MM</b>	
Financial Product	Project Finance	Financial Closure
		June 2022
E&S Category	B	Use of proceeds
		Portfolio of 24 small PMGD photovoltaic projects

In Chile, a Small Medium of Distributed Generation (PMGD) project corresponds to a generator whose power surpluses are less than or equal to 9 MW and connected to the facilities of the National Electrical System, precisely to a medium voltage network of a Distribution Company, and in some cases to facilities of a company that owns electrical energy distribution lines that use national assets for public use. Thus, oEnergy specializes in developing, constructing, operating, maintaining, and exploiting electricity generation projects based on non-conventional renewable energies and is currently experiencing solid growth of PMGDs in Chile, with an array of 44 solar plants in operation, 14 in construction, and 21 under development.

## Sustainability Rationale

The PMGDs projects of oEnergy are accomplished with the eligible sector and subsector of the SIDF. So far, all plants in CIFI's portfolio have an installed capacity of 3MW each. By the end of 2023, 24 photovoltaic plants passed through a thorough ESDD and 12 have financial resources disbursed, i.e., Bandurrias, Jotes, Pichón, Turpial, Pelicano, San Isidro, Jaururo, Becacina, Albatros, Loicas, Jilguero, and Canelillo, of which all are operating.

The PMGDs have proven to have the capacity to contribute to the development of the country, not only by creating jobs and increasing opportunities for numerous local small and medium-sized companies (SMEs) that support the entire chain of a project, but also by having a lower social and environmental impact and closer proximity to citizens, efficiently contributing to the country's sustainable energy supply, energy transition, and decarbonization.

In 2022, the total energy generated by 5 operating photovoltaic plants was 18,349 MWh, representing 7,683 tCO<sub>2</sub>e emissions avoided and benefiting 4,729 people with clean energy. Other benefits beyond renewable energy metrics correspond to the avoidance of impacts on transmission and distribution infrastructure, reduction of electrical losses, reinforcement of distribution networks, improvement in the quality of energy services, and reduction of marginal costs, all greatly benefiting the country's economy and sustainability.



## Sustainable Investment in Action

Shepherding, agriculture, and community are key elements of sustainable development for oEnergy's photovoltaic plants.

According to the World Economic Forum, sheep are the perfect animal for solar panels. The panels provide the sheep with shelter and allow for food of better nutritional quality, while renewable energy is generated, and optimal use of the land is made. In these so-called agrovoltaic farms, the concept not only involves livestock but also agriculture, and creates a series of additional interactions with nature since the low-intensive grass and size of pastures promote the growth of wildflowers which also attract vital pollinators such as bees.

OEnergy has a small herd of sheep in Tiuque in addition to an innovative fruit production operation combined with solar energy plants in Rancagua. The charming animals belong to oEnergy's neighbors, and cherry cultivation has become the country's first PMGD agrovoltaic project to maximize the agricultural potential of the soil and the excellent climatic conditions for solar energy generation in the nation.



Thus, agrovoltaic plants have enormous benefits for business and the environment. In a study carried out by the World Economic Forum, sheep within a PV plant spent 70% of their time sheltered under solar panels, grazed 8% more than other sheep in open fields, rested 71% more, and the grass was 172% more nutritious, as the panels prevent the grass from drying out entirely and feed the grass with dew. Additionally, sheep can move under the panels without interfering with them, help to prevent weed growth around the panels, do not chew through cables, reduce maintenance costs, control the height of vegetation, contribute to fire prevention, and eliminate associated environmental impacts, including the use of harmful herbicides to eradicate weeds.

In the social sphere, the extra economic benefits for the owners of sheep herds are notable considering that the land has access controls and video surveillance, as well as an approximate operational life span of 20 to 25 years for the solar panels, allowing for protection of their herds and long-term income. Therefore, solar grazing allows local farmers to increase and diversify their income while maintaining their land.



Complementarily, although the commercial prospects for growing crops under panels are still unknown, scientists have come to the agreement that solar gardens are ideal for native grasses and flowers that attract pollinators, many of which are in danger of extinction (DailyNews, associated press. November 2021). The production of cherry trees provides much-needed habitat for bees, butterflies, and hummingbirds. A cherry tree has entomophilous pollination, i.e., the tree requires the action of pollinating insects to transfer pollen grains from one flower to the other; thus, oEnergy has implemented an innovative combination of renewable energy generation and local environmental protection because attracting effective pollinators is decisive for a successful fruit production season in the region. The most common pollinating agent is the bee, which thrives between 15° and 26° C (Redagrícola-Chile, 2023), making solar photovoltaic plants an ideal habitat in terms of temperature.



As additional benefits, a team led by Oregon State University researcher Maggie Graham reported that bees and other insects visit plants covered entirely or partially by panels. They also pollinate crops from nearby fields, increasing their production. Moreover, lands attractive to pollinators would have two-thirds more carbon dioxide storage potential, almost one-fifth less water runoff, and 95% less soil erosion than lands with traditional crops (DailyNews, associated press. November 2021).

Consequently, all these benefits of combining sheepherding, agriculture, and shared community prosperity are essential for expanding solar energy while optimizing productivity and efficiency. Collaborative efforts between the public, private sectors, and local communities are essential to advance toward a regulatory framework that allows the development and mass construction of these sustainable projects involving a more equitable socioeconomic model.

# Performance

According to CIFI's ESG Policies, based on IFC's Policy on E&S Sustainability (January 2012), the Project oEnergy is a Category B Project (medium risk). CIFI, from December 2021 until September 2023, has executed the correspondent ESDD of 24 photovoltaic projects divided up into six groups. The first group included the photovoltaic plants Bandurrias, Jotes, and Pichón. The second group included the plants Turpial, Pelícano, Caití, San Isidro, and Jaururo. The third group incorporated the plants Becacina, Albatros, Jilguero, and Quintrala. The fourth and fifth groups included the plants Halcon, Canelillo, Loica, Ñandú, Fito 3, Loro tricauche, Cotorra, Chapin and Chilca, and the sixth group included Gaviotas and Tiuque.

The Environmental Assessment Service (SEA) has authorized all projects through a pertinence letter. All applicable sectorial permits for those plants already constructed or in construction have been obtained for each correspondent phase. However, some plants that have not yet started construction have additional operational and sectorial permits still pending from public authorities. The Projects' applicable IFC-PS are PS1 (E&S risk and impacts management), PS2 (labor and working conditions), PS3 (resource efficiency and pollution prevention), PS4 (community health, safety, and security), PS6 (biodiversity conservation), and PS7 (indigenous peoples).

CIFI, from December 2021 until September 2023, has executed the correspondent ESDD of 24 photovoltaic projects divided up into six groups.



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

The company has a corporate Environmental, Health, Safety, and Social Policy and has implemented a Corporate Environmental and Social Management System aligned with the IFC Performance Standards. Additionally, they have updated the environmental and social risks and impacts assessment for all plants, developed the internal regulation on labor matters including gender-related factors, identified areas of direct influence, grievance mechanism, chance-find-procedure, and appropriate emergency and contingency plans are in place for each solar photovoltaic plant.

Social participation processes have been reinforced through field visit interviews and disclosure of the project with neighbors and other relevant stakeholders. All lease contracts and payments for each plant are up to date, and no plant required involuntary resettlement except for a small portion of land without dwellings for a transmission line (700 m) in Cotorra, which was granted without affecting any housing. All disbursed plants' ESAPs are 100% accomplished. Regarding the additional ESAPs, their activities are being carried out according to the timeframe established and the state of each plant's construction progress.

Regarding potential physical risks associated with the Climate Change Scenarios of the oEnergy-SPVs (e.g., water scarcity, prolonged droughts, potential fires, dust generation, soil erosion), which could affect the performance, maintenance, and operation of the photovoltaic panels, OEnergy has incorporated these risks and developed mitigation measures in the Environmental Management Plans of the Company, including measures to avoid potentially adverse

financial consequences of severe and moderate droughts and considering that the number of extremely hot days and dry spells projected to 2040 for a low-emission scenario is increasing.

