AFRICAN DEVELOPMENT FUND

ADF/BD/WP/2018/208/Approval
3 December 2018
Prepared by: RDGE/PGCL
Original: English

BOARD APPROVAL **Lapse-of-time Procedure** **14 December 2018**	**FOR CONSIDERATION**

MEMORANDUM

TO : THE BOARD OF DIRECTORS

FROM : Vincent O. NMEHIELLE
Secretary General

SUBJECT : MULTINATIONAL (KENYA): SUPPLEMENTARY LOAN FOR ETHIOPIA - KENYA ELECTRICITY HIGHWAY PROJECT*

ADF LOAN OF EURO 26.51 MILLION

Please find attached the **Loan Proposal** and the **draft Resolution** related to the above-mentioned subject, which are submitted for **your consideration on a Lapse-of-time Basis**.

If no objection is recorded by 5:00 p.m. on December 14, 2018, the Loan proposal **will** be considered as **approved** and the **Resolution adopted**.

Attach.

Cc.: The President

***Questions on this document should be referred to:**

Mr. G. NEGATU	**Director General**	**RDGE**	**Extension 8232**
Mr. G. PENN	**Acting General Counsel**	**PGCL**	**Extension 3220**
Ms. N. NWABUFO	**Country Manager**	**RDGE**	**Extension 8343**
M. N. RICHARD	**Division Manager**	**RDGE**	**Extension 8124**
Ms. F. W. KAMAU	**Regional Principal Counsel**	**PGCL.1**	**Extension 8123**
Mr. A. W. ZEGEYE	**Task Manager**	**RDGE**	**Extension 8321**

SCCD: E.D.

AFRICAN DEVELOPMENT FUND

PROJECT: SUPPLEMENTARY LOAN FOR ETHIOPIA-KENYA ELECTRICITY HIGHWAY PROJECT

COUNTRY: MULTINATIONAL - KENYA

MEMORANDUM AND RECOMMENDATION FOR SUPPLEMENTARY FINANCING

Date: December 2018

Project Team	Task Manager	Alemayehu Wubeshet ZEGEYE	Chief Regional Power Systems Officer	RDGE.1	8321
	Team Members	Jason Seungsoo JIN	Power expert consultant	RDGE.1	8323
		Felix Nii Tettey OKU	Environmental Officer	SNSC / RDGE.4	8330
		Faith Wanjiku KAMAU	Regional Principal Counsel	PGCL.1 / RDGE.4	8123
		Patrick OWUORI	Senior Procurement Officer	SNFI.3 / RDGE.4	8240
		David Muthusi MUTUKU	Principal Financial management Officer	RDGE.4	8252
	Regional Operations Manager	Humphrey N. RICHARD		RDGE.1	6078
	Country Manager / Deputy DG	Nnenna NWABUFO		RDGE	8343
	Director General	Gabriel NEGATU		RDGE	8232

Peer Reviewers	Justin ECAAT, Lead Environmental Safeguards Officer	SNSC	4451
	Antony N. KAREMBU, Principal Investment Officer/Renewable Energy Specialist	PERN.1	1961
	Fasil ASAYE, Senior Procurement Officer	SNFI.3	8118
	Samuel KAMARA, Country Program Officer	RDGE.0	8342

AFRICAN DEVELOPMENT FUND

MULTINATIONAL - KENYA

SUPPLEMENTARY LOAN FOR ETHIOPIA-KENYA ELECTRICITY HIGHWAY PROJECT

MEMORANDUM AND RECOMMENDATION FOR SUPPLEMENTARY FINANCING

RDGE/PGCL

December 2018

TABLE OF CONTENTS

CURRENCY EQUIVALENTS

Exchange Rate at Bank's Appraisal (Sep 2012)	Exchange Rate as of July 2018
UA 1 = US$ 1.5	UA 1 = US$ 1.40657
UA 1 = EUR 1.2	UA 1 = EUR 1.20653
UA 1 = KES 127.83	UA 1 = KES 142.134
US$ 1 = KES 84.74819	US$ 1 = KES 101.05007
EUR 1 = KES 105.24591	EUR 1 = 117.80395

Bank's Fiscal Year

1st January – 31st December

Borrower's (Kenya) Fiscal Year

1st July – 30th June

Weights and Measures

M	Meter	KOE	kilogram of oil equivalent
cm	centimeter = 0.01 meter	kV	kilovolt = 1,000 volts
mm	millimeter = 0.001 meter	kVA	kilovolt ampere (1,000 VA)
km	kilometer = 1,000 meters	kW	kilowatt = 1,000 watts
m²	square meter	GW	gigawatt (1,000,000 kW or 1000 MW)
cm²	square centimeter	MW	megawatt (1,000,000 W or 1 000 kW)
km²	square kilometer = 1,000,000 m²	kWh	kilowatt hour (1,000 Wh)
Ha	hectare = 10,000 m²	MWh	megawatt hour (1,000 KWh)
t (t)	metric ton (1,000 kg)	GWh	gigawatt hour (1,000,000 KWh)

Acronyms and Abbreviations

AC / DC	Alternate Current/Direct Current	JPCU	Joint Procurement Coordination Unit
AfDB/ADB	African Development Bank	KETRACO	Kenya Electricity Transmission Company Ltd.
ADF	African Development Fund	KSh	Kenyan Shilling
AFD	Agence Française de Développement	LC	Local Costs
EAPP	Eastern Africa Power Pool	NPIU	National Project Implementation Unit
EEP	Ethiopian Electric Power	OPGW	Optical Ground Wire
EPC	Engineering, Procurement and Construction	PPA	Power Purchase Agreement
ESIA	Environmental and Social Impact Assessment	PTSIP	Power Transmission Improvement Project
ESMP	Environmental and Social Management Plan	RAP	Resettlement Action Plan
FC	Foreign Costs	SF	Supplementary Financing
GoK	Government of Kenya	UA	Units of account
HVDC	High Voltage Direct Current	US$	United States Dollar
IDA	International Development Association	WB	World Bank

PROJECT INFORMATION SHEET

CLIENT'S INFORMATION	
Borrower	▪ Republic of Kenya (GoK)
Executing Agency	▪ Kenya Electricity Transmission Company Ltd (KETRACO)

ADB's KEY FINANCIAL INFORMATION	
Loan currency	EURO
Loan type	Fully flexible loan (FFL)
Interest type (Lending Rate)	Base rate + Funding margin + Lending spread + Maturity premium (where applicable)
Base Rate	Floating base rate (EURIBOR - 6 months, reset each 1st February and 1st August). A free option for determination of the base rate is available
Funding Cost Margin	The Bank's funding margin is revised every 1st January and 1st July and applied every 1st February and 1st August with the base rate
Lending spread	80 basis points (0.80%)
Maturity premium:	- 0% if Average Loan Maturity <= 12.75 years - 0,10% if 12.75< Average Loan Maturity <=15 - 0,20% if Average Loan Maturity >15 years
Option to convert the Base Rate	In addition to the free option to fix the floating Base Rate, the borrower may reconvert the fix rate to floating or re-fix it on part or full-disbursed amount. Transaction fees are payable[1]
Option to cap or collar the Base Rate	The borrower may cap or set both cap and floor on the Base Rate to be applied on part or full disbursed amount Transaction fees are payable
Option to convert loan currency	The borrower may convert the loan currency for both undisbursed and disbursed amounts in full or part to another approved lending currency of the Bank. Transaction fees are payable
Front-end fees	0.25% of the loan amount payable maximum 60 days from effectiveness and before any disbursement. Front-end fees can be taken out of the first disbursement.
Commitment fee	0.25% per year of non-disbursed amount starts to accrue 60 days after the date of signature of the loan agreement and is payable on the set payment dates.
Maturity:	Up to 25 years, including the grace period
Grace period	up to 8 years commencing from the date of signature of the loan agreement
Average Loan Maturity	16.95 years
Repayments:	Six monthly instalments

TIMEFRAME – MAIN MILESTONES (expected)	
Loan's Approval	14 December 2018
Loan Effectiveness	28 February 2019
Last disbursement	31 December 2021
Project Completion	30 June 2021
Last repayment	31 December 2043

[1]Conversion options and transaction fees are subject to the Bank Conversion Guidelines

REVISED RESULTS-BASED LOGICAL FRAMEWORK

Country and project name: Ethiopia - Kenya Electricity Highway Project
Purpose of the project: The project will improve the supply of electricity in Kenya and other Eastern African Power Pool (EAPP) countries in the long run.

RESULTS CHAIN	PERFORMANCE INDICATORS			MEANS OF VERIFICATION	RISKS/MITIGATION MEASURES
	Indicator (including Core Sector Indicator)	Baseline	Revised Target		
OUTPUTS					
HVDC transmission line interconnecting Ethiopia and Kenya	- Length (in km) of HVDC transmission line constructed - Number and capacity of AC/DC converter stations	n/a	**In 2019:** 1,068 km of transmission line constructed (437 km in Ethiopia and 631 km in Kenya) **In 2019:** Two converter stations with a total capacity of 2,000 MW installed	- Progress reports from the implementing agency and from the supervision and management consultant - Supervision mission reports from the Bank - Disbursement and financial reports from the implementing agency - Project completion report	Risk of escalation in project cost and/or implementation delay will be mitigated by: - Adequate design as well as contingency funding for the project - Engineering, procurement, and construction (EPC) contract should ensure minimum variance in cost - Effective project management and supervision should ensure timely implementation Risks related to the project operation and maintenance will be mitigated by: - Sound operation and maintenance agreement will create an incentive for EEPCO and KETRACO to properly operate and maintain the project - Capacity building support to be provided under the project Risks related to the procurement delay will be mitigated by: - involvement of the supervision consultant to augment project staff as needed ; - use of advance contracting method,
Kenyan network/system reinforced	- Substations reinforced under the project	n/a	**In 2019:** - Isinya substation upgraded to 400 kV level, - Nairobi North substation upgraded to 400 kV level, **In 2020:** - 400 kV Mariakani substation constructed, - 132 kV Rumuruti substation connected to the national grid		
Improved capacity of the implementing agencies and EAPP	- Number of staff trained - Number of implementation, operating and maintenance procedures and agreements negotiated and finalized	n/a	- 50 each from EEPCO and KETRACO staff trained by end of 2016 - PPA, construction, operation and maintenance arrangements finalized by March 2012 - Operating procedures and manual finalized by March 2012		
Increased employment opportunities	- Number of jobs created during implementation and operation.	n/a	- At least 1,600 temporary jobs created in Ethiopia and 2,400 in Kenya; 55 permanent jobs created in Ethiopia and 70 in Kenya, 33% of permanent jobs will be reserved for women		

KEY ACTIVITIES	COMPONENTS	INPUTS	
	A. Construction of 1,068 km of 500 KV HVDC bipolar transmission lines and AC/DC converter stations at Wolayta Sodo (Ethiopia) and Suswa (Kenya) substations B. Reinforcement of the Kenyan power system C. Capacity building and institutional support D. Project management and supervision E. Environmental and social management	**Initial** A. UA 718 million B. UA 67 million C. UA 7 million D. UA 28 million E. UA 20 million **Total = UA 840 million**	**Revised** A. UA 718 million B. UA 87 million C. UA 7 million D. UA 29 million E. UA 20 million **Total = UA 861 million**

MANAGEMENT RECOMMENDATION TO THE BOARD OF DIRECTORS ON PROPOSED SUPPLEMENTARY FINANCING FOR THE MULTINATIONAL ETHIOPIA – KENYA ELECTRICITY HIGHWAY PROJECT

Management submits this proposal to provide a supplementary financing of EURO 26.51million of ADB loan to the Republic of Kenya to finance the funding gap of the project. The shortfall arose mainly from the underestimation of the required system reinforcement works identified by the initial feasibility study and design under the ongoing Ethiopia-Kenya Electricity Highway project for smooth operation of the interconnection.

1. ETHIOPIA – KENYA ELECTRICITY HIGHWAY PROJECT

1.1 Background

1.1.1 It is to be recalled that on 19 September 2012 the Board approved financing of ADF loans of UA 75 million to the Republic of Kenya and UA 150 million to the Federal Democratic Republic of Ethiopia for the implementation of the Ethiopia – Kenya Electricity Highway Project. The co-financiers, World Bank (WB) approved an IDA credit US$ 441 million, on 12 July 2012 for the Kenyan portion and US$ 243 million for the Ethiopian portion of the project and on 16 December 2013 the French Development Agency (AFD) approved a loan EUR 91 million on 19 June 2013 for Kenyan portion of the project.

1.1.2 The initial design of the project consists of the construction of an electricity highway between Ethiopia and Kenya of about 1,068 km of 500 kV HVDC transmission line (about 437 km in Ethiopia and 631 km in Kenya) and associated AC/DC converter stations at Wolayta Sodo (Ethiopia) and Suswa in Kenya with a power transfer capacity of up to 2,000 MW in either direction. In addition, the project included network reinforcements in Kenya to integrate regional interconnections, while managing the increased demand in Kenya at the commissioning time of the interconnection for reliable operation of the Kenyan grid.

1.2 Project Objective

1.2.1 The Project objective, supporting the Eastern Africa Power Pool (EAPP's) mission, is to help integrate the power systems of EAPP member countries including Ethiopia, Kenya, Tanzania, Rwanda and Uganda, to promote power trade and regional integration, contribute to social and economic development, and reduce poverty in those countries. Particularly, the project aims at reducing the cost of electricity supply and improving the supply of electricity in Kenya and other EAPP countries in the long run.

1.2.2 The supplementary loan for Kenya will contribute to the integration of the ongoing interconnection project and the reliable operation of the Kenyan grid through construction of 400/220 kV Mariakani substation and the 16.5 km length of 132 kV underground cable to interconnect the Nanyuki and Rumuruti substations. The initial design of Kenya – Ethiopia Electricity Highway project included some reinforcement of substations and transmission lines in Kenya. However, the initial feasibility study for the interconnector and its design underestimated the required system reinforcement to enable the smooth operation of the interconnector and for the Kenyan network to absorb the initial 400 MW as per the Power Purchase Agreement (PPA). In addition, the development in power sector in the last six years revealed the need for further system reinforcement including the extension of the 400 kV network, the construction of 400/220 kV Mariakani substation and construction of 132 kV underground cable.

1.3 Project Components

1.3.1 As per initial design, the components of Ethiopia-Kenya Electricity Highway Project are: (A) construction of the interconnector with its sub-component of (A1) 500 kV High Voltage Direct Current (HVDC) transmission line between Ethiopia and Kenya and (A2) converter stations, (B) Kenyan System Reinforcement, (C) capacity building and institutional support, (D) Project Management and Supervision; and (E) Environmental and Social Management.

1.3.2 Sub-Component "A1*"* finances the construction of about 1,045 km of bipolar 500 kV HVDC overhead transmission line to interconnect the electricity network of Ethiopia at the Wolayta Sodo converter station with the Kenya network at the Suswa converter station. The line will have a transmission capacity of 2,000 MW in either direction, using a bipolar and earth-return configuration and consists mainly of self-supported lattice tower structures, conductors, and insulators.

1.3.3 Sub-Component "A2" is financing the engineering design, construction, and commissioning of one converter substation on each end of the 500 kV HVDC transmission line– one in Ethiopia and one in Kenya.

1.3.4 Component "B" includes network reinforcements in Kenya of the substations and other parts of the network necessary to integrate regional interconnections, while managing the increased demand in Kenya at the commissioning time of the interconnection for reliable operation of the Kenyan grid. The reinforcements include the upgrading of the Isinya and other substations to 400/220 kV operation (including transformers) and additional reactive power compensation and transformers in the Nairobi area.

1.3.5 Component "C" covers strengthening the project management and implementation arrangements through provision of training for Joint Project Coordination Unit and the national Project Implementation Units on procurement and financial management, environmental and social management. In addition, provide training focusing on HVDC operations and maintenance and power trading for the operation and maintenance staffs of each utility.

1.3.6 Component "D" is financing the engagement of a Supervision Consultant to supervise construction of the project.

1.3.7 Component "E" is the implementation of the Environmental and Social Management.

1.4 Initial Project Cost and Financing Plan

1.4.1 The initial total estimated project cost of the overall Ethiopia – Kenya electricity highway project was UA 840 million and in the original financing plan the AfDB, WB, AFD and the respective Governments promoting the project were the co-financiers of the project.

Table 1.1 - Initial Project Cost by Sources

Financier	Financing in million US$			Equivalent in million UA		
	Ethiopia	Kenya	Total	Ethiopia	Kenya	Total
African Development Fund	225	113	**338**	150	75	**225**
World Bank	243	441	**684**	162	294	**456**
French Development Agency	-	118	**118**	-	79	**79**
Government of Ethiopia	32	-	**32**	21	-	**21**
Government of Kenya	-	88	**88**	-	59	**59**
Total Financing	**500**	**760**	**1,260**	**333**	**507**	**840**

Table 1.2 - Initially Approved ADF Loan and Allocation by Components

Project Component	Amounts in UA million equivalent		
	Ethiopia	Kenya	Total
A. HVDC interconnector			
A.1 Transmission line	97	62	159
A.2 Converter substations	41	-	41
B. Kenya system reinforcement	-	-	-
C. Capacity building and institutional support	**2**	**2**	**4**
D. Project management and supervision			
D.1 Management and supervision of HVDC interconnector	10	11	**21**
D.2 Management and supervision of system reinforcement	-	-	-
E. Environmental and social management	-	-	-
TOTAL	**150**	**75**	**225**

1.5 Implementation Arrangements

1.5.1 With respect to Kenya–Ethiopia Electricity Highway project implementation arrangement, the Ministries responsible for energy of both Kenya and Ethiopia are the Executing Agencies and the Ethiopian Electric Power (EEP) and the Kenyan Electricity Transmission Company Ltd (KETRACo) are the implementing agencies. The two power utilities have established their respective National Project Implementing Unit (NPIU) and a Joint Project Coordination Unit (JPCU). The national project managers from EEP and KETRACO are part of the JPCU, alongside other experts EEP and KETRACO assigned to it on an as-needed basis.

1.5.2 Each power utility assigned to the national PIU one project manager, one substation engineer, one transmission engineer, one protection engineer, one communications engineer, one civil engineer, one project accountant, one environmental specialist, one safety and health expert, one procurement specialist and one monitoring and evaluation (M&E) specialist

1.5.3 Both utilities have jointly recruited a Project Supervision and Management Consultant. The JPCU and the Consultant oversight, coordinate and supervise the implementation of the project. The JPCU has been assisted by the consultant in charge of bid evaluation and project supervision and management, who will review the tender documents, assist during the bid evaluation, review the contractor's detailed engineering design, and supervise and monitor the project implementation, including the implementation of the Environmental and Social Management Plan (ESMP).

1.6 Overall Project Implementation Status

1.6.1 **Converter Stations:** The World Bank and AfDB jointly finance the converter stations. The EPC contract for Kenya was signed on 28 October 2015 and for Ethiopia on 26 October 2015 with the Consortium of Siemens AG of Germany and ISOLUX Ingengeria of Spain. The overall implementation progress as at September 2018 is 65% against the planned 90% in Kenya and 65% against the planned 88% in Ethiopia.

1.6.2 **HVDC Transmission lines:** The transmission line component consists of five lots, out of which two lots (2 & 3) are in Ethiopia and three lots (4, 5 and 6) are in Kenya. As at September 2018, the progress of the transmission lines, in Ethiopia, of both Lot - 2 & 3 are at 96.1% against the planned 99% and in Kenya, Lot-4 is at 99.5% against the planned 100%, Lot-5 at 98% against the planned 100% and Lot-6 is at 92% against the planned 100%.

1.6.3 **Network Reinforcement in Kenya:** The EPC contract for Kenya network reinforcement component was signed with National Contracting Company (NCC) on 30 April 2014 and its

implementation is progressing well and the overall implementation progress, as at September 2018 is 91% against 94% completion.

2. KENYA's SCOPE UNDER THE ETHIOPIA–KENYA ELECTRICITY HIGHWAY PROJECT

2.1 Project Description

2.1.1 The purpose of the Kenya's section of the Ethiopia – Kenya electricity highway project is to help integrate the power systems of EAPP member countries to promote power trade and regional integration and further create a backbone power transmission network that interconnect the EAPP and Southern African Power Pool.

2.1.2 As per the initial design, the Kenyan portion under the Ethiopia – Kenya Electricity Highway Project comprises the construction of: (i) 631 km of HVDC 500 kV transmission line from Kenya/Ethiopia border to Suswa, (ii) AC/DC converter stations at Suswa; and (iii) Kenya system reinforcement.

2.1.3 The initial feasibility study of the interconnector has not identified in detail the required system reinforcements. Due to this, the initial cost estimates for the system reinforcement component at Project Appraisal was limited to upgrading the Isinya substation and other 220 kV substations to 400/220 kV levels and installation of additional reactive power compensation equipment and transformers in the Nairobi North substation. The Appraisal also recommended a study to be carried out for additional reinforcement needed under Component-B of the Project. Accordingly, during project implementation, the study for network reinforcement was conducted and recommended the need for further system reinforcement to achieve safe operation of the interconnector and absorb the initial 400 MW as per the PPA.

2.1.4 The revised design to reinforce the Kenyan power transmission network without reducing/downsizing the initial scope of the interconnector and the component of system reinforcement is through construction of: the 400/220 kV Mariakani substation to improve the power transfer capacity, adequacy and security to the Coastal Region; and (ii) the 16.5 km, 132 kV underground cable to interconnect Nanyuki and Rumuruti substations that address the safety and security issues of Laikipia Airbase.

2.2 Project Cost and Financing Arrangements

2.2.1 Initial Project Cost and Financing Plan

The initial total cost of the project in Kenya, excluding all taxes, duties, levies, was estimated at UA 506 million and the financing arrangements were; the Bank with an ADF loan of UA 75 million, the World Bank IDA credit of US$ 441 million, the AFD loan of EUR 91 million and the GoK's contribution of US$ 88 million, each representing 14.87%, 58.03%, 15.53% and 11.58% of the total project cost, respectively.

Table 2.1 - Kenya's Section Initial Estimated Cost and Initial financing plan by Component

Component	Amounts in US$ million					Amounts in UA million				
	AfDB	WB	AFD	GoK	Total	AfDB	WB	AFD	GoK	Total
A) HVDC interconnector										
A.1 Transmission line	93		117	5	**215**	62		78	3	143
A.2 Converter substations		392		10	**402**		261		7	268
B) Kenya systems reinforcement		43		57	**100**		**29**		**38**	67
C) Capacity building and institutional support	3	3	1		**7**	**2**	**2**	**1**	**-**	5

Component	Amounts in US$ million					Amounts in UA million				
	AfDB	WB	AFD	GoK	Total	AfDB	WB	AFD	GoK	Total
D. Project management and supervision										
D.1 Management and supervision of HVDC interconnector	17				**17**	11				11
D.2 Management and supervision of systems reinforcement		3		2	**5**		2		1	3
E. Environmental and social management				14	**14**				**9**	9
TOTAL	**113**	**441**	**118**	**88**	**760**	**75**	**294**	**79**	**59**	**506**

2.3 Status of Implementation of the Project in Kenya

2.3.1 Following Bank's approval of the project on September 2012, the ADF loan agreement was signed on 19 September 2012, World Bank loan on 12 July 2012, and AFD loan on 16 December 2013. The ADF's conditions precedent to first disbursement were fulfilled on 29 September 2013.

2.3.2 **Contracts commencement and expected completion dates:** All contracts have commenced implementation and the contractual completion dates are summarized below:

Table 2.2 - The commencement and expected completion dates by contractors

Contract	Contractor	Commencement date	Completion Dates
Lot-1 "Convertor Station at Suswa"	Siemens AG	28/04/2016	• 29/07/2019 (the monopole) • 06/12/2019 (the bipolar)
Lot-4 "500 kV HVDC Line"	KEC International	19/10/2015	21/01/2019
Lot-5 "500 kV HVDC Line"	Larson and Turbo	03/11/2015	30/02/2019
Lot-6 "500 kV HVDC Line"	KALPATARU	08/12/2015	30/04/2019
Component-B "System Reinforcement"	NCC	24 / 09/ 2014	31/03/2019

2.3.3 **Supervision and Management**: The consultant is "Joint Venture of Lahmeyer International GmbH (Germany), Centro Elettrotecnico Sperimentale Italiano Giacinto Motta S.P.A. (CESI) of Italy, and ELC Electroconsult S.P.A (ELC) of Italy" and is fully involved in supervision of construction works at both Ethiopia and Kenya sites.

2.3.4 **Disbursement from ADF Loan:** The project is financed by an ADF loan of UA 75 million and GoK's counterpart funding of US$ 88 million (UA 59 million). So far, the disbursement as at end of September 2018 is shown in table below. Counterpart funding is mainly used to settle wayleave compensation, Resettlement Action Plan, Consultancies and Project Management costs and to cover the costs for local taxes, duties and levies.

Table 2.3 – Disbursement Status of the Initial ADF loan

Loan Amount	UA 75,000,000.00
Total Disbursed	UA 45,481,678.02
% disbursement as at end of September 2018	60.64 %

3. REASONS FOR THE PROPOSED SUPPLEMENTARY FINANCING FOR KENYA

3.1 In the last six years, the Kenyan electricity sector in terms of power demand, supply and last mile customers' connectivity continued to grow significantly. The registered increase between year 2012/13 and 2017/18 was: generation capacity from 1,765.6 MW to 2,354 MW, generated energy increased from 8,087 GWh to 10,256 GWh and the number of customers from 3.851 million to 6.748 million. All these resulted in the need to further revisit the Power Master

Plan and investment in the energy sector.

3.2 The rapid development registered in the electricity sector in the last six years revealed the need for additional system reinforcement through extension of the 400 kV network for the safe operation of the Ethiopia-Kenya Interconnector and to absorb the initial 400 MW as per the PPA. The need for additional reinforcement is due to the underestimation made on the feasibility study on power demand growth, increase of electrification rate and generation capacity, which has resulted in cost overrun of the initial project cost estimates.

3.3 The initial feasibility study of the interconnector has not identified in detail the required system reinforcements. Due to this, the initial cost estimates for the system reinforcement component at Project Appraisal was limited to upgrading the Isinya substation and other 220 kV substations to 400/220 kV levels and installation of additional reactive power compensation equipment and transformers in the Nairobi North area. The Appraisal also recommended a study to be carried out for additional reinforcement needed under Component-B of the Project. Accordingly, during project implementation, the study for network reinforcement was conducted and recommended the need for further system reinforcement to achieve safe operation of the interconnector and absorb the initial 400 MW as per the PPA.

3.4 The revised design to reinforce the Kenyan power transmission network without reducing/downsizing the initial scope of the interconnector and the component of system reinforcement is through construction of: the 400/220 kV Mariakani substation to improve the power transfer capacity, adequacy and security to the Coastal Region; and (ii) the 16.5 km, 132 kV underground cable to interconnects the Nanyuki and Rumuruti substations that addresses the safety and security issues of Laikipia Airbase.

3.5 The Mariakani substation, will contribute to safe energization and operation of the 500 kV, HVDC link. Furthermore, it is expected that with the energization of the 400kV Isinya – Mariakani transmission line, reliance on the expensive diesel powered generation in the Coast Region will drastically reduce as it is displaced with the imported power from Ethiopia and the power transfer capacity, adequacy and security to the Coastal Region will be improved.in addition, ensuring the safe energization and operation of the 500 kV, HVDC link will facilitate the smooth operation of the Kenya – Tanzania 400 kV interconnection line that is under construction. It is therefore important that Mariakani 400 kV substation is implemented as soon as possible, and in time for commissioning of the Ethiopia – Kenya Interconnector.

3.6 With the Bank's financing, the Power Transmission Systems Improvement Project (PTSIP) was implemented, and under this project the 132 kV Rumuruti substation and 68 km of overhead 132 kV transmission line were constructed from Nanyuki to Rumuruti with incomplete section of 16.5 km. However, as the section of 16.5 km of the overhead transmission line passes near the Laikipia Airbase, this section of the transmission line has to be constructed with underground cable due to safety and security issues of the Airbase. In the course of implementation of the PTSIP, there was no balance from the ADF loan to cover the costs of the underground cable. The 132 kV underground cable that interconnects the Nanyuki and Rumuruti substations will addresses the safety and security issues of Laikipia Airbase. Moreover, this intervention will reinforce the Bank's financed project to successfully function and meet its development objectives and to supply the increasing power demand and to increase the access to electricity in Rumuruti area.

3.7 The revised study and design of system reinforcement to meet the safe operation of the interconnector and to absorb the initial 400 MW resulted in cost overrun on the initial project costs that were not previously foreseen at the time of project feasibility study and design. Further, the rapid increase of electricity access and demand growth was not foreseen. As there is an

estimated saving of about UA 11 million from the ADF loan provided to the project and the estimated cost overrun is about US$ 45 million, the GoK has requested the Bank, on 5th June and 9th July 2018, to utilize the saving and bridge the financing gap of UA 21 million through a supplementary loan. Accordingly, the Bank proposes to provide an ADB sovereign Supplementary Loan to Government to cover the additional project costs arising from the underestimation of the required system reinforcement works identified by the original feasibility study and initial design of the system reinforcement component.

4. ENVIRONMENTAL AND SOCIAL ISSUES OF SCOPES UNDER THE SUPPLEMENTARY LOAN

4.1 **Parent Project**: The Parent Project (Kenya - Ethiopia Interconnector) was assigned a category-1 rating because the potential environmental and social impacts associated with the project's component activities were significant. Furthermore, the construction of the transmission lines and substations under the Initial project has resulted in the displacement (physical and economic) of more than 200 persons.

4.2 To comply with both Kenyan legislative and Bank's Integrated Safeguard System requirements, an Environmental and Social Impact Assessment (ESIA) and Resettlement Action Plan (RAP) were prepared, reviewed by the Bank and publicly disclosed on the Bank's website. Bank supervision mission in May 2018 observed notable progress in the implementation of the RAP and ESIA with a few typical challenges with RAP implementation in the tables below;

Table 4.1 Status of Compensation Payments

Total valuation done (Ksh)	Total Amount Paid (Ksh)	Negotiated with Outstanding payment to be made (Ksh)	Estimated Amount for compensation pending negotiations – (Ksh)
Land			
1,660,576,678.68	573,971,695.09	413,148,843.21	673,456,140.38
Structures			
531,765,464.75	522,288,424.30	4,477,040.45	5,000,000
Crops/Trees			
314,394,539.60	43,450,641.60	47,943,898	223,000,000

Table 4.2 Status of RAP Implementation

PAP Category	Number of PAPs	% Completion	Remarks
PAPs negotiated with and paid	967	40%	All payments made
PAPs negotiated with and not paid	596	24%	Legal and Finance teams working towards clearing the payments
Ongoing Compensation Negotiations	539	22%	Process to publish the names initiated
Ongoing Compensation Negotiations	338	14%	Wayleaves team is actively engaging to reach an agreement
Total	**2,440**		

Recommendations were presented to KETRACO to address specific challenges with the acquisition of communal lands within Lots-4 and 5, which is causing delays to the project through legal challenges.

4.3 **Categorization**: The category-1 rating for the Initial project is sustained for the Supplementary Financing (SF) because the component activities are similar and the sensitivities of their planned locations are similar. The additional scope of works include financing the 400/220 kV Mariakani substation and the 16.5 km of 132 kV Nanyuki – Rumuruti underground

cable. The appraisal mission for the SF included site visits to both the Mariakani Substation and the Nanyuki – Rumuruti transmission line.

4.4 **Mariakani Substation:** The subproject activity involves construction of a new substation to support transmission of the power from the Kenya - Ethiopia interconnector to Mariakani and its environs. The proposed site - about 200 acres - is owned by KETRACO and has been fenced off to prevent encroachment. Preparation of RAP is therefore not required. Furthermore, the environmental impacts of the component activities are already covered by the ESIA for the Parent project.

4.5 **Nanyuki- Rumuruti Transmission Line:** The scope of works includes the construction of 16.5 km of 132 kV Nanyuki – Rumuruti underground cable. The Bank funded the Nanyuki – Rumuruti 132 kV overhead transmission line from 2011 to July 2017, however, the originally planned overhead line could not be completed because of safety concerns due to its proximity to the National Air Force Base at Laikipia. The Air Force Base has now agreed for the 16.5 km stretch of the line to be laid underground to allow completion of the project to enable evacuation of power to the Rumuruti environs. The change in design will minimize overall impact to displacement resulting in involuntary resettlement and preparation of RAP.

4.6 **ESIA and RAP:** The ESIA and RAP for the parent Project (Kenya – Ethiopia Electricity Highway) shall be updated to include and assess the potential impacts associated with the subproject component activities under the SF. To this end, the legal undertakings are included within the supplementary loan agreement, as detailed in Section 8 of this Memorandum and Recommendation, to ensure their effective implementation.

4.7 **Implementation Arrangements**: The safeguard implementation for the Initial project shall be sustained for the SF. Therefore, the project manager, environmental and social safeguard specialists for the Kenya-Ethiopia Electricity Highway shall be in charge of the supplementary loan to ensure continuity with the developed capacity so far.

5. PROCUREMENT OF GOODS, WORKS AND SERVICES

5.1 Works

5.1.1 Procurement of Works for construction of the 400/220 kV Mariakani substation was done in 2015 using the Bank's "*Rules and Procedures for Procurement of Goods and Works dated May 2008, Revised July 2012*".

5.1.2 Procurement under the proposed supplementary financing will cover Works for the system reinforcement component of the project in accordance with the "*Procurement Policy for Bank Group Funded Operations*", dated October 2015 and following the provisions stated in the Financing Agreement.

5.1.3 Specifically, procurement of works for construction of the 132 kV underground cable to interconnect Nanyuki substation with the new Rumuruti substation will be carried out using Open Competitive Bidding (OCB) with international advertising under Bank Procurement Methods and Procedures, using the Bank Solicitation Documents.

5.2 Services

5.2.1 Selection of Consultants for project supervision and management services for the HVDC lines and the convertor stations was done using "*Rules and Procedures for the Use of Consultants dated May 2008, Revised July 2012* as described in the Initial Loan Agreement of the ongoing Project.

5.2.2 Selection of consultants for Project Management and Supervision of the construction of 400/220 kV Mariakani substation and the 132 kV Nanyuki-Rumuruti underground cable, valued about UA 2,000,000 will be carried out using Single-Source Selection (SSS) Method and available Bank's Standard Requests for Proposals (SRPFs). This is because the contractor for 400/220 kV Mariakani substation has already been procured and immediate availability of the consultant is paramount to supervise the works. Additionally, continuity in the technical approach and professional liability of the same consultant is necessary for the additional system reinforcement to integrate new regional interconnection and assure safe energization and operation of the 500 kV, HVDC link. In this regard, KETRACO shall obtain technical and financial proposals from the *Joint Venture of Lahmeyer International GmbH (Germany), Centro Elettrotecnico Sperimentale Italiano Giacinto Motta S.P.A. (CESI) of Italy, and ELC Electroconsult S.P.A (ELC) of Italy*, on the basis of Terms of Reference furnished for this assignment, which shall then be negotiated. This consortium was recruited competitively under the Bank Rules and Procedures to supervise the construction of HVDC lines and convertor stations at both Ethiopia and Kenya sites under the ongoing project.

6. REVISED PROJECT COST AND FINANCING PLAN

6.1 Revised Project Cost

6.1.1 Table 6.1 shows the initial and revised project costs in Kenya under the Ethiopia - Kenya Electricity Highway Project.

Table 6.1 Initial and Revised Total Project Costs in Kenya

Components	Initial cost estimate (UA million)			Revised cost estimate (UA million)		
	FC	LC	Total	FC	LC	Total
A. HVDC interconnector						
A.1 Transmission line	106	37	143	106	37	143
A.2 Converter substations	198	70	268	198	70	268
B. Kenya system reinforcement	22	45	67	39	49	88
C. Capacity building and institutional support	3	1	4	3	1	4
D. Project management and supervision						
D.1 Management and supervision of HVDC interconnector	9	3	12	9	3	12
D.2 Management and supervision of systems reinforcement	1	2	3	1	2	3
E. Environmental and social management	0	9	9	0	9	9
Total	**339**	**167**	**506**	**356**	**171**	**527**

6.2 Revised Financing Plan

6.2.1 The Bank and the GoK will finance the funding gap of the project. Table 6.2 shows the original and revised financing plan for AfDB and GoK's for the foreign and local costs.

6.2.2 The revised financing plan changes the initial Bank's contribution of 14.87% to 18.10%, World Bank's contribution of 58.03% to 55.82%, AFD's contribution of 15.53% to 14.94% and GoK's contribution of 11.58% to 11.14% of the total revised project cost.

Table 6.2 – Initial and Revised Financing Plan for AfDB and GoK

Components	Initial Financing Plan (UA million)						Revised Financing Plan (UA million)					
	AfDB			GoK			AfDB			GoK		
	FC	LC	Total	FC	LC	Total	FC	LC	Total	FC	LC	Total
A. HVDC interconnector												
A.1 Transmission line	47	15	62	0	3	3	47	15	62	0	3	3
A.2 Converter substations	0	0	0	0	7	7	0	0	0	0	7	7
B. Kenya system reinforcement	0	0	0	0	38	38	15.96	3.5	19.46	0	38	38
C. Capacity building and institutional support	2	0	2	0	0	0	2	0	2	0	0	0
D. Project management and supervision												
D.1 Management and supervision of HVDC interconnector	11	0	11	0	0	0	11	0	11	0	0	0
D.2 Management and supervision of systems reinforcement	0	0	0	0	1	1	1.26	0.28	1.54	0	1	1
E. Environmental and social management	0	0	0	0	9	9	0	0	0	0	9	9
Total	**60**	**15**	**75**	**0**	**59**	**59**	**77.22**	**18.78**	**96**	**0**	**59**	**59**

6.2.3 The supplementary financing will be used for the works and services as direct payments method and all the procedures for financial management, procurement and audit arrangements for the ADB sovereign loan will be applied.

Table 6.3 Proposed ADB Sovereign loan by Category of Expenditure for the Supplementary Financing

Expenditure Category	ADB Loan, (EURO million)		
	FC	LC	Total
Works			
B. Kenya systems reinforcement	20.15	4.42	24.57
Services			
D. Project management and supervision			
D.2 Management and supervision of systems reinforcement	1.59	0.35	1.94
Total	**21.74**	**4.77**	**26.51**

7. ALIGNMENT WITH THE BANK POLICY AND PROCEDURE FOR SUPPLEMENTARY FINANCING

7.1 The proposed supplementary loan is in line with the *Bank Group Policy and Procedures on Supplementary Financing* of 1 January 1998: (i) the project is in advanced stage with disbursement ratio of 60% and overall implementation of the project is at 80%, (ii) the overall project supervision rating is satisfactory; and (iii) the proposed supplementary loan complies with the Bank Policy specific conditions for considering supplementary financing as shown in Table 7.1.

Table 7.1 Compliance and Justification with the Bank's Policy and Procedures on Supplementary Financing

Specific Conditions	Compliance (Yes / No)	Justification
i. The project's overall supervision rating should be "satisfactory" or higher.	Yes	The project's overall supervision rating is Satisfactory.
ii. The provision of supplementary financing from the Bank's ADB or ADF resources would depend on the eligibility status of the RMC concerned in accordance with the arrangements for lending from the African Development Fund prevailing at the time of processing of such loan.	Yes	The proposed loan is from ADB resources and Kenya is classified as "Blend" that, allows it to access both ADB and ADF resources. In addition, Kenya has headroom to borrow from ADB sovereign window. Therefore, it is in line with current Bank's Group Credit policy.
iii. The recipient country is making a determined effort towards national development in general and towards the mobilization of internal and external resources.	Yes	Kenya has recognized energy and electricity as key element of sustained economic growth and transformation for the country. The government has also formulated strategies whose objectives are to rapidly expand installed electricity capacity, increase and upgrade the transmission and distribution networks, increase access to electricity, and develop renewable sources of energy such as geothermal, solar, wind, biomass and small hydro power, among others The GoK is committed to complete this regional interconnection project and other regional integration initiatives. In addition, the GoK is committed also to mobilize internal and external resources for development of the energy and electricity sector.
iv. The implementation environment of the country is favorable.	Yes	The Government of Kenya and private sector involvements in the development of energy and electricity sectors in Kenya is positive. Concerning the implementation of this particular project, as the Power Purchase Agreement is signed by the two countries and there is strong commitment and follow up by both Kenyan and Ethiopian Governments, the project is progressing smoothly.
v. The cost overrun is due to circumstances beyond the control of the Borrower.	No	The project is in advance implementation stage and the cost overrun is mainly due to: • During feasibility study and at appraisal of the project, such fast increase on electrification rate and power demand were not foreseen, i.e. were underestimated. This development mainly arise during the project implementation stage, • The rapid development registered in the electricity sector in the last six years revealed the need for additional system reinforcement to strengthen the reliability of power supply on the interconnection and safe operation of the interconnector, • The feasibility study of the interconnector has not identified in detail all the required system reinforcement. Due to this during project implementation, it was found that the cost estimate for the system reinforcement component were under estimated.

Specific Conditions	Compliance (Yes / No)	Justification
vi. The cost overrun cannot be met by the Borrower and the Borrower has not been able to find financiers and the Borrower provides justifications for the request for additional Bank Group financing.	Yes	Kenya is taking some measure to address its debt sustainability issues that requires limiting its domestic and external borrowing. The project construction progressed more than 80% and request to other financiers, other than those involved on the project, has not been found feasible due to time constraint. Any other financier would go through appraisal process, which will require longer time. The GoK will cover the cost overrun related to local currency portion, which are mainly for compensation payments and to cover the costs of local taxes.
vii. It has not been possible to reduce the total cost of the project through changes of specifications or scope of works or services without significantly affecting the project objectives and viability of the project.	Yes	The financing gap occurred during implementation phase due to the factors listed under item (v) here above, after all the works and service contracts were signed. Therefore, it was not prudent to downsize the initial scope and design of the interconnector and the already underestimated scope of system reinforcement component to reduce the cost in order to accommodate the said additional systems reinforcement.
viii. The project is technically, economically and financially viable even with the cost overruns.	Yes	The project remains technically sound, financially and economically viable, as the currently committed volume of power trade in the region has increased compared with the one considered in the feasibility study. In addition, the additional systems reinforcement will drastically reduce the contribution of expensive diesel powered generation from the coastal region to the overall electricity generation and this further improve the financial and economic viability of the overall project.
ix. The project cannot be downsized without damaging its ability to achieve objectives or its sustainability.	Yes	Reducing the size or scope of the interconnector will reduce the volume of power exchange and reducing the initial scope of system reinforcement component will makes too difficult the energization and safe operation of the interconnector. Reducing the size or scope of the project will not benefit the anticipated displacement of expensive diesel powered generations in the coastal region and reduction of consumers' tariffs. Thus the project would not meet its objectives
x. There are no other exogenous constraints: financial, managerial or technical - that would hinder the project completion.	Yes	There is no technical and managerial constraint at this stage of the project. Concerning the right-of-way acquisition, the Government has put this issue as top priority and is resolving the issues with the PAPs and budgeted all the required funding for RAP. Availing the supplementary loan will ensure the completion of the project.

8. LEGAL FRAMEWORK

8.1 Legal Instrument

The legal instrument to be used for the supplementary financing of the project is an ADB loan to the Republic of Kenya.

8.2 Conditions associated with the Bank's proposed Financing

8.2.1 Entry into Force Conditions

The entry into force of the Loan Agreement shall be subject to the fulfilment by the Borrower of the provisions of Section 12.01 of the General Conditions Applicable to Loans and Guarantee Agreements of the ADB.

8.2.2 Conditions Precedent to First Disbursements

The obligation of the Bank to make the first disbursement of the Loan shall be subject to the satisfaction of the following condition by the Borrower:

a) The execution and delivery of a Subsidiary Agreement between KETRACo and the Borrower, through the Ministry of Energy, in form and substance satisfactory to the Bank for the implementation of the Project.

8.2.3 Conditions Precedent to Disbursements for Works Involving Resettlement

Subject to the provisions of *Entry into Force* and *Condition Precedent to First Disbursement*, the obligation of the Bank to disburse the Loan for works that involve resettlement shall be subject to the fulfillment by the Borrower of the following additional conditions:

(a) Submission of a updated works and compensation schedule prepared in accordance with the updated Resettlement Action Plan (RAP) and the Bank's Safeguards Policies, in form and substance satisfactory to the Bank detailing: (i) each additional lot of civil works under the Project, and (ii) the time frame for compensation and/or resettlement of all Project affected persons (PAPs) in respect of each lot; and

(b) Submission of satisfactory evidence that all Project affected persons (PAPs) in respect of civil works in each additional lot have been compensated and/or resettled in accordance with the updated Environmental and Social Management Plan (ESMP), the updated RAP and the agreed works and compensation schedule and the Bank's Safeguards Policies**,** prior to the commencement of civil works in such lot and in any case before the PAPs' actual move and/or taking of land and related assets.

8.2.4 Other Condition

The Borrower shall ensure the timely provision of its counterpart contribution during Project implementation

9. RECOMMENDATION

Management recommends that the Board of Directors approve the proposed ADB loan as supplementary financing to the Republic of Kenya for an amount not exceeding EURO 26.51 million for the purpose of implementing the required system reinforcement under the Ethiopia – Kenya Electricity Highway Project and subject to the conditions stipulated in this report.

Annex-1 "Government's Request for the supplementary loan"

REPUBLIC OF KENYA
THE NATIONAL TREASURY AND PLANNING

Telegraphic Address: 22921
FINANCE-NAIROBI
Fax No.: 310833
Telephone: 2252299
When replying please quote
REF: MOF/ERD. 237/49/04 "I"(46)

TREASURY BUILDING
HARAMBEE AVENUE
P.O. Box 30007-00100
NAIROBI
KENYA
Date: 5th June, 2018

Dr. Gabriel Negatu
Director General, Regional Development and
Business Delivery Office, East Africa (RDGE)
African Development Bank
Khushee Tower, Longonot Road
P.O. Box 4861-00200
NAIROBI.

AFRICAN DEVELOPMENT BANK
-8 JUN 2018
EAST AFRICA RESOURCE CENTRE

Dear Dr. Negatu

RE: REQUEST FOR PREPARATION OF THE MARIAKANI ELECTRICITY TRANSMISSION LINE SUBSTATION AND THE NANYUKI-RUMURUTI UNDERGROUND CABLE

As you may be aware, the Government of the Republic of Kenya through The National Treasury submitted to the African Development Bank Group a list of Pipeline Projects to be considered for loan funding under African Development Bank (ADB) and African Development Fund (ADF) windows in our letter Ref. MOF/ERD.237/01/(43) dated 27th February, 2017. Among the Projects in the list are the Mariakani Electricity Substation and the Nanyuki-Rumuruti Underground Cable whose Loan Agreements are yet to be processed.

Towards this end, therefore, the Government is hereby requesting that the preparation of these two projects be commenced to enable the Loan Agreements signed as soon as possible.

Please accept, Director General, the assurances of my highest consideration.

Yours Sincerely

Hemayehu

Pls see me on this

Dr. Kamau Thugge, CBS
PRINCIPAL SECRETARY/THE NATIONAL TREASURY

ISO 9001:2008
Certified

REPUBLIC OF KENYA
THE NATIONAL TREASURY & PLANNING

Telegraphic Address: 22921
FINANCE-NAIROBI
Fax No.: 310833
Telephone: 2252299
When replying please quote

TREASURY BUILDING
HARAMBEE AVENUE
P.O. Box 30007-00100
NAIROBI
KENYA

Ref: MOF/ERD.237 /49/04(49)

9th July, 2018

Dr.Gabriel Negatu
Director General
East Africa Region Centre
African Development Bank
Khushee Tower
Upper Hill
NAIROBI

AFRICAN DEVELOPMENT BANK
13 JUL 2018
RECEIVED
EAST AFRICA RESOURCE CENTRE

Dear Dr. Negatu

RE: Request for Supplementary Loan to Support Mariakani Substation and Nanyuki – Rumuruti 132KV Underground Cable

Thank you for the letter dated 12th June 2018 concerning the above subject matter.

We note that the construction of the 400 KV Mariakani Substation and Nanyuki – Rumuruti 132KV Underground Cable will ensure stability and good supply of power to the National Grid. In view of this, the financing request to support the Mariakani Substation and Nanyuki –Rumuruti Underground Cable will be processed as a supplementary loan from the ongoing Ethiopia –Kenya Electricity Highway Project.

We thank the Bank for continued support to our development agenda.

Yours Sincerely

Dr. Kamau Thugge, CBS
PRINCIPAL SECRETARY/THE NATIONAL TREASURY

ISO 9001:2008
Certified.

AFRICAN DEVELOPMENT BANK

BOARD OF DIRECTORS

Resolution N° B/[●]/2018/[●]

Adopted by the Board of Directors, on a lapse-of-time basis, on [●] 2018

Multinational - Supplementary Financing: Loan to the Republic of Kenya to finance part of the costs of the Ethiopia – Kenya Electricity Highway Project

THE BOARD OF DIRECTORS,

HAVING REGARD to: (i) Articles 1, 2, 12, 13, 14, 15, 16, 17, 18, 32 and 37 of the Agreement Establishing the African Development Bank (the "Bank"); (ii) the Fully Flexible Loan Product: Embedding Risk Management Features in Sovereign and Sovereign-Guaranteed Loans (the "FFL Policy"); (iii) the Fully Flexible Loan Guidelines for Conversion of Loan Terms (the "Conversion Guidelines"); (iv) the Review of Sovereign and Sovereign-Guaranteed Loan Charges and the Addendum concerning Front-end Fee Payment Modalities; (v) the Bank Group Policy and Procedures for Supplementary Financing; (vi) the appraisal report contained in Document ADF/BD/WP/2012/77 (the "Appraisal Report); and (vii) the Memorandum and Recommendation for Supplementary Financing contained in Document ADF/BD/WP/2018/208/Approval (the "Memorandum");

RECALLING:

(i) Document ADB/BD/WP/2016/184/Rev.2 entitled "The Waiver of the Rule of Origin for Specific Cases" as well as the corrigendum thereto (the "Proposal");

(ii) Resolution N° B/BD/2017/06 adopted by this Board on 8 March 2017 approving the Proposal and deciding, inter alia, that the procurement of goods, works and services using the resources of the Bank shall be open to countries that are not member states of the Bank, where a project is jointly co-financed by the Bank and the African Development Fund (the "Fund"); and

(iii) Resolution N° F/Z1/2012/45 adopted by the Board of Directors of the Fund, on 19 September 2012 approving, from the resources of the Fund, a loan of an amount not exceeding the equivalent of Seventy-Five Million Units of Account (UA 75,000,000) to the Republic of Kenya, to finance part of the costs of the Ethiopia – Kenya Electricity Highway Project (the "Project");

HAVING CONSIDERED the recommendations and justifications set out in the Memorandum concerning the provision of supplementary financing for the Project;

DECIDES as follows:

1. To award to the Republic of Kenya (the "Borrower"), from the ordinary capital resources of the Bank, a loan of an amount not exceeding Twenty-Six Million, Five Hundred Ten Thousand Euros (EUR 26,510,000) (the "Loan"), as supplementary financing for part of the costs of the Project;

2. To authorize the President to conclude a loan agreement between the Bank and the Borrower (the "Loan Agreement") on the terms and conditions outlined in the General Conditions Applicable to the African Development Bank Loan Agreements and Guarantee Agreements (Sovereign

Entities), the FFL Policy, the Conversion Guidelines, the Memorandum and, in particular, the terms and conditions specified herein below:

(i) The duration of the Loan shall be twenty-five (25) years including a grace period of eight (8) years (the "Grace Period") commencing on the date of signature of the Loan Agreement. During the Grace Period, commitment charge and interest shall be payable;

(ii) The Loan shall be amortized over a period of seventeen (17) years, in thirty-four (34) equal and consecutive semi-annual installments payable on 15 February and 15 August of each year (each a "Payment Date"), and the first of such installments shall be payable on the Payment Date immediately following the expiration of the Grace Period;

(iii) The Loan shall be a Fully Flexible Loan with a Floating Base Rate and an option to fix the base rate. Until the date of application of the fixed based rate (the "Fixing Date"), interest on the disbursed and outstanding balance of the Loan shall be, for each Interest Period, at a Floating Base Rate equal to the Euro Inter-Bank Offered Rate (EURIBOR) or its successor rate, for six (6)-month deposits in Euros, plus a lending spread of eighty (80) basis points, the Funding Cost Margin and a Maturity Premium of twenty (20) basis points. Such interest shall be payable semi-annually on a Payment Date;

(iv) From the Fixing Date, interest on the disbursed and outstanding balance of the Loan, shall be, for each Interest Period, at a fixed base rate equal to the market swap rate calculated on the principal amortizing schedule of a particular tranche of the Loan, plus a lending spread of eighty (80) basis points, the Funding Cost Margin and a Maturity Premium of twenty (20) basis points. Such interest shall be payable semi-annually on a Payment Date;

(v) A commitment charge at the rate of zero point twenty-five per cent (0.25%) per annum on the undisbursed portion of the Loan shall begin to accrue sixty (60) days after the date of signature of the Loan Agreement and shall be payable semi-annually on a Payment Date;

(vi) A front-end fee at the rate of zero point twenty-five per cent (0.25%) of the total amount of the Loan shall be payable no later than: (a) sixty (60) days after the Date of Entry into Force of the Loan, or (b) the date of first disbursement of the Loan, whichever occurs first; and

(vii) The principal, interest, commitment charge and front-end fee shall be expressed and payable in Euros or any other applicable Loan currency in accordance with the Conversion Guidelines;

3. The President may cancel the Loan if the Loan Agreement is not signed within ninety (90) days from the date of approval of the Loan by this Board; and

4. This Resolution shall become effective on the date above-mentioned.