

**BOARD APPROVAL**  
Lapse-of-time Procedure

24 October 2019

**FOR INFORMATION**

## **MEMORANDUM**

**TO : THE BOARD OF DIRECTORS**

**FROM : Vincent O. NMEHIELLE**  
Secretary General

**SUBJECT: MULTINATIONAL - CAPACITY BUILDING FOR THE OPERATIONALIZATION OF THE EAPP REGIONAL POWER MARKET TRADE PROJECT\***

### **ADF GRANT OF UA 715 000**

The Grant **Proposal** and the draft **Resolution** related to the above-mentioned project, were submitted for **your consideration on a Lapse-of-time Basis** on 10 October 2019.

**The Secretary General has recorded the objection of the US chair by the prescribed approval deadline.**

The Proposal is considered as **approved** and the Resolution **adopted**.

**Attach:**

**Cc: The President**

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

Mrs. N. NWABUFO	Acting Director General	RDGE	Extension 8343
Mr. B. BALDEH	Director	PESD	Extension 4036
Mrs. M. MUPOTOLA	Director	RDRI	Extension 4563
Mr. G. PENN	General Counsel	PGCL	Extension 3220
Mrs. A. NALIKKA	Division Manager	PESD.1	Extension 2272
Mr. M. SQUARE	Division Manager	RDRI	Extension 1987
Mr. H. RICHARD	Division Manager	RDGE.1	Extension 8124
Ms. A. M. MECCA	Division Manager	PGCL.1	Extension 3309
Mr. P. KANYIMBO	Country Manager	RDGE	Extension 8350

# AFRICAN DEVELOPMENT FUND



**PROJECT: CAPACITY BUILDING FOR THE OPERATIONALIZATION OF THE EAPP REGIONAL POWER MARKET TRADE PROJECT**

**COUNTRY: MULTINATIONAL: P-Z1-F00-107**

## PROJECT APPRAISAL REPORT

*Date: August 2019*

Project Team	Task Manager	P. Kanyimbo, Regional Integration Coordinator	RDGE0/RDRI	8350
	Co-Task Manager	G. Abiyehoy, Principal Power Engineer,	RDGE.1	8331
	Project Team Members	E. Kihara, Principal Power Engineer	PESD1	4503
		F. Kamau, Regional Principal Counsel	RDGE.4	8123
		M. Tadesse, Senior Financial Management Officer	COET	7261
		E. Chisesa, Senior Procurement Operations Officer	COET	7267
		D. Elhassan, Senior Gender expert	REDG2	8239
	Sector Manager	H. Richard	RDGE	8124
		M. Souare	RDRI	1987
		A. Nalikka	PESD1	2272
	Sector Director	M. Mupotola	RDRI	2156
	Sector Director	B. Baldeh	PESD	4036
	Director General . Deputy Director General	G. Negatu Nwabuofo	RDGE RDGE	8232 8343
Peer Reviewers	S. Fakede: – Senior Power Expert		COET	7264
	Z. Mabuza: – Principal Regional Integration Officer		RDRI	4563
	P.K Gupta: – Principal Procurement Officer		RDGE.4	6465
	A. Wubeshet: – Chief Power Engineer		RDGE1	8321

# **AFRICAN DEVELOPMENT FUND**



## **MULTINATIONAL**

### **CAPACITY BUILDING FOR THE OPERATIONALIZATION OF THE EAPP REGIONAL POWER MARKET TRADE PROJECT**

**RDGE/PESD/RDRI/PGCL DEPARTMENTS**

October 2019

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## **Currency Equivalents**

*As of 30 June 2019*

1 UA = USD1.39

## **Fiscal Year**

[1 April-31 March]

## **Weights and Measures**

1 metric tonne	=	2204 pounds (lbs)
1 kilogramme (kg)	=	2.200 lbs
1 metre (m)	=	3.28 feet (ft)
1 millimetre (mm)	=	0.03937 inch (“)
1 kilometre (km)	=	0.62 mile
1 hectare (ha)	=	2.471 acres

## Acronyms and Abbreviations

AEO	Africa Economic Outlook
ADF	African Development Fund
CC	Control Centre
COM	Council of Ministers (of the EAPP Member States)
CR	Commercial Readiness
CSP	Country Strategy Paper (of the AfDB)
DPs	Development Partners
EAPP	Eastern Africa Power Pool
EA-RISP	Eastern Africa Regional Integration Strategy Paper (of the AfDB)
EEHC	Egyptian Electricity Holding Company
EGL	Energie des grands lacs
EEP	Ethiopian Electric Power
IDA	International Development Association (of the WB)
IRB	Independent Regulatory Board
KenGen	Kenya Electricity Generating Company
KETRACO	Kenya Electricity Transmission Company
KPLC	Kenya Power and Lighting Company
MC	Market Committee
MDTF	Multi-Donor Trust Fund (managed by the WB)
MWG	Market Working Group
NELSAP	Nile Equatorial Lakes Subsidiary Action Program
NBI	Nile Basin Initiative
REGIDESO	Régie de Production et de Distribution d'Eau et d'Electricité
PC	Project Coordinator
PIU	Project Implementation Unit
RMC	Regional Member Countries
RPG	Regional Public Goods
ROE	Regional Operations Envelop (of the ADF)
SAPP	Southern Africa Power Pool
SC	Steering Committee
SIDA	Swedish International Development Agency
SINELAC	Société Internationale d'Electricité des Pays des Grands Lacs
TANESCO	Tanzania Electricity Supply Corporation
TSO	Transmission System Operator
USAID	United States Agency for International Development
UETCL	Uganda Electricity Transmission Company
WB	World Bank

## Grant Information

### Client's information

**GRANT RECIPIENT:** Eastern Africa Power Pool General Secretariat

**EXECUTING AGENCY:** Eastern Africa Power Pool General Secretariat

### Financing plan

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Source	Amount (UA)	Instrument
ADF-14 (ROE,RPG)	UA715,000	grant
EAPP	UA93,500	Counterpart contribution (in-kind)
<b>TOTAL COST</b>	<b>UA808,500</b>	

### Timeframe - Main Milestones (expected)

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Concept Note approval	31 May 2019
Project approval	October 2019
Effectiveness	October 2019
Last Disbursement	September 2019
Completion	August 2022

## Project Summary

### Project Overview

The *Capacity Building for the Operationalization of the EAPP Regional Power Market Trade Project* will provide support to EAPP to establish the regional power market trade in Eastern Africa, thereby improving access to reliable, clean and affordable electricity in the Region. The key output is finalization of shadow market operations, i.e. power market modelling and simulation of the existing bilateral trade, which is a final step in the transition to real market trade. Shadow market operations will provide sound data on which to base market design and identify regulatory bottlenecks to inform responses. The second output is the full establishment of the EAPP Market Committee (MC), with capacity in regional power market development. The Project will also support the harmonization of regulatory framework for power trading, such as wheeling arrangements to facilitate cross-country power trade. The design of the Project took into consideration and will complement ongoing initiatives supported by other Development Partners (DPs) as indicated in **Appendix 4**.

The EAPP General Secretariat headquartered in Addis Ababa, Ethiopia, will be the Executing Agency and Implementing Agency. The Power Utilities in the 11 EAPP Member Countries<sup>1</sup> and the EAPP General Secretariat are the direct beneficiaries of the capacity building activities. Indirect beneficiaries will be electricity consumers in the EAPP Member countries, with a collective population of half a billion. The Project will be funded through an ADF-14 Regional Public Goods grant in the amount of UA715,000 plus in-kind counterpart contribution from the EAPP General Secretariat equivalent to approximately UA93,500. The implementation will take a period of 36 months, from grant effectiveness.

### Needs Assessment

The Bank has funded several of the completed and ongoing power generating plants and electricity transmission lines in the Region. Regional power market trade will be a game-changer as it will enable RMCs to fully reap the efficiency and economical gains of a regional integrated power pool, as opposed to trading only through bilateral power purchasing agreements (PPAs), as is currently the case. The intervention is timely as it will contribute towards operationalizing the EAPP's Three-Year Short-Term Action Plan (2018-2021) to realize regional power market trade by 2021. Several DPs are supporting implementation of the Plan, notably the World Bank's (WB's) International Development Association (IDA) and Swedish (SIDA) under the WB-managed Multi Donor Trust Fund (MDTF) and USAID Power Africa. The Project will bridge the identified capacity gaps not fully supported by other DPs towards operationalizing the power market platform. The Project also complements the Bank's ongoing Flagship No. 10 Study, which aims at accelerating the development of regional power sector projects by providing technical, financing, legal and advisory support, and identifying bottlenecks to implementation of regional power infrastructure projects, *inter alia*.

### Bank's Added Value

The Bank is the first development institution to support cross-border power trade in Eastern Africa, starting with the Ethiopia-Djibouti interconnection completed in 2011 and currently transferring up to 110MW to Djibouti in the form of bilateral power trade, and several others that followed. The Bank has also provided funding for TA and capacity building programs to the regional organizations, including to the EAPP to conduct the Regional Power Master Plan and Grid Code studies. In addition, the Bank has been actively involved in EAPP's steering committee meetings, deliberations and activities of the Donors group supporting EAPP, for which the Bank has a convenor role.

