

PROJECT PROMOTING A JUST ENERGY TRANSITION IN META

Thematic Focus	Energy Transition	
Sector	Mines and Energy.	
Entities/Areas	ELECTRIFICADORA DEL META - EMSA S.A. E.SP and VERTEBRA SOLUCIONES S.A.S	
Contributing Partner	Private	
National Development Plan Strategy to which it points	<ul style="list-style-type: none"> ○ Promotion of energy efficiency: "The transition towards a clean, fair and equitable productive economy, with sustainable growth and intensive use of knowledge." ○ Promotion of innovation and clean technology: "Reindustrialization will be based on the bioeconomy and according to regional potential, will be accessible to the entire population, and intensive in knowledge and technology." ○ Reduction of greenhouse gas emissions: "substantive changes in production and consumption patterns." ○ Internationalization and access to sustainable markets: Existing instruments will be aligned and the development of innovative mechanisms will be promoted, reinforcing the role of central banks, asset valuation and investment alternatives. ○ Boosting productivity and competitiveness: "Competitiveness must be compatible with decarbonized dynamics, and must advance in a way that improves resilience to the effects of climate change." 	
SDG to which it points	<p>SDG 7 Affordable and Clean Energy: Our credit line will promote access to clean and efficient energy solutions, promoting more affordable and sustainable energy for all.</p> <p>SDG 9 Industry, Innovation and Infrastructure: By financing energy efficiency projects, we will contribute to building more resilient and sustainable infrastructure in Meta.</p> <p>SDG 11 Sustainable Cities and Communities: Improving energy efficiency in homes and businesses will contribute to creating more sustainable and livable communities in Meta.</p> <p>SDG 13 Climate Action: By reducing carbon emissions and promoting the use of clean energy, we are taking concrete actions to address climate change and its impacts.</p>	
Project	Project Purpose	Strengthen the economy of the Department of Meta through the implementation of energy efficiency and renewable energy strategies, overcoming knowledge, technical and financial barriers through the infrastructure and experience of the Electrificadora del Meta (EMSA)



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Description		with the aim of promoting sustainable and competitive development in the region.
	Objectives	<ul style="list-style-type: none"> ○ Optimize the use of energy resources in the productive sectors of Meta, contributing to the reduction of operating costs and increasing regional competitiveness. ○ Promote the adoption of energy efficiency and renewable energy technologies, facilitating the modernization of infrastructure and the diversification of the department's energy matrix. ○ Improve the economic resilience of the region in the face of challenges such as climate variability and fluctuations in energy prices. ○ Strengthen EMSA's market position by expanding its portfolio of services and consolidating its role as a leader in the energy transition of the department.
	Geographic Area of Influence	Department of Meta
	Is it included within the goals of the National Development Plan (NDP)	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
	Structuring Phase	TRL6
	Target (km), (panels, etc.):	Manufacture a 300-kilowatt unit and subsequently a 10 MW unit.
	Is it located in a protected area or with indigenous/Afro-descendant communities:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Which Afro and indigenous communities in the municipalities of influence for the project

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Duration by Phases	<ul style="list-style-type: none"> ● Stage 1 - Placement: This consists of the period during which the proposed credit line will remain open, the projects that will be subject to financing will be selected, the corresponding disbursements will be executed, and work will be carried out on the construction stage of each project. This stage has an estimated duration of 3 years. ● Stage 2 - Collection management: Once the placement of money for each project is completed, the collection stage begins, where EMSA collects the monthly installment amount for each project through the bill and transfers it to the lender. This stage has an estimated duration of 8 years, since collection would begin in parallel with placement. 	
Contributions	Total Value	COP \$20.000.000.000 Million
	Nation Contribution	\$0
	Contribution from Territorial Entities	\$0
	Private Contribution	US\$ 37.078.446.5 Million
Investment Opportunity	<p>A total placement of COP 20 billion is estimated over 3 years in different energy efficiency projects in Meta with a financing term of 5 years (as an initial case, the final terms will be defined later in the project), with the potential to generate a total benefit of \$13,000 million in interest with an IRR of 15.79%. The calculation of the estimated benefit is detailed in the subsequent section.</p>	
Market Analysis	<p>EMSA has approximately 380,000 users in the department of Meta with a billed energy value of COP 634,797 million as of December 2022 with an annual commercial demand of 1,084.8 GWh. EMSA has access to historical data on energy consumption, payment behavior and quality of service for each customer, which gives it a unique position and a significant competitive advantage. Furthermore, by being able to include the collection of these projects within the energy bills, EMSA becomes an attractive partner for customers interested in investing in energy projects.</p> <p>Investment opportunities in energy-related infrastructure in the department of Meta are high. The interest shown by a significant portion of customers in participating in energy projects, as well as the diversity of sectors that have specific demands in this regard, suggests a growing market with great potential for development.</p> <p>The fact that demand has been identified in various sectors, such as industrial, educational, commercial, agricultural, tourism, entertainment, gastronomy, among others, for energy projects such as solar installations, voltage level changes and backup plants, indicates a real need in the region that can be met through strategic investments in energy infrastructure.</p>	

