PROJECT INFORMATION DOCUMENT (PID)
CONCEPT STAGE

Report No.: PIDC10783

Project Name	MG-Electricity Sec Operations & Governance Improvement Project (ESOGIP) (P151785)
Region	AFRICA
Country	Madagascar
Sector(s)	General energy sector (100%)
Theme(s)	Infrastructure services for private sector development (40%), State-owned enterprise restructuring and privatization (40%), Debt man agement and fiscal sustainability (20%)
Lending Instrument	Investment Project Financing
Project ID	P151785
Borrower(s)	Ministry of Energy
Implementing Agency	Ministry of Energy - JIRAMA
Environmental Category	B-Partial Assessment
Date PID Prepared/ Updated	04-Aug-2014
Date PID Approved/ Disclosed	04-Sep-2014
Estimated Date of Appraisal Completion	14-Feb-2015
Estimated Date of Board Approval	30-Apr-2015
Concept Review Decision	Track I - The review did authorize the preparation to continue

I. Introduction and Context

Country Context

1. Madagascar is just coming out of five years of political and economic turbulence, following a political crisis that started in 2009. A new government democratically elected at the end of 2013 is facing a situation characterized by daunting challenges. The country needs to resume its pursuit of growth, as redistribution alone cannot bring prosperity to most of the people when three quarters of the population live under absolute poverty. Madagascar's economy grew at an annual rate of 2.5 percent since 2000, contracting twice, in 2002 and 2009. Per capita income stagnated during the same period, and has been declining since 2008. As a consequence, the poverty rate increased. Developing a strategy to fight against this situation is an urgent task for the new government.

2. To turn back the tide, Madagascar's economy needs to grow faster than its population, and

the proceeds need to accrue increasingly to those under the poverty threshold. Fortunately, Madagascar has many assets to deploy in its bid. In addition to its rich natural endowments, Madagascar is emerging from the crisis with stable macroeconomic conditions of low inflation, small budget deficit, and reasonable external balances. The country's public financial management, with all its warts, is not dysfunctional and is of sufficient quality to implement the core of good public financial management process. Its financial sector is small, but stable and liquid. There are bright spots in the private sector, such as mining, telecommunications and tourism.

3. On the other hand, the government has little margin of maneuver. Given the paucity of public resources, few reforms requiring large new expenditure are feasible in the near future. Monetary policies are not potent as the signaling role of interest rates has been eroded because the financial market is not playing the intermediation role effectively. The fiscal authorities have little space to conduct countercyclical policies to stimulate growth. The delay in implementing crucial tax reforms, combined with the adoption of discretionary measures, has resulted in a decline in tax revenue collection as a share of the economy. Due to the government's inability to raise adequate funds, public investments collapsed, as did social spending. It follows that economic growth in Madagascar will have to be led by the private sector in the foreseeable future. The government should therefore concentrate on facilitating private sector activities, providing adequate regulatory frameworks where necessary, and promoting competition as much as possible.

4. Fixed capital formation in Madagascar has not followed a smooth path, partly because it has historically depended on foreign sources for large investments, over which it does not have complete control, and partly because such investments have been disrupted by recurring political crises. The most recent period of turmoil in Madagascar coincided with a global economic downturn, which made it particularly difficult for economic activities, especially those involving long-term planning. There are also has natural hurdles to contend with, such as being a large country (approximately 587,000Km^2, slightly larger than France) with difficult terrain, as well as being an island country located far from major trading partners and transportation hubs.

5. Over the last few years, Madagascar's electricity sector has not fulfilled its function of enabler of economic activities. Unreliable current power supply makes difficult to do business in Madagascar. In Doing Business 2014 Madagascar is ranked 187 out of 189 regarding the difficulty, delay and cost of getting electricity, aspects that hurt economic development. In a recent workshop held in Madagascar by the Ministry of Energy, representatives from the private sector have cited unreliability of electricity supply as one of the most important factors affecting competitiveness, having indicated a willingness to pay more if the reliability and quality of the electricity service was improved. Further expansion of mining, agriculture, manufacturing, with the corresponding gains in terms of employment creation, will indeed require increased supply of good quality electricity, which is currently unavailable. As an illustration, the problem of load shedding in Nosy Be in 2010-2011 put a brake on the economic activities of tour operators on the island, which led to layoffs. Access to electricity by the general population is also constrained – it was about 14 percent of the population in 2010, lower than many comparable countries, and is estimated to have fallen since then, considering the population growth rate. New connections are increasing at a rate of approximately 1 percentage point annually, partly because of the inability of the national electric utility JIRAMA to invest. Increasing access to electricity, particularly in suburban and rural areas, would result in the development of income generating activities and in the improvement in the living conditions of the served population in all areas.

Sectoral and Institutional Context

6. Main sector institutions and regulatory context. The electricity sector in Madagascar is dominated by JIRAMA, the vertically integrated state-owned utility responsible for the majority of the generation, transmission and distribution of electricity in Madagascar. The Ministry of Energy (MoE) implements government's policy and provides strategic coordination of the energy sector. The Energy Regulation Entity (ORE) reviews and approves tariffs. The Rural Electrification Agency (ADER) is responsible for rural electrification through grid-extension and/or off-grid and mini-grid systems. Other important sector agents include private companies that supply power to JIRAMA under the Independent Power Production (IPP) arrangement and through power rentals. The current legal and regulatory framework of the sector was developed in the last decade. The Electricity Law of 2000 and its implementing regulations enabled establishing a fairly comprehensive institutional framework. Following the promulgation of the Electricity Law, private investment is legally possible in the energy sector in Madagascar. IPP tariffs are currently negotiated on a contract by contract basis and are supervised by the ORE. Between 2008 and 2009 three IPPs running hydropower plants with installed capacity ranging from 1.2 to 18 MW joined the sector.

7. In spite of the favorable legal and regulatory framework, the current power supply is inadequate to meet the demand during peak hours and the transmission and distribution networks are overloaded. As a consequence of the progressive deterioration of JIRAMA's operational and financial performance, over the past 5 years, its customers have suffered periodic load shedding. Madagascar has two main interconnected networks which account for about 70% of the total load in the country . The frequency of power supply interruptions significantly increased in the capital city Antananarivo which accounts about 60% of the total demand in the country. The transmission and distribution networks are overloaded due to long-term insufficient investment in expansion and rehabilitation of existing infrastructure. Most of the distribution assets are reaching the end of the economic life, as the underground cables, overhead lines and switchgears in the established residential and commercial areas of the major towns in Madagascar were installed in the early eighties. More than 80% of the distribution transformers are overloaded. Failures in critical network assets are frequent. All those aspects explain a clear deterioration in quality and reliability of electricity supply. The current situation is already jeopardizing the development of new economic activities. More importantly, it will continue to deteriorate if no action is undertaken immediately.

8. The electrical system in Madagascar is composed of two types of installation: (i) three interconnected networks which are: Antananarivo, Toamasina, and Fianarantsoa; and (ii) about 130 isolated centers installed by JIRAMA and ADER. The interconnected networks have hydro power plants whereas most of the isolated centers are supplied by diesel power plants. The total installed capacity of the country was about 450MW in 2013 of which about 50% accounted for the interconnected network of Antananarivo. The total firm capacity was decreasing due to lack of maintenance and the system was not able to fully satisfy existing demand. The suppressed power demand for Antananarivo interconnected network as of December 2013 was approximately 10MW, and is expected to reach about 30MW by 2017 if new generation capacity is not installed. In addition, the availability of some of the generator sets owned by JIRAMA is decreasing due to lack of maintenance. The total generation of the country was about 1350 GWh in 2012 and the total energy billed was about 927GWh of which about 40% is consumed by industrial, 50% by households, and 10% by commercial and other customers. In terms of reliability, power outages in isolated centers were frequent with about 2-3 hours of duration per day. Moreover, the

interconnected networks experienced frequent power interruptions with an average of about 05-10mn per interruption which happened in particular during peak hours. In 2012, the annual billing presented was about MGA 349 billion (USD 158 million equivalent) against a collection rate of about 60%.

9. JIRAMA's financial position deteriorated significantly in recent years, and the company has become a heavy fiscal burden for the government. The financial position of JIRAMA deteriorated between 2010 and 2013 due to declining operational efficiency, its inability to collect revenues sufficient to cover costs, and rising price of inputs, primarily imported fuel. To address the supply gap, the Government and JIRAMA have entered into several "ad-hoc" expensive quasi-Independent Power Producer (IPP)/leasing contracts, awarded in general on a noncompetitive basis, to install thermal power plants running on diesel. This approach derived in a big increase in the country's cost of electricity production. . The current average supply cost is about 0.23USD per kWh whereas the average revenue from JIRAMA's sales is about 0.17 USD per kWh. JIRAMA has relied on government subsidies to pay for the fuel bills, generator rentals and energy purchases from private power generators, adding fiscal pressures on the already resource-starved State. The Government subsidy to JIRAMA heavily penalized the cash flow of the Malagasy treasury. The amount of government subsidies to JIRAMA for the years 2012 and 2013 are respectively about US$67.7 million about US$73.2 million equivalent , which corresponds to ~7% of annual government revenues. On the other hand, the country failed to implement the outcomes of hydroelectric site planning. On the consumption end, overall losses of Madagascar electricity system increased and reached 27% in 2012 whereas such rate was about 23% in 2009. In addition, the average collection rate fell to about 60% in 2013. Although payment rates of bills corresponding to public administration are poor, such low overall collection index evidences bad performance also in the segment of fully manageable customers. The profitability of JIRAMA collapsed with an operating deficit of more than US$ 85 million in 2012.

10. Consistent planning and coordinated investments would go a long way to improve the current unsustainable situation and increase access. The government must carry out systematic planning to identify and implement generation projects that represent the least cost options for the country and make possible to gradually move away from imported fuel based generation. Madagascar possesses enormous potential on renewable energy resource particularly hydro - the theoretical hydropower potential has been estimated at 8.4 GW although the economically exploitable potential has not been established. The number of untapped hydro sites has been reported as more than 800 ranging from a few kW (10) to 600 MW located throughout the country. In order to implement these projects, the country needs to advance key preparatory studies, which can take several years.

11. Improving quality and reliability of power would enable gradual tariff adjustments towards cost reflectiveness and achievement of financial sustainability, with due consideration for the lower-income population through social safety nets. The current legislation includes a clear pricing methodology for recovery of the economic costs of service in each of consumer categories. In theory the ORE should apply the pricing principle by type of production (hydro, heavy fuel, diesel) in order to limit structural deficits created by the electrification of isolated centers. Furthermore, the legislation includes an adjustment mechanism to reflect changes in economic inputs such as fuel prices, and the parity of the local currency. However, such mechanism has not been applied since its adoption in 2009. It becomes crucial to improve the operational performance of JIRAMA in order to provide better quality service to its customers and make tariff increases needed acceptable. A tariff

study could provide ways to achieve financial sustainability of JIRAMA through design and effective application of a sociallyand politically acceptable tariff structure and rates.

12. Access to electricity services is low countrywide, and even more so in rural areas. The estimated current access rate is around 12-13% with 39 percent of the population in urban and peri-urban areas and only about 5 percent in rural areas. This is mainly due to the country's poverty level and low population density, particularly in rural areas where over 67% population lives. The comparison with other African countries in similar conditions shows that Madagascar performs quite badly. In addition, the country achieved very little progress between 2003 and 2013 in electrification. Designing and effectively applying a systematic strategy to increase access is a key government responsibility. . Once that strategy is defined, the government could rally support for its application and raise funding for implementing a massive electrification program targeting urban and rural areas.

13. Private sector participation in the electricity sector. Current sector situation makes it difficult for the private sector to participate, given JIRAMA's financial performance and its inability to pay for supply contracts. Conversely, there are reports of current underperformance of existing IPPs, who are failing to supply contracted power. Several potential IPPs have recently addressed government (and continue to do that) with proposals for developing certain sites. Despite the urgent need of additional sources of generation, this is also a challenge, in the absence of criteria, rules and procedures establishing the priorities and a framework to deal with these unsolicited proposals.

14. To handle these issues, the Government has developed a recovery plan which covers the period 2014-2019. The priority investment plan for JIRAMA amounts US$ 346million and for ADER reaches US$ 68millions. The Government has also identified the need to strengthen the institutional and technical capacity of the Ministry of Energy and ORE to carry out their respective roles and duties.

15. Given the context, the Government [has recently requested] the World Bank's support to implement a project with a focus on improving performance (JIRAMA and other agents) and enhancing governance of the power sector in the country. The authorities have identified, together with the Bank, a set of high priority activities that could be carried out in the short term to achieve significant improvements in sector performance and governance, and, at the same time, address key issues enabling its sustainable development. This program, detailed below, comprises a set of priority actions to improve the current situation in three key areas for sustainable development, which are: (i) the planning of investments to develop the sector in all segments and move into universalization of electricity services, (ii) the operational performance of JIRAMA and (iii) the financial sustainability of sector, including the tariff system and complementary social safety nets. Actions on the planning and financial sustainability areas will include specific studies and services described in following sections of this document. Improvement of operational performance of JIRAMA will be addressed through the preparation and effective implementation of a business plan focused on the organizational restructuring of the company and appointment of a new management team and the incorporation of inform ation systems and other applications to enable efficient, transparent and accountable execution of operations in all business areas. Implementation of the identified priority actions will to strengthen the physical and institutional infrastructure, improve the operational and financial performance of JIRAMA and pave the way to accelerate the electrification of the country (both expanding the grid and implementing off-grid solutions) and enable more private sector investments in generation to lower the cost of supply..

16. The proposed program is complementary to other support that the Bank is also providing in other areas, namely in the development of additional information on the hydro potential, and with dealing with short term actions to foster private sector participation. The Bank is currently implementing a TA activity, financed by ESMAP that aims at preparing the mapping of small hydropower projects (less than 20MW). This will improve datasets, and increase the awareness of stakeholders (both the GoM and the private sector) for facilitating the development of this RE resource, but most importantly it will create opportunities to lower the cost of generation, greening the energy mix, and foster private sector participation. This activity would provide an indication to government as to the sites with the best potential for electricity generation, and would be an input to the development of a Least Cost Power Development Plan, to be prepared though the current project. In addition, the Bank is also providing some short-term assistance to government on the development of IPPs, through assistance to the Ministry of Energy in identifying the most promising IPPs to be developed immediately and assisting in reviewing associated documentation and starting to develop an adequate regulatory framework – the purpose being to increase generation installed capacity in the short term in the best possible conditions for the country, while enhancing sector governance to manage short term needs to increase generation capacity with efficiency, transparency and accountability.

17. One of the objectives of the first actions and studies to be conducted would be to quickly establish an indicative program to support the sector in the medium term, which could be presented to other technical partners and financiers and investors in the context of a round table to be organized by Government, and that could also be supported by the World Bank. The development of this program would be guided by the sector strategy currently under development with support from the EU and GIZ. Specific studies to be developed in the early stages of the project (or even during the preparation period) would be the technical tools to quantify and plan the detailed implementation of this strategy – such studies would include the development plan at a lower cost, the business plan for JIRAMA and an access strategy – all to be supported through the project. Through donor coordination, the Bank would seek to leverage additional financing for complementary investments in JIRAMA but also on other possible investments, like the development of renewable energy mini-grids. The medium-term program would allow Government to identify the most attractive projects to expand production capacity, and where partnerships with the private sector could be considered. These partnerships could eventually be developed through competitive and transparent tender processes. IFC and MIGA may be asked to provide additional support to the government in this regard.

18. Need for a very strong government commitment to this program. If these issues are resolved, then the power sector can play a significant role in supporting the ambitious economic growth targets set by the government. While from a technical point of view the activities are not very complex, JIRAMA's reform is a challenging and risky task, and will require strong commitment and leadership from government to overcome vested interests always present in management of a poorly performing utility, in general significantly different from those related to providing good service to its customers..

19. There have been previous crisis and attempts at imp roving performance of JIRAMA. In early 2005 the JIRAMA top management was replaced, and the utility was put under a two-year, IDA-funded management and operation contract. The management contract, which was part of a two-phase reform process (Step 1: management contract; and Step 2: 'affermage' and corporate

restructuring of the isolated grids) brought about some positive results. These included optimization of the generation plant dispatch, optimization of plant operations, increased revenue collection and cost control measures - all these measures contributed to the improved cash flow and reduced financial losses. Financial recovery from a situation of near-bankruptcy seemed to be under way. The JIRAMA's balance sheet was also restructured through a mix of write-offs and debt-equity conversions. However, the international consultancy firm, which was implementing the IDA funded management contract, was debarred from World Bank business before the contract renewal date (due to an unrelated case elsewhere in Africa). Because of this circumstance, it was decided that a few individual management consultants, paid by the government, would continue providing management services to JIRAMA, without the involvement of the debarred consultancy firm. The objective of this decision was to give enough time to the government to decide on the pace and direction of future utility reform. Later, with the civil unrest and eventual overthrow of the then head of state, some of these individual contractors faced allegations from the new leadership and had to abruptly terminate their services, and in one case to flee the country to avoid arrest.

20. The proposed approach to improve operational performance of JIRAMAis based on the preparation and effective implementation of a Business Plan (BP) for for a 3-year period, focused on the key aspects impacting on effectiveness in operations. The BP will be focused on the definition and implementation of an optimum organizational structure, followed by the selection of staff to occupy positions at all levels through competitive and transparent (publicly disclosed) processes and with support of specialized consultants. The BP will also include the incorporation of management information systems (MIS) to provide management with the right tools and information to manage the company better, as well as implementation of a revenue protection program (RPP) for sustainable reduction of non-technical losses in supply (unmetered consumption). The BP will also address execution of urgent investments in rehabilitation/upgrade of facilities for electricity supply to reduce technical losses and bring service quality to acceptable levels. This initial improvement in service quality is a prerequisite to enable tariff increases to wealthy consumers able to pay cost reflective rates.. Alternative approaches to ensure smooth and effective implementation of the business plan for JIRAMA (management contract, leadership by the Board of Directors through an ad-hoc steering committee and support of specialized consultants, etc.) will be discussed with the Government. In parallel with actions on the operational performance area, the the government is pursuing a legal reform for JIRAMA to start operating under commercial law. This should co ntribute to accelerate and give sustainability to the action plans to improve the company's performance..

21. Careful considerations needed on political economy and mitigation measures. Any reform must be accompanied by considerations of the sector political economy, and a definition of the best strategies to address them. Government has so far demonstrated its strong interest and commitment to the project, but the risks remain high.

Relationship to CAS

22. The proposed project is well aligned with the Madagascar Interim Strategy Note (ISN) FY12-13. The ISN rightly identifies the weaknesses of the energy sector and identifies the need for Madagascar to deploy much increased efforts to address the energy sector as one of the most salient areas of weaknesses and of pervasive governance issues. The ISN further identifies the need to focus attention on the energy utility company (JIRAMA) as its financial situation has become unsustainable. Energy one of the sector explicitly identified as a priority area for interventions beyond FY13, recognizing its role as a contributor to employment and competitiveness in the

country. As is detailed further below, the current project would seek to address financial and governance issues at JIRAMA.

II. Proposed Development Objective(s)

Proposed Development Objective(s) (From PCN)

The proposed Project Development Objective is to improve performance, management, and governance of the power sector of Madagascar by simultaneously addressing three key areas for sustainable development: (i) planning (including access) and implementation of outcomes; (ii) operations for electric service provision; (iii) financial viability.

Key Results (From PCN)

23. The proposed outcome indicators would be:

- Electricity losses per year in the project area
- Average duration of outages at the MV level in the project area
- Average interruption frequency per year in the project area
- Cash-recovery index
- Direct project beneficiaries of which are female (percentage)
- Transparency and dissemination of information on policy and regulatory processes
- Transparency of JIRAMA's financial reporting

24. Additionally, selected output indicators would be

- Least Cost Power Development Plan prepared
- Access strategy prepared
- All components of the business plan implemented and used company-wide
- Tariff assessment prepared
- Conventional generation capacity increased
- Number of km of transmission and distribution lines rehabilitated

III. Preliminary Description

Concept Description

The estimated total financing required for the currently proposed Madagascar ESOGIP is US $79.3million. This program includes urgent and priority activities for the power sector in Madagascar. Depending on government's priorities, IDA availability, and potential interest from other donors, part of this program may be financed by another party, or scaled down. As of now, other donors have expressed they would not be able to contribute immediately.
The proposed project has 4 components, described below:

Component 1: Strengthening power sector planning and development (US$1.80 million)

This component aims to: (i) ensure planning of the optimum investments needed to develop the power sector in Madagascar, from electricity generation to the effective connection of end users, is carried in a fully systematic manner; (ii) define mechanisms to ensure effective implementation of the outcomes of the planning process; (iii) strengthen in a sustainable manner the capacity of the government agencies responsible for planning the power sector and implementation of the outcomes of the planning process. In order to meet these objectives, the component will include:

1.1. Preparation of a Least Cost Power Development Plan (LCPDP) for the electricity sector

As most countries do, the Government of Republic of Madagascar (GRM) must keep permanently updated its own roadmap for the development of the electricity sector in the country in the next 15-20 years. For that purpose, the competent government entity (Ministry of Energy) needs to lead the preparation (eventually based on the review and update of existing versions) of a Least Cost Power Development Plan (LCPDP) for that period, in order to define the investments needed in all the segments of the electricity supply chain (from generation, transmission, and distribution to consumers' connection). The LCPDP should be prepared starting from recent reliable demand forecasts (an update of existing projections would be needed), based on priorities in areas to be electrified and type of electricity services to be provided (including transitory stages until full electrification is achieved). Other key inputs are the scenarios to be defined by the GRM in terms of energy mix for electricity generation (hydropower and other indigenous resources, renewables, etc.). This sub-component will finance the consultancy services required for the preparation of the LCPDP. The Studies and Planning Department in the Ministry of Energy will be responsible for and lead the preparation of the LCPDP, with technical support from JIRAMA, ADER and ORE.

1.2- Definition of a strategy and action plans to increase electricity access countrywide

In countries with low electrification rates like Madagascar, a key component of the planning process, which in general is addressed separately and complements the LCPDP, is the definition and effective implementation of the action plans to increase access to electricity services ("electrification"), until full coverage is achieved. The definition of a strategy for electrification of the country is a government responsibility, and should comprise setting priorities, ensuring funding (grants, loans, national budget, tariff revenues, etc.), defining optimum technical solutions for specific situations, and putting in place implementation arrangements (roles and responsibilities of government agencies, the national utility, etc.). Best technical solutions and implementation arrangements for electrification in urban and peri-urban areas could be different from the most adequate for rural areas.

This sub-component will finance the consultancy services required for the definition of a strategy and action plans to increase electricity access in the whole Madagascar.

1.3- Strengthening institutional and operational capacity of government agencies responsible for planning

This sub-component will include actions aimed at strengthening the institutional and operational capacity of the Ministry of Energy and other government agencies responsible for planning and implementation of the electrification strategy, to ensure that they are able to effectively carry out those critical tasks on a long term basis.

1.4-Assessment of the existing pricing systems for electricity services, identification of improvements needed to achieve financial viability and approaches for implementation

This component will finance the execution of studies needed to improve the pricing system for electricity services in Madagascar in order to ensure the financial viability of the power sector of the country.

Component 2: Improving operational performance and governance of JIRAMA in key business areas (US$76.0 million)

This component will comprise the preparation and effective implementation of a Business Plan (BP) for JIRAMA for a 3-year period, focused on improving efficiency, transparency and accountability of performance of JIRAMA in the key operations areas (electricity supply, commercial functions, management of corporate resources) on a sustainable manner, with specific emphasis on better service quality and loss reduction.

The key components of the BP will be:

- Definition and implementation of an optimum organizational structure, including: (i) description of functions and responsibilities of positions at all levels and definition of skills required for each position; (ii) selection of staff to occupy positions at all levels through competitive and transparent (publicly disclosed) processes with support of specialized consultants.
- Incorporation of management information systems (MIS) to make more efficient, transparent and accountable the development of processes and activities in all business areas: operation and maintenance (O&M) of assets for electricity supply and attention of customers' claims; commercial functions; and management of corporate resources. Incorporation of the MIS must be complemented with the improvement and update of their respective databases (customers, assets, etc.) supported by a geographic information system (GIS).
- Implementation of a revenue protection program (RPP) for sustainable reduction of non-technical losses in supply (unmetered consumption) through systematic remote recording and monitoring of consumption of large users. The initial phase of the RPP should include all customers supplied in medium voltage (MV; around 700, representing 42% of physical sales in 2013), as well as the largest low voltage (LV) users.
- Execution of urgent investments in rehabilitation/upgrade of facilities for electricity supply (generation, transmission, distribution) and metering needed to improve service quality to acceptable levels
- Reinforcement of transmission facilities (Ambohimanambola interconnection substation): US$ 5.5 million
- Rehabilitation/upgrade of distribution networks (5 to 35 kV): US$ 26.6 million.
- Incorporation of new generation capacity running on heavy fuel-oil (HFO) to meet demand at Antananarivo - this sub-component of the Business Plan could be implemented through a direct investment by JIRAMA or by an independent power producer (IPP) with a long-term power purchase agreement (PPA) with JIRAMA, eventually complemented with a partial risk guarantee (PRG) provided by the World Bank Group.
- Supply and installation of 5 x 6 MW generating units running at the site of an existing power plant in Ambohimanambola, including power transformers, switchgear and cables for connection to the network: US$ 30 million

Component 3: Project management (US$1.5 million)
This component will support project management related issues through the recruitment of FM and procurement experts, preparation of safeguard studies, financing of audit, office equipment and incremental operating costs.

IV. Safeguard Policies that might apply

Safeguard Policies Triggered by the Project	Yes	No	TBD
Environmental Assessment OP/BP 4.01	x		
Natural Habitats OP/BP 4.04		x	
Forests OP/BP 4.36		x	
Pest Management OP 4.09		x	
Physical Cultural Resources OP/BP 4.11	x		
Indigenous Peoples OP/BP 4.10		x	
Involuntary Resettlement OP/BP 4.12	x		
Safety of Dams OP/BP 4.37		x	
Projects on International Waterways OP/BP 7.50		x	
Projects in Disputed Areas OP/BP 7.60		x	

V. Financing (in USD Million)

Total Project Cost:	80.00	Total Bank Financing:	80.00
Financing Gap:	0.00		

Financing Source	Amount
BORROWER/RECIPIENT	0.00
International Development Association (IDA)	80.00
Total	80.00

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