Therefore, for minimizing water consumption, oEnergy has incorporated a biodegradable dust suppressor to avoid generating particulate matter by vehicle traffic and has prevented fuel generators by promoting the use of mobile photovoltaic systems.

Until now, the ESMS has had a substantial improvement in 1) Stakeholders identification and their involvement in drills of emergency preparedness and response, 2) KPIs monitoring and review, 3) management of field records, 4) GHG estimated emissions calculation, 5) forest management plans execution (approved by the CONAF), 6) grievance mechanism dissemination records, and 7) waste management records.

No internal or external grievances, sanctions, fines, accidents, or disputes occurred during the reporting period, and KPIs are measured through the Internal Audit and Monitoring procedure.

## Labor and Working Conditions

oEnergy developed a Human Resources Policy, Occupational Health and Safety plans and procedures, as well as an Internal Regulation of Order, Hygiene, and Safety, registered with the Ministry of Health (SEREMI). These policies provide workers with documented, clear, and understandable information regarding their rights in accordance with national labor legislation. In addition, specific considerations are included on non-discrimination, the right to equal opportunities for workers with disabilities, no retaliation in reporting or raising a concern when they observe or suspect illegal, improper, or unethical conduct; workplace harassment, sexual harassment, the right to unionize, and dismissals. No gaps have been identified in the accomplishment of labor standards and it must be noted that during the operational phase, no workers are required since the plants are managed remotely from the Santiago de Chile office. Eventually, personnel will be on-site for maintenance work and panel cleaning.

The company has a special regulation for contractors and subcontractors which seeks to establish the rules and actions for the coordination of preventive activities with the workers of contractors and subcontractors that perform activities inside and outside oEnergy's facilities. Nevertheless, as an opportunity for improvement, it has been identified that the procedure should include auditing of contractors and suppliers to ensure compliance with oEnergy standards. In addition, for the acquisition of solar panels, the company is implementing a procedure focused on panels' suppliers to prevent the acquisition of panels from companies that are internationally questioned for practices that violate Human Rights and ensuring the source from the bankability (BNEF) Tier-1 list. The future risks include e-waste management and the replacement of panels.



## Resource Efficiency and Pollution Prevention

According to the type of project, the use of water resources will not be affected, since the water necessary for the sanitary facilities is supplied by a sanitary company with authorization, the drinking water provided by drums, and the industrial water supplied by authorized suppliers. oEnergy has specific procedures and records for water use, waste management, and emissions management. In addition, the company has a Waste Management plan at the corporate level, and site-level actions for construction or operational phases include, as appropriate, the implementation of a hazardous solid waste warehouse (RESPEL), where hazardous waste and obsolete solar panels have been stored, and a collection yard for domestic solid waste (RSD) and non-hazardous industrial solid waste (RSINP). Since the plants are relatively new, the solar panel waste has been negligible and partially reclaimed from equipment guarantees; in the near future, oEnergy will identify certified e-waste managers since currently just one manager, PAÑIWE, offers their research services for granting sound environmental management of solar panels considering all their components' proper recycling or final disposal. Nonetheless, upon accomplishment of national legislation, the company has already established procedures regarding the final disposal of non-hazardous and hazardous solid waste in authorized sites and observing authorized waste managers.

Regarding greenhouse gases, due to the nature of the Project (photovoltaic energy as a renewable energy source), the use of vehicles with solar panels to support power during construction and the operating characteristics of the PV plants, emissions of particulate matter and GHGs into the atmosphere are only relevant during construction. Nevertheless, oEnergy calculates the tCO<sub>2</sub>e emissions or avoided emissions associated with each SPV's construction and operation phases.

On the other hand, the potential physical risks associated with the climate change scenarios of the study area (e.g., water scarcity, prolonged droughts, potential fires, dust generation, soil erosion) of the SPVs have been prevented by oEnergy, including measures to avoid potentially adverse financial consequences.

## Community Health, Safety, and Security

Considering infrastructure and equipment design and safety, climate change risks have been identified as part of the environmental risk and impact assessment matrix. Regarding security personnel, it is noted that during the operation phase, the projects have a day/night closed-circuit camera surveillance system (CCTV) with illuminators and thermal cameras, which are controlled remotely, and oEnergy has updated the external communication and grievance mechanism, including the guidelines for handling

complaints received regarding security personnel, especially during construction. Also, the company has an Emergency Response Plan (ERP), including procedures and measures to address the potential climate change risks (and extreme weather conditions), and due to the characteristics of the location of the sites, no risks are anticipated due to community exposure to waterborne, water-related, and vector-borne diseases that could result from project activities.

## Biodiversity Conservation and Sustainable Management of Living Natural Resources

oEnergy has an ecosystem services identification procedure and matrix, has identified key biodiversity areas, and has a biodiversity management plan for all the projects. Notwithstanding, it was determined that the projects and their influence area are located mainly in modified habitats due to urban expansion, not adjacent to or close to National Protected Areas, private protected areas, wetlands, or other important areas for protection or conservation, and there is no impact on ecosystem services. Flora and Fauna Baselines were prepared, and no relevant species of flora have been identified in the footprint nor the area of influence of

the PMDGs. The fauna is represented mostly by native birds with no national conservation status and category LC (Least Concern) on the International Union for Conservation of Nature (IUCN) list. Although the European rabbit, *Oryctolagus cuniculus*, which is in category EN (endangered) in the IUCN, was recorded, it has no risk as an endangered species in Chile.

To address biodiversity risks, the measures proposed are predominantly preventive, such as talks to personnel regarding the care of fauna, signage, waste management, and training on fire-related issues.

## Indigenous Peoples

There is presence of indigenous people living in a 2 km radius of the Canelillo Project, in the area considered as an indirect influence area. Therefore, special attention has been applied and follow-up has been oriented to additional sectorial permits, a thorough implementation of the stakeholders' engagement plan, and social participation records. No risk has been identified and currently, the relationship between the Company and the local community is good and the plant's location favors to reduce visual impact, so communities have not had their regular activities or landscape affected.



## Impact metrics

Installed Capacity (MW)  
**63**

MWh/year production  
**106,554**

**44,614**  
tCO<sub>2</sub>e emissions avoided

**27,465**  
people benefited with access to clean energy

\*Expected at full capacity.



**198**  
workers



oEnergy's workforce is composed of 198 workers, of which 14 are female. Main training sessions during the reporting period involved 172 workers and covered topics related to: defensive driving, fauna protection, emergency plan, UV radiation protection, waste management, code of conduct, human resources, gender, E&S policies, EPP, fire extinguisher use, grievance mechanism, excavations and trenches, work at height, and potential archaeological finds, among others.

Several actions related to supply-chain control, noise prevention, signaling installation, and dust control were implemented as well. In addition, around 33.11 tons of nonhazardous waste, 260 kg of hazardous waste, and 125 m<sup>3</sup> of wastewater were properly handled by oEnergy in 2023.

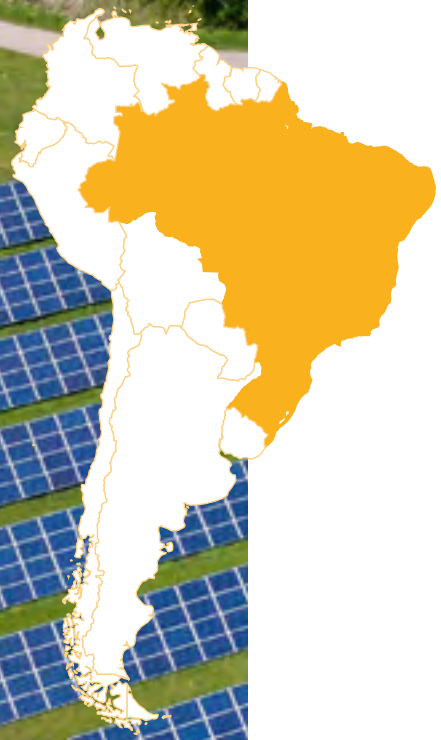
In 2023, the total energy generated by 5 operating photovoltaic plants was 18,349 MWh, representing 7,683 tCO<sub>2</sub>e emissions avoided and benefiting 4,729 people with clean energy. These projected outcomes address the Goals of Affordable and Clean Energy, Sustainable Cities and Communities, Decent Work and Economic Growth, and Climate Action, further exemplifying the long-term potential of prioritizing sustainable investment.





# Origo

EBES Sistema de Energía S.A., operating under the commercial name Órigo Energía, is one of the largest developers of shared solar distributed generation (DG) in Brazil. It has operated for over 12 years in the solar market in Brazil and ~6 years in the DG market, having presence in Minas Gerais, Pernambuco, Ceará and São Paulo, with more than 96 solar farms and ~80,000 retail customers. The Company sells renewable energy to retail consumers at the retail price, while benefiting from certain tax exemptions and subsidies.



Country	Brazil	
Location	Mato Grosso do Sul	
Sector	Solar Power	Borrower
		Ebes Sistemas de Energia S.A.
Role	Mandated Lead Arranger	
Investment Amount	<b>US\$ 19MM</b>	US\$ 12.7 MM from SIDF US\$ 6.3 MM from CIFI
Total Project Cost	<b>US\$ 24.8MM</b>	
Financial Product	Corporate loan	Financial Closure
		October 2023
E&S Category	B	Use of proceeds
		Portfolio of 8 small DG photovoltaic projects

As a leader in development of solar distributed generation in Brazil with over a decade of experience, Origo serves as an example of promoting sustainability through a business model that considers the impact on communities and stakeholders, while developing action plans centered on responsibility towards them. Due to this approach, they have earned an extensive client base and hold a secure platform in the market.

The business model of Origo is called Shared Distributed Generation. Origo gathers multiple retail customers through its own customer and sales acquisition efforts and associate them into the figure of a cooperative. The Cooperative leases PV solar farms from Origo and generates energy for its members. The energy generated by the Cooperative, is distributed through the local distributor “Energisa” to its members proportionally to their participation in the Cooperative, and such energy is discounted from their energy bill. Origo offers an average of a 10% discount to the net energy bill. This is possible due to an incentivized regulation that the Solar Farms in Mato Grosso Do Soul benefit from.

## Sustainability Rationale

Origo’s business practices that focus on impact and risk mitigation meet CIFI’s criteria for sustainability. As a B-certified company, Origo’s projects prioritize the impact on local communities and their economies, as well as that of other project stakeholders and the environment. The 8 projects financed through the SIDF are no exception to this standard and seek to promote the well-being of involved participants through providing access to renewable energy, supporting other industries that rely on such access, and through creating opportunities for employment within the field of solar power operations. Additionally, Origo is expected to produce 51,049 MWh/year of renewable energy, avoiding the output of an equivalent of 30,456 tCO<sub>2</sub>e of GHG emissions. CIFI’s investment in this portfolio contributes to Origo’s success in reducing environmental impacts and contributing to climate change mitigation.

The projects also promote energy independence for the local region, as communities can become less dependent on centralized electrical grids, while allowing more consistent access to energy, diversifying the availability of energy, resulting in communities that are more resilient. Furthermore, the development of distributed generation photovoltaic projects allows for employment generation from the start of the project and construction, all the way through the maintenance phase of its application. CIFI’s criteria for improving access to energy are also met as the projects include underserved populations as recipients, allowing for greater opportunities for business and agricultural development.

## Performance



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Origo’s performance is compliant with the Fund’s ESG requirements, in addition to standards of practice and local regulations. According to CIFI’s ESG Policies, based on IFC’s Policy on E&S Sustainability (January 2012), the project is a Category B Project (medium risk). CIFI conducted an assessment to evaluate the Environmental and Social performance of the 8 projects to be funded. This assessment utilized external support from the consultant firm NINT. When considering the environmental and social impacts of the project, it was identified that Origo has implemented procedures that assess risks, consider environmental impacts and mitigation strategies, address workers’ rights, and operate in accordance with national policy. Additionally, the IFC Performance Standards (Performance Standards triggered 1, 2, 3, 4, and 6), and the United Nation’s Guiding Principles on Business and Human rights were utilized for the basis of assessment.

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CIFI conducted an assessment to evaluate the Environmental and Social performance of the 8 projects to be funded.

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

Origo is currently improving their Environmental and Social Management System, to manage risks more effectively. They are doing so through utilizing a consulting company (ERM) whose staff include roles that focus on environmental and social impact and sustainability to manage related risks and identify mitigation strategies. Origo has undergone the permitting processes, including acquiring environmental permissions from the necessary local authorities for the construction of each of the 8 projects. Per recommendations from the assessment, they will create a legal matrix to ensure legal compliance with national policy for each stage of the projects' implementation.

## Labor and Working Conditions

One of the main ways that Origo ensures proper working conditions are with the recognition of a labor union representing employees. Additionally, the provision of a competitive benefits package, including medical and dental coverage along with a variety of vouchers employees can utilize, goes beyond what is required in national labor policy. Origo developed its Code of Conduct Procedure as well, contemplating the inclusion of policy related to diversity, health, safety, human rights, and efforts to combat corruption. Employees receive ample training, both in technical and behavioral content as well. In recognition of Origo's efforts, the company was certified in 2022 by Great Place to Work (GPTW).

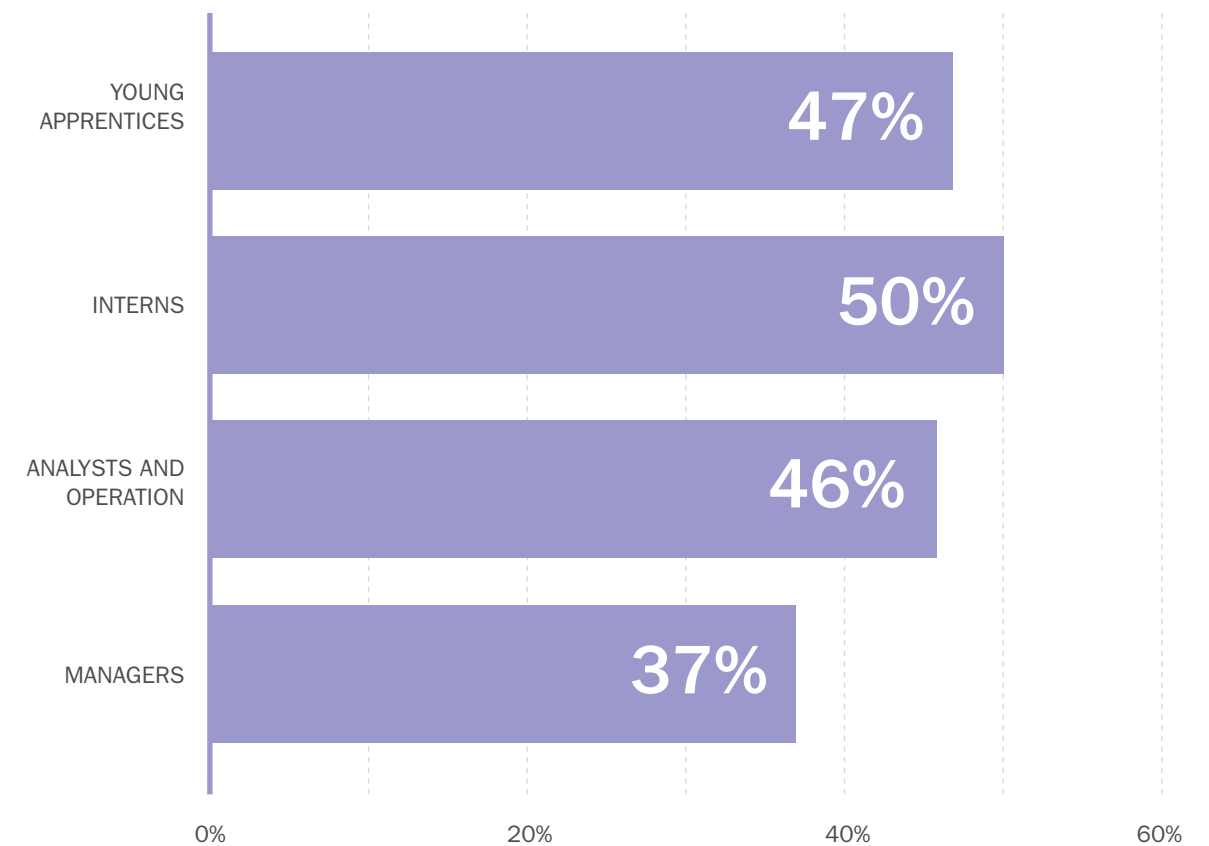
An internal grievance mechanism (GM) that allows for anonymous complaints, is available for the internal employees, third-party companies/employees, and communities members. The complaints can be made

through a website or a phone line, however Origo needs to reinforce and improve the proper communication and implementation of the GM.

As the construction works are in remote areas, the third-party contractors provide accommodation to its employees. Construction workers stay in houses rented, all the houses have a good structure, with appropriate number of beds, bedrooms, and bathrooms, although most of the houses did not have the furniture, as is required by the law. It is necessary to conduct some improvement to comply to this national requirement.

Regarding gender equality, Origo has successfully implemented its gender equality policy and strategy, it currently has a workforce of 809 employees, of which 45% are represented by women, distributed equally at the different levels of the organization.

## Percentage of female jobs



## Resource Efficiency and Pollution Prevention

In an effort to address pollution prevention, Origo has focused its efforts on solid waste management, specifically through ensuring separation of their recycled materials during the construction phase of the projects. For future improvements related to energy efficiency and emissions reductions, they are working on a protocol to start to measure GHG emissions, to compare emissions with offset from the use of the solar panels. Regarding solar panel disposal, Origo works with providers authorized by the government who conduct solar panel recycling and is planning to implement its own solar panel recycling facility during 2024. Overall, Origo remains motivated by growth opportunities in this area.

## Community Health, Safety, and Security

Considerations that result in reduced health, safety, and security risks are priority for Origo. To adequately prepare staff, Origo has created an operational procedure to guide its personnel on community engagement. Regarding safety and security, they also have an emergency plan in place for their staff and have invested in having a private security company maintain personnel on the construction site. Further areas for growth are identified for improving implementation of gathering information on community complaints.

## Biodiversity Conservation and Sustainable Management of Living Natural Resources

Origo's activities have been proactive and strategic in advancing biodiversity conservation of local species at each project site. In addition to obtaining all vegetation removal permissions through the corresponding authority in each of the sites where project construction is taking place, Origo has utilized a satellite-imagery analysis to identify different types of land cover in the areas for construction in order to minimize the impact on native plants and reduce the need to deforest through proper land selection, while obtaining appropriate permits for forest suppression when needed. One case of native vegetation potentially converted to agricultural production, totaling approximately 1ha, was identified in project Deodópolis. Origo has the required forest suppression authorization for the area.

## Impact metrics

Installed Capacity (MW)

19

MWH/year production

51,049

30,456

tCO<sub>2</sub>e emissions avoided

19,485

people benefited with access to clean energy

\*Expected at full capacity.



809

workers



45%

female workers



With respect to Sustainable Development Goals, the project's carbon offset is estimated to be around 30,113 tCO<sub>2</sub>e/year, and renewable energy generation around 51,049 MWh/year, with an operational capacity of 25.7 MW. Overall, 19,485 people are thought to benefit through access to renewable energy. Origo's workforce is composed of 809 direct workers, of which 45% are female. These projected outcomes address the Goals of Affordable and Clean Energy, Sustainable Cities and Communities, Decent Work and Economic Growth, Gender Equality, and Climate Action.

Overall, considering the intended scope of the SIDF, Origo's projects which are well underway meet compliance standards and criteria for funding. According to CIFI's E&S standards Origo's projects E&S performance is Tier I. In the arena of renewable energy, and as a B-level company, investment in Origo's 8 projects is also an investment in local communities and a further step towards climate change mitigation.





# AXS

AXS Energia (AXS) was founded in 2021 to manage Grupo Roca's energy distributed generation (DG) operations in Brazil by developing, implementing, and operating DG energy assets. Grupo Roca is a well-known player in the energy sector with a solid track record of over 40 years as an EPC, developer, and investor in the renewable sector, with vast market expertise in infrastructure and highly specialized engineering solutions for solar, wind, and hydropower plants. To this date, AXS Energia has roughly 40MWp in Solar Farms operating in DG and already serves around 8,500 clients.

Country	Location	
Brazil	Various locations	
Sector	Borrower	
Solar Power	AXS LLC	
Role	Mandated Lead Arranger	
Investment Amount	<b>US\$ 31.34MM</b> <ul style="list-style-type: none"> <li>US\$ 17.56MM from SIDF</li> <li>US\$ 8.78MM from CIFI</li> <li>US\$ 5MM from Triodos AM</li> </ul>	
Total Project Cost	<b>US\$ 52.5MM</b>	
Financial Product	Financial Closure	
Project Finance	January 2024	
E&S Category	Use of proceeds	
B	Portfolio of 14 small, distributed generation photovoltaic plants	

The AXS Energia portfolio will finance 14 small, distributed generation photovoltaic projects located in different states of Brazil, such as Minas Gerais, Paraná, São Paulo, and Mato Grosso, with a combined capacity of 39.7MWp, or 30.1MWac.

The Holding Company for the Project is AXS Unidade 06 S.A., owned by AXS Energia S.A. AXS Unidade 06 S.A. has contracted Araxá Engenharia Ltda, another company of the Roca Participações holding, to be the full turn-key EPC contractor for all power plants. Araxá Engenharia has more than 12 years of experience and its own engineering and procurement teams, including contracts with large equipment providers and several certifications and recognitions (e.g., ISO 9001: 2015, ISO 14001:2015, ISO 14001: 2018) and a solid track record in photovoltaic (PV) solar power plants. The O&M will be provided by another subsidiary of Grupo Roca, Araxá Serviços, under well-established market O&M standards.

In 2022, Grupo Roca and its companies obtained awards and recognitions, including 1st place in Santa Catarina Ranking Engenharia Brasileira 2019 and the “Great Place to Work” certification demonstrating their efforts to achieving both environmental and social standards of operation.

## Sustainability Rationale

The 14 DG Photovoltaic projects of AXS fall under the eligible sector and subsector of the SIDF and have had a thorough ESDD observing the IFC performance standards, the Equator Principles, and the European Investment Bank Environmental and Social Standards. All plants in the portfolio have an installed capacity of less than 3MW each. By the end of 2023, only one plant finished construction and reached COD but will start selling energy to final users in 2024; all other plants were still under construction.

The Solar Farms under AXS that fall under national regulations DG1 are exempted from some distribution costs to the final clients’ tariff, ensuring the highest recoverable value. Thus, AXS’s final client’s energy costs translate to approximately a 10% discount on their energy expenses. At the same time, the business model allows for a lower social and environmental impact, less transmission and distribution infrastructure, and reduced electrical losses due to closer proximity to

final clients, which efficiently contributes to Brazil’s sustainable energy supply, reinforcement of distribution networks, energy transition, and decarbonization.

Once all plants reach COD and start producing energy, it is expected that the 14 plants will generate 68,118.0 MWh per year, avoiding more than 40,000 tCO<sub>2</sub>e emissions and benefiting 26,000 people with clean energy yearly. These contributions greatly benefit the country’s governance goals of reducing greenhouse gas emissions by 37% by 2025, 50% by 2030, and reaching climate neutrality by 2050. Additionally, they contribute to affordable and clean energy (SDG 7), industry, innovation, and infrastructure (SDG 9), sustainable cities and communities (SDG 11), and climate action (SDG 13), in line with the Paris Agreement and climate change mitigation and adaptation measures.

## Performance

The portfolio project is classified as a Category B (medium risk), according to CIFI’s ESG Policies, based on IFC’s Policy on E&S Sustainability (January 2012). The rating reflects the magnitude of potential risks and impacts resulting from a project.

In August 2023, RINA Consulting Inc. performed the site visit and ESDD of the 14 PV plants on CIFI’s behalf. This was in accordance with applicable local, national, and international environmental and social laws, regulations, and standards, including the IFC Performance Standards 1 to 8, dated 2012; the applicable IFC EHS Guidelines (General EHS Guidelines and any other relevant EHS Guidelines); the EIB

Environmental and Social Standards (ESS), dated February 2022; the Equator Principles IV (EPIV), dated July 2020; all ILO conventions signed and ratified by the country covering core labor standards and basic terms and conditions of employment; and the UN Guiding Principles on Business and Human Rights.

The project currently comprises 14 solar PV plants: Arapongas I, Astorga I, Centenário do Sul, Nova Esperança I, Divinópolis, Claudia I, Angatuba, Artur Nogueira, Monte Mor, Santa Rita de Caldas, Leme, Taquaritinga, Ituverava I, and Iturama II. Regarding permits, all the PV plants obtained environmental licensing waivers from the competent authorities,





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1  
PERFORMANCE  
STANDARD

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

Although the Company has no previous experience with international E&S Standards, it is very much committed to developing and implementing corporate and site-specific management practices and procedures into a formal and integrated ESMS consistent with IFC Performance Standards, EIB Environmental and Social Standards, and Equator Principles. The ESMS will integrate the E&S management actions already carried out by the Company and include new E&S policies and procedures that ensure its alignment with the applicable requirements.

Small, distributed PV projects are considered to have low E&S risks and impacts compared to larger projects. They benefit from simplified environmental licensing procedures and waivers and do not require extensive E&S impact studies. Notwithstanding, AXS will identify the risks and impacts of its small projects according to IFC PS, even if not required by national legislation, to prevent conflicts and risks.

Regarding climate change assessment and according to a report entitled “Social and Economic Damages Resulting from Natural Disasters Due to Meteorological Phenomena in Brazil: 2010 – 2019” (INMET, 2021), the states where the PV plants are located could be impacted by droughts and floods. Thus, the design and execution of the project will consider climate-related risks, especially in Divinópolis, where a severe potential flood during long periods of rain could affect the western part of the plant.

In addition, climate projections for all four states of interest (São Paulo, Minas Gerais, Paraná, and Mato Grosso) were modeled by RINA from the global climate model compilations of the Coupled Model Inter-comparison Projects (CMIPs) overseen by the World Climate Research Program. The CMIP6 data, which supports the IPCC’s Sixth Assessment Report, have provided insights into future climate variables of the plants based on defined emissions, mitigation efforts, and development paths, showing the highest variations of temperature estimated to occur in Minas Gerais and Mato Grosso.

Hence, regarding all environmental and social risks, including those climate-related ones, the ESMS will incorporate the following elements: (i) integrated E&S policy; (ii) identification of E&S risks and impacts; (iii) management programs, including waste and resource consumption efficiency; (iv) organizational capacity and competency; (v) emergency preparedness and response observing climate-related risks; (vi) stakeholder engagement; (vii) monitoring and review, KPIS, and grievance mechanisms. By January 2024, AXS has already implemented its main policies and procedures, and its environmental and social action plan is expected to be fulfilled in around four months. Also, additional sectorial permits were managed before each plant started construction, observing the vegetation suppression authorization and municipal land use and occupation certificates.

except for the Claudia I UFV, which obtained a Preliminary and an Installation License. All sites are in modified habitat zones in rural areas, except Centenario do Sul, which stands at the urban-rural fringe about 300m east of the urban zone. All properties are duly registered in the National Rural Environmental Registry (CAR).

The Projects’ applicable IFC-PS are PS1 (E&S risk and impacts management), PS2 (labor and working conditions), PS3 (resource efficiency and pollution prevention), PS4 (community health, safety, and security), and PS6 (biodiversity conservation). PS5 (land acquisition and involuntary resettlement) was not activated because the lands used by the project sites have been voluntarily leased according to commercial terms between AXS and the landowners, who own larger properties to develop other livestock activities representing no risk of economic or physical displacement at any site. Also, PS 7

(indigenous peoples) and PS 8 (cultural heritage) were not activated since 1) based on official data provided by FUNAI, INCRA, and Fundação Palmares, no indigenous or Quilombola lands or territories were identified near the area of the project sites, and 2) although the project locations are not subject to an environmental licensing process that requires consultation with the National Historical and Artistic Heritage Institute (IPHAN), the Company will develop a chance-finding procedure for Surveying Archaeological Heritage during the site selection and construction phases to prevent and minimize possible impacts on cultural heritage.

## Labor and Working Conditions

The contracts between the Company (AXS Energia) and the EPC contractor (Araxá Engenharia) contain a paragraph on complying with the SA 8000 standard on Social Responsibility requirements. The EPC contractor has a manual with guidelines for subcontractors that defines their OHS, environmental and social responsibility, and ethical requirements. The procedure details the process of supervising subcontractors during the contract term, and its guidelines are in line with legal requirements, IFC-PS 2, and EIB ESS 8 and 9.

Complementarily, AXS has been required to provide evidence of inspection, monitoring, or any other activity conducted to guarantee the compliance of labor and working conditions by third parties (the EPC contractor and the subcontractors) and evidence on how the Company assesses risks related to the supply chain of materials and products, especially considering that the absence or insufficiency of control measures of human rights in the supply chain may represent risks related to the existence of forced or child labor.

One of AXS's suppliers (Trina Solar) has appeared in some media reports, mentioned as major suppliers that depend on activities carried out in China's northwestern region, an area of ongoing forced labor violations, specifically against Uyghurs, an ethnic minority. However, this supplier has already made statements showing its commitment to human and labor rights and the global eradication of modern slavery in all its forms. Canadian Solar and Sungrow Power UK also have state labor and human rights policies and an anti-modern slavery statement. Nonetheless, AXS will compile all evidence of their supply chain's accomplishments with

human rights, and accurate and reliable information regarding other providers (STI Norland, CCS Technology, etc.).

The ESMS will integrate: (i) a Code of Conduct & Ethics; (ii) Human Rights Policy (combating discrimination and harassment); (iii) Qualification of the workforce; (iv) Salaries and benefits practices; (v) Disciplinary measures; (vi) Gender Programs and Diversity Program; (vii) Prevention and care of gender-based violence, while ensuring proper implementation of the OHS and labor conditions and combating discrimination and harassment.

Finally, although the Company and the EPC contractor both have a Workers' Grievance Mechanism, these channels have been requested to be available and widely publicized to receive queries and complaints from third-party workers and communities.

## Resource Efficiency and Pollution Prevention

The construction and operational phases of each PV plant will require a water supply (public system or artesian wells), mainly during construction for working conditions, toilets, and general cleaning use, and during operation mostly for cleaning of the panels. Thus, the Company will implement a water consumption and management procedure, potentially including artesian wells as applicable, considering each plant's availability.

Additionally, the Company has made the commitment to manage all hazardous and nonhazardous waste properly (including solar panels environmental management and promotion of recycling as feasible in the country, under regulated waste managers and facilities) and to generate specific plans and

procedures, including applicable Key Performance Indicators (KPI) to monitor and improve environmental performance and promote efficient use of resources (e.g., reducing resource consumption, particularly water, reducing pollution, particularly air pollution due to particulate matter emissions, and waste generation reduction).

Since the movement of machinery and vehicles represents increased risks of traffic accidents, transport of dangerous products (fuel), inconvenience to the population (such as dust and noise), as well as the risk of conflicts with the neighboring population due to these nuisances, the Company will establish the correspondent procedures to prevent these risks and impacts.





## Community Health, Safety, and Security

The land used by the project sites has been leased. Conditions of renting have been agreed upon voluntarily according to commercial terms between AXS and the landowners, and many project sites are located within larger properties, so the landowners can continue to develop their livestock activities. No risk of economic or physical displacement was identified at any site.

Given the nature of the project and considering a potential increase in the number of facilities, the Company has been requested to establish a formal Site Selection Procedure with criteria that consider the IFC-PS 5 and EIB ESS 6 requirements to avoid or minimize physical and economic displacement while balancing environmental,

social, and financial costs and benefits, paying particular attention to impacts on the poor and vulnerable populations.

The Emergency Preparedness and Response Plan will be available for all projects during construction and operational phases.