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Financial Projections	<p>The overall financial performance of the project is calculated as the sum of the estimated financial performance of the placement in each of the individual projects that would be financed under the proposed modality.</p> <p>Below is an example of the financial exercise for a photovoltaic solar energy project, under the following initial simulation conditions:</p> <ul style="list-style-type: none"> ● Value of the example project: \$1,000,000,000 ● Type of example project: Photovoltaic solar energy ● Disbursements <ul style="list-style-type: none"> ○ Month 0 - 50% of the investment amount ○ Month 2 - 20% of the investment amount ○ Month 5 - 25% of the investment amount ○ Month 8 - 5% of the investment amount ● Grace period during construction stage. It is estimated that the first installment would be paid during month 7 ● Rate: An IBR rate (currently 12.16%) is estimated with a 3% SPREAD. ● Financing period: 60 months ● Interests captured in 5 years: \$645,000,000 - 65% in 5 years.
Sustainability and ESG Considerations	<p>Our project is rooted in a strong commitment to environmental, social and governance (ESG) principles. This is reflected in all aspects of our project design and execution:</p> <p>Environmental: We are committed to financing projects that reduce energy consumption and promote the use of renewable energy sources such as solar energy, in addition to including energy-efficient equipment in the categories of lighting, air conditioning, refrigeration and power equipment (motors and pumps). This will contribute to mitigating environmental impact and promoting the transition to a low-carbon economy.</p> <p>Social: We ensure that the financed projects have a positive social impact by improving the living conditions of local communities, generating employment and promoting social inclusion. Additionally, we are committed to working closely and collaboratively with the affected communities to ensure their participation and direct benefit from the project.</p> <p>Governance: Our credit line will be managed with the highest integrity and transparency, complying with all regulations and ethical standards. We are committed to establishing monitoring and reporting mechanisms to ensure effective and responsible management of funds.</p>
Risk Assessment and Mitigation	<p>Conducting a risk assessment for investment projects is a fundamental step to ensure the viability, sustainability and long-term success of any financial initiative. This assessment provides a comprehensive view of potential obstacles and contingencies that could affect the project's performance, allowing investors to anticipate and mitigate risks before committing significant resources. Identifying and analyzing potential risks, whether financial, operational, legal, environmental or otherwise, helps investors make informed and strategic decisions, optimizing resource allocation and minimizing exposure to unforeseen losses. Additionally, risk assessment fosters transparency and trust among</p>



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all stakeholders by demonstrating a serious commitment to responsible management and the protection of investors' interests. Ultimately, a thorough risk assessment allows investors to maximize the potential returns on their investments while effectively managing the inherent uncertainty of any investment project.

To conduct a specific risk assessment for an investment fund project in Colombia, it is essential to consider the particular factors linked to the Colombian context and the inherent characteristics of the project in question. This involves two main categories of risks. Firstly, there are those associated with the investment fund itself, such as government policies related to investment, controls and verifications of the origin of funds, analysis of the market and liquidity needs of potential investors and end-users of the projects, as well as the expected return on investment. Among the associated risks are those inherent to the national context, such as the Colombian macroeconomic environment. It is crucial to assess the country's economic and political stability, as well as the regulations and legal framework applicable to investment funds. This implies considering registration, supervision and compliance requirements, in addition to potential changes in financial regulations that may arise. It is also important to analyze the local financial market, including market risks, such as those associated with exchange rates, securities and interest rates. These aspects, together with other macroeconomic risks, can significantly influence the fund's performance.

Project Team and Experience

N/A

Additional Information

N/A