### Knowledge Management

The knowledge generated from the project will be used to inform similar operations in the Bank's other regions where regional power trade through power pools is yet to be operationalized. This knowledge will be captured through project completion reports and quarterly progress reports.

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<sup>1</sup> The EAPP Member countries are Burundi, Djibouti, DRC, Egypt, Ethiopia, Kenya, Libya, Rwanda, Sudan, Tanzania and Uganda, with a total population of half a billion



## Results-based Logical Framework

Country and project name: Purpose of the project :		Capacity building to the EAPP towards operationalizing the regional power market trade Enhance the capacity for commercial readiness as a last step towards real power market trading				
Results chain		Performance indicators			Means of verification	Risks/mitigation measures
		Indicator	Baseline	Target		
Impact	<b>Impact</b> Improved efficiency and reliable power supply in the region	i. Marketing platform (day ahead market) in a power pool implemented, from bilateral power trade (PPA)	i. 0 ( 2018)	i. 1 (2025; 0=not yet implemented; 1=implemented)	i. EAPP Annual Report ii. International Energy Agency, EAPP Annual Reports	
		ii. Access to electricity (% of population)	ii. 39 (2018)	ii. 97 (2025)		
Outcomes	Operationalization of regional power pool	Power traded through regional market operations (% of total integrated power trade in the EAPP region)	0	3 (by 2021)	EAPP Annual Reports	<b>Risk:</b> Potential delays by EAPP in formalizing the Power Market Committee <b>Mitigation:</b> Engage with EAPP SC and Member Utilities to retain MWG in the MC <b>Risk:</b> Delays in establishing Control Centre <b>Mitigation:</b> Continue engaging with EAPP & donors to mobilize funding
Outputs	1. Realization of Market Readiness for real trading operations	i.) Nber. of cross-border power interconnectors with completed shadow market simulations	i. 2 Pilots (Ethiopia – Sudan and Uganda – Kenya)	i. 5 (by 2021)	Shadow market operations study reports adopted by Market Committee, SC and COM	<b>Risk:</b> targets for women may be limited by the number of women employed in these organizations <b>Mitigation:</b> Training to include a trainer of trainers to facilitate onward transfer of skills to new staff prioritizing women
	2. Institutional capacity of the EAPP enhanced through training in regional power market development	ii) Nber. of Market Committee Members and EAPP Staff trained (o/w 30% female)	i. 0	i. 22 ii. )	EAPP Annual Reports	

	3. Policy regulation on power trading domesticated	iii) Development of wheeling arrangements	i. Not yet developed	iii. Wheeling arrangements in place to realize cross country power trade within EAPP and beyond to SAPP (by 2021	EAPP Annual Reports	<b>Risk:</b> Delay in placement of wheeling arrangement (charge) to start cross border/country power trade <b>Mitigation:</b> Shadow market simulations will factor in wheeling charges and indicate mutual benefits of power trade. EAPP will leverage international experience in setting up transparent criteria for wheeling arrangements
	<b>Components</b>					
ACTIVITIES	<u>Component I: Capacity Building towards Commercial Readiness</u> i. TA & capacity building for Shadow Market Operations ii. Workshops and Trainings to build the capacity of EAPP (Market Committee (MC)and EAPP SG staff) in Regional Power Market Development iii. Technical Study Tours and exchange programs to operational and/or mature power pools (SAPP & South America (CDMER/EOR) iv. Harmonization of regional rules, regulations, guidelines in areas such as wheeling arrangements and tariffs <u>Component II, Project Management</u> v. Recruitment of project coordinator, Project Accounting Assistant, operational costs, Project Audits					<b>Inputs</b> <b>Capacity Building towards CR:</b> UA590,578 <b>Project Management:</b> PC & Accounts assistant: UA75,540 Operational Costs: UA37,770 <b>Contingency:</b> UA11,112 <b>Total ADF Grant:</b> UA715,000

### Project Timeframe

ID	Task Name	2019				2020				2021				2022			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
1	Project approval																
2	Grant signature & launch																
3	Effectiveness																
4	Procurement (advance contracting)																
5	Shadow market operations																
6	Est. of market committee																
7	Trainings and study tours																
8	Supervision missions																
9	Completion																

# **REPORT AND RECOMMENDATION OF THE MANAGEMENT TO THE BOARD OF DIRECTORS ON A PROPOSED GRANT TO THE EASTERN AFRICA POWER POOL (EAPP) FOR THE CAPACITY BUILDING TO THE EAPP TOWARDS OPERATIONALIZING THE REGIONAL POWER MARKET TRADE PROJECT**

Management submits the following Report and Recommendation on a proposed grant in the amount of UA715, 000.00 to finance the Capacity Building to the Eastern Africa Power Pool (EAPP) towards Operationalizing the Regional Power Market Trade Project.

## **I – STRATEGIC THRUST & RATIONALE**

### ***1.1. Project linkages with country strategy and objectives***

1.1.1 Operationalization of EAPP a Game-changer in regional power trade: EAPP's Short Term Action Plan (2018-2021) under the organization's Ten (10) year Strategic Plan (2018-2027) targets the start of regional power market trade by 2021. Access to reliable and affordable electricity is also a priority for all EAPP countries as one way to boost their industrial competitiveness, mitigate against negative effects of climate change, and improve quality of life. It is also integral to the strategies of the following Regional Economic Communities (RECs): EAC 5th Development Plan (2017-2021), COMESA Medium Term Strategic Plan (2016-2020), and IGAD Regional Strategy (2016-2020), all of which have identified regional power trade as a priority.

1.1.2 Realization of regional power market trade will mark a step-change in how power is traded in the Region, by moving away from power exchanges exclusively through long term bilateral PPAs, as is currently the case, towards short-term exchanges based on Day-Ahead Market (DAM) principles. Through regional power pools, countries get to weave their bilateral power trade into a network of one large regional power market in which selling and buying happens simultaneously and led by spot market principles. In so doing, countries enjoy improved energy security through access to a diversified basket of power sources and supply as well as getting financial benefit. For instance, if a hydropower dependent country suffers a dip in power supply due to droughts that have become rampant due to the changing climate, it can always tap on electricity from its neighbours with sources that may not be prone to similar vagaries of weather. Accordingly, regional power trade will also help cushion the energy sector from the impacts of climate change, as it will enable countries that rely heavily on hydro to import power from neighbouring countries during periods of drought.

1.1.3 However, the realization of the regional power system integration and cross border power trade in Eastern Africa has been hindered by inadequate human and institutional capacity of the EAPP General Secretariat and its Member Utilities on designing and operating regional power markets, lack of simulation data to inform the final market design, lack of enabling regulations and harmonized market rules in areas such as wheeling arrangements (charges) which hampers the timely start of cross-country power trade. Currently, cross-border power exchanges occur through bilateral PPAs, which most of the time do not facilitate realistic and efficient power trade, since such arrangements are based on rigid long-term contracts that are not reflective of the prevailing market conditions. The bilateral trade has been exercised at the initial stage of power trade among countries and at the moment the regional power market is matured to scale up to power trading platform (market) in the region. Operationalization of the EAPP power-trading platform, coupled with the adoption of appropriate regulations such as wheeling arrangements will enhance the cross-country power trade. It will also enable the integration of the EAPP and the Southern Africa Power Pool (SAPP), thereby creating the largest power market anywhere in the world, spanning from Cape Town in South Africa to as far North as Egypt and Libya. This will greatly ease the challenges of access to clean, affordable

and reliable energy by enabling countries that will generate surplus power, such as Ethiopia, Kenya and others, to share with those in deficit. Available data on state of power interconnections and electricity access rates in the EAPP Region is provided in **Appendix 1A and 1B**, respectively.

## ***1.2. Rationale for Bank's involvement***

1.2.1 The EAPP is not yet fully functional as a regional power pool, but it is currently in the process of operationalizing the regional power trading platform by establishing an entity, including a planned Day Ahead Market (DAM) to be implemented by 2021. There is therefore an urgent need to nurture the continued development of the regional market design by all parties involved, as well as to closely monitor existing and proposed bilateral contracts (PPAs), taking into consideration the overall regional context. The process used to perform this replacement is called economic dispatch in a Day Ahead Market- an important goal of EAPP. This goal needs to accelerate regional power sector integration and facilitate implementation of a vibrant regional power market in Eastern Africa Region starting with a pilot to establish a functioning sub-regional electricity market on a fast-track basis in the near-term by involving several interconnected (bilateral power trade) and soon to be interconnected countries.

1.2.2 The rationale for the Bank's involvement is to optimize the development impacts of its investments in the physical infrastructure (power interconnections) by enabling RMCs to fully reap the efficiency gains associated with a regional integrated power pool, as opposed to trading only through bilateral PPAs as is currently the case. A number of cross-border power transmission lines have recently been completed, and several more are set for completion by 2021. The completed Power Interconnectors that are earmarked for market operations are: Libya - Egypt; Ethiopia - Sudan; Ethiopia – Djibouti; Kenya – Uganda; SINELAC area (Burundi, Rwanda and DRC) associated with Ruzizi II; and Egypt – Sudan, completed in April 2019 and pending energization. The Bank has funded several of these transmission line interconnections including the 230 kV Ethiopia-Djibouti interconnection completed in 2011, the 400 kV Kenya – Tanzania interconnection (to be completed in 2021), the 220 kV Tanzania-Rwanda-Burundi interconnection via Rusumo Falls Hydropower (to be completed in 2020), the 500 kV HVDC Ethiopia-Kenya interconnection set to be completed by 2020, the interconnection of five Nile Equatorial Lake countries (Kenya, Uganda, Rwanda, DRC and Burundi), and regional power generation plants such as Ruzizi III hydropower plant and Rusumo Falls hydropower plants.

1.2.3 This intervention will also complement the Bank's previous technical assistance (TA) and capacity building programs to the regional organizations, namely: EAPP, Nile Equatorial Lakes Subsidiary Program (NELSAP), Nile Basin Initiative (NBI) and Energie des grands lacs (EGL) in undertaking trainings and relevant studies, in particular to EAPP to conduct the Regional Power Master Plan and Grid Code Studies. This intervention facilitated the formalization of the regional power system masterplan, harmonization of the regional Grid Code and identified training needs and delivery methods for system operations staff.

1.2.4 The Project also comes at an opportune time as it complements the Bank's ongoing Flagship No. 10 Study, which aims at accelerating the development of regional power sector projects by providing technical, financing, legal and advisory support, and identifying bottlenecks to implementation of regional power infrastructure projects, *inter alia*.

1.2.5 The Project is strongly aligned with the Banks's High 5s on *Light up and Power Africa* and *Integrate Africa*. It particularly responds to Theme #6 of the New Deal for Energy in Africa to *drive integration (grow power markets)*, and to Pillar I, "Infrastructure Connectivity", of the Regional Integration Strategic Framework (RISF-2018-2025). This pillar aims to strengthen regional connectivity through integrated power pools, transport and ICT infrastructure. In this regard, the Project is instrumental to strengthen the Eastern Africa I Power Pool to coordinate power trade in the region and to encourage and train its Member Utilities and regulators on regional power trade. The Project has also been prioritized in the Bank's Eastern Africa Regional Integration Strategy (RISP 2018-22) indicative operational plan (IOP), under Pillar 1 of the RISP- *regional infrastructure for economic transformation*. Accordingly, due to its strong regional impact, non-rivalry nature, non-excludability, and huge public interest, the project has been selected for grant funding under the ADF-14 Regional Operations Envelop/Regional Public Goods (RPG) under the 2019 selection exercise. The RPG justification under each criterion, is provided in **Appendix 2**. Additionally, the project aligns with the Bank's Second Climate Change Action 2016-2020, especially Pillar 2: *Promoting mitigation and low-carbon development in Africa*.

### **1.3 Donors coordination**

1.3.1 The Bank has been actively involved in EAPP's Steering Committee meetings, deliberations and activities of the Donors group supporting EAPP, for which the Bank has a convenor role. There is also continuous dialogue among Development Partners (DPs) to exchange information, promote synergies and avoid overlaps in their support to regional power sector development. DPs supporting the EAPP in building the capacity of the General Secretariat and Member Utilities to promote regional power trade include the World Bank (WB), Swedish International Development Agency (SIDA), Norway (NORAD), European Union, and Power Africa Initiative funded by USAID to the tune of USD 60 million. Currently, the WB in particular has provided a USD10 million grant to the EAPP and manages the Multi Donor Trust Fund (MDTF), which has contributions from other donors principally SIDA. The technical assistance availed under these initiatives focuses on facilitating knowledge sharing between SAPP and EAPP as part of the WB-funded Tanzania - Zambia Interconnector Project; helping to design and operationalize a market operator for the EAPP to facilitate short-term power trade and Revising the Regional Power Master Plan (2014). The proposed Bank intervention, therefore, targets the unfinanced gaps, namely capacity building for commercial readiness to enable interconnected operations. The gaps analysis is provided in paragraph 2.7 of **Appendix 3**. This covers issues related to power market development i.e. market design, market rules and all related activities until operationalization of the power trading.

## **II – PROJECT DESCRIPTION**

### **2.1. Development Objectives and Project components**

2.1.1. Low access rates to electricity is a major development challenge in Eastern Africa. Available data from the Bank's Regional Power Sector Outlook puts the average access rate for Eastern Africa at 39 percent (2017), which lags behind the sub-Saharan Africa average of 43 percent. (The Bank's African Economic Outlook (AEO, 2018)). In addition, the average industrial tariff rates and average domestic end-user tariffs are relatively high. Out of 13 Eastern African countries only three (Ethiopia, Tanzania and Sudan) have average tariffs below 10 US Cents/Kwh generally recommended to spur industrial competitiveness. Therefore, the Project's development objective is to improve access to reliable and affordable electricity in the region by supporting the establishment of the regional power trading operation platform in the regional pool (EAPP). The expected outcomes are commencement of regional power market trade under

the EAPP and progressive increment in the share of power traded through competitive regional market operations.

2.1.2. The specific objectives of the project are to enhance the capacity of the EAPP Secretariat and its Member Utilities in regional power market development and realization of market readiness for real power trading. To this end the project will provide support to conduct shadow market operation studies of the existing interconnections and generate simulation data to inform the final market design and identify bottlenecks and practical solutions to resolve them in facilitating real power trade. The project will also support the provision of technical assistance (TA), training and study tours to the EAPP General Secretariat and member Utilities to facilitate hands-on experience on regional market operations to ensure commercial readiness and subsequent operationalization of the regional power market trade.

2.1.3. By improving the regional power trade, the Project will ultimately contribute towards improving electricity access rates, reliability of electricity supply, etc. in Eastern Africa which currently has the lowest access rates and poor supply reliability as compared to other regions in Africa.

2.1.4. **Project Components:** Pursuant to the objectives, the Project will focus on two components.

2.1.5 Component I: Capacity Building towards Commercial Readiness: This component will support capacity building of EAPP to realize Commercial Readiness, which is very critical to overcoming barriers into realizing regional power market trade. Two key activities will be supported, namely (a) Power market modelling and simulation of the existing interconnectors (shadow market operations), which is a prerequisite final step in the transition to real market trade. Under this activity, the key outcomes will be the determination of economic value for starting real market trade for each interconnector, and identification of barriers to trade and concrete proposals for overcoming them and (b) building the capacity of EAPP in regional Power Market Development. This will focus on the EAPP General Secretariat and the Marketing Committee. The latter comprises of representatives from each Member Utility drawn from the Commercial, and Energy Trading Departments of the Utilities with appropriate seniority and authority needed to commit individual Utilities on regional market issues. MC Members are expected to be familiar with general principles of power trade, but they will require specialized training on regional interconnected power systems and establishing a power trading platform. Non-MC experts from the Utilities will also be included in the trainings to enhance sustainability in the event of staff turnovers. The MC is yet to be formally operationalized within the EAPP organization structure. In the interim, a Market Working Group (MWG) has been formed to address “Commercial Readiness” working on specific assignments. The MWG is expected to transition into a Market Committee upon approval by the Steering Committee (SCM) and subsequently by the Council of Ministers (COM) for inclusion in the EAPP organizational structure (see **Appendix 3** for EAPP organogram). These trainings will bring the capacity of the MC at par with other committees within the EAPP organogram, such as the Operations Committee, which have benefited from training under the MDTF and IDA TA projects. Training will also be provided to EAPP staff and management to undertake planning, and advocacy.

2.1.6 Component II: Project Management: Will help to bolster EAPP’s capacity as a strong and capable institution able to effectively manage projects. This is vital to ensure effective implementation of the Project as well as to boost EAPP’s position to attract additional funding from other DPs. Under this component the Project will provide support for the recruitment of a Project Coordinator and a Project Accounts Assistant to support the EAPP officials in managing the Project.

**Table 2.1: project components**

nr.	Component name	Est. cost (UA)	Component description
1	<u>Component I: Capacity Building towards Commercial Readiness</u>	590,578	<ul style="list-style-type: none"><li>▪ Shadow market operations (Power market modelling and simulation of the existing bilateral trade)</li><li>▪ Workshops and trainings for EAPP GS and MC</li><li>▪ Technical Study Tours</li><li>▪ Harmonization of regional rules, regulations, guidelines</li></ul>
2	<u>Component II: Project Management:</u>	113,309	<ul style="list-style-type: none"><li>▪ Recruitment of a Project Coordinator</li><li>▪ Recruitment of a Project Accounts Assistant</li><li>▪ Operational expenses</li><li>▪ Project Audits</li></ul>
3	<u>Base cost</u>	703,888	<ul style="list-style-type: none"><li>▪</li></ul>
4	<u>Contingency</u>	11,112	<ul style="list-style-type: none"><li>▪ Price fluctuations</li></ul>
5	<u>Total Cost</u>	715,000	

## **2.2. Technical solution retained and other alternatives explored**

2.2.1 During the project appraisal, two options were explored regarding the modality for delivery of this capacity building to the EAPP. The first option was to deliver the capacity building as a standalone project. The second option considered was to pool resources with other donors under the Multi-Donor Trust Fund (MDTF) managed by the World Bank. The first option was retained because it gives the Bank more fiduciary oversight on the use of the grant and control of the deliverables attributable to the Bank's support. Nonetheless, the EAPP General Secretariat will ensure coordination with the activities funded by other DPs in order to maximise synergies and avoid overlaps.

**Table 2.2: Project Alternatives Explored**

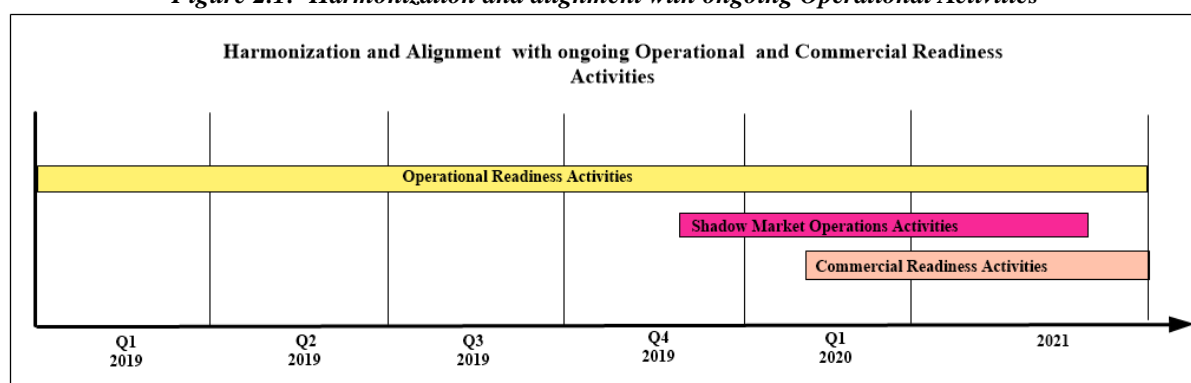
Modality	Advantages	Disadvantages
Option 1 Grant delivery as a standalone capacity building project	<ul style="list-style-type: none"><li>• Will use the Bank's disbursement, supervision, financial management and procurement processes thus ensuring effective fiduciary oversight and control of deliverables attributable to Bank support</li><li>• Fast disbursing and ease of access of funds for project activities</li><li>• Efficient response to project funding needs</li><li>• Assignment of dedicated project coordinator and project accounts assistant to manage project funds</li></ul>	<ul style="list-style-type: none"><li>• Requires effective coordination to enhance synergies with other DP-funded activities</li></ul>
Option 2 Pool resources under the MDTF	<ul style="list-style-type: none"><li>• Ensures more synergies with other DP-funded activities</li></ul>	<ul style="list-style-type: none"><li>• Low visibility for the Bank and difficulties in attributing deliverables to the Bank's support</li><li>• May lead to diversion of resources</li><li>• Inefficient accounting for project specific funds</li></ul>

## **2.3. Project type**

2.3.1 The project type is a stand-alone operation, within the framework of the Bank's EA-RISP 2018-2022. The activities to be financed by the Project are well defined, and will be synergised with ongoing activities funded by other DPs (e.g. operational readiness activities) to yield the desired results, namely to commence real power market trade by 2021. The relationship between various activities is depicted in the figure below.



**Figure 2.1: Harmonization and alignment with ongoing Operational Activities**



## 2.4. Project cost and financing arrangements

2.4.1 The project components will be funded by a grant to the EAPP Secretariat under the Regional Operations Envelop/Regional Public Goods (RPG). The EAPP will provide in-kind counterpart contribution in the form of office space and utilities, staff time for employees dedicated to support the project, point and, Financial Management focal point. The in-kind contribution is estimated at USD130,000.00 (UA93,525) over the life of the Project.

2.4.2 The summary of project cost estimates is shown in Table 2.3 and the detailed budget is provided in Table 2.3.

**Table 2.3: Summary of Project Cost Estimate (UA)**

Component		Foreign	Local	Total
I. Capacity Building for Commercial Readiness		470,000	120,578	590,578
II. Project Management				
(a) Project coordinator and Accounts Assistant			75,540	75,540
(b) Operational costs			37,770.00	37,770.00
Contingencies			11,112	11,112
Total		470,000	245,000	715,000.00

\*UA1=USD1.39 (April 2019)

**Table 2.5 – Project Cost by Category of Expenditures UA**

Category	Foreign currency Cost	Local currency Cost	Total Cost	% of foreign
Goods	207,338	19,784	227,122	91
Services	129,497	93,525	223,022	58
Operational costs	-	264,856	264,856	0
<b>Project Cost</b>	<b>336,835</b>	<b>378,165</b>	<b>715,000</b>	<b>47</b>

### Source of finance

2.4.1 The proposed project components will be financed by the AfDB with grant financing from the ADF-14 Regional Operations Envelop (Regional Public Goods), amounting to UA715,000. As such the project has undergone through the filtering process for prioritization as an RPG and duly approved by OPSCOM as an RPG fulfilling the cost-sharing exemption criteria. In this regard, EAPP contribution will be in the form of in-kind contribution covering office space and administrative services and staff time of employees dedicated to manage the

Project. The RPG evaluation tool is attached as **Appendix 2**. Detailed costs and expenditure schedules are provided in **Annex B2**.

## ***2.5. Project's target area and beneficiaries***

2.5.1 The direct beneficiaries of the capacity building activities are the EAPP General Secretariat and the power Utilities in the 11 EAPP Member Countries. Indirect beneficiaries will be electricity users in the EAPP Member countries who will benefit from enhanced access to reliable and affordable power, since a competitive regional pool is expected to lead to a reduction in tariffs. The 11 EAPP Member countries have a total population of half a billion people. Several positive social (with respect to gender) and environmental impacts are expected to be derived from the project, as described in the relevant sections below. The Project area map is provided in **Appendix 5**.

## ***2.6. Participatory process for project identification, design and implementation***

2.6.1 As part of the project appraisal process, the Project team conducted consultations with the EAPP, World Bank country office in Addis Ababa and other stakeholders including representatives of USAID's Power Africa initiative in Nairobi. These discussions helped to identify capacity gaps not adequately funded by other DPs. Accordingly, it was determined that the Bank-funded intervention would focus on Commercial Readiness, which is not fully supported under the IDA and MDTF. In addition, the consultations emphasized the need for continued coordination and collaboration between the activities funded by other DPs including Power Africa, and the proposed AfDB-funded capacity building Project.

## ***2.7. Bank Group experience, lessons reflected in project design***

2.7.1 The Bank has been supporting regional integration and power trade by investing in transmission line interconnections, such as the 230 kV Ethiopia-Djibouti interconnection completed in 2011, the 400 kV Kenya – Tanzania interconnection (to be completed in 2021), the 220 kV Tanzania-Rwanda-Burundi interconnection via Rusumo Falls Hydropower (to be completed in 2020), the 500 kV HVDC Ethiopia-Kenya interconnection set to be completed by 2020, the interconnection of five Nile Equatorial Lake countries (Kenya, Uganda, Rwanda, DRC and Burundi), and regional power generation plants such as Ruzizi III hydropower plant and Rusumo Falls hydropower plants. The Bank has also provided funding for technical assistance (TA) and capacity building programs to the regional organizations: EAPP, Nile Equatorial Lakes Subsidiary Program (NELSAP), Nile Basin Initiative (NBI) and Energie des grands lacs (EGL) in undertaking trainings and relevant studies, in particular to EAPP to conduct the Regional Power Master Plan and Grid Code studies. Among other outputs, this intervention facilitated the formalization of the regional power system masterplan, harmonization of the regional Grid Code and identified training needs and delivery methods for system operations staff.

2.7.2 The overall performance of the Bank's completed and ongoing regional investment operations and TA programs in the Eastern Africa Region has been satisfactory and no project has been flagged for delay in effectiveness. Focusing on the execution of Bank's TA support programs provided for EAPP and other regional institutions, the performance in terms of effectiveness and disbursement can be rated satisfactory, although program implementation delays have been registered in some of them. Key lessons learnt from the AfDB financed completed and on-going projects as well as those supported by other donors were considered in the formulation and design of this project. These include:

- i. The lack of competent project management team at the Executing Agency (EA) coupled with frequent staff turnover has on many occasions delayed project implementation. The project design has therefore included hiring of additional staff in the area of project management and accounting to support the EAPP General Secretariat.
- ii. Delays in recruitment of consultants have led to implementation delays in some TA projects. To overcome such delays experienced in execution of the procurement of consultants and TA programs, the project design has included advance contracting to expedite the consultants' recruitment process.

## **2.8. Key performance indicators**

2.8.1 The key performance indicators and the expected outcomes at project completion are outlined in the results-based logical framework. The expected project outcomes are: commencement of regional power market trade under the EAPP, and a gradual increase in the share of power traded through the regional market operations from zero percent currently to 3 percent by 2021, a target being pursued by the EAPP. At the output level, these results will be realized through the finalization of shadow market operations (simulations for the targeted cross-border power interconnectors) on at least 5 interconnectors to establish the economic viability of power market trade, inform market design and identify regulatory gaps and practical solutions address them. Further, the training of the EAPP General Secretariat staff, members of the Market Committee and other staff of power Utilities in commercial readiness coupled with study tours to facilitate experience-sharing with mature power pools will bridge the capacity gaps for the EAPP realize the regional power market trade. The project will also support the establishment of regulatory measures such as wheeling arrangements to facilitate cross country power trade within EAPP and beyond to SAPP.

2.8.2 Performance indicators will be tracked through quarterly progress reports and biannual Bank supervision missions. Where relevant, indicators will be disaggregated by gender. Measuring of the indicators will help to evaluate the degree of achievement of the project objectives.

## **III – PROJECT FEASIBILITY**

### **3.1. Economic and financial performance**

3.1.1 As an Institutional Support Project (ISP), the project has not undergone the traditional cost-benefit analysis to establish the internal rates of return. Notwithstanding, operationalization of regional power market trade will yield far-reaching economic benefits by boosting private sector competitiveness, enhancing social outcomes such as education and health (by facilitating access to lifesaving equipment and refrigerated drugs and vaccines), and stimulating overall economic growth. The Eastern Africa region leads the way on economic growth on the African continent with growth rates averaging 6 percent annually between 2010 and 2018. In 2018, the Region registered robust real GDP growth of 5.7%, which is projected to remain stable in 2019 and pick up to 5.9% in 2020. However, this robust growth cannot be sustained in the absence of reliable power supply. Therefore, improving access to reliable, affordable and clean power is imperative in Eastern Africa to fuel the needs of the Region's growing economy and in particular improving industrialization and trade.

3.1.2 Regional power trade is one option to ensure adequate access to clean, affordable and reliable energy by enabling countries that generate surplus power to share with those in deficit. Regional power market trade will also help cushion the energy sector from the impacts of

climate change and improve system stability, as it will enable countries that rely heavily on hydro to import power from neighbouring countries during periods of drought.

3.1.3 By improving system stability and reliability of power supply regional power trade is expected to boost more rapid commercial and industrial development in almost every country in Eastern Africa. Currently, there is dissatisfaction with respect to voltage fluctuations and interruptions, particularly among business consumers and industrial off-takers. A recent (March 2016) survey by [Afrobarometer](#), a pan-African research network, highlighted Africa's electricity challenges. The report found that in East Africa only 15 percent of the population reported to have an electricity connection that works most or all of the time, compared to 40 percent in Southern Africa and 82 percent in North Africa.

## **3.2. Environmental and Social impacts**

### **3.2.1 Environment**

*Key Impacts:* The positive impacts of the project will include enhanced access to good and cleaner energy for households and economic activities. There will also be improved services at hospitals and other health facilities, good energy supply to schools and markets; increased economic activities and subsequently improved incomes and employment opportunities; and improved revenues and growth in GDP for the Regional Member Countries through government taxes and national economic activities. The project is expected not to have any negative impacts because it will not involve any physical activities.

*Categorization:* From the preliminary environmental and social impacts assessments and in line with the Bank's Environmental and Social Assessment Procedures, the project is classified **Category 3**. This is because the scope of the planned interventions will not involve any physical activities such as clearing, construction works or any other activity that may have any known or unknown impacts over the life span of the project. The preliminary Environmental and Social Impact Assessment carried out during the project preparation is sufficient and no further studies were necessary.

*Capacity to Implement Environmental and Social Mitigation Measures:* Because the project does not have any known direct negative impacts, there was no need to assess the ESMP implementing capacities of the implementing agency. This is in conformity with the Bank's Environmental and Social Safeguards Policies and Procedures.

### **3.2.2 Social Aspects**

In the social context, the project is expected to impact positively on gender by improving both men's and women's access to improved and cleaner energy in the target Regional Member Countries. Basic social services such as health, education, and improvement in economic activities and social well-being are anticipated through improved access to affordable and reliable power. . General security is also likely to improve.

### **3.2.3 Involuntary Resettlement**

Because this is a Category 3 Project, no Resettlement Action Plan was required since no involuntary resettlement will be involved in its implementation.

## **Climate Change**

3.2.4 The project has been screened for climate risks and rated category 3, meaning that it faces minimal climate risks. The main climate risk to the project is drought, which may impact energy generation from hydropower, hence inter-country trade in power. Other rare risks include floods and cyclones, which may disrupt inter-country power transmission networks. Notwithstanding these risks, the project will improve resilience of the regional energy sector by enabling countries dependent on climate-sensitive energy sources such as hydro to import power during periods of droughts. Moreover, inter-country trade in power will contribute to mitigation targets outlined in the regional member countries' Intended Nationally Determined Contributions (INDCs), as it will reduce the countries' dependence on thermal generators. This is especially so given that countries with surplus power such as Ethiopia have most of the generation coming from renewable energy sources.

## **Gender**

3.2.5 As per the project outcomes, this project has been categorised as Category IV. Nonetheless, the project will have direct impact on women by prioritizing them, where available, for capacity building activities. The project's developmental objective of improved access to reliable electricity will also indirectly positively impact on women and youths. Improved access to electricity will also help to improve youths' educational performance by enabling them to study longer hours under better lighting conditions. This project will also support women-owned SMEs through improved clean, affordable and reliable energy.

## **Social**

3.2.6 The ultimate aim of operationalizing the regional power pool is to promote socio-economic development and poverty alleviation through improved access to reliable and affordable electricity. Ultimately this will lead to enhanced competitiveness of the industrial, agricultural and services sectors and creation of jobs. In addition, improved access to electricity brought about by regional power trade will lead to 'improving the lives of Africans', by allowing students to study longer hours, improve public services (hospitals, clinics and schools), electricity supply to be provided for small and medium enterprises and enable them to operate for longer hours, improvements in security through lighting up of households and streets.

## **IV – IMPLEMENTATION**

### ***4.1. Implementation arrangements***

#### **Executing Agency**

4.1.1 The EAPP General Secretariat will be the Grant recipient and will also act as Executing Agency implementing the project. The EAPP was established in 2005 as regional institution with the mandate to coordinate the cross-border power trade and grid interconnection among nations of the Eastern Africa region. Its objectives are to:- (i) secure power supply for the countries in the region, (ii) optimize the usage of energy resources available in the region by working out a regional investment scheme in developing the power infrastructures (generation, transmission and distribution) taking into account environment effects, (iii) reduce electricity production cost in the region by increasing power exchange between countries, (iv) facilitate in the long - term the development of the power market platform, and (v) provide efficient coordination

between various initiatives taken in the field of power production and transmission, as well as exchange in the Region. Currently, the EAPP has 11 Member countries and 15 Utilities. The 11 Members are Burundi, Democratic Republic of Congo (DRC), Djibouti, Egypt, Ethiopia, Rwanda, Kenya, Libya, Sudan, Tanzania, and Uganda. EAPP also has fifteen (15) member utilities as shown in the tabulation below. Eritrea, Somalia, and South Sudan are set to join during the course of the project implementation. The EAPP organogram is provided in **Appendix 3**.

4.1.2 The Council of Ministers (COM) is the supreme governing body of EAPP that provides strategic guidance and oversight. The Steering Committee (SC), which consists of Chief Executive Officers (CEOs) of the member utilities, is the executive arm responsible for policy formulation and monitoring of execution. The SC will also act as the Project Steering Committee. The day-to-day activities are handled by a General Secretariat located in Addis Ababa, Ethiopia. The Independent Regulatory Board (IRB) is EAPP's organ for regional regulation and reports directly to the COM. The IRB is composed of the heads of the national regulatory authorities / commissions in each member country. Ministries of Energy represent the IRB in countries with no regulatory body.

4.1.3 The EAPP will designate a dedicated Project Focal Point from among its existing staff to oversee all aspects of project management and act as a liaison for day-to-day follow-ups with the Bank. The Focal Point will also supervise consultants recruited under the Project.

4.1.4 Similar implementation arrangements have been successfully used for the previous Bank-funded project implemented by the EAPP, namely the EAPP Regional Power System Master Plan and Grid Code Study Project approved in 2008. Other options explored include the possibility of using the established project implementation support unit (PIU) for the WB projects to manage the grant. However, this option was deemed not desirable because of the requirement for monetary contributions towards the PIU. Instead, it was agreed that the Project would be managed internally by the EAPP, which would designate existing staff to oversee project coordination, financial management and procurement. These officials will be supported by a Project Coordinator and a Project Accounting Assistant to be recruited locally under the Project. The time and expertise of the EAPP staff and experts assigned to the Project will constitute a counterpart contribution to the Project and is estimated at USD130, 000 (UA93,525.00) monetary equivalent.

## **Procurement**

4.1.5 Procurement of goods and the acquisition of consulting services, financed by the Bank for the project, will be carried out in accordance with the “*Procurement Policy for Bank Group Funded Operations*”, dated August 2015 and following the provisions stated in the Financing Agreement. Specifically, Procurement would be carried out following:

4.1.6 **Bank PMPs:** Bank Standard Procurement Methods and Procedures (PMP), using the relevant Bank Standard or Model Solicitation Documents (SDs), for all contracts for any category of procurement; such as the main consultancy services involving firms, to carry out Capacity Building to the EAPP towards Operationalizing the Regional Power Market Trade, that will be selected using Quality and Cost Based Selection (QCBS) method following a shortlist of 6 firms. This is so because BPS is not relied upon for any category of procurement;

4.1.7 *Procurement Risks and Capacity Development:* Country, Sector, Executing Agency (EA), and Project procurement risk assessments were undertaken for the project and the output have informed the decisions on the procurement regimes (BPS and Bank) and the PMPs being used for specific transactions or groups of similar transactions under the project as presented in the Project Appraisal Report (PAR). The appropriate mitigation measures and costs if any will be included in the procurement capacity development action plan (CDAP) under the project. In summary the procurement capacity of the Executing Agency (EA) namely; EAPP, was found acceptable to Bank to manage procurement under this project. The Bank will at an appropriate time provide training on its Procurement Policy Framework and Procedures to the Procurement Specialist once identified. The EA applied for advance procurement and has duly been considered in order to expedite implementation of the project.

4.1.8 *Procurement Plan:* The contracts scheduled for procurement, together with the respective budgetary allocations, procurement methods and review procedures, are reflected in the Technical Annexes. Each contract for goods, works, consulting and non-consulting services required for the Project shall be procured in accordance with the methods prescribed in the Procurement Plan, as detailed in the **Annex B5**.

## **Financial Management**

4.1.9 The Eastern Africa Power Pool (EAPP) as an Implementing Agency, shall have an overall authority and responsibility to implement and manage the project. The financial management system in place in the EAPP was assessed by the Bank and was found to be adequate to handle the Project accounts and firmed to satisfy Bank's Financial Management requirements. The Manager of Financial Management and Human Resources will be responsible for overseeing financial management and procurement activities of the Project. Due to unavailability of sufficient number of financial management staff under the finance Manager, he/she will be assisted by a Project Accounting Assistant to be procured under this Project to carry out project accounting processes. There is a deficiency in the internal control systems of the Entity as there is no internal audit unit in the EAPP structure to oversee the entity's and Project accounts. To overcome this deficiency in the internal control system, the entity will recruit one qualified Project Accounts Assistant funded under the Project to handle the project accounts.

4.1.10 *Disbursements:* The EAPP, as the Implementing Agency, will open one Special Accounts in Foreign Currency and one local currency denominated account (Project Account) in a commercial bank acceptable to the Fund. The four disbursement methods of the Bank can be used as found necessary. However, the direct disbursement method and the special account method will be widely used for the project. Disbursements to the Consultants will be on direct payment methods. Opening of the Special Account shall be a precondition precedent to First Disbursement as there are local staff to be paid from the special account even though most of the consultancy fees will be paid through direct payment method. The special account will be opened when the project is ready to use it. The special account will be used to pay the other Project activities (operating cost, trainings and workshops to be organized by the EAPP for the Utilities of Member Countries). The disbursement Procedures will follow the Bank's rules and regulations in accordance with the Bank's Disbursement Hand Book.

4.1.11 **External Audit:** The project accounts will be audited by an independent auditor recruited competitively using the Bank’s procurement Rules and regulations. EAPP will select an independent auditor competitively from the list of authorized auditors obtained from the OFAG.

4.1.12 The project will be audited in accordance with internationally accepted auditing standards e.g. International Standards on Auditing (ISA). The audit reports of the Project accounts along with the management letter will be submitted to the Bank within six months after the end of the Project (closing date of the grant).”

4.1.13 **Implementation Schedule:** It is anticipated that the project will be completed within 36 months (3 years) starting from signature of the grant by both Parties.

## 4.2. Monitoring

4.2.1 Project Monitoring will be the responsibility of the EAPP, which shall submit quarterly progress reports to the Bank. The initial assessment of the monitoring and evaluation capacity is satisfactory, given that that EAPP has previously executed Bank-funded projects and is currently implementing similar capacity building projects funded by the World Bank’s IDA and MTF.

<u>Timeframe</u>	<u>Milestone</u>	<u>Monitoring process</u>
Aug. 2019	Request for Advance Procurement	EAPP GS
Oct. 2019	Grant approval	AfDB
Octo. 2019	Advance procurement of Project Management team completed	EAPP GS
Oct. 2019	Grant Signature & Launch	AfDB & EAPP GS
Oct 2019	Grant Effectiveness	EAPP GS
Nov. 2019	First Disbursement	AfDB
Jan 2020-Dec 2022	Trainings and study tours	EAPP GS
April-Sept 2020	Shadow Market Operations	EAPP GS
Aug. 2022	Completion	EAPP GS
Dec 2022	Project completion Report	AfDB & EAPP GS

## 4.3. Governance

4.3.1 The Project will be implemented using the Bank’s fiduciary policies. A project specific governance risk mitigation measures of the Project include: (i) approval of the Annual Work Plan and Progress Reports by the EAPP Steering Committee (SC); (ii) independent auditor recruited competitively using the Bank’s procurement Rules and regulations to audit the project finances (iii) Bank prior review and clearance of major project procurement activities; and (iv) effective supervision arrangements through quarterly progress reports (QPR) that include an interim financial report(IFR), and biannual supervision missions supplemented with backstopping from the Bank’s Country Office, where necessary..

## 4.4. Sustainability

4.4.1 The capacity building will be sustained since the members of the Market Committee who are targeted in the training and study tours are established employees of the Power Utilities. In addition, non-MC members will also be included in the trainings to enhance sustainability in the event of staff turnovers



4.4.2 Once the Power Pool becomes operational, the EAPP is expected to generate additional revenues as the market operator. These revenues can be used to sustain future capacity building activities.

## **4.5. Risk management**

4.5.1 The risks which might affect the attainment of project objectives and corresponding mitigation measures are discussed in Table 3.

**Table 3: Potential Risks and Mitigation Measures**

	<b>Risk</b>	<b>Likelihood</b>	<b>Mitigation Measures</b>
1	Inadequate financing for control centre- CC, estimated at USD54.3 million and currently unfunded by DPs	M	Bank will encourage the EAPP to mobilize funding for the purchase of equipment for the intended CC
2	Potential delays in formally establishing the MC	L	EAPP will closely follow-up the endorsement of the MC by EAPP SCM & COM and encourage Member Utilities to maintain individuals that are currently part of the MWG
3	Unavailability of women staff in the Utilities and EAPP General Secretariat may derail the attainment of gender targets	M	the approach to training will involve training of trainers to ensure that women are trained whenever they are recruited
4	potential delays in placement of wheeling arrangement (charge)	M	EAPP will ensure wheeling arrangements are factored in shadow market modelling and simulations; EAPP and its Member Utilities will leverage international experience from mature power pools and set up transparent criteria for determining wheeling arrangements (charges)

## **4.6. Knowledge building**

4.6.1 The project is aimed at enhancing the capacity of the EAPP to realize the first ever regional power market trade in Eastern Africa. It is noteworthy that across the Africa continent, regional power market trade has only been successfully implemented in the Southern Africa Power Pool (SAPP). The project will therefore generate useful lessons for the Bank in rolling out similar capacity building support to power pools in other parts of the Continent. The knowledge and experience generated by this Project will be carefully captured through reports of the EAPP Steering Committee Meetings, quarterly progress reports, supervision missions and the Project Completion Report (PCR).

# **V – LEGAL INSTRUMENTS AND AUTHORITY**

## **5.1. Legal instrument**

5.1.1 The instrument that will be used to finance this Project will be the ADF Grant under the ADF14 Regional Public Goods window amounting to UA715,000.

## **5.2. Conditions associated with Bank's intervention**

5.2.1 The grant agreement will enter into force upon signature by the Parties.

**Other conditions:** The recipient will:-

- i) open a Special Account at a commercial Bank in Ethiopia acceptable to the AfDB to receive the grant resources allocated for operational expenses;
- ii) ensure the formal establishment of the Market Committee and its inclusion under the EAPP organogram within 12 months from grant effectiveness;
- iii) Designate, from among its established staff, a dedicated senior official to act as Project Focal Point, whose terms of reference are acceptable to the Bank; and

iv) Ensure that the Annual Work Plan is approved by the EAPP Steering Committee at the beginning of the EAPP fiscal year.

#### **Conditions Precedent to First Disbursement of the Grant**

5.2.2 The instrument that will be used to finance this Project will be the ADF Protocol of Agreement amounting to UA715,000.

#### ***5.3. Compliance with Bank Policies***

5.3.1 This project complies with all applicable Bank policies except the cost sharing principle. However, the project has undergone through the filtering process for prioritization as an RPG and duly approved by OPSCOM as an RPG fulfilling the cost-sharing exemption criteria.

### **VI – RECOMMENDATION**

Management recommends that the Board of Directors approve the proposed grant in the amount of UA715,000 to the Eastern Africa Power Pool General Secretariat for the purposes and subject to the conditions stipulated in this report.

## Appendix 1A. Selected comparative socio-economic indicators-EAPP Members

	EAPP	Burundi	DRC	Djibouti	Egypt	Ethiopia	Libya	Kenya	Rwanda	Sudan	Tanzania	Uganda
GDP, current (2018) billions		3.7	41.8	2.5	232.0	112.0	51.5	100.5	12.2	112.1	70.2	34.6
GNP/capita (2018)		333.0	547.0	2,237.0	3,582.0	881.0	6,545.0	1,737.0	857.0	2,832.0	1,083.0	714.00
Real GDP growth (2018)		1.7	4.8	6.7	6.3	9.2	13.0	7.0	8.5	4.8	7.9	6.20
Total population (millions, 2017)	502.4	11.9	82.2	0.9	95.2	104.3	6.4	48.5	12.2	42.2	56.9	41.7
Access to electricity, %(urban)- 2016		35	35	54	100	85	100	78	72	71	65	58
Access to electricity, %(rural)-2016		7	<1	1	100	29	99	60	12	31	17	18
Access to electricity, %(national)-2016		10	15	42	100	40	100	65	30	46	33	27

**Sources:** population (AfDB country profiles), GDP (AfDB Africa Information Highway), Access rates urban/rural (International Energy Agency, [Energy Access Outlook 2017](#))

**Appendix 1B. State of Power Interconnections in the EAPP Region**

	<b>Interconnector</b>	<b>Voltage (kV)</b>	<b>Year</b>
	<b>Existing</b>		
1	Libya-Egypt	220	2008
2	Ethiopia-Sudan	230	2012
3	Ethiopia-Djibouti	230	2011
4	Kenya-Uganda		2018
5	SINELAC Area associated with Ruzizi II Hydro-power station: Burundi, Rwanda and DRC		
6	Egypt-Sudan		2019 (and pending energization)
7	Tanzania-Rwanda*	220	2018
	<b>Planned</b>		
	Kenya-Tanzania	400	2021
	Tanzania-Rwanda-Burundi interconnection via Rusumo Falls Hydropower	220	2020
	Ethiopia-Kenya	500	2020
	Interconnection of five Nile Equatorial Lake countries (Kenya, Uganda, Rwanda, DRC and Burundi)		
	DRC-Uganda*	400	
	DRC-Burundi*	220	
	DRC-Rwanda*	220	
	Ethiopia-Somali*	230	2020
	Sudan-Ethiopia	500	2020
	Tanzania-Uganda*	220	2022
	Uganda-South Sudan*	400	2024

\*data source=Aurecon SAPP-EAPP Interconnector Impact Study funded by the World Bank (October 2018)

## Appendix 2: Regional Public Goods Justification

This proposal aims at addressing the capacity challenges of the EAPP to towards operationalization of the regional power market. The EAPP covers 11 countries<sup>2</sup> and three more are set to join to bring the number to 14. The proposal is to finance the project with grant financing under the Regional Operations Envelop, Regional Public Goods (ROE/RPG) for a number of reasons:

1. Many of the countries to benefit from the operation are states in transition;
2. The project will support entirely soft interventions through a regional institutions, which itself, has no capacity to take up loans;
3. The project has strong regional public goods characteristics.

Below is the RDG assessment based on the defined criteria in the Revised ADF Regional Operations Envelop Prioritization and Allocation Framework (2014):

CRITERION	SHORT EVALUATION (BULLET-POINTS)
Stage I:	
<p><b>Non-rivalry:</b> Public goods are those whose benefits can be enjoyed by one party without (or hardly) reducing the availability of these benefits to others.</p> <p>The project will demonstrate that the object of assistance within the project is something whose benefits will be consumed by more than one party and that a provider cannot keep non-contributors from consuming the benefit of that good. Some examples can be terms of trade, cross-boundary diseases (animal and human), shared water resources, cross-border roads.</p>	<p>This project targets enhancing the capacity of the EAPP to operationalize the regional power market by addressing the capacity gaps of the EAPP Secretariat and Member Utilities. The benefits of a stronger EAPP are non-rival accessible to all Member Countries without reducing the benefits to others. Some of the outputs of the Projects have strong externalities that could arise if only a few countries are involved. For example, wheeling agreements govern the charges countries apply for power to be ‘wheeled’ from one country (A) to another country (B) through a transit country (C). Thus, if the exporting country and the importing country bot have harmonized rules, but the transit country through which power is wheeled is not party to the harmonized rules, this will impact on the ability for countries A and B from trading power efficiently through transit country C. Therefore, it is imperative that all countries in the pool should participate for the benefits to be realized.</p>
<p><b>Non-excludability:</b> It is difficult or prohibitively expensive to exclude others (countries/ communities/ regions) from enjoying/ consuming the generated benefits.</p> <p>The project will demonstrate that there is no way that non-participating countries/ communities can be stopped from enjoying the generated benefits because of the nature of the object of the project’s assistance.</p>	<p>Once harmonized power trade rules have been established in the EAPP, there are no mechanisms to exclude countries from enjoying the benefits.</p> <p>In a scenario where these arrangements involve transit countries and wheeling arrangements, attempts to exclude members will jeopardize the ability of participating countries from actually accruing the benefits and would go against regional power trade (please refer the illustration concerning countries A (the exporter), B (the importer) and C (transit country) above. Exclusion of any party would be detrimental to all parties.</p>

<sup>2</sup> Burundi, Democratic Republic of Congo, Djibouti, Egypt, Ethiopia, Rwanda, Kenya, Libya, Sudan, Tanzania and Uganda

CRITERION	SHORT EVALUATION (BULLET-POINTS)
<p><b>Of Public Interest:</b> The good is of broad public interest and benefit. Typically, a public/governmental entity in each participating country is typically responsible for the regulatory/policy context for the good to be produced and takes part in its production.</p> <p>The project will demonstrate that there is either an inter-governmental coordinating body in place or an existing REC to regulate and oversee the function and coordination of the object of support in a proposed project. As such, the project will demonstrate to what extent the inter-governmental body and/or REC has taken steps to ensure the maintenance of the object of support and to what level of success.</p>	<p>The activities to be supported under Project are prioritized under the EAPP Three-Year Action Plan (2018-2021), and is therefore of public interest to Member Countries. Other donors notably the World Bank (IDA) and the MDTF are also supporting aspects of the Action Plan.</p> <p>Moreover, operationalization of the regional power market is of public interest as it will enable efficient usage of the Region's power resources (including green energy) and stem environmental degradations in countries that are forced to rely of biomass fuels that have led to massive deforestation.</p> <p>Operationalization of the regional power market will also lead to improved access to electricity in the region. This is of interest to all countries involved and is in line with the Sustainable Development Goals (SDGs, especially goal #7: affordable and clean energy, and goal #9, industry, innovation and infrastructure).</p> <p>Enhancing the capacity of regional power pools such as the EAPP to foster regional power trade is also of interest to the Bank, which has identified regional power trade as a priority for regional integration under the EA-RISP (2018-22) and the New Deal for Energy in Africa (2016-25), Theme #6: <i>Accelerating major regional projects and driving integration (grow power markets)</i>.</p> <p>This intervention will focus on addressing the capacity and policy/regulatory impediments to regional power trade. As such it responds fully to the Bank's intention to pay attention to 'soft' infrastructure impediments to regional integration.</p>
Stage II	
<p><b>Regional Dimension:</b> The public good involves two or more countries and can only be effectively produced if every country involved participates and supports its production.</p> <p>The project will demonstrate that there are at least two countries involved with regards to the object of support and that the object of support in the Bank's investment is something that is either of a global and/or regional development importance and this should be demonstrated through a regionally/globally validated document (for example the "Convergence Plan of COMEFAC" outlining the work in the Congo Basin, a UN document agreeing on steps to reduce climate change, SADC gender action plan, the ECOWAS memorandum on Food Crisis, etc.) confirming this importance</p>	<p>The development objective of the Project is regional: to operationalize regional power market trade.</p> <p>The executing agency, EAPP General Secretariat, is a specialized regional institution to coordinate cross-border power trade and grid interconnection among countries of the Easter Africa Region. It covers 11 countries, with 3 more set to join.</p> <p>Capacity building of the EAPP General Secretariat will therefore benefit all Member countries.</p>

CRITERION	SHORT EVALUATION (BULLET-POINTS)
<p><b>Strategic Alignment:</b> The RPG is strongly aligned with the Bank’s strategic orientations and to continental and regional objectives, (i.e. RPGs identified as priority operations under NEPAD or REC regional integration plans). Harmonization and partnership will be encouraged by giving preference to co-financing arrangements that promote donor coordination and leverage the Bank’s own resources by mobilizing additional funds, including from sister institutions or the private sector.</p> <p>The project will demonstrate that the RPG is closely aligned with the continental and regional development agenda as well as the Bank Group’s own strategy, especially with regard to selectivity and sector focus, and harmonization and partnership.</p>	<p>The Project is aligned with the Bank Group High-5s on Light up and Power Africa and Integrate Africa.</p> <p>The Project is also highly aligned with the following Strategies:</p> <p>New Deal for Energy in Africa (2016-25), Theme #6: Accelerating major regional projects and driving integration (grow power markets).</p> <p>Eastern Africa Regional Integration Strategy Paper (EA-RISP), 2018-22: Pillar I, “regional infrastructure connectivity for competitiveness”</p> <p>In addition, the Project is strongly aligned with the EAPP Three Year Action Plan (2018-22)</p> <p>It is also fully aligned with the following REC strategies:</p> <ul style="list-style-type: none"> <li>- EAC 5th Development Plan (2017-2021)</li> <li>- Focus Area 2: development of regional infrastructure <ul style="list-style-type: none"> <li>- COMESA Medium Term Strategic Plan (2016-2020)</li> </ul> </li> <li>- Strategic Objective 5: Strengthen development of economic infrastructure (Energy, transport, ICT)</li> </ul> <p>IGAD Regional Strategy (2016-2020)</p> <ul style="list-style-type: none"> <li>- Pillar 2: Economic Cooperation &amp; Integration: Develop regional infrastructure to support economic cooperation &amp; integration</li> </ul>

CRITERION	SHORT EVALUATION (BULLET-POINTS)
<p><b><i>Catalytic and Upstream Role:</i></b> Bank financing targets the <i>initial stages</i> of the processes for generating the public good and the Bank's support should aim at <i>correcting disincentives</i> that prevent the RPG from emerging or progressing toward the stage of production, such as <i>lack of coordination, aversion to risk, free-rider problem</i>.</p> <p>The project will demonstrate that the Bank is supporting an initial investment to an object and that by doing so opens the way for further investments by partners/RMCs in the regional or national context for specific development impact (to be specifically demonstrated).</p> <p>Under this criterion, the project will also demonstrate that without the Bank's intervention, there is a risk of certain beneficiaries free riding and not being held accountable. The project will demonstrate that the Bank's intervention will add value to strengthen coordination in the region generally and/or through the inter-governmental body or REC involved (if any).</p>	<p>The project is catalytic since, once the power pool is operational, the EAPP General Secretariat, which will act as market operator, will be able to generate revenue.</p> <p>This project will also strengthen the ability of the Regional Power Pool to coordinate power trade in the region and to encourage and train its member Utilities and Regulators to regional power trade.</p> <p>The project will have a strong demonstration effect among countries of the Power Pools as well as on other regions. For example, countries that move faster in operationalizing power market trade will provide the inspiration for others to follow suit.</p> <p>Equally, the project will promote learning and experience sharing among countries of the EAPP and between the EAPP and SAPP.</p>
<p><b><i>Higher Developmental Impact in Cooperating:</i></b> The development impact to be achieved through countries' cooperation is demonstrably superior to what each country could have achieved individually.</p> <p>The project will go on to demonstrate that the development impact (to be specified by the team e.g. poverty reduction, gender equity, human development, etc.) will be increased only if the object of support is addressed within a regional context with the participation of at least two countries (as opposed to national projects).</p>	<p>The project will improve access to affordable electricity among EAPP countries by fostering regional power trade.</p> <p>By improving access and affordability, households will move away from environmentally damaging energy sources such as wood (biofuels), fossil fuels to cleaner renewable energy.</p> <p>In addition, access to affordable and reliable power will boost industrialization and competitiveness in the region, leading to creation of more jobs and growth in intra-African trade.</p> <p>Improved access to electricity brought about by regional power trade will lead to 'improving the lives of Africans', by allowing students to study longer hours, improved public services (hospitals, clinics, schools, etc.) electricity supply to be provided for small and medium enterprises and enable them to operate for longer hours, improvements in security through lighting up of households and streets, etc.</p>



CRITERION	SHORT EVALUATION (BULLET-POINTS)
<p><b>Development Effects:</b> Relative to the investment size, the project is expected to yield strong development results and there is comprehensive documentary evidence as related to:</p> <ul style="list-style-type: none"> <li>• Enhanced Governance;</li> <li>• Knowledge building;</li> <li>• Environmental sustainability and Climate change;</li> <li>• Protection of human health;</li> <li>• Regional Integration</li> </ul>	<p>This small investment will enhance the capacity of the EAPP to operationalize the regional power market and unlock the region's potential for cross-border power trade. The key development outcomes are:</p> <ol style="list-style-type: none"> <li>1. Increased regional power trade</li> <li>2. Growth of economic activity and competitiveness of industries in the region</li> <li>3. Improved livelihoods for communities living in the EAPP countries</li> <li>4. Strengthen cooperation and knowledge sharing between the EAPP and SAPP, which will result in the creation of the world's largest region power market (geographically), by linking SAPP and EAPP</li> <li>5. Strengthen regional cooperation on power trade within the 11 countries of the EAPP</li> </ol>

Eligibility to cost-sharing exemption	
<p><b>Grant resources outside the PBA allocation</b> (i.e. exclusively from the RO envelope) will be considered for those projects which demonstrate superior developmental impact- with respect to economic and social advancement through amongst others, the following: employment generation, trade promotion, security improvement, gender equality and climate change and adaptation.</p> <p>The list of such projects will be determined by the ranking stemming from the rating assessed during the previous stage and endorsement by the Operations Committee.</p>	<p>The project financing will be entirely from ADF RO Envelop (RPG), since as a specialized regional institution, the EAPP Secretariat has no capacity to borrow.</p>

### Appendix 3: General background Information about EAPP

#### 1. EAPP Background

1.1. The Eastern Africa Power Pool (EAPP) is a regional institution established in 2005 to coordinate cross-border power trade and grid interconnection among nations of the Eastern Africa region.

1.2. The EAPP currently has eleven (11) member countries (Burundi, Democratic Republic of Congo (DRC), Djibouti, Egypt, Ethiopia, Rwanda, Kenya, Libya, Sudan, Tanzania, and Uganda. EAPP also has fifteen (15) member utilities as shown in the tabulation below. There are three potential members to join EAPP, Eritrea, Somalia, and South Sudan, during the course of the project implementation. This will increase the number of member countries and utilities to 14 and 18 respectively.

**Table 1: EAPP Member Utilities and Regulators**

	Member Country	Member Utility	Member Regulator
1	Burundi	REGIDESO	Control & Regulatory Agency
2	DRC	SNEL	Electricity Regulatory Authority
3	Djibouti	EDD	
4	Egypt	EEHC	Egyptian Electric Utility and Consumer Protection Regulatory Agency (Egypt ERA)
5	Ethiopia	EEP	Ethiopian Energy Authority (EEA)
6	Libya	GAEREL	
7	Kenya	KPLC, KENGEN & KETRACO	Energy Regulatory Commission of Kenya (ERC)
8	Rwanda	REG	Rwanda Utilities Regulatory Agency (RURA)
9	Sudan	SETCO & MWRE	Electricity Regulatory Authority of Sudan
10	Tanzania	TANESCO	Energy and Water Utilities Regulatory Authority (EWURA)
11	Uganda	UETCL	Electricity Regulatory Authority of Uganda
12	DRC/Burundi/Rwanda	SINELAC	N/A

1.3. The Council of Ministers (COM) is the supreme governing body of EAPP that provides strategic guidance and oversight. The Steering Committee (SC), which consists of Chief Executive Officers (CEOs) of the member utilities, is the executive arm responsible for policy formulation and monitoring of execution. The day-to-day activities are handled by a General Secretariat located in Addis Ababa, Ethiopia.

1.4. The Independent Regulatory Board (IRB) is EAPP's organ for regional regulation and reports directly to the COM. The IRB is composed of the heads of the national regulatory authorities

/ commissions in each member country. Ministries of Energy represent the IRB in countries with no regulatory body.

1.5. EAPP also has the following four Technical Committees: -

- a. The Planning Committee,
- b. The Operations Committee,
- c. The Environment Committee
- d. The Human Resources and Governance Committee.

1.6. ***The objectives of the EAPP are to:***

- a. Secure power supply for the countries in the region;
- b. Optimize the usage of energy resources available in the region by working out a regional investment scheme in power generation, transmission and distribution taking into account the environment effects;
- c. To increase power supply in the region in order to increase access rate of the population
- d. to electricity in Eastern Africa; Reduce electricity production cost in the region by using power system interconnection and increase power exchange between countries;
- e. Provide efficient coordination between various initiatives taken in the field of power production and transmission, as well as exchange in the region;
- f. Create, in the framework of New Economic Partnership for African Development (NEPAD), a conducive environment for investment in order to facilitate the financing of regional integration projects in power generation and transmission; and
- g. Facilitate, in the long - term, the development of the electricity market in the region

1.7. **Situational Analysis: The Eastern Africa Power Pool and Milestones**

1.8. The eleven (11) countries which now form the EAPP have total population of 502 million people which is 40% of the total African population<sup>1</sup>. Some of the EAPP Member Countries are among the seven of the eleven most populous countries in Africa. The EAPP region is also the leading sub-region in terms of population growth.

1.9. The electricity demand in the region has doubled over the last ten years, and is expected to grow at 9% per annum over the next decade. This calls for expanded investments in energy resources and introduction of power trade within the region.

1.10. Presently, there are four synchronized networks in the EAPP region: the Egypt – Libