

AFRICAN DEVELOPMENT BANK GROUP



PROJECT : ENERGY SECTOR SUPPORT PROJECT

COUNTRY : UNION OF THE COMOROS

APPRAISAL REPORT

Appraisal Team	Acting Regional Director	: Mr. S. KONE, OREB
	Sector Director	: Mrs. H. CHEIKHROUHOU, ONEC
	Division Manager	: Mr. E. NEGASH, ONEC.2

ONEC DEPARTMENT

August 2013

Translated document

TABLE OF CONTENTS

I. STRATEGIC THRUST AND RATIONALE	1
1.1 Project Linkages with Country Strategy and Objectives	1
1.2 Rationale for Bank's Involvement.....	1
1.3 Aid Coordination	2
II. PROJECT DESCRIPTION	2
2.1 Project Components	2
2.2 Technical Solution Adopted and Alternatives Explored	3
2.3 Project Type.....	4
2.4 Project Cost and Financing Plan.....	4
2.5 Project Target Areas and Beneficiaries	6
2.6 Participatory Approach to the Project Identification, Design and Implementation.....	6
2.7 Bank Group Experience and Lessons Reflected in Project Design	7
2.8 Key Performance Indicators	7
III. PROJECT FEASIBILITY	7
3.1 Financial and Economic Performance	7
3.2 Environmental and Social Impact.....	8
IV. PROJECT IMPLEMENTATION.....	10
4.1 Implementation Arrangements	10
4.2 Project Monitoring	11
4.3 Governance	12
4.4 Sustainability	13
4.5 Risk Management	13
4.6 Knowledge Building	14
V. LEGAL FRAMEWORK	14
5.1 Legal Instrument.....	14
5.2 Conditions Associated with Bank's Intervention	14
VI. RECOMMENDATION.....	15

ANNEXES:

I. Country's Comparative Socio-economic Indicators

II. Table of AfDB Portfolio in the Country as of June 2013

III. Key Related Projects Financed by AfDB and Other Development Partners

IV. Map of the Project Area

Currency Equivalents

April 2013

1 UA	USD 1.4992
1 UA	EUR 1.16987
1 KMF	USD 0.0026

FISCAL YEAR

1 January - 31 December

WEIGHTS, UNITS AND MEASURES

t	tonne = 1 000 kg	GWh	GigaWatt-hour = 1 000 000 000 Wh
kW	kiloWatt = 1 000 Watt	kV	kiloVolt = 1 000 Volt
MW	MegaWatt = 1 000 000 W	kVA	kiloVolt-Ampere = 1 000 VA
GW	GigaWatt = 1 000 000 000 W	MVA	MegaVolt-Ampere = 1 000 000 VA
kWh	kiloWatt-hour = 1 000 Wh	Toe	Tonne of oil equivalent
MWh	MegaWatt-hour = 1 000 000 Wh		

ACRONYMS and ABBREVIATIONS

<i>AC</i>	<i>Advance Contracting</i>	<i>LV</i>	<i>Low Voltage</i>
<i>AfDB</i>	<i>African Development Bank</i>	<i>MA-MWE</i>	<i>Comoros Water and Electricity Corporation (MADJI NA MWENDJE)</i>
<i>ADF</i>	<i>African Development Fund</i>	<i>MDB</i>	<i>Multilateral Development Banks</i>
<i>AFD</i>	<i>French Development Agency</i>	<i>MTR</i>	<i>Mid-Term Review</i>
<i>CBD</i>	<i>Competitive Bidding Documents</i>	<i>PAR</i>	<i>Project Appraisal Report</i>
<i>CDM</i>	<i>Clean Development Mechanism</i>	<i>PAREGF-II</i>	<i>Second Economic Reform and Financial Governance Support Programme</i>
<i>CFP</i>	<i>Country Financial Parameters</i>	<i>PASEC</i>	<i>Comoros Energy Sector Support Programme</i>
<i>CPMU</i>	<i>Central Project Management Unit</i>	<i>PCR</i>	<i>Project Completion Report</i>
<i>CSP</i>	<i>Country Strategy Paper</i>	<i>PPP</i>	<i>Public-Private Partnership</i>
<i>EDA</i>	<i>Électricité d'Anjouan (Anjouan Electricity)</i>	<i>RMC</i>	<i>Regional Member Countries</i>
<i>ESIA</i>	<i>Environmental and Social Impact Assessment</i>	<i>RPMU</i>	<i>Regional Project Management Unit</i>
<i>ESMP</i>	<i>Environmental and Social Management Plan</i>	<i>SCH</i>	<i>Hydrocarbons Corporation of the Comoros</i>
<i>FSF</i>	<i>Fragile States Facility</i>	<i>SME</i>	<i>Small and Medium-size Enterprises</i>
<i>GDP</i>	<i>Gross Domestic Product</i>	<i>UA</i>	<i>Unit of Account</i>
<i>HV</i>	<i>High Voltage</i>	<i>UNFCCC</i>	<i>United Nations Framework Convention on Climate Change</i>
<i>ICB</i>	<i>International Competitive Bidding</i>	<i>MV</i>	<i>Medium Voltage</i>
<i>IDA</i>	<i>International Development Association</i>	<i>USD</i>	<i>United States Dollar</i>
<i>INDS</i>	<i>National Social Development Initiative</i>	<i>WB</i>	<i>World Bank</i>
<i>IPP</i>	<i>Independent Power Producer</i>		

Project Fact Sheet

Client Information	
Borrower	Union of the Comoros
Executing Agency	Ministry of Energy and Water in charge of Natural Resources

FINANCING PLAN		
Sources	Amount (UA million)	Instrument
Fragile States Facility (FSF)	8	Grant
African Development Fund (ADF)	5.38	Grant
World Bank (IDA)	3.336	Grant
Total Financing	16.679	

FINANCIAL INFORMATION ON THE ADF AND FSF GRANT	
Loan currency	UA
Interest type	N/A
Basic interest rate	N/A
Service charges	N/A
Administrative charges	N/A
Maturity	N/A
Grace period	N/A

KEY FINANCIAL AND ECONOMIC OUTCOMES		
	IRR (%)	NPV (USD million)
Internal rate of return (IRR) and net present value (NPV) – Financial analysis	20.4	11.6
Internal rate of return (IRR) and net present value (NPV) – Economic analysis	22	10.7

DURATION AND KEY STAGES	
Concept Note approval	February 2013
Project approval	September 2013
Effectiveness	December 2013
First disbursement	February 2014
Last disbursement	February 2018
Project works completion	February 2017
Last disbursement	N/A

PROJECT SUMMARY

1. Project Overview

1.1. The Union of the Comoros is a fragile country suffering from inadequate power supply. A technical study by the Bank¹ confirms the urgent need for intervention in the country's electricity sector. Based on this study, the Energy Sector Support Project, which will be implemented in the three islands of the Comoros (Grande Comore, Anjouan and Mohéli), falls directly in line with the actions taken by the Union of the Comoros to improve performance and promote energy sector development. The project will help address the failures observed in the electricity sector through increased production capacity, reduced levels of technical and commercial losses and energy sector capacity building. The implementation of this project, planned to last 38 months, is also a major stride towards providing the Union of the Comoros with the studies required to tap its renewable energy potential, thereby laying the groundwork for green growth in a fragile State.

1.2. This project will benefit the residents of the three islands of the Union of the Comoros as well as businesses and industries connected to the grid, whose living and working conditions will improve as a result of the access to more stable and better quality power supply.

1.3. The project's direct beneficiaries will be involved in the project through education and information campaigns aimed at encouraging them to adopt responsible behaviour in terms of settling bills, ensuring energy efficiency and cooperating with the two power corporations².