On the other hand, the Whistleblowing Channel will be available and widely publicized for receiving queries and complaints from local communities. Regarding security, the sites will be controlled by an on-site guard and remote monitoring system, using cameras and alarms (24-hour surveillance). Fences will also protect the site perimeters. Procedures to ensure proper management of these issues will be incorporated into the ESMS.

## Biodiversity Conservation and Sustainable Management of Living Natural Resources

The Company needs to implement a policy and procedures to identify and assess the importance of local biodiversity or indicate study and impact analysis in biodiversity.

While according to the field assessment, no installations are located within environmentally protected areas (APAs), critical habitats, or biodiversity-sensitive areas, six plants require a native vegetation suppression permit; four already obtained it, and two are still awaiting it. Notwithstanding, considering field observations and due to the small piece of land used by the plants, the PV developments of AXS will not result in significant changes involving the conversion or degradation of local habitats as all plants are in modified habitat zones without interest for biodiversity or Conservation Units (UC).

## Impact metrics

Installed Capacity (MW)

39,7

MWh/year production

68,118

40,681

tCO<sub>2</sub>e emissions avoided

26,000

people benefited with access to clean energy

\*Expected at full capacity.



763

workers



Regarding the social aspects of the project, its employment generation currently stands 763 employees with 8% female representation, impacting SDG number eight, for decent work and economic growth, five, regarding gender equality, and ten, oriented to reduce inequalities.

Once all plants start producing energy, the portfolio will generate 68,118.0 MWh per year, avoid more than 40,000 tCO<sub>2</sub>e emissions, and benefit around 26,000 people with clean energy every year, supporting Brazil's sustainability goals on renewable, affordable energy systems, and benefitting cities and communities where the projects are located with decent work and economic revenues through clean energy investment.

Thus, the sustainable impact of AXS will boost the SIDF goals supported by accomplishing the Fund E&S standards, requirements, and investment sectors where DG renewable energy projects contribute not only to implementing clean energy and climate change mitigation but also to providing reliable and efficient energy distribution. Finally, following the CIFI's E&S performance assessment, the project is a Tier I category, demonstrating good performance in general.

# Monte Plata

Electronic J.R.C., is a company organized and existing under the laws of the Dominican Republic, and it was created to develop, construct, finance, and operate the solar project Monte Plata. The owners are Monte Plata Solar Holdings S.L (“MPSH”) and CCEF Ansa Renewable Energies Holdings Ltd. (“CARE”), a group that is focused on developing solar and wind energy projects. They currently have more than 280 MW under construction and development, and over 600 MW in pipeline. Additionally, MPSH and CARE’s main shareholders are companies with more than 30 years of extensive experience in retail, real estate, commercial enterprises, and investment in renewable energy projects, energy efficiency, and the use of alternative fuels within the Dominican Republic market.

Country	Dominican Republic	Location	Monte Plata Province
Borrower	Electronic J.R.C., S.R.L.		
Sector	Solar Power	Role	Lender
Investment Amount	<b>US\$ 57.9MM</b> <ul style="list-style-type: none"> <li>US\$ 10.0 MM from CIFI</li> <li>US\$ 18.9 MM from SIDF</li> <li>US\$ 28.9 MM from FMO</li> </ul>		
Total Project Cost	<b>US\$ 97.3MM</b>		
Financial Product	Project Finance	Financial Closure	January 2024
E&S Category	B	Use of proceeds	Construction and operation of a 60 MWac solar power project



The Netherlands Development Finance Company (FMO) invited CIFI to participate in the structuring of a senior secured long-term loan for the benefit of Electronic JRC S.R.L. for the construction and operation of a 60 MW solar power project which is divided in two phases of 30MWac nominal capacity each, located in Monte Plata Province, Dominican Republic. Phase I has been fully operational since 2016 with 33.39MWp peak capacity and Phase II is currently under construction with 42.29MWp peak capacity.

## Sustainability Rationale

Monte Plata has made notable advances in working towards sustainable environmental, economic, and social solutions. The most measurable impacts have been the reduction of GHG emissions, promotion of energy independence, economic impacts, and alignment with national and global goals.

Conceding the impact on GHG emissions, in 2023 Monte Plata Phase I generated 45,630 MWh, while avoiding 27,975 tCO<sub>2</sub>e. The Phase II will have a higher megawatt peak capacity, and it is expected to generate 72,072 MWh per year. Phases I and II will potentially contribute to avoid 71,163 tCO<sub>2</sub>e per year, providing access to clean energy to 72,857 people.

In terms of energy independence, currently the Dominican Republic relies heavily on imported fossil fuels for electricity generation. Transitioning to solar power enhances energy security and reduces the nation's dependence on foreign oil, making it more resilient to energy price fluctuations and geopolitical risks.

Additionally, the economic benefits from investing in solar power are numerous. Solar projects create jobs during construction, operation, and maintenance phases. They also stimulate the local economy by boosting the solar industry, leading to the development of a skilled workforce, and fostering technological innovation. Monte Plata Phase I currently has a total of 54 workers all from the local communities. During the construction of Phase II, the project will hire approximately 200 workers. The client is also conducting a socialization process with the communities to promote the hiring of local workers.

Finally, in efforts to contribute to achieving national and global goals, Monte Plata I and II are aligned with the Dominican Republic's commitments to renewable energy targets and climate action. It contributes to achieving sustainable development goals 7, 8, 9, 11, and 13 and is aligned with the Paris Agreement.

## Performance



In 2022, FMO conducted an Environmental and Social Due Diligence with support from an independent E&S consultant firm (Mott MacDonald limited), to assess the E&S performance of the Monte Plata Phase II project. CIFI had access to the E&S DD report and supporting documentation, complemented with a site visit by CIFI's ESG officer in October 2023.

The E&S assessment was conducted against national legislation, the International Finance Corporation Performance Standards (IFC PS), and the United Nation's (UN) Guiding Principles on Business and Human Rights.

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Risks and gaps are easily managed and mitigated through the implementation of an Action Plan defined during due diligence.

According to CIFI's ESG Policies, based on IFC's Policy on E&S Sustainability (January 2012), the project is a Category B Project (medium risk). This assessment is confirmed by the independent consultant. However, FMO categorized the project as B+ according to its own criteria.

The main environmental and social risks identified during due diligence are related to noise and dust emissions, general occupational health and safety, solid waste management, biodiversity impacts from ground clearing, heavy equipment transport, and increased traffic impact on communities.

An Environmental and Social Management System (ESMS) has been developed and implemented for both phases I and II aligned to CIFI's E&S standards. All licenses and permits are valid, and biannual regulatory Environmental Compliance Reports have been submitted to the Environmental Authority. Remaining risks and gaps are easily managed and mitigated through the implementation of an Action Plan defined during due diligence. In addition, the project is being supervised independently by Mott MacDonald, confirming good progress towards completion of all E&S actions.

The assessment identified the following performance standards as applicable: PS1 (risk management), PS2 (labor), PS3 (pollution and resource efficiency), PS4 (communities), PS 5 (Land Acquisition and Involuntary Resettlement), and PS6 (biodiversity).

PS7 (Indigenous People) and PS8 (cultural heritage) were not triggered due to several factors. Firstly, according to the Project's Environmental Impact Assessment, no indigenous peoples are located within the area of influence.

Additionally, an archaeological survey was conducted in compliance with national legislation related to archaeological sites (Law No. 318 of 1972, Law No. 564 of 1973 and the archaeological research regulations of the Ministry of Culture) and revealed no findings. Thus, as a precautionary measure, an archaeological heritage procedure and management plan has been developed, in spite of the low risk identified for these performance standards.



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## 1 PERFORMANCE STANDARD

# Assessment and Management of Environmental and Social Risks and Impacts

As Phase I is already operating, the project has an ESMS, extensive to contractors. However, for Phase II some opportunities for improvement were identified, including but not limited to a revised Emergency Preparedness and Response Plan including the following: areas prone to emergencies, stakeholders mapping, training, drills, communication protocols, and audits.

For the construction of Phase II, the most significant negative impacts are the temporary increase in electricity and fuel consumption, land clearance biodiversity impacts, dust and noise, increased traffic, and solid waste increase.

Another area for improvement, in line with Good International Industry Practices (GIIP), is the evaluation of impacts related to land use change and potential hazardous materials disposal. The Project will characterize and qualify the impact related to land use change of the Project's area of influence and the impact related to hazardous substances management such as fuel and oils.

The Environmental and Social Impact Assessment (ESIA) included a climate change risk assessment (CCRA) focused on physical risk only. Due to the nature of the sector, there are no transitional risks.

The main physical risk identified is vulnerability to natural disasters including increased frequency and intensity of hurricanes and storms, changes in rain patterns (floods and droughts), increased frequency and intensity of forest fires, and increased temperature. Adaptation and mitigation measures have been designed to manage such risks including an emergency preparedness and response plan, an improved storm drainage system, protection of the vegetation associated with the stream that crosses the project, planting of native and endemic species in the riparian forest, and improved water efficiency practices.

## Labor and Working Conditions

The project has a Human Resources Policy that complies with the Dominican Republic Labor Code and the core conventions of the International Labour Organization (ILO). It also covers all the topics presented in IFC PS2.

Given that the construction of Phase II will be subcontracted through an EPC, there will be no direct employees. However, the EPC agreement requires contractors to comply with IFC Performance standards, local regulation, and ILO's best practices regarding labor conditions. The EPC recruitment, selection, and hiring process adheres to strict equal opportunity and non-discrimination policies. It also expresses the prohibition of any form of discrimination of personnel based on race, gender, religion, sexual orientation, or social class.

Monte Plata will ensure that the EPC has at least the following items considered on their Human resources procedures: i) appropriate Terms of Employment and ii) Migrant Workers' Protection Procedures. A workers' grievance mechanism is considered within the E&S Management Plan.

Monte Plata has a methodology for identifying risks associated with each type of occupation for workers, adequately reflected in their Occupational Health and Safety Program (OHS). As part of the program, there is a training plan that considers topics such as the dissemination of OHS policies and procedures, prevention measures (personal protective equipment and signage), incident and accident reports, first aid, emergency plan, fire prevention, and audits.

### PV Panels Supply Chain Analysis

95% of solar modules in existence rely on one primary material – solar-grade polysilicon, and manufacturers in the **Xinjiang Uygur Autonomous Region** account for approximately 45% of the world's solar-grade polysilicon supply. The solar panels will be sourced from the company LONGi, that holds the largest share of module manufacturers in the global market (LONGi, 2024). According to the Sheffield Hallam University report (2021), LONGi's production facilities are located across China, but the company does not manufacture in the Uyghur Region.

To establish safeguards that protect human rights in its operations and along its supply chain, LONGi has a corporate compliance management system in place including a code of business conduct and a supplier code of conduct. The company has committed to comply with international Human Rights

laws and regulations, applicable to internal and external employees, including those from supply chain, and eliminate child and forced labor practices. LONGi requires suppliers to strictly supervise labor issues that may be present in their supply chain, to protect unbiased rights of workers by specifying management regulations and complaint procedure, and to mitigate or, when necessary, remedy any negative impact.

In relation to the solar PV supply chain, Monte Plata has a contractual requirement to ensure (i) a responsible sourcing commitment clause in EPC contracts, (ii) enhanced due diligence prior to procuring solar panels, including supply chain mapping, and (iii) that a Statement of Commitment is provided from suppliers to avoid forced labor in the supply chain.

## Resource Efficiency and Pollution Prevention

Water use and energy requirements are typically low for solar PV plants and can be mitigated by incorporating water and energy efficiency measures. Water needs will be supplied by authorized third parties without impacting natural water bodies from the area of influence.

Monte Plata identified the following water requirements: consumption, sanitation, road wetting (dust control), and panel cleaning. Regarding water efficiency, the project is considering water consumption follow-up through an indicator (m3/month) and the implementation of an environmental education plan where workers will be trained in water-saving practices.

Electricity (kWh/month) and fuel (gallons/month) consumption will be monitored, complemented with efficiency measures such as efficient lighting, driving measures to minimize fuel use, and switching off equipment when not in use.

Monte Plata has a Waste Management Plan and a Pesticide Management Plan in place that largely address the best practices outlined in IFC's PS3. During 2023, a solar panel replacement in Monte Plata phase I was conducted. Modules that have been replaced were stored on site in a specific container for this purpose. The client is working on a plan for the recycling of the PV modules.

## Community Health, Safety, and Security

Two main factors could potentially affect the community during construction: i) trespassing during active work and ii) increased traffic in the Monte Plata-Boyá Road network.

For security purposes the following will be in place: a perimeter fence, surveillance posts, CCTV system, and an unarmed security guard.

To prevent traffic accidents, the project has developed a Traffic Management Plan, including socialization with communities and workers, and the definition of specific traffic control measures for contractors and subcontractors.

## Land Acquisition and Involuntary Resettlement

The Project did not have recourse to expropriation of land, and CIFI received evidence of lease agreements. No resettlement was required, but some neighbors' activities will be mildly impacted. A Social Management Plan has been developed to address the latter.

## Biodiversity Conservation and Sustainable Management of Living Natural Resources

The project site is considered modified habitat and is not located within a protected area or internationally recognized area. The Environmental and Social Impact Assessment included a biotic baseline with the support of two experts (members of the National Botanical Garden of the Dominican Republic) in vegetation and terrestrial fauna. The study identified some endemic, endangered, and migratory species as part of the National Red List. However, none of the species identified are categorized as Endangered (EN) or Critically Endangered (CE) by the International Union for Conservation of Nature (IUCN).

The project contemplates implementing Vegetation and Terrestrial Fauna Management Programs during the construction phase. Protection and restoration of native riparian forests has been prioritized covering a strip of 30 meters along each side of a seasonal stream within the project site.

The fauna management plan includes measures to prohibit activities related to hunting, harassment, trafficking, or illegal sale of protected or endangered species, including training for workers. The protected species found in the intervention area will be relocated to the riparian forest.

Additionally, a biodiversity monitoring program will be developed during the construction phase.

## Impact metrics

Installed Capacity (MW)

60

MWH/year production

117,702

72,163

tCO<sub>2</sub>e emissions avoided

72,857

people benefited with access to clean energy

\*Expected at full capacity.



54

workers in Phase I

200

workers in Phase II



With respect to the Sustainable Development Goals, the Project's carbon offset is estimated to be around 72,163 tCO<sub>2</sub>e/year, and renewable energy generation around 117,702 MWh/year. Overall, 72,857 people are thought to benefit through access to renewable energy. Monte Plata's Phase I workforce is composed of 54 direct workers, of which 2 are female, and for Phase II, approximately 200 workers will be hired. These projected outcomes address the Goals of Affordable and Clean Energy, Sustainable Cities and Communities, Decent Work and Economic Growth, and Climate Action.

Overall considering the intended scope of SIDF, Monte Plata meets compliance standards and criteria for funding. According to CIFI's E&S compliance evaluation criteria Monte Plata E&S performance is Tier I and as a renewable energy project, it is aligned with the Paris Agreement, making it an ideal selection for investment with promising positive impacts.





# Acronyms

<b>APAs</b>	Environmentally protected areas
<b>AXS</b>	AXS Energía
<b>CCRA</b>	Climate change risk assessment
<b>CCTV</b>	Closed circuit camera surveillance system
<b>CE</b>	Critically Endangered
<b>CIFI</b>	Coproración Interamericana para el Financiamiento de Infraestructura S.A.
<b>CITES</b>	Convention on the International Trade in Endangered Species of Wild Fauna and Flora
<b>COD</b>	Commercial operations date
<b>CONAF</b>	Corporación Nacional Forestal
<b>DG</b>	Distributed generation
<b>E&amp;S</b>	Environmental and social
<b>EAS</b>	Environmental Assessment Service
<b>EBITDA</b>	Earnings before interest, taxes, depreciation, and amortization
<b>EGM</b>	External Grievance Mechanism
<b>EHS</b>	Environmental, Health, and Safety
<b>EIB</b>	European Investment Bank
<b>EN</b>	Endangered
<b>EP</b>	Equator Principles
<b>ERP</b>	Emergency Response Plan
<b>ESAP</b>	Environmental and Social Action Plan
<b>ESDD</b>	Environmental Social Due Diligence
<b>ESG</b>	Environmental, Social, and Corporate Governance
<b>ESIA</b>	Environmental and Social Impact Assessment
<b>ESMS</b>	Environmental and Social Management System
<b>FINNFUND</b>	Finnish Fund for Industrial Cooperation, Ltd.

<b>FMO</b>	The Netherlands Development Finance Company
<b>GHG</b>	Greenhouse gas
<b>GPTW</b>	Great Place to Work
<b>HCV</b>	High Conservation Value
<b>HFO</b>	Heavy fuel oil
<b>IFC</b>	International Finance Corporation
<b>IFC PC</b>	International Finance Corporation Performance Standards
<b>IGM</b>	Internal Grievance Mechanism
<b>ILO</b>	International Labour Organization
<b>IRR</b>	Internal Rate of Return
<b>IUCN</b>	International Union for Conservation of Nature
<b>Kg</b>	Kilogram
<b>Km</b>	Kilometer
<b>kWh</b>	Kilowatt hour
<b>LP</b>	Limited Partners
<b>LPA</b>	Limited Partnership Agreement
<b>m<sup>3</sup></b>	Meters cubed
<b>MDB ICP</b>	Multilateral Development Bank Infrastructure Cooperation Platform
<b>MW</b>	Megawatt
<b>MWac</b>	Megawatt alternating current
<b>MWh</b>	Megawatts hour
<b>MWp</b>	Megawatt peak
<b>NORFUND</b>	Norwegian Investment Fund for Developing Countries
<b>OHS</b>	Occupational Health and Safety Program
<b>PCBs</b>	Polychlorinated biphenyls
<b>PMGD</b>	Small Medium of Distributed Generation

<b>PROPARCO</b>	Société de Promotion et de Participation pour la Coopération Économique
<b>PS</b>	Performance Standard
<b>PV</b>	Photovoltaic
<b>RESPEL</b>	Hazardous solid waste warehouse
<b>RSD</b>	Collection yard for domestic solid waste
<b>RSINP</b>	Non hazardous industrial solid waste
<b>SA</b>	Sociedad Anónima
<b>SDGs</b>	Sustainable Development Goals
<b>SI</b>	Sustainable Infrastructure
<b>SIDF</b>	Sustainable Infrastructure Dept Fund
<b>SMEs</b>	Small and medium sized enterprises
<b>SpA</b>	Sociedad por Acciones
<b>TCFD</b>	Task Force on Climate Related Financial Disclosures
<b>tCO<sub>2</sub>e</b>	Tons of carbon dioxide equivalent
<b>UC</b>	Conservation Units
<b>UN</b>	United Nations
<b>USD</b>	United States dollar
<b>UV</b>	Ultraviolet



# Resources

1. **Bhattacharya, A. (2023).** The sustainable infrastructure challenge in Latin America and the Caribbean and the role of multilateral development banks. Inter-American Development Bank. Retrieved online at <https://publications.iadb.org/publications/english/viewer/The-Sustainable-Infrastructure-Challenge-in-Latin-America-and-the-Caribbean-and-the-Role-of-Multilateral-Development-Banks.pdf> on 21 January 2024.
2. **CIFI. (2024).** Who we are. CIFI. Retrieved online at <https://www.cifi.com/en/who-we-are/> on 10 February, 2024.
3. **DEG. (2024a).** DEG – more than finance. We shape transformation. KfW DEG. Retrieved online at <https://www.deginvest.de/index-2.html> on 22 January, 2024.
4. **DEG. (2024b).** Our investments. KfW DEG. Retrieved online at <https://www.deginvest.de/Unsere-Investitionen/index-2.html> on 21 January, 2024.
5. **Finnfund. (2024).** Impact investment in developing countries. Finnfund. Retrieved online at <https://www.finnfund.fi/en/> on 21 January, 2024.
6. **Frisari, G., Messervy, M. (2021).** Investing in Sustainable Infrastructure in Latin America: Instruments, Strategies and Partnerships for Institutional Investors Mobilization. Inter-American Development Bank. Retrieved online at on 23 January 2024. <https://publications.iadb.org/publications/english/viewer/Investing-in-Sustainable-Infrastructure-in-Latin-America-Instruments-Strategies-and-Partnerships-for-Institutional-Investors-Mobilization.pdf> on 23 January 2024.
7. **Hillyer, M. (2020).** Latin America's Tourism Industry Must Address Long-Standing Shortfalls to Bounce Back after COVID-19. World Economic Forum. Retrieved online at <https://www.weforum.org/press/2020/07/latin-america-s-tourism-industry-must-address-long-standing-shortfalls-to-bounce-back-after-covid-19/> on 24 January 2024.
8. **IDB. (2020a).** MDB Infrastructure Cooperation: A Common Set of Aligned Sustainable Infrastructure Indicators (SII). Inter-American Development Bank. Retrieved online at <https://publications.iadb.org/en/mdb-infrastructure-cooperation-platform-common-set-aligned-sustainable-infrastructure-indicators> on 22 January 2024.
9. **IDB. (2020b).** Honduras to improve its transport and freight logistics system with IDB support. IDB. Retrieved online at <https://www.iadb.org/en/news/honduras-improve-its-transport-and-freight-logistics-system-idb-support> on 24 January 2024.
10. **LONGi. (2024).** Vertically Integrated Solar PV Value Chain. LONGi. Retrieved online at <https://www.longi.com/en/> on 18 January, 2024.
11. **MMG Bank. (2023)** About us. MMG Bank. Retrieved online at <https://www.mmgbank.com/nuestra-historia/> on 21 January, 2024.
12. **Norfund. (nd).** About Norfund. Norfund. Retrieved online at <https://www.norfund.no/about-norfund-2/> on 22 January, 2024.
13. **OeEB. (2024).** OeEB at a glance. OeEB. Retrieved online at <https://www.oe-eb.at/en/about-oeeb/oeeb-at-a-glance.html> on 22 January, 2024.
14. **Prival Securities. (2020).** Prival Bond Fund Fact Sheet. Prival Securities. Retrieved online at [https://www.prival.com/docs/librariesprovider8/prival-bond-fund/pbf-factsheet-mayo-2020.pdf?sfvrsn=b127d294\\_0&AspxAutoDetectCookieSupport=1](https://www.prival.com/docs/librariesprovider8/prival-bond-fund/pbf-factsheet-mayo-2020.pdf?sfvrsn=b127d294_0&AspxAutoDetectCookieSupport=1) on 21 January, 2024.
15. **Prival Securities. (2024).** Investment Banking. Retrieved online at <https://www.prival.com/panama/en/investment-banking/overview> on 21 January, 2024.
16. **Proparco Groupe AFD. (nd).** Acting together for greater impact. Proparco Groupe AFD. Retrieved online at <https://www.proparco.fr/en> on 22 January, 2024.
17. **Riedemann, B. (2023).** Transformative roads: Three Brazilian cities toward sustainable transport. ICLEI – Local Governments for Sustainability. Retrieved online at <https://talkofthecities.iclei.org/transformative-roads-three-brazilian-cities-toward-sustainable-transport/> on 21 January 2024.
18. **Sheffield Hallam University. (2021).** In Broad Daylight: Uyghur Forced Labour and Global Solar Supply Chains. SHU. Retrieved online on 18 January, 2024.
19. **Triodos. (nd).** Quienes somos. Triodos. Retrieved online at <https://www.triodos.es/es/somos-banca-etica> on January 22, 2024.
20. **World Economic Forum. (2022).** Travel & Tourism Development Index 2021: Rebuilding for a Sustainable and Resilient Future. World Economic Forum. Retrieved online at [https://www3.weforum.org/docs/WEF\\_Travel\\_Tourism\\_Development\\_2021.pdf](https://www3.weforum.org/docs/WEF_Travel_Tourism_Development_2021.pdf) on 24 January 2024.



