CIF CLIMATE INVESTMENT FUNDS

# REI - Renewable Energy Integration Program

**PROJECT TITLE: KAYES-YELIMANE TRANSMISSION LINE PROJECT**

**COUNTRY: MALI**

**MDB: AFRICAN DEVELOPMENT BANK**

| Cover Page for Project/Program Approval Request[a] | | | |
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| **Country/Region** | Mali | **CIF Project ID#** | **XREIML002A** |
| **Project/Program Title (same as in CCH)** | | | |
| **Type of CIF Investment:** | ☒ Public ☐ Private | | |
| **Is this a private sector program composed of sub-projects?** | ☐ Yes ☒ No | | |
| **Sector** | ☒ Energy System Infrastructure<br>☐ Enabling Environment<br>☐ Renewable Energy | | |
| **Technology** | ☒ Transmission infrastructure<br>☐ Distribution infrastructure<br>☒ Advanced Metering Infrastructure<br>☒ Smart grids ☐ Demand-Side Management<br>☐ Capacity Building ☐ Policy Dialogue<br>☐ Cookstoves ☐ Energy storage<br>☐ Geothermal ☐ Green Hydrogen<br>☐ Hydropower ☐ Mixed RE<br>☐ Multiple ☒ Solar ☐ Vehicle technologies<br>☐ Waste to Energy ☐ Wind<br>☐ Other (_____) | | |
| **Project Lifetime (MDB board approval to project closure)** | **2024 - 2031** | | |
| **Is this a private sector program composed of sub-projects?** | ☐ Yes ☒ No | | |

**Financial Products, Terms and Amounts (same as CCH)**

| **Financial Product** | **USD** (million) | **EUR** (million)[b] |
|---|---|---|
| Grant | 6 | |
| MPIS | 0 | |
| | | |
| Public sector loan – Senior loan | 4 | |
| First loss guarantee | | |
| Second loss guarantee | | |
| Equity | | |
| Senior loan | | |
| Senior loan in local currency hedged | | |
| Senior loan in local currency unhedged **(EXCEPTIONAL REQUEST)** | | |
| Subordinated debt/loan/ mezzanine instrument with income participation | | |

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| Subordinated debt/loan / mezzanine instrument with income participation local currency unhedged **(EXCEPTIONAL REQUEST)** | | |
| Subordinated debt/loan /mezzanine instrument with convertible features | | |
| 'Convertible/contingent recovery' grant/loan/guarantee (loans convertible to grants or vice versa) | | |
| Convertible Loans (convertible to equity only) | | |
| For loans and guarantees – is this a revolving structure? [1] ☐ Yes ☒ No | | |
| **Specify local currency type here** | | |
| Other (please specify) | | |
| **Total** | 10 | |

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| **CIF Financial Terms and Conditions Policy** | Link<br><br>Is this request in accordance with the CIF Financial Terms and Conditions Policy?<br><br>☒Yes ☐No<br>(if no, please specify detailed information under the justification section) |
| **Justification (exceptional request)** | |
| Not applicable | |
| **Implementing MDB(s)** | |
| MDB Headquarters-Focal Point: | Gizaw Kidanua Abera<br>k.gizaw@afdb.org |
| MDB Task Team Leader (TTL): | Hamathe Mane<br>h.mane@afdb.org |
| **National Implementing Agency:** | |
| Country Focal Point/s | Mauritanian Electricity Company (SOMELEC)<br><br>Energy of Mali (EDM SA)<br><br>Manantali Energy Management Company (SOGEM) |
| **Brief Description of Project/Program (including objectives and expected outcomes)** [c] | |

1 With a revolving structure, after the loan or guarantee matures, instead of returning the funds to the Trustee, the funds are redeployed as a new loan or guarantee.

The Republic of Mali covers an area of 1,246,814 km², 51% of which is desert land. Mali is a landlocked Sahelian country in West Africa and is more than 800 kilometers from the nearest sea coast. The population of Mali is estimated at 21.9 million inhabitants, with an annual growth of 3.2%. About 55% of the population live in rural areas. The rate of urbanization is 45% and constantly increasing. Population growth is a concern because it implies a sharp increase in the need for basic social services, which translates into additional pressure on energy production. This also implies that a significant part of the budget of the Government of Mali will have to be devoted to non-productive sectors.

The energy sector in Mali is characterized by a high and growing demand for energy, a relatively low production capacity; it benefits from costly state subsidies and is highly dependent on hydrocarbon imports. The national electrification rate is 52%, including 24% in rural areas where more than 70% of the country's total population live. Final energy consumption is dominated by biomass (77%) followed by hydrocarbons (18%), electricity in the total energy consumption (5%). Demand is quite strong and is growing by around 10%/year. The electricity transmission network in the country has about 1,640 km of power lines at all voltage levels of 225 kV, 150 kV; 63 kV and 30 & 33kV and 14 substations. Losses are around 15-20% (interconnected network and isolated centers). For a country as vast as Mali, the transmission network is very weak and does not offer enough possibilities for injecting future production. To overcome these constraints in such an important sub-sector for economic and social development, Mali, like Mauritania, has adopted strategies aimed at universal access of its population to electricity by 2030. The development objective of the present Mauritania-Mali 225 kV electrical interconnection project and associated solar power plants (PIEMM) fits perfectly into the visions of the governments of the two countries.

The 225 kV Kayes-Yelimané transmission line project, proposed to be supported the REI program, is part of this electrical interconnection project between Mali and Mauritania (PIEMM). Its objective is to increase solar energy production capacity and enable electricity exchange between Mauritania and Mali, thereby improving access to modern and affordable electricity for the populations of both countries. The specific objectives of this interconnection project are to: (i) establish a high-voltage (225 kV) electrical connection over a distance of 1,373 km with an energy transmission capacity of 600 MW between the two countries; (ii) construct solar power plants in both countries that will be connected to the 225 kV interconnection line; (iii) connect 100,000 new households to the electricity grids in the localities along the 225 kV line in both countries (80,000 households in Mauritania and 20,000 households in Mali); and (iv) create agricultural and service entrepreneurship opportunities for young people and women; (v) contribute to the development of regional electricity trade and (vi) prepare the feasibility studies necessary for the development of the Nama solar power plants in Mauritania and Yélimané in Mali for a cumulative capacity of at least 100 MW.

Permanent availability of quality electricity at an affordable cost will strengthen the resilience of populations in beneficiary localities. Indeed, electricity is a means of increasing the inclusiveness of growth in countries like Mauritania and Mali which still face multifaceted factors of fragility such as criminal violence, poverty, and exclusion of certain groups. The project will allow households living in rural areas to access electricity which will facilitate their access to education and health services and then lead to the improvement of their living conditions through the creation of income-generating activities.

The Keyes-Yelimané Transmission Line Project integrates Gender Equality and Social Inclusion principles to ensure equitable benefits from improved energy access. The Project prioritizes women-headed households, support women's economic empowerment through entrepreneurship opportunities in energy-related value chain and includes targeted skills development for women and youth in the energy sector.

The project will actively ensure a just transition by prioritizing equitable access to energy, particularly for marginalized communities, workers in traditional energy sectors, and vulnerable populations. This includes targeted job creation, reskilling programs for workers transitioning from fossil fuel-related industries, and inclusive energy access to avoid deepening existing social and economic inequalities.

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| In Mali, the project will be implemented in the Kayes region and will concern a population estimated at 500,000 inhabitants, including 20,000 households with a focus on those headed by women, spread across the 50 localities which will be connected to the network. The Mauritania-Mali 225 kV electrical interconnection project and associated solar power plants (PIEMM) includes three (03) components, namely: (A) Construction of electrical infrastructure; (B) Institutional Support and (C) Project Management. It will be executed over a period of 7 years, from February 2024 to December 2030. | |
| **Consistency with investment criteria** | |
| Potential for transformational change | The CIF-REI IP is a strategic orientation framework in support of the policies and priorities of the Government of Mali in its efforts towards net-zero emissions and inclusive and climate-resilient development pathways. It will allow the mobilization of private financing estimated at 300 million dollars; increase the share of renewable energies in Mali's energy mix; to take over and integrate into the network a surplus of current renewable energy capacity which will reach a minimum of 599 MW that Mali plans to install by 2030 as well as future production, estimated at 980 GWh; to improve the supply of electricity to industrial and domestic consumers; reduce the cost of producing energy from renewable sources and promoting climate-resilient energy infrastructure will directly improve access to clean energy sources in Mali.<br><br>This project, by providing enough energy, will have a transformative impact on livelihoods, particularly for women, youth, and marginalized groups by fostering income-generating activities. The availability of energy leads to the development of income-generating activities through the creation of rural micro-enterprises for the production and marketing of local products as well as the creation of numerous jobs; improving the health situation, improving the schooling rate, etc.<br>A just transition framework will be integrated into this transformation, ensuring that affected workers and communities are not left behind. This will include support for social protection measures, workforce retraining, and policies that prioritize local employment and sustainable livelihoods. Special attention will be given to empowering women, youth, and traditionally underserved populations. |

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| Relevance (strategic alignment) | In Mali, the Strategic Framework for Economic Recovery and Sustainable Development (CREDD 2019-2023), is based on five (5) strategic axes, namely: (i) Consolidation of democracy and improvement of governance; (ii) Restoration of peace, security and strengthening of living together; (iii) Inclusive growth and structural transformation of the economy (improving the efficiency of production support sectors including energy); (iv) Environmental protection and strengthening resilience to climate change and (v) Human capital development.<br>The CIF REI IP aligns with these priorities by promoting gender-responsive and inclusive energy sector development. |
| | The PIEMM, by improving access to electricity through increased clean energy production, is in line with the last three axes of the CREDD and is in line with the single priority area of the 2021-2025 country strategic plan of the Bank which aims to "reduce economic fragility through improved agricultural value chains" and strengthening the private sector.<br><br>At the regional level, the project is also in line with three objectives of the African Union's 2063 agenda, which are: (i) improving the quality of life of the populations (O1), (ii ) the resilience of communities to climate (O7) and (iii) the establishment of world-class infrastructure across the continent (O10). This last objective targets in particular energy projects (including this project) contained in the second phase of the Infrastructure Development Program in Africa (PIDA-PAP2 2021–2030) involving NEPAD. This project will also contribute to the achievement of SDGs No. 5, 7, 9 and 13. In addition, the project is consistent with the strategic intervention axis of the UMA aimed at energy security and with pillar 3 of the ECOWAS Vision 2050 which aims in particular to establish an interconnection and energy efficiency network |

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| Systemic change | The vigorous development of renewables in recent years is linked, among other things, to the political priority given to the development of renewables and the implementation of the SREP in Mali.<br>The transition to a renewable energy-powered system must be inclusive and just. This project will incorporate just transition principles by ensuring equitable access to new job opportunities, fair labor conditions, and measures to address socio-economic disparities that could arise from shifting energy systems.<br><br>In 2015, 25 hybrid power plant projects with associated mini-grids or connected to the grid were recorded; the signing of 07 Conventions for PV power plants; the signing of 10 Memoranda of Understanding for PV power plants; the implementation of numerous distribution projects for solar lighting kits, solar lanterns and street lamps as well as pico-solar equipment. In addition, 02 PV panel assembly units were made by private operators. From 2015, thirty-eight (38) renewable energy development projects have been approved and public and private funding allocated to renewable energy projects increased from USD 500 million in 2015 to USD 1,458 million in 2020, representing a clear increase in public and private funding. |
| | We note a notable increase in investments from the Special Investment Budget (BSI) in favor of renewable energy projects from 7% to 55% between 2015 and 2020. From 2019 to 2021, we recorded agreements for the installation of solar power plants of approximately 1 GWp for private investors.<br><br>The 225 kV Kayes-Yelimané transmission line project constitute an essential link in the regional-scale electricity transport network, also called the “trans-Sahelian backbone” (which is part of the regional roadmap approved in 2021) whose studies are underway under the WAPP, and which aims to connect Chad, a country without a maritime coastline, to Mauritania via three other landlocked countries: Burkina, Niger, and Mali. The 225 kV line will also allow the development of new renewable energy plants whose production will be more easily integrated into the interconnected network of the sub-region. The 225 kV line will be equipped with optical fiber ground cable which will be used not only for the remote control of electrical network equipment but also to develop telecommunications in the region.<br>The Project drives systemic change by ensuring gender-responsive energy access, empowering women and marginalized groups in the renewable energy transition. |

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| Speed | The project will strengthen the interconnection of the electricity networks of the OMVS countries with those of the other countries of the West African Electric Power Exchange System (EEEO “WAPP”) for a broader common energy market. It is in perfect complementarity with the others interconnection projects being implemented in the region, all co-financed by the Bank with other development partners, namely: (i) the 225 kV Guinea-Mali interconnection project, ( ii) the OMVG 225 kV interconnection project for the electricity networks of Gambia, Guinea, Guinea Bissau and Senegal and (iii) the 225 kV interconnection project for the electricity networks of Côte d'Ivoire , Liberia, Sierra Leone and Guinea (CLSG).<br>This Project fast-tracks women’s participation in the energy sector by promoting economic inclusion and resilience while reducing barriers to finance and employment in the renewable energy sector. |
| Scale | The operation of the high voltage interconnection line, with a transit capacity of 600 MW, will allow Mali to import each year from Mauritania, approximately 600 GWh of electricity from renewable sources, at a cost competitive compared to the current onerous rate of 0.23 EUR/kWh, to reduce its power deficit (estimated at 250 MW in July 2023) for at least the first five years of operation, to improve the performance of the sub-sector, then increase the rate of access to electricity nationally.<br>Given the critical role of energy in economic empowerment, improved access will particularly benefit women and small businesses by facilitating income-generating activities, education, and healthcare access, finally contributing to broader socio-economic inclusion. |
| Adaptive sustainability | In Mali, the revision of legal and regulatory texts for the electricity sub-sector was initiated in 2018 as part of the Promotion of Renewable Energy Project in Mali (PAPERM), implemented by the Bank and supported by the CIF-SREP program. The socio-political situation in the country delayed the implementation of the texts. The process of adopting the new proposed texts is underway and is expected to be finalized before the end of 2024. In addition, the recovery plan aimed at gradually reducing the need for subsidies in the electricity sub-sector has been adopted and being implemented since 2019 with the objective of reducing the cost of electricity production by around 50% by 2025, while improving the performance of EDM-SA. A National Program to improve access to electricity in Mali and a related investment plan to achieve universal access in 2030 are being developed.<br>The Project will enhance the adaptability of communities and local economies by giving them the opportunity to benefit essential services and enable business environment. |

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| Potential for GHG emissions reduction/avoidance | The operation of the 225 kV electrical interconnection line to be built, with a transit capacity of 600 MW, will enable Mali to import approximately 600 GWh of electricity from renewable sources each year.<br><br>Moreover, the shutdown of several small generators running on diesel in the project area and the connection of solar and wind power plants will significantly contribute to GHG emissions mitigation.<br><br>The project will directly contribute to reduce GHG emissions by 70,500 tCO2e per year, or 1.76 million tCO2e for the estimated duration of the panels of 25 years. Indirectly, the project will contribute to reduce GHG emissions by 422,400 tCO2e annually or 10,560,000 tCO2e over 25 years based on the 600 GWh of electricity transported through the transmission line and an emission factor of 0.704 tCO2eq/MWh[2]. |

[2] Guidance Manual Greenhous Gas Accounting for Energy Investment Operations, World Bank (2015), 0.704 kgCO2eq./kWh pour le Diesel, (https://documents.worldbank.org/en/publication/documents-reports/documentdetail/269221468178766476/guidance-note-greenhouse-gas-accounting-for-energy-investment-operations)

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| Potential to significantly contribute to the principles of just transition | The project will facilitate a just transition by ensuring that the benefits of renewable energy extend beyond electrification. A key focus will be placed on sustainable livelihoods by creating employment opportunities in the construction, operation, and maintenance of energy infrastructure, particularly for workers transitioning from fossil fuel-dependent industries. Special emphasis will be given to vocational training programs to equip local populations, especially youth and women, with the skills necessary to thrive in the emerging green economy. Additionally, energy affordability measures will be integrated to ensure that low-income households are not disproportionately burdened by transition costs. These initiatives will collectively contribute to a fair and inclusive energy transition, ensuring that no community is left behind in the shift toward a clean energy future.<br><br>To achieve this, the project will implement a workforce development strategy that provides vocational training, apprenticeships, and certification programs tailored to renewable energy sector jobs, such as solar panel installation, grid maintenance, and energy efficiency services. Special provisions will ensure that displaced workers from traditional energy sectors receive retraining support to transition smoothly into new roles, mitigating the risk of job losses and economic displacement.<br><br>Additionally, the project will promote community-led renewable energy initiatives, encouraging the development of locally owned energy cooperatives and small businesses that can participate in the renewable energy supply chain. Financial and technical support will be provided to small and medium-sized enterprises (SMEs), including women- and youth-led businesses, enabling them to benefit from opportunities in solar energy distribution, maintenance, and related industries.<br><br>Ensuring affordable energy access is another crucial component of a just transition. While expanding electrification, the project will introduce mechanisms such as social tariffs, subsidized connections for low-income households, and financing options for energy-efficient appliances to ensure that vulnerable populations are not excluded due to cost barriers.<br><br>Beyond economic considerations, the project will address social and environmental justice concerns by integrating participatory governance mechanisms. This means that local communities will have an active role in decision-making processes related to energy infrastructure placement, environmental safeguards, |

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| | and benefit-sharing mechanisms. Measures will also be taken to prevent land conflicts and ensure that communities hosting renewable energy infrastructure receive direct benefits, such as priority employment, improved local infrastructure, and enhanced public services.<br><br>Finally, recognizing the intersection between energy access and climate resilience, the project will integrate additional community resilience measures, including solar-powered irrigation systems to support local agriculture, electrified cold storage for small-scale farmers and fishers, and improved access to water resources through solar-powered boreholes. These initiatives will contribute to food security, economic diversification, and long-term sustainability, reinforcing the resilience of communities most affected by climate change.<br><br>During the implementation of the studies and the preparation of the project, public consultations were conducted in the affected areas as well as with all stakeholders, including civil society organizations, local administrations, households, and organized groups of youth and women. These consultations also provided an opportunity for the affected populations to express several concerns regarding the implementation of project activities, namely: (i) the consideration of socioeconomic and security aspects, (ii) the involvement of grassroots communities, (iii) the occupation of the high-voltage transmission line corridor by local populations, (iv) the role of civil society organizations (CSOs) in the project.<br><br>These inclusive consultations not only reaffirmed stakeholders' commitment to the project but also allowed for better integration of their concerns. In this regard, several measures have been planned, including: (i) Logistical support for women's organizations operating in the project area, including the construction of cold storage rooms, the acquisition of mills, the establishment of multifunctional platforms, and various training programs for young people, (ii) The construction of boreholes equipped with solar-powered pumps to supply drinking water to households and support agro-pastoral activities in the affected communities, (iii) The recruitment and mentoring of young graduates from training centers for professional internships.<br><br>Consultations will continue throughout the project's implementation to ensure social inclusion, equitable distribution of benefits, and sustained community participation. |

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| Financial effectiveness | This project will lead to a clear improvement in the living conditions of thousands of households who will have access for the first time to electricity and drinking water (thanks to the planned boreholes equipped with solar pumps) without forgetting the hundreds of health and training centers. which will improve their performance as a result to an access to water and electricity. |
| | The project will not only directly benefit the Government of Mali (which will collect taxes on activities) and the national electricity company which will improve its performance, but also 60 professional centers (schools, centers training centers, health centers, craft workshops, professional women's groups, etc.) located in the localities crossed by the project. The construction phase of the project will employ around 75 people in Mali, 25% of whom will be women/young girls, in addition to around fifteen y (15) permanent jobs in the operation phase. In addition, 40 young graduates, 50% of whom will be girls, will complete their first professional internships, promoting their employability. In addition to mitigating GHG emissions, improved energy security, including boreholes equipped with solar pumps, can help strengthen the adaptive capacity of vulnerable people through the creation of green jobs and improving their livelihoods. |
| Value for Money | The cost-effectiveness ratio of this project was deemed reasonable compared to those of two regional interconnection projects financed by the Bank in the sub-region: Guinea-Mali Electricity Interconnection Project and OMVG Country Network Interconnection Project. Furthermore, with the project, electricity expenses for some households will decrease compared to the situation without the project and an annual economic gain of around 12 UA per household is estimated. |
| Mobilization Potential | The requested CIF funding of USD 10 million, including USD 6 million in grants and USD 4 million in public loans, will support the mobilization of USD 877.5 million of financing. |
| Implementation potential | As part of the 225 kV Kayes-Yelimané line project, the REI resources will be used to finance the costs associated with the construction of the transmission line and the substations.<br>For project activities funded by CIF resources, direct payments to contractors are the chosen disbursement method for procurement. |

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| Gender equality and social inclusion impact | The PIEMM project mainstreams gender by addressing disparities in rural areas through improved electricity access, reduced workload for women, and enhanced economic autonomy. Key gender gaps identified include limited economic opportunities, restricted access to education and resources, sociocultural constraints, and gender-based violence. The project specifically targets female-headed households, promotes women's training and employment, implements capacity-building programs, develops a gender and energy module, and integrates gender considerations into technical operations. Each Project Management Unit includes a gender specialist to ensure the effective implementation of gender-inclusive strategies. The overarching goal is to empower women, improve their quality of life, and promote gender equality in the energy sector. |

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| Development impact potential | Increasing access to electricity in the project affected communities is a way of developing production units for the creation of decent jobs, particularly for young people, women, and isolated communities in the beneficiary regions. The project areas are particularly suitable for solar production and the availability of electricity could make the target communities more economically attractive, fix populations in these areas and encourage private investment. This project is therefore a way to reduce poverty and regional disparities, and to contribute to greater social cohesion through a more inclusive society and more resilient to shocks.<br><br>The electrical connection of social infrastructure such as schools, vocational training centers or health centers and the construction of solar electric pumping boreholes in the municipalities concerned by the project will contribute to improving access to public services, the level of human capital and the living conditions of the most deprived populations. The planned public lighting will help reduce insecurity in the neighborhoods. In addition to the electrification of social infrastructure, the use of digital technology through smart meters, the possibility of applying a social tariff or making social connections are all measures that will strengthen the impact of the project on the most vulnerable populations.<br><br>The project facilitates inclusive public consultations with key stakeholders including women's and youth groups to reinforce equitable access to project benefits and aligns with a just transition by integrating social considerations into energy planning and implementation.<br><br>Last, this project will also promote prevention in the sub-region plagued by security problems. Indeed, the project being implemented in the context of the Sahel, the opportunities and economic prospects it offers can play a preventive role by helping to resolve the root causes of security problems and the risks for young people of falling into violence.<br>A just transition framework will be applied to ensure that gender disparities in the energy sector are actively addressed. This includes ensuring women's equal participation in green jobs, leadership roles in energy governance, and access to financial support for women-led renewable energy initiatives |

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| | With the objective of increasing energy exchanges between the two countries, this project will stimulate the integration and development of a regional electricity market. This will strengthen resilience because it will generate income in a sustainable manner, strengthen the energy sector of Mauritania and Mali, and generate positive impacts beyond the countries directly affected by the project. In addition, the involvement of OMVS will be a means of strengthening the capacities of regional institutions in the energy sector. |

**Social Inclusion and Stakeholder Engagement**

The energy sector is managed by the Ministry of Mines, Energy and Water through a central service: National Directorate of Energy (DNE), 04 public agencies of Public Electricity Service Operators (EDM-SA), independent producers of electrical energy -SOPAM, Albatros, AKUO, etc.-, rural electrification operators and self-producers. Under the supervision of the Prime Minister, the Electricity and Water Regulation Commission (CREE) and the Public-Private Partnership Unit.

Civil Society Organizations/NGOs. NGOs (national and international), cooperatives, women's and socio-professional organizations, consumer associations, etc. play a very important role in the development of renewable energies in Mali. These organizations intervene in the implementation of projects (of modest sizes) in the field, often for the benefit of disadvantaged people (in urban and rural areas); sensitization/information of the populations on the advantages linked to the use of renewable energies, etc. These organizations remain an essential segment for the distribution of renewable energy and energy-efficient equipment and replace or complement state interventions. They will be called upon to play an important role in the implementation of the programme. Special attention will be given to engaging women, youth and vulnerable groups in decision-making processes related to energy access and distribution. These groups will be involved in the implementation and outreach efforts of the project.

To ensure a just transition, the project will prioritize meaningful participation from all stakeholders, including workers, local communities, and marginalized groups, in decision-making processes. This will involve structured community consultations, ensuring that historically underserved populations have a voice in shaping project implementation. Additionally, social safeguards will be put in place to prevent displacement, while fair labor practices will be enforced to ensure job security and decent working conditions in the renewable energy sector. By fostering an inclusive energy transition, the project aims to create equitable opportunities, strengthen local governance, and build long-term social and economic resilience in affected regions

Technical and Financial Partners (Donors) participate in the financing of projects and programs through public or private institutions. These are essentially: the World Bank, the African Development Bank, the International Finance Corporation, the United Nations Development Program, the Delegation of the European Union (non-exhaustive).

Development partners (bilateral cooperation). They operate within the framework of cooperation bilateral in the financing of projects and programs through public or private institutions. In this respect, we should especially remember GIZ, KfW (Germany), USAID, Danish Cooperation (DANIDA), French Development Agency (AFD), Belgian Cooperation, Dutch Cooperation and India (not exhaustive).

| Gender Considerations | |
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| **Gender Analysis**<br>(Please insert the text from the project document on the analysis of gaps in access to services, markets and jobs by women in relation to the project sectors) | The PIEMM project aligns closely with the CIF Gender Action Plan Phase 3, supporting gender equality and women's empowerment through enhanced energy access for both men and women, which reduces women's workload and promotes economic autonomy. Consistent with CIF's goals, the project prioritizes targeting female-headed households for energy access, supporting job creation in the energy sector, and ensuring professional training and internships for young women—key areas in CIF's strategy to increase women's economic empowerment and inclusion.<br><br>The project also addresses existing gender gaps by incorporating capacity-building for women's cooperatives and providing solar-powered infrastructure to support agropastoral activities, aligning with CIF's focus on building women's resilience and enhancing productivity through climate-smart energy solutions. The project considers the specific challenges faced by rural women, female informal workers and low-income households so they can equitably benefit from tailored energy solutions. Improved energy access will contribute to their economic empowerment and enhance households' resilience.<br><br>Additionally, gender-responsive project management, with gender specialists in project units, women's representation in decision-making bodies, and a gender-responsive M&E system, reflects CIF Phase 3's commitment to integrating gender inclusively within project governance and monitoring frameworks.<br><br>This alignment ensures that the PIEMM project supports CIF's objectives of equitable access to resources, gender-responsive job creation, and inclusive participation in implementation, helping to drive systemic, sustainable gender impact across sectors. Beyond employment creation, the project seeks to provide women with technical skills and training that can enhance their long-term participation in the energy sector. |

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| **Gender Activities**<br>(Please insert the text describing gender-specific activities included in the project) | 1. **Increase access to electricity for women**<br>o Ensure that women (52%) are among the beneficiaries of increased electricity access in Mauritania and Mali.<br>o Female-headed households are specifically targeted for electricity connections.<br>2. **Promote female employment in project-related jobs**<br>o Create temporary and permanent job opportunities through the project with specific targets for female participation.<br>o Develop and implement gender-responsive outreach and advocacy strategies to facilitate women's access to jobs created by the project.<br>o Ensure that women have access to project-related training programs, including technical skills such as handling, installation, and maintenance of energy infrastructure.<br>3. **Increase access to electricity for female-headed households**<br>o Install new meters for households, with a portion specifically allocated to female-headed households.<br>4. **Enhance local development and empowerment of women and youth groups**<br>o Provide mills and other resources to support economic activities for women's and youth groups.<br>o Strengthen women's organizations in project areas through capacity-building programs, including needs assessments, tailored capacity-building plans, and provision of additional equipment (cold storage, multifunctional platforms, and solar-powered water pumps for agricultural and agro-pastoral activities).<br>**5. Integrate gender into energy sector studies and regulations**<br>o Ensure that gender considerations are integrated into all project-related studies, including feasibility studies and Environmental and Social Impact Assessments (ESIAs).<br>o Ensure that gender is taken into account in energy efficiency action plans and in the regulatory framework for electricity trade.<br>6. **Ensure 50% of interns are young women**<br>o Set a target to recruit 50% of interns as young women in both Mauritania and Mali.<br>7. **Recruit gender specialists for project management units (PMUs)**<br>o Recruit gender specialists for PMUs in Mauritania and Mali where none are currently in place.<br>8. **Integrate gender into the training of sector stakeholders**<br>o Develop a Gender and Energy training module in collaboration with ISME (Mauritania), train SOMELEC staff in this module, and support the integration of gender in ISME curricula.<br>9. **Train PMU staff on gender and women's empowerment in the energy sector**<br>o Provide training to PMU staff on gender and women's empowerment specific to the energy sector.<br>10. **Ensure gender-responsive monitoring and evaluation (M&E)**<br>o Develop and implement a gender-responsive M&E framework with tools that assess gender-related outcomes. |

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| | 11. **Promote female representation in decision-making committees**<br>o Ensure that women are represented on the Technical Coordination Committee and other management and decision-making mechanisms within the project.<br>12. **Integrate gender into project communications and visibility efforts**<br>o Highlight gender best practices, showcase women in the energy sector, and amplify women's voices and perspectives in project communications.<br>11. **Implement GBV and SEA awareness in project sites**<br>o Execute awareness campaigns on GBV and SEA prevention as part of project infrastructure plans.<br>12. **Integrate gender considerations into resettlement action plans (RAPs)**<br>o Ensure that gender issues are incorporated into the implementation of RAPs, including awareness and action on GBV and SEA. |

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| **Gender Indicators**<br>(Please insert the text on selected gender specific indicators, including annual targets. from the Project Log Frame that the project is committing to report on) | 1. **% of people benefiting from electricity access, with a target of 52% women**<br>2. Target: 52% of individuals benefiting from increased electricity access are women.**% of temporary employment positions filled by women**<br>3. Target: 25% female participation in temporary jobs in Mali (75 positions) .**% of permanent employment positions filled by women**<br>o Target: 30% female participation in permanent jobs in Mali (15 positions).<br>4. **% of new meters installed for female-headed households**<br>o Target: 15% of new meters for female-headed households in Mali (20,000 meters).<br>5. **Number of mills provided to women and youth groups**<br>o Total: 20 mills in Mali.<br>**6. Number of women's organizations receiving targeted capacity-building support (training, equipment, needs assessments, and tailored plans)**<br>o Target: TBD, with a focus on the provision of cold storage, solar-powered water pumps, and multifunctional platforms<br>7. **% of internship positions filled by women**<br>o Target: 50% of all interns are women (20 in Mali).<br>**8. % of women benefiting from technical and vocational training in energy-related fields**<br>o Target: At least 30% of all trainees are women in handling, installation, and maintenance of energy infrastructure<br>9. **Number of PMUs with a gender specialist**<br>o Target: one (01) dedicated gender specialist in the PMU in Mali.<br>**10. Number of EDM-SA staff trained in Gender & Energy training module**<br>11. Target: At least 50% of EDM-SA technical and managerial staff trained **% of PMU staff receiving training in gender and women's empowerment and energy issues annually**<br>o Target: To be determined for Mali.<br>12. **Gender-responsive M&E framework in place**<br>o Target: Yes (100% of M&E reports, missions, mid-term reviews, and evaluations to address gender outcomes and challenges).<br>**13. Number of energy efficiency action plans and electricity trade regulations integrating gender considerations**<br>o Target: 100% of national action plans include gender-responsive measures<br>14. **Number of project management and decision-making mechanisms with female representation**<br>o Target: To be determined for Mali. |

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| | 11. **% of communication products addressing gender issues**<br>○ Target: 50% of project communication materials address gender topics, showcasing women in the energy sector and sharing their perspectives.<br>12. **Number of localities with GBV and SEA awareness and action plans implemented**<br>○ Target: To be determined for Mali. |
| **Expected Results (M&R)** | |
| **Project/Program Timeline** | |
| Expected start date of implementation[d] | September 2024[3] |
| Expected end date of implementation[d] | June 2031 |
| Expected lifetime of project results in years (including beyond project closure) | 7 years |
| **REI Core Indicators** | **Project-Defined Indicators/Targets** |
| *Please identify which of the indicators below are relevant to the project proposal, list the corresponding project-defined indicator(s), and report all targets, including disaggregated targets. (See the REI Program Monitoring and Reporting Toolkit for additional guidance.)* [e] | |
| **REI 1:** GHG emissions reduced or avoided (mt $CO_2$ eq) | Annual quantity of CO2 avoided |
| *Direct - Annual* | 70,500 tCO2e |
| *Indirect - Annual* | 422,400 tCO2e |
| *TOTAL - ANNUAL* | 492,900 tCO2e |
| *Direct - Cumulative Lifetime* | 1.76 million tCO2e (25 years) |
| *Indirect - Cumulative Lifetime* | 10.56 million tCO2e (25 years) |
| *TOTAL - CUMULATIVE LIFETIME* | 12.32 million tCO2e (25 years) |
| **REI 2:** Installed capacity of variable renewable energy available to the grid (MW) | PV solar electric power installed in Mali |
| *Direct* | 50 |
| *Indirect* | 0 |
| *TOTAL* | 50 |
| **REI 3:** Annual renewable energy output (MWh per year) | Annual quantity of renewable energy produced |
| *Direct* | 78600 |
| *Indirect* | 600000 |
| *TOTAL* | 678600 |
| **REI 4:** Increase in available grid services and improvements (#) | Number of meters installed in new households |

[3] The baseline project was approved in December 2023 with funding from AfDB and other partners. The project is currently under implementation. The project design included a potential financing from the CIF, and it will be amended through an addendum upon approval of the CIF financing

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| *Please identify all sub-indicators (add lines if needed)* | |
| *TOTAL* | 20,000 in Mali |
| **REI 5:** Number of policies, regulations, codes, or standards related to renewable energy integration that have been amended or adopted | 0 |
| **REI 6:** Volume of co-finance leveraged ($) | *Indicator calculated from the co-financing section below* |
| **REI 7:** Number of women and men, businesses, and community services benefiting from improved access to electricity and/or other modern energy services | People benefiting from access to electricity thanks to the project |
| *Men* | 67,200 |
| *Women* | 72,800 |
| *Businesses* | |
| *Women-Owned Businesses* | |
| *Community Services* | |
| *TOTAL* | 140,000 |
| **REI 8:** Reduced total energy system costs ($ per year) | Not applicable |
| **REI 9:** Number of innovative businesses, entrepreneurs, technologies, and other ventures demonstrating a strengthened climate-responsive business model | Not applicable |
| *Businesses* | |
| *Entrepreneurs* | |
| *Technologies* | |
| *Other Ventures (please specify)* | |
| **GESP 1:** Energy rating of storage systems installed (MWh) | Not applicable |
| **GESP 2:** Power rating of storage systems installed (MW) | Not applicable |
| **REI Co-Benefit Indicators** | **Project-Defined Indicators/Targets** |
| *Please identify one or more expected co-benefit indicators–i.e., other social, economic, environmental benefits beyond the REI core indicators–that the project will track and report.* | |
| **REI Co-Benefit 1:** Jobs created – direct or indirect disaggregated by male/female) | People with employment thanks to the project[4] |
| *Direct – Men* | 260 |

[4] Indirect jobs estimated based on 5,36 jobs per GWh and 600 GWh indirect production, ILO Methodologies for assessing green jobs, Policy brief, February 2013
https://www.ilo.org/wcmsp5/groups/public/@ed_emp/@emp_ent/documents/publication/wcms_176462.pdf

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|---|---|
| *Direct – Women* | 90 |
| *Indirect – Men* | 2,251 |
| *Indirect – Women* | 965 |
| *TOTAL* | 3,566 |
| **REI Co-Benefit 2:** Just transition | Number of women and youths with access to electricity through the project in Mali<br><br>Number of multipurpose platforms set up in Mali |
| **REI Co-Benefit 3:** Policy and planning coherence | Not applicable |
| **Other REI-Co Benefit:** *(Please specify)* | number of boreholes built and equipped with solar pumping: 36<br><br>number of multifunctional platforms built: 2 |
| **REI Optional Indicators** | **Project-Defined Indicators/Targets** |
| *Please specify any optional REI indicators that the project will track (see the REI M&R Toolkit for more information).* | linear 225 kV transmission line with a transit capacity of 600 MW built: 184<br><br>linear medium voltage (MV) networks built: 100<br><br>linear low voltage (LV) networks built: 325 |

***Please also submit the full project results framework to the CIF Secretariat upon MDB Board approval of the project.***

**Co-financing**

| | Please specify as appropriate | Amount (in million USD) |
|---|---|---|
| MDB 1 | AfDB | 33.2 |
| MDB 2 (if any) | | |
| Government | | |
| Private Sector | SOGEM | 7.3 |
| Bilateral | | |
| Bilateral | | |
| Others (please specify) | BOAD | 49.7 |
| Others (please specify) | GCF | 1.5 |
| Others (please specify) | Other partners | 59.1 |
| **Total Co-financing** | | **150.8** |
| **CIF Funding** | | **10** |
| **Total Financing (Co-financing + CIF Funding)** | | **160.8** |
| **Proportion of Total Financing for Adaptation** | | |
| **Proportion of Total Financing for Mitigation[f]** | | |

**Expected Date of MDB Approval**

September 20, 2025

**NOTES:**

[a] This cover page is to be completed and submitted together with the MDB project/program proposal when requesting funding approval by the Technical Committee/ Sub-Committee

[b] For products denominated in EUR, please also provide USD equivalent in the column to the left

[c] Please provide the information in the cover page or indicate page/section numbers in the accompanying project/program proposal where such information can be found.

[d] Insert "N/A" (not applicable) if dates cannot be determined at the time of submission (e.g., private sector programs)

[e] Insert "N/A" if indicator is not applicable to the project/program.

[f] Per MDBs' own Paris alignment climate finance tracking methodologies

**Version: October 2023**
CCH – here
CIF Website – here
CIF Pipeline Management and Cancellation Policy - here
CIF Financial Terms and Conditions Policy updated for FY24 - here
REI Design Document - here