2. Needs Assessment

This project helps to address a twofold challenge in the energy sector. Indeed, the electricity sub-sector situation in the Comoros is fraught with challenges, including: i) electricity access rate that does not exceed 50% and shows a disparity among the three islands (10% in Mohéli, 50% to 60% in Anjouan and Grande Comore); ii) unreliable distribution network with a loss rate estimated at 40%; and (iii) a supply shortage that causes recurrent blackouts (about five hours every four days in rural areas, between 8 and 12 hours per day in Grande Comore, and about 10 hours per day in Anjouan). Furthermore, by providing institutional support and undertaking the studies, the project will enable the Government to acquire the capacity needed to properly manage the electricity corporations and promote the country's renewable energy potential.

3. Bank's Value Added

This project enables the Bank to strengthen its role as a major player in the energy sector in the Comoros. The Energy Sector Support Project will supplement and build synergies with Bank activities in the sector, including: i) the Comoros Energy Support Programme (PASEC); and ii) the Energy Sector Reform and Financial Governance Support Programme (PARSEGF). Therefore, the activities provided for under the institutional support are based on the Bank's experiences.

¹ Status of Electricity Systems in the Comoros Islands and Proposals for a Rehabilitation Programme, AfDB, April 2013

² MA-MWE- supplies the Islands of Grande Comore and Mohéli; while EDA supplies the Island of Anjouan

4. Knowledge Management

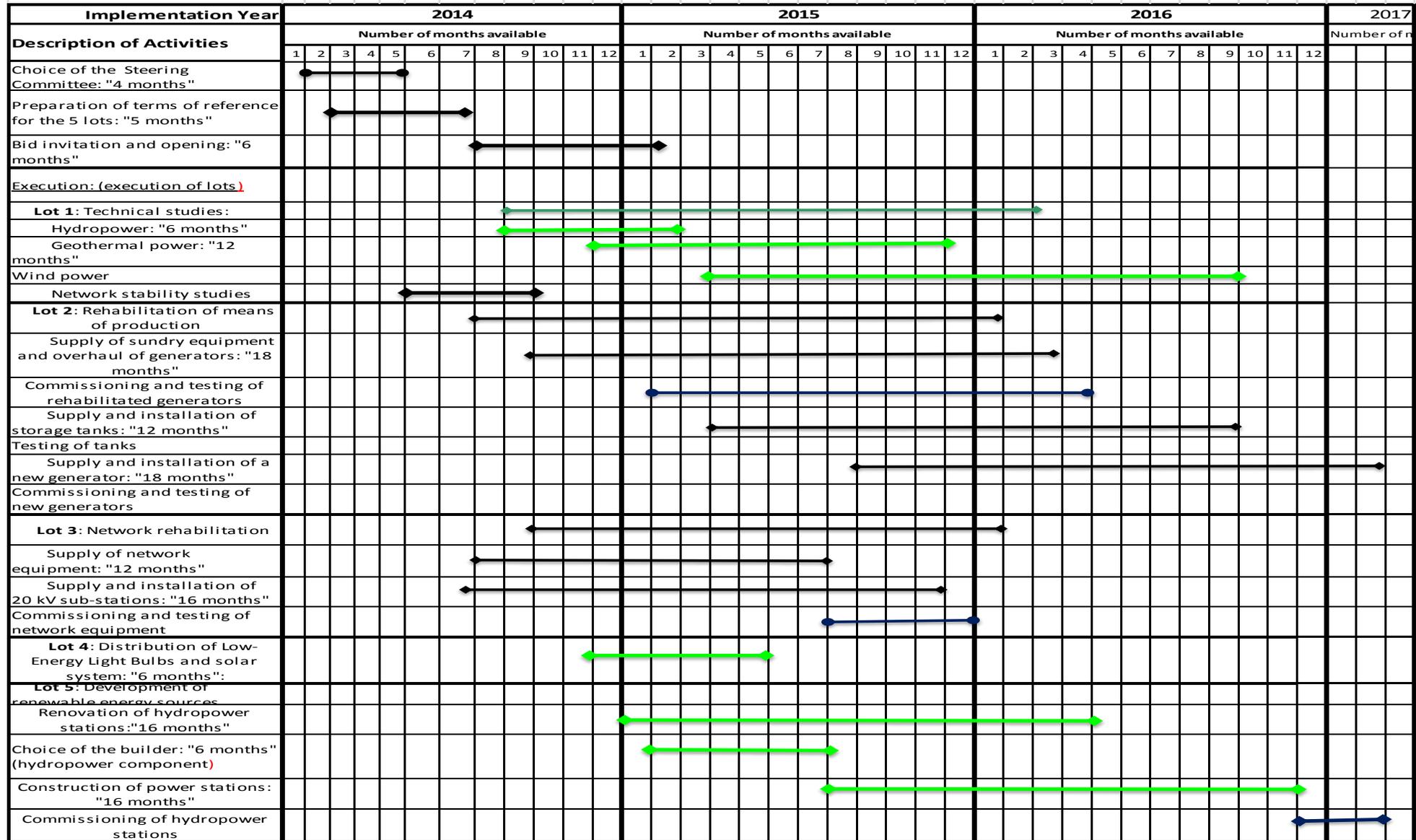
The technical assistance targeting the two power corporations will contribute to the monitoring exercise by preparing periodic reports for submission to the Bank. Moreover, supervision reports on the achievement of objectives set forth in the logical framework and the various audit reports will help to build the knowledge enabling the Bank both to monitor this project and to design similar projects in other regional member countries.

RESULTS-BASED LOGICAL FRAMEWORK

Country and Project Name: Union of the Comoros – ENERGY SECTOR SUPPORT PROJECT						
Project Objective: Restore and improve the operation of the electricity network, from production to distribution, and lay the groundwork for the development of renewable energy						
Results Chain		PERFORMANCE INDICATORS			Mean of verification	RISKS/MITIGATION MEASURE
		Indicators (including CSI)	Baseline Situation (2012)	Target		
IMPACTS	Improvement in economic competitiveness	National electricity access rate	60% in Grande Comore, 50% in Anjouan, 10% in Mohéli	80 % en 2017 in the three islands	-Post-evaluation Reports	<ul style="list-style-type: none"> • Power plant maintenance and security risk: mitigated through capacity building activities. • Institutional risk: mitigated through implementation of the recommendations of organizational and strategic audits of electricity corporations. • Risk related to aid coordination: mitigated through harmonization of the various investments following the signing of a collaboration agreement between the co-financiers. • Moderate risk of political instability resulting from past tensions between the three islands: mitigated by the support of multilateral organizations.
	Increase in the country's energy production capacity and reduction in losses	<ul style="list-style-type: none"> • Total production capacity of the country (by island) • Rate of technical and commercial losses 	<ul style="list-style-type: none"> • Production capacity (in MV): Grande Comore: 12; Mohéli: 1 Anjouan: 3.9 • Network loss: MA-MWE: 45% and EDA: 35% 	<ul style="list-style-type: none"> • Production capacity (MV) in 2017: -Grande Comore: 20, Mohéli: 3 and Anjouan: 5 • Network loss nationally: 25% 	-Records /Annual Reports of electricity corporations	
OUTCOMES	Restoration of electricity production and distribution	<ul style="list-style-type: none"> • Rehabilitated generators • New generators procured • Average length of medium/low voltage line established and rehabilitated • Tapping of hydroelectric capacity 	<ul style="list-style-type: none"> • 22 generators in poor working condition or broken down • 423 km of line to be improved • 449 transformers in poor working condition • 3 micro hydroelectric plants in Anjouan and Mohéli 	Between 2015 and 2017: <ul style="list-style-type: none"> • 22 generators revised and procurement of a new 3-MW-generator • 60 km of additional lines • 362 km of rehabilitated lines • 120 new transformers • 4 micro hydroelectric plants rehabilitated 	-AfDB Supervision Mission Reports -Project Completion Report	
	Strengthening of the fuel-storage capacity of power plants	<ul style="list-style-type: none"> • Additional fuel storage capacity 	<ul style="list-style-type: none"> • Amount of reserve: 4 days in Grande Comore and Anjouan and 2 days in Mohéli 	Fuel reserve: 30 days' reserve on the three islands from 2016		
	Development of renewable energy	<ul style="list-style-type: none"> • Number of feasibility/engineering studies funded 	<ul style="list-style-type: none"> • Lack of feasibility studies 	<ul style="list-style-type: none"> • Identification of potential sites and launch of feasibility studies from 2015 	Study reports	
KEY ACTIVITIES	Development of the notion of energy conservation	<ul style="list-style-type: none"> • Reduction in diesel consumption • Installed solar power capacity 	<ul style="list-style-type: none"> • No existing solar projects • Lack of diversification of power production sources 	<ul style="list-style-type: none"> • 20 KW of solar power will be installed from 2016 • Reduction of diesel consumption 	<ul style="list-style-type: none"> • The reduction in consumption determined in the evaluation report 	
	Capacity building	<ul style="list-style-type: none"> • Number of training courses offered • Number of women receiving training • Technical assistance in the pipeline 	<ul style="list-style-type: none"> • Lack of training plan in electricity corporations • No training planned 	<ul style="list-style-type: none"> • From 2014-2015 • 6 training sessions scheduled under the project for a total of 69 employees • 18 women will be trained (by the two corporations) • Provision of technical assistance. 	<ul style="list-style-type: none"> • CPMU quarterly reports • AfDB supervision mission reports 	
COMPONENTS					RESOURCES	
(A) Rehabilitation of power plants (decommissioning, restoration and procurement of new generators); (B) Rehabilitation of power transmission/distribution lines; (C) Replacement of electricity meters in homes and in enterprises; (D) Construction of new office buildings (at power plants); (E) Development of renewable energy potential in the islands of the Comoros; and (F) Capacity building.					AfDB Group financing: UA 13.3 million World Bank: UA 3.3 million Total project cost: UA 16.6 million	

Project Implementation Schedule

Union of the Comoros



**REPORT AND RECOMMENDATIONS OF THE MANAGEMENT
TO THE BOARDS OF DIRECTORS CONCERNING A PROPOSAL
TO AWARD AN ADF AND FSF GRANT TO THE UNION OF THE COMOROS
TO FINANCE THE ENERGY SECTOR SUPPORT PROJECT**

Management hereby submits this report and its recommendations on a proposal to award a UA 5.38 million ADF grant and a UA 8 million FSF grant (total UA 13.38 million) to the Union of the Comoros for financing the Energy Sector Support Project.

I. STRATEGIC THRUST AND RATIONALE

1.1. Project Linkages with Country Strategy and Objectives

1.1.1. The project is in line with the priorities defined by the National Growth and Poverty Reduction Strategy (GPRS 2009-2014), which makes the promotion of macroeconomic stability and governance two of its four areas of focus. It is consistent with the priorities set out in the National Social Development Initiative (INDS, 2011-2015) in that it seeks to promote growth, competitiveness and employment by targeting the energy and infrastructure sectors, and to strengthen the private sector by improving the key factor of electricity production. This project will also complement the strategy of the Vice-Presidency of the Union of the Comoros in charge of Energy, which has defined strategies for implementing the development policy for the electricity and petroleum products sector aimed particularly at increasing the electrification rate and achieving a 40%-reduction in the cost of electricity production by 2015 from the 2012 level.

1.1.2. The Country Strategy Paper (CSP) for 2011-2015 devotes the Bank Group's assistance to the Comoros to a single pillar centred on energy sector development and economic support diversification. The CSP also includes strengthening the renewable energy sector, which it deems necessary for improving the competitiveness of the Comoros. Indeed, increased exploitation of the renewable energy potential as part of a sustainable energy policy is identified in the CSP as a leverage that could help promote economic development in order to bring down the production cost and price of electricity.

1.2. Rationale for Bank's Involvement

1.2.1. The Energy Sector of the Union of the Comoros is characterized by: i) low and disparate access rates between the islands; ii) unreliable availability of electricity, causing several hours of recurrent load-shedding per day; iii) a troubling sector financial situation with subsidies estimated at more than 10% of the State's recurrent budget; and iv) poor access to modern sources of electricity, thus limiting the development of SMEs/SMIs, which are essential for the country's economic growth. The country's fragile state also requires capacity building for the sector's stakeholders, including the staff of the two electricity corporations (MA-MWE and Electricity Anjouan (EDA)). Thus, the project will enable the Bank to support the efforts of the Comorian Government to restructure the energy sector, particularly as concerns electricity access, with a view to improving the living and working conditions for the population, enterprises and businesses in the project impact area.

1.2.2. The experience gained by the Bank from implementing previous programmes, including PASEC and PARSEGF, served as the basis for this project's design. These programmes have made the Bank a major player in the energy sector in the Comoros. Implementing the project falls within the Bank's long-term vision of supporting the structural transformation of countries towards green and inclusive growth. Through the preparation of technical and feasibility studies and capacity building, the Bank will enable the Union of the Comoros, a fragile country, to acquire additional skills and lay the groundwork for green growth by developing its renewable energy potential (including the exploitation of the hydropower potential in the islands of Anjouan and Mohéli).

1.3. Aid Coordination

1.3.1. Donors, under the leadership of the United Nations system, hold regular aid-coordination meetings. However, there is currently no formal partnership framework, especially because most donors have no representation in the country. Donor activities could benefit from greater synchronization and collaboration among development partners as that would maximize synergies and economies of scale.

II. PROJECT DESCRIPTION

2.1. Project Components

2.1.1 The project components are presented in the following table:

Table 2.1			
Project Components (amounts in UA million)			
No.	Components	Estimated Cost	Component Description
A	Rehabilitation and Technical Operation Support	10.047	This support covers the preparation and implementation of activities: <ul style="list-style-type: none"> • Conduct of technical studies: (i) networks; (ii) energy control; and (iii) renewable energy • Rehabilitation of production and transmission facilities (power stations and injection/outlets) • Network rehabilitation • Implementation of energy control: (i) dissemination of low-energy light bulbs; and (ii) establishment of a small solar project connected to the network.
B	Institutional Support	2.347	<ul style="list-style-type: none"> • Provision of technical assistance for project implementation and management of the two corporations (see Annexes B3.1 and B3.2)
C	Project Management	986	<ul style="list-style-type: none"> • Audit of project accounts • Works supervision and control • Functioning of the Project Implementation Unit
Sub-Total (AfDB Financing)		13.38	
D	Commercial Management Assistance	3.336	<ul style="list-style-type: none"> • Assistance in management, commercial performance and collection effort of MA-MWE • Improvement of commercial performance • Electricity sector governance and design of MA-MWE technical assistance contract • Support for the Project Implementation Unit
Sub-total (World Bank financing)		3.336	
Grand total for the Rehabilitation and Support Programme		16.716	

2.1.2 The project will rehabilitate production capacities in the three islands, contribute to the improvement of financial governance through capacity building in the electricity sub-sector, and help in the preparation of the quality-at-entry of future renewable energy projects by conducting appropriate studies. It will consist of three main thrusts, namely: (i) support for rehabilitation and technical implementation; (ii) energy mix; and (iii) capacity building.

2.2. Technical Solutions Adopted and Alternatives Explored

2.2.1 It was decided that emphasis should be placed on the development of renewable energy, through the energy mix component. The component includes: i) the rehabilitation of hydropower plants (those in service and those out of service); and ii) the introduction of photovoltaic solar energy as a source of energy for energy efficiency (through the implementation of a project to install 50 KW panels on roofs, and connected to the network). This solution has the advantage of being less expensive, thanks to the rehabilitation that will be made. Furthermore, in the case of geothermal power, the development of other renewable energy sources would have required the preparation of surface exploratory studies and, for wind power, the prior installation of wind-speed measuring equipment.

2.2.2 Over and above these technical components, the rehabilitation programme will restructure the *Water and Electricity Corporation of the Comoros (MAJDI MWENDJE NA) (MA-MWE)* and EDA, and support the corporations in terms of overall management and specifically customer management and technical management, which will strengthen the sector’s governance. The tapping of the hydropower (Mohéli and Anjouan) and geothermal power potential in Grande Comore, factored in the project financing, will ultimately improve the share of renewable energy in the energy mix and reduce the country’s dependence on fossil fuels, most of which are imported.

Alternative Solution	Brief Description	Reason for Rejection
New means of producing electricity using thermal, geothermal and wind power	<ul style="list-style-type: none"> • Construction of new power plants based on geothermal and wind energy 	<ul style="list-style-type: none"> • Lack of feasibility and technical studies confirming the viability of these geothermal and wind power projects (need details on wind speeds, soil characteristics, etc.). Component A of the project, which includes technical studies, will determine the feasibility of such projects in the medium term.
Dissemination of conventional lamps	<ul style="list-style-type: none"> • Installation of conventional lamps 	<ul style="list-style-type: none"> • These lamps consume more energy compared to energy-saving bulbs being promoted, in a context of production shortfalls.

2.3. *Project Type*

The project is a stand-alone investment operation

2.4. *Project Cost and Financing Arrangements*

2.4.1 The total project cost reflects the cost, net of taxes and customs duties, but including a 10%-provision for physical contingencies and price escalation for components related to rehabilitation and the installation of new equipment. The total cost of the first phase is estimated at UA 16.679 million. Tables 2.3 and 2.4 provide the detailed project costs.

Table 2.3				
Estimated Cost by Component (UA million)				
Component	Foreign Exchange Cost	Local Currency Cost	Total	% Foreign Exchange
Rehabilitation and Technical Operation Support	10.047	0-	10.025	100 %
Institutional Support	2.347	0-	2.335	100 %
Project Management	986	0	983	100 %
Total Base Cost (AfDB financing)	13.380	0	13.343	100%
Commercial Management Support (WB Financing)	3.336	0	3.336	100%
Total Project Cost	16.716	0	16.679	100%

2.4.2 The project is co-financed by the World Bank (WB) to the tune of UA 3.336 million. The Fragile States Facility (FSF) resources amount to UA 8 million and ADF resources to UA 5.38 million.

Table 2.4				
Sources of Project Financing (UA million)				
Sources of Financing	Foreign Exchange Cost	Local Currency Cost	Total	% Total
AfDB (FSF & ADF)	13.38	0	13.38	80 %
World Bank	3.336	0	3.336	20 %
Total Project Cost	16.716	0	16.716	100%

2.4.3 Under the project, the Bank will finance the entire cost as reflected in the analysis of the country's financial parameters in light of AfDB policy on eligible expenditure, which underscores the extreme financial fragility of the Comoros in an environment of constantly rising commodity prices. The country's budgetary resources are limited and the debt level – unsustainable – recently benefitted from multilateral debt cancellation following the attainment of the Heavily Indebted Poor Countries Initiative (HIPCI) completion point in December 2012. However, progress has been made and must be consolidated to reduce fragility in all its dimensions – economic, institutional and financial. Action taken to reform the energy sector and strengthen public finance management under the Energy Sector Reform and Financial Governance Support Programme (PARSEGF) financed by the Bank point in this direction.

2.4.4 The project cost by expenditure category is as follows:

Table 2.5			
Category	Description of Components	Phase 1	
		AfDB	WB
Works	Rehabilitation of means of production	1.179	-
	Network rehabilitation	1.247	-
	Renovation of hydropower plants	550	-
	Implementation of renewable energy projects (small solar project)	13	-
	Environmental action + capacity building	62	
	Control of rehabilitation activities	73	
	Sub-Total/Works:	3.124	-
Services (Consultants and others)	Support for MA-MWE commercial management		3,336
	Operation: control of rehabilitation activities	527	
	Studies on technical networks, energy conservation and renewable energy	337	-
	Sub-Total/Services:	864	3,336
Goods/Equipment	Rehabilitation of means of production	3.537	-
	Network rehabilitation	3.737	-
	Renovation of hydropower plants	1.657	-
	Implementation of renewable energy projects (small solar project)	120	-
	IT and office equipment (control and rehabilitation)	147	
	Security equipment and tools/environmental action	67	
	Sub-Total/Goods:	9.265	-
Others	Environmental action + capacity building	127	-
	Sub-Total/Others:	127	-
	Total Cost	13.38	3,336

2.4.5 The expenditure schedule by project component is as follows:

Table 2.6				
Expenditure Schedule – Implementation of Phase 1				
FSF and ADF Resources (UA thousand)				
Component Description	Cost of Component	Expenditure Schedule		
		2014	2015	2016
Rehabilitation and Technical Operation Support	10.047 5	2.813	4.421	2.813
Institutional Support	2.347	657	1.033	657
Project Management	986	276	434	276
Total Base Cost	13.38	3.746	5.887	3.746

2.4.6 FSF and ADF resources are used to finance the following components (Table 2.7), broken down by expenditure categories:

Table 2.7 FSF/ ADF Resources by Expenditure Category Phase 1 (UA thousand)				
Category	Foreign Exchange Cost	Local Currency Cost	Total	% Foreign Exchange
Works	3.124	0	3.124	100%
Services (Consultants and Others)	864	0	864	100%
Goods/Equipment	9.265	0	9.265	100%
Others	127	0	127	100%
Total Cost:	13.38	0	13.38	100%

2.4.7 The project will be financed in two phases. The first phase will be financed by the Bank (FSF and ADF grant) and the World Bank (IDA grant). The FSF, ADF and IDA grants will finance the components presented in Table 2.1 above. The World Bank will cover the components relating to the commercial/financial management: i) assistance to MA-MWE for overall management, commercial management and bill collection; ii) improvement of commercial performance; iii) technical assistance to MA-MWE and energy sector governance; and iv) support for the establishment of the Project Management Unit.

2.4.8 The Government of Qatar is currently considering the possibility of financing a second phase of this rehabilitation project (see Annex - Table B2.1).

2.5. *Project Targeted Area and Beneficiaries*

The project targets the three islands that make up the Union of the Comoros, namely: Grande Comore, Anjouan and Mohéli. Specifically, the project area will cover the entire territory of the Union of the Comoros, more particularly the cities served by the production units of Voidjou, Itsambouni and Bandamadji (Grande Comore); Fomboni, Nioumachoi and Mirongoni (Mohéli); Trenani, Lingoni and Tratinga (Anjouan) as well as distribution networks across the three islands. The rehabilitation of production facilities and networks will improve the country's overall power supply, thus enabling households, businesses and industries currently connected to the grid to enjoy a more stable and better quality electricity supply. The project's positive impact includes more reliable access to electricity, promotion of renewable energy and, indirectly, increased employment opportunities following the expansion of the private sector, currently hampered by the prevailing energy context in the Union.

2.6. *Participatory Approach to Project Identification, Design and Implementation*

Public consultations were held in December 2012 with the local population (traders, electricity consumers, residents of neighbourhoods and villages, etc.), local authorities and civil society (NGOs). The consultation process will be continued in the course of project implementation. The official in charge of community relations will implement the information and public consultation programme associated with the project.

2.7. Bank Group Experience and Lessons Reflected in Project Design

2.7.1 Since launching its activities in the Comoros in 1977, the Bank Group has approved 15 operations, as of 30 September 2011, for a cumulative net commitment of UA 58.88 million³. As of 1 July 2013, the Bank's portfolio in the Comoros had five on-going operations totalling UA 18.5 million. This portfolio includes water and sanitation sector operations, as well as institutional support and a humanitarian emergency operation.

2.7.2 The Bank's experience from implementing previous programmes served as the basis for this project design. Indeed, evaluation of these programmes has shown the need to implement parallel and institutional support that would help to improve the overall reform process needed to strengthen the capacity of a fragile State such as the Union of the Comoros.

2.8. Key Performance Indicators

2.8.1. The key impact indicators will be the country's total production capacity (by island) in MV and the reduction in the rates of technical and commercial losses nationwide. The key output indicators will be: (i) the rehabilitated production units; (ii) the newly procured generators; (iii) the length of the medium/low voltage line installed or rehabilitated; (iv) the additional fuel storage capacity; and (v) the number of women trained.

2.8.2. The reports produced by the MA-MWE, EDA and the Ministry of Energy will serve as sources of information confirming these indicators. In addition, the Project Management Unit (PMU) that will be set up for each island will be responsible for project implementation, management and monitoring, and will submit quarterly reports and annual audit reports.

III. PROJECT FEASIBILITY

3.1 Financial and Economic Performance

3.1.1 In conducting the economic and financial analysis, account is taken of the current production and distribution capacity, and improvements expected from the project.

3.1.2 For financial analysis, estimated “with project” and “without project” cash-flows have been developed for MA-MWE and EDA power corporations. All projections were based on the 2013 price index in USD, using a 10% real discount rate and spread over a 25-year operating period. The financial internal rate of return is 20.4%. The positive net present value indicates that the additional investment is financially viable. The net present economic value stands at USD 10.7 million at 12% of the actual economic capital cost. The economic internal rate of return (EIRR) is 22%, which indicates that the investment project will have a positive impact on the economy of the Comoros.

³ CSP Union of the Comoros, 2011-2015

3.1.3 The key economic and financial indicators are summarized in Table 3.1 below:

Table 3.1		
Key Project Economic and Financial Data		
	IRR (%)	NPV (USD million)
Internal rate of return (IRR) and net present value (NPV) – Financial Analysis	20.4	11.6
Internal rate of return (IRR) and net present value (NPV) – Economic Analysis	22	10.7

NB: Detailed calculations are provided in Annex B7

3.1.4 Sensitivity analyses were conducted by varying a number of key project assumptions to assess their potential impact on the financial and economic viability. They showed that investment costs have a moderate impact on project economic and financial viability. Specifically, a 30% increase in investment costs would have a negative impact on the project, making it unacceptable. However, these costs will be controlled by means of a prudent procurement process and through timely implementation of the operation. Also, they showed that the estimated maintenance cost will not have any significant impact on the project. Lastly, maintaining fuel costs at an acceptable level is essential to the long-term viability. The results indicate that a 20% increase in fuel costs may make the project unsustainable in the long run and cancel out its economic benefits. At the operational level, the risk of high fuel costs may be resolved by means of efficient use of resources, made possible by this project.

3.2 Environmental and Social Impact

3.2.1 Environment

According to AfDB procedures, the project is classified as Category 2. The rehabilitation and expansion of electricity production units will be performed within premises of existing facilities and other plants, and will therefore have only minimal environmental impact, limited in time (construction phase) and in space (within the confines of plants). The environmental and social impact of the rehabilitation and extension of the MV/LV network will be felt especially during the construction phase. An Environmental and Social Management Plan (ESMP) was prepared in March 2013. The environmental impact concerns the risk of soil, water and air pollution. Impact associated with the loss of biological resources will be very limited, given the positioning of MV lines which will essentially run along the right-of-way and far removed from protected areas or areas of high ecological value. The location of the poles or pylons of MV/LV lines will not be an obstacle to the movement of wildlife or livestock, but will present the risk of electric shock and affect bats and large birds. During the works construction phase, companies will have the responsibility to take into account the recommendations set out in the Environmental and Social Management Plan. In addition, the project will provide the authorities with an international consultant to assist in the Security, Environmental and Social domain, and support teams in implementing the ESMP.

3.2.2 Climate Change

It is worth noting that in the Comoros, most environmental constraints are related to ecological and economic fragility, high vulnerability to climate change and natural disasters, low responsive and management capacity, as well as the narrow resource base and high energy costs. The locally-sourced biomass covers two-thirds of the energy needs, especially for families (fuel wood). Any disruption of supply (or overcharge) increases deforestation and paralyzes activities in the country (including the food supply). Any hazard impacting the supply of energy affects its availability and cost locally. The current demand is low (few processing industries), but it will increase with the country's development. The recommendations of the study on the vulnerability of the Comoros Islands to climate change (Asconit, March 2011) are based on the development of an energy strategy and the promotion of renewable energy. The project envisages studies on the renewable energy potential of the Comoros Islands. Energy promotion will help to minimize greenhouse gas (GHG) emissions and mitigate climate change.

3.2.3 Gender

3.2.3.1 In rural areas, women's activities are primarily focused on agricultural production. These activities suffer huge losses in yield and income due to weaknesses in the supply of electricity required for operating cold storage equipment and the mechanized irrigation of off-season crops. Owing to frequent power cuts, artisanal activities are deprived of the energy required for drinking water supply (operation of boreholes), lighting (security and nightlife) or the operation of working tools (used for grinding or pounding cassava, maize, rice (very repetitive chores), sewing and embroidery, hairstyling, soap-making, dyeing, literacy, the running of health and cultural centres (video, games, media, recharge of mobile phones, etc.).

3.2.3.2 Electricity supply will create jobs and sources of income for women who will actively participate in development and the organization of women-owned artisanal and commercial activities, thereby improving their living standards. Home comfort and domestic hygiene, the preserve of women, also require proper lighting and energy supply to run equipment (water supply, refrigerators, TV, radio, telephones, videogame consoles, etc.). Women will also derive benefits from awareness programmes resulting from the project. The mechanization of repetitive tasks will ease women's back-breaking chores. The free time thus made available will enable them to have access to informal education and engage in other more rewarding activities. Children will also benefit, thanks to improved maternal care and a more motivating learning environment.

3.2.4 Social

3.2.4.1 The major positive impact of the project is that it will provide MA-MWE and EDA with a reliable source of electricity, thereby minimizing untimely load shedding. Securing energy supply will have a very significant positive impact on the socioeconomic activities of residents in the project impact areas, especially with the new network extensions. The new MV/LV lines will help businesses cope with growing energy demand and will thus produce "economic impacts" and "social impacts" conducive to economic growth. Petty traders and craftsmen will better equip themselves, diversify their professional activities and provide better quality services. Agricultural production will benefit from the round-the-clock operation of cold storage chains; processed foods (canned vegetables, tomato puree, fruit juice, etc.) and livestock products (meat, milk, butter, curd, etc.) will be better promoted. The

losses currently suffered for want of conservation facilities will be substantially reduced. Currently, livestock activities, market gardening (processing of tomatoes and other vegetables; preservation of fresh vegetables, etc.) and fruit farming suffer huge production losses because they cannot develop without cold storage facilities fed by a reliable power supply system.

3.2.4.2 Moreover, the project will favour the use of local labour during works and subcontracting to local artisans. Before the start of works, local residents will be notified of temporary constraints regarding access to certain sites, following the worksite organization, for safety reasons. During the project implementation phase, national enterprises will be responsible for executing some project-related works. These works are estimated at approximately 5% of the total project cost.

3.2.5 Forced Resettlement

Given that works on the rehabilitation of power plants, the establishment of new MV/LV lines and the rehabilitation of existing lines require no corridors (insulated cables), they do not involve any population displacement. Compensation for removed shrubs, although minimal, is possible.

IV. PROJECT IMPLEMENTATION

4.1 Implementation Arrangements

4.1.1 The FSF-ADF grant amounting to UA 13.39 million will be awarded to the Union of the Comoros. The Ministry of Production, Environment, Energy, Industry and Handicrafts (MPEEIA) will be the grant beneficiary and therefore the Ministry in charge of implementing the project. MA-MWE and EDA will be the project executing agencies, assisted by a Central Project Management Unit. MA-MWE and Anjouan Electricity (EDA) are the public entities responsible for electricity production, distribution and marketing in the islands of Grande Comore and Mohéli, for MA-MWE, and in the island of Anjouan, for EDA

4.1.2 A regional project management unit will be set up for each of the three islands to ensure project implementation and management on the islands. These three regional project management units (RPMU) will be overseen by a Central Project Management Unit (CPMU), established to coordinate the project implementation. RPMUs will comprise essentially MA-MWE and EDA employees, while the CPMUs will be made up of national and international independent experts. The CPMU will be placed under the supervisory authority of the Vice-Presidency for Energy and monitored by an Interdepartmental Steering Committee tasked with following up the progress of the project. Details on the composition of CPMUs and URGPs are given in Annex B.3.

4.1.3 **Procurement:** The Bank's Procurement Rules and Procedures will be used for various categories of project expenditure. Goods, works and consulting services financed by the Bank will be procured in accordance with Bank Rules and Procedures for the Procurement of Goods and Works (May 2008 Edition, Revised July 2012) and Rules and Procedures for the Use of Consultants (May 2008 Edition, Revised July 2012), using standard Bank bidding documents (BDs), as well as in line with the provisions of the Grant Protocol Agreement. The Central Project Management Unit (CPMU) will be responsible for the procurement of goods,

works, consulting services and other services as described in Annex B5. A review of the resources, capacity, expertise and experience of the CPMU revealed that the latter needs to be strengthened in the area of procurement. Concerning fiduciary risk mitigation measures, it was proposed that an experienced procurement specialist be recruited to strengthen the CPMU's procurement capacity. A procurement plan was developed during the appraisal mission and will be updated regularly during the project implementation phase.

4.1.4 Financial Management: Given that the capacity of existing systems and financial management within MA-MWE and EDA were not satisfactory, the financial management of the project will be executed within a Central Project Management Unit (CPMU). Recommendations for the effective and efficient management of project resources will be implemented by the CPMU and the Bank.

4.1.5 The project's fiduciary risk is not negligible, due to the absence of: i) a budget plan combined with the provisional schedule of activities; ii) an administrative, financial and accounting procedures manual; iii) a coordinator and three assistant coordinators for regional management units; iv) an administrative and financial officer; v) accountants, including three for regional management units; vi) a cashier; vii) space reserved for storage of documents and enough cabinets; viii) a fixed assets register, a fuel consumption monitoring statement, a mission monitoring statement, a salary statement and a statement of meetings; ix) a general accounting plan, an analytical accounting plan and a budget plan; x) an integrated software enabling the processing of the data of the central implementation unit and regional management units; xi) a cash-flow plan; and xii) a half-yearly progress report template incorporating interim financial statements. Consequently, the Bank recommended a series of actions to be undertaken by the CPMU before and during the project launch.

4.1.6 Disbursements: Disbursements will be made mainly through the direct payment method, as well as through a special account for operating expenses. The special account denominated in Comorian Franc into which the funds of the FSF-ADF grant earmarked for the project will be transferred, will be opened with the Central Bank in Moroni. Accounts will also be opened in commercial banks in Moroni, Mohéli and Anjouan for regional project managements units. These accounts will be replenished by transfers from the Special Account.

4.1.7 Audit: Pursuant to Bank requirements, an audit report must be prepared and submitted within six months following the end of the fiscal year. The CPMU will be responsible for preparing project financial statements. The independent external auditor(s) will be mandated to draft the financial report in line with Bank requirements. The cost of audit reports will be included in the project cost. Details of the relevant audit requirements are provided in Annex B.4

4.2 Project Monitoring

4.2.1. Project monitoring will include controlling the performance of MA-MWE and EDA and the status of project implementation by CPMUs and RPMUs. The project implementation phase will span 38 months and should be completed in February 2017. The project will be launched during the first quarter of 2014 and will be supervised on the ground at least twice a year from 2014 to 2017. In close collaboration with MA-MWE and EDA, the consultant (the CPMU project manager) shall be responsible for drafting a quarterly supervision report detailing the project status. A project review will be conducted at mid-term and a project completion report prepared by the CPMU in collaboration with the Bank, and submitted latest six months following project completion.

4.2.2. The main stages of the project implementation are presented chronologically as follows:

Duration/Date	Stages	Monitoring Activities
December 2013	Signing of the Grant Agreement	Legal monitoring/Signing
February 2014	Preparation and publication in General Procurement Notice	Bank's procurement procedures
March 2014	Waiver of conditions precedent to first disbursement	Monitoring of the project and implementation of the required activities
February 2014	Recruitment of works control consultant	Bank's procurement procedures
April 2014	Selection of works contractors	Bank's procurement procedures
May 2014 – February 2017	Execution of network construction works	Monthly and quarterly supervision mission reports
Continuous	Works control and supervision	Monthly and quarterly supervision mission reports
Twice a year (with additional supervision during the start-up year)	Project supervision by the Bank	Field mission
August 2017	Borrower's/Donee's project completion Report	Preparation and submission of completion report
August 2017	ADF Completion Report	Preparation and submission of completion report

4.3 Governance

4.3.1 MA-MWE and EDA will be the project executing agencies, under the supervisory authority of the Vice-Presidency for Energy, which will be monitored by an Interdepartmental Steering Committee tasked with tracking the progress of the project.

4.3.2 MA-MWE and EDA will be supported by the CPMU, which will provide the expertise and skills required for project implementation. Lastly, the Bank will also ensure regular project monitoring, particularly during supervision missions.

4.3.3 AfDB and World Bank funding are complementary since they will help to address two key aspects of the sector's problems: from a technical perspective and from a "soft" or "organizational management" perspective. Indeed, to avoid any duplication of the operations of the two institutions, it was decided that the operations be broken down into technical/management aspects, on the one hand, and organizational aspects, on the other, to ensure greater efficiency and optimization of funds allocated to the country's energy sector. The recommendations made by the MA-MWE organizational audit performed by the Bank will be useful for structuring the World Bank project, which will include activities on the "governance of the electricity sector and design of the contract for the provision of technical assistance to MA-MWE." Through these activities, the project will improve relations between the Government and electricity corporations by resolving the issue of Government's electricity expenditure (which is not accounted for) and by putting in place the management tools required for better control of expenditure within the MA-MWE, in particular. These organizational changes will eventually help to reverse the current practice whereby MA-MWE not only appeals regularly to the Government for financial assistance (for equipment purchase, etc.), but also fails to quantify and bill for the State's power consumption.

4.4 Sustainability

4.4.1 The project will have a long term impact on the electricity sector in the Comoros. Firstly, it aims to enhance the stability of electricity production and transmission across the islands of the Comoros. The changes brought about by the project will make for better management of the energy produced and transmitted. Furthermore, the introduction of an element of control currently lacking will help to optimize the country's power generation in the long term. Secondly, the renewable energy development component will kick-start a gradual transition towards the use of local natural resources for energy production. Thus, renewable energy development will lead ultimately to gains in terms of financial cost and environmental impact.

4.4.2 At the project level, the sustainability of the proposed grant will be guaranteed by placing emphasis on training and knowledge transfer. Through targeted training and knowledge transfer from experts of project management units, the project will ensure that the skills required for the maintenance of power plants and distribution networks are available to keep the systems in working order. Lastly, although primarily centred on consolidating the technical aspects of the energy sector, the project includes - and supplements - such sector enhancement activities as the strengthening of the commercial and organizational functions of MA-MWE and EDA. This comprehensive approach is meant to address the various weaknesses of the sector and will guarantee a long-term impact.

4.5 Risk Management

4.5.1 The project involves a certain degree of risk. The main risks and mitigation measures are as follows:

- § **Maintenance and security risk within power plants:** It is important that once they are rehabilitated, the plants and other infrastructure be properly maintained and that operational and safety standards be complied with to ensure reliable production and distribution. This risk will be mitigated by the conduct of training and capacity building as part of the project's technical assistance component, and by applying the operations manual.
- § **Institutional Risk:** MA-MWE's current fuel supply pattern causes a series of cross-debts between the State, MA-MWE and the Comorian Hydrocarbons Corporation (SCH); the cash flow problems of MWE-MA adversely impact on the SCH and the State⁴. Besides the assistance that the State provides to MA-MWE in terms of fuel supply, MA-MWE occasionally receives equipment donations from the Government through various bilateral and multilateral commitments by the State, which increases the dependence of the corporation on the State and offers the latter justification for non-payment of electricity bills by its services. Thus, State expenditure on electricity is neither accounted for nor controlled. Through the technical assistance provided for the project, such components as "assistance towards MA-MWE's management and commercial performance and bill-collection effort" will help to clean up MA-MWE's management and restore the limits and control mechanisms needed to mitigate this risk.

⁴ MA-MWE accounts for approximately 60% of the SCH's fuel purchase, but 70% its debt to the corporation are unpaid, which causes the State to intervene in favour of MA-MWE to the detriment of the SCH. As a result, the latter is unable to fulfill its obligation regarding the payment, in part or in full, of the single petrol and diesel tax. Even so, it owes a backlog of debts to its suppliers, which further worsens the fuel purchase terms and conditions already favourable for the SCH.

- § **Legal Risk:** There are contractual agreements between the MA-MWE and foreign companies for the hire purchase of generators and meters, but the unfavourable conditions prevailing in the MA-MWE do not allow for the optimal and efficient use of the equipment provided. The Bank has referred the matter to the African Legal Support Facility for this entity to study these agreements and the potential impact of the operations on the MA-MWE, and the possible options for remedying the situation.
- § **Political Risk:** There is a moderate risk of political instability resulting from past tensions between the three islands of the Union of the Comoros. Although the recent elections of 27 December 2010 were held against a backdrop of political tensions, they were deemed fair and resulted in a new government formed on 1 June 2011, which has contributed significantly to consolidating State authority and political stability. However, the recent attempted coup d'état foiled by the government in April 2013, is a reminder that the risk of political interference is not to be downplayed. This risk is mitigated by the support of multilateral and bilateral organisations, as was the case of the AU which played a key role during the 2010 elections.

4.6 Knowledge Building

The project will contribute to knowledge building through the capacity building and knowledge transfer activities provided for in the project financing. The project will ensure skills transfer to MA-MWE and EDA employees through the training offered as part of the package. Training on maintenance, security, business and financial management will also be provided.

V. LEGAL FRAMEWORK

5.1 Legal Instrument

To finance this project, the Bank will award an FSF grant and an ADF grant to the Union of the Comoros.

5.2 Conditions Associated with Bank's Intervention

A) Conditions Precedent to Effectiveness of the FSF-ADF Grant

The FSF-ADF grant shall become effective upon its signature by the parties concerned.

B) Conditions Precedent to First Disbursement of the FSF-ADF Grant Resources.

The Fund shall only proceed with the first disbursement of the grant after the Donee has, in addition to the conditions precedent to the effectiveness of the grant agreement, fulfilled the following conditions to the satisfaction of the Fund:

- (i) Provide the African Development Fund with evidence of opening a special account in the name of the project with a bank acceptable to the Fund to receive the FSF-ADF grant resources (see paragraph 4.1.7); and
- (ii) Provide the African Development Fund with a written confirmation that the diesel generators subject to hire-purchase contracts have fully become MA-MWE's property (see paragraph 4.4 under "Legal Risk").

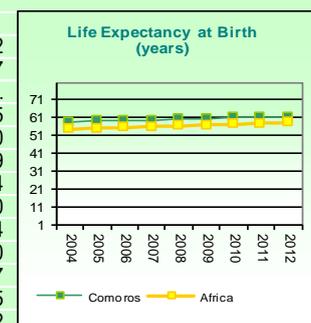
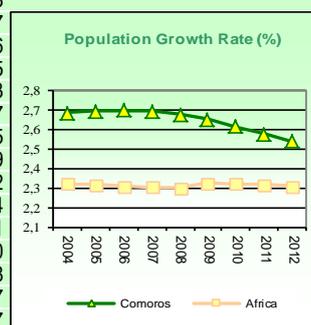
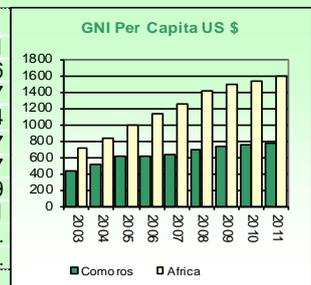
VI. RECOMMENDATION

Management recommends that the Boards approve the proposal to award a UA 5.38 million ADF grant and a UA 8 million FSF grant (total UA 13.38 million) to the Government of the Union of the Comoros for the purpose and subject to the conditions stipulated in this report.

Annex I

Comoros COMPARATIVE SOCIO-ECONOMIC INDICATORS

	Year	Comoros	Africa	Developing Countries	Developed Countries
Basic Indicators					
Area ('000 Km²)	2011	2	30 323	98 458	35 811
Total Population (millions)	2012	0,8	1 070,1	5 807,6	1 244,6
Urban Population (% of Total)	2012	28,5	40,8	46,0	75,7
Population Density (per Km²)	2012	405,1	34,5	70,0	23,4
GNI per Capita (US \$)	2011	770	1 609	3 304	38 657
Labor Force Participation - Total (%)	2012	32,0	37,8	68,7	71,7
Labor Force Participation - Female (%)	2012	30,7	42,5	39,1	43,9
Gender -Related Development Index Value	2007-2011	0,571	0,502	0,694	0,911
Human Develop. Index (Rank among 186 countries)	2012	169
Popul. Living Below \$ 1.25 a Day (% of Populatio	2004-2011	46,1	40,0	22,4	...
Demographic Indicators					
Population Growth Rate - Total (%)	2012	2,5	2,3	1,3	0,3
Population Growth Rate - Urban (%)	2012	3,1	3,4	2,3	0,7
Population < 15 years (%)	2012	42,6	40,0	28,5	16,6
Population >= 65 years (%)	2012	2,7	3,6	6,0	16,5
Dependency Ratio (%)	2012	82,8	77,3	52,5	49,3
Sex Ratio (per 100 female)	2012	101,5	100,0	103,4	94,7
Female Population 15-49 years (% of total populatic	2012	23,7	49,8	53,2	45,5
Life Expectancy at Birth - Total (years)	2012	61,5	58,1	67,3	77,9
Life Expectancy at Birth - Female (years)	2012	62,9	59,1	69,2	81,2
Crude Birth Rate (per 1,000)	2012	36,1	33,3	20,9	11,4
Crude Death Rate (per 1,000)	2012	8,4	10,9	7,8	10,1
Infant Mortality Rate (per 1,000)	2012	64,0	71,4	46,4	6,0
Child Mortality Rate (per 1,000)	2012	87,3	111,3	66,7	7,8
Total Fertility Rate (per woman)	2012	4,8	4,2	2,6	1,7
Maternal Mortality Rate (per 100,000)	2010	280,0	417,8	230,0	13,7
Women Using Contraception (%)	2012	42,3	31,6	62,4	71,4
Health & Nutrition Indicators					
Physicians (per 100,000 people)	2004-2010	15,0	49,2	112,2	276,2
Nurses (per 100,000 people)*	2004-2009	74,0	134,7	187,6	730,7
Births attended by Trained Health Personnel (%)	2000-2010	61,8	53,7	65,4	...
Access to Safe Water (% of Population)	2010	95,0	67,3	86,4	99,5
Access to Health Services (% of Population)	1985	82,4	65,2	80,0	100,0
Access to Sanitation (% of Population)	2010	36,0	39,8	56,2	99,9
Percent. of Adults (aged 15-49) Living with HIV/AIDS	2011	0,1	4,6	0,9	0,4
Incidence of Tuberculosis (per 100,000)	2011	151,0	234,6	146,0	14,0
Child Immunization Against Tuberculosis (%)	2011	76,0	81,6	83,9	95,4
Child Immunization Against Measles (%)	2011	72,0	76,5	83,7	93,0
Underweight Children (% of children under 5 years	2000-2011	25,0	19,8	17,4	1,7
Daily Calorie Supply per Capita	2009	2 139	2 481	2 675	3 285
Public Expenditure on Health (as % of GDP)	2010	4,5	5,9	2,9	8,2
Education Indicators					
Gross Enrolment Ratio (%)					
Primary School - Total	2010-2012	97,8	101,9	103,1	106,6
Primary School - Female	2010-2012	89,6	98,4	105,1	102,8
Secondary School - Total	2005-2012	46,3	42,3	66,3	101,5
Secondary School - Female	2005-2012	39,9	38,5	65,0	101,4
Primary School Female Teaching Staff (% of Total)	2011	27,8	43,2	58,6	80,0
Adult literacy Rate - Total (%)	2010	74,9	67,0	80,8	98,3
Adult literacy Rate - Male (%)	2010	80,2	75,8	86,4	98,7
Adult literacy Rate - Female (%)	2010	69,7	58,4	75,5	97,9
Percentage of GDP Spent on Education	2008-2011	7,6	5,3	3,9	5,2
Environmental Indicators					
Land Use (Arable Land as % of Total Land Area)	2011	44,1	7,6	10,7	10,8
Annual Rate of Deforestation (%)	2000-2009	4,0	0,6	0,4	-0,2
Forest (As % of Land Area)	2011	1,4	23,0	28,7	40,4
Per Capita CO2 Emissions (metric tons)	2009	0,2	1,2	3,1	11,4



Sources : AfDB Statistics Department Databases; World Bank: World Development Indicators;

last update :

May 2013

UNAIDS; UNSD; WHO, UNICEF, WRI, UNDP; Country Reports.

Note : n.a. : Not Applicable ; ... : Data Not Available.

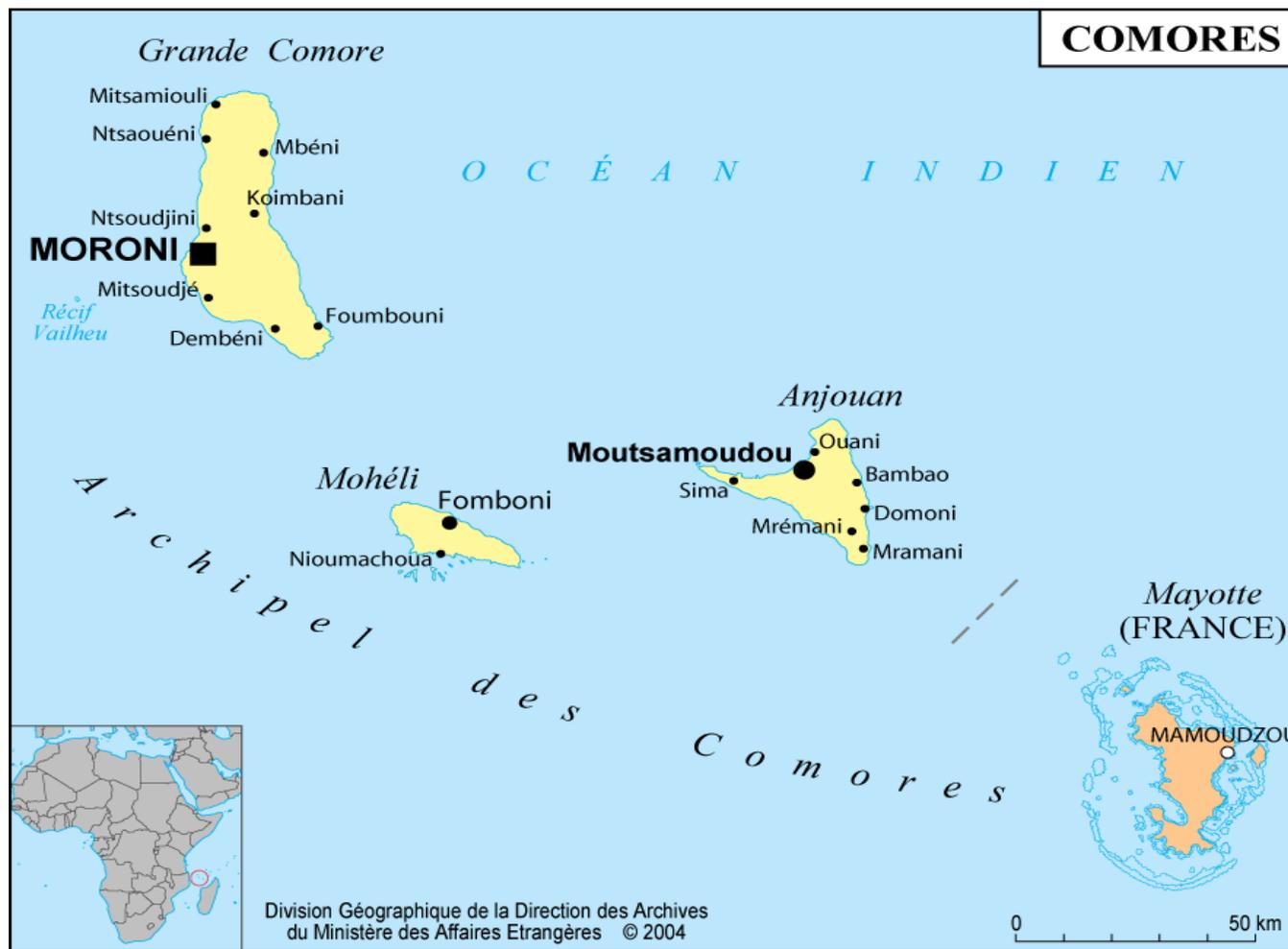
Table of AfDB Portfolio in the Country as at 03 June 2013

Project Name	Project Reference	Status	Approval Date	Commitment Date	Date of Effectiveness	Completion Date	Net Commitment	Amount Disbursed	Disbursement Rate	Loan Number	Project Cost
WATER & SANITATION											
DRINKING WATER AND SANITATION PROJECT	P-KM-EA0-001	On-going	12/17/2009	2/12/2010	2/12/2010	12/31/2013	1,908,425.32	387,593.98	20.31%	5800155000401	10,640,000.00
DRINKING WATER AND SANITATION PROJECT	P-KM-EA0-001	On-going	12/17/2009	2/12/2010	2/12/2010	12/31/2013	8,000,000.00	1,776,764.29	22.21%	5900155000801	10,640,000.00
MULTI-SECTOR											
EMERGENCY HUMANITARIAN ASSISTANCE TO FLOOD VICTIMS	P-KM-AA0-006	APVE	5/24/2012	9/23/2012		3/31/2013	664,650.56	0.00	0.00%	5000199002768	1,000,000.00
PARSEGF	P-KM-K00-003	On-going	12/19/2012	1/23/2013	1/23/2013	6/30/2014	2,000,000.00	1,000,000.00	50.00%	5900155004051	2,000,000.00
CAPACITY BUILDING SUPPORT PROJECT	P-KM-KF0-001	On-going	7/15/2009	7/22/2009	7/22/2009	6/13/2014	5,260,000.00	2,321,301.17	44.13%	2100155015916	5,260,000.00
SUPPLEMENTARY GRANT TO PRCI	P-KM-KF0-003	On-going	10/11/2010	11/5/2010	11/5/2010	6/13/2014	595,000.00	322,275.71	54.16%	2100155018967	595,000.00
TOTAL							8,519,650.56	3,643,576.88	42.77%		

Key Related Projects Financed by the Bank and Other Development Partners

Energy Sector	Donors	Type of Financing	Cost (KMF billions)	Withdrawal as of 30 Dec 2012
Republic of China	-	Grant	N/A	N/A
European Union	-	Grant	N/A	N/A
Qatar	-	Grant	N/A	N/A
ADF	-	Grant	7.370	N/A
Total:			7.370	N/A

Map of the Project Area



Division Géographique de la Direction des Archives
du Ministère des Affaires Etrangères © 2004

0 50 km

Madagascar

Mozambique

Location of the Comoros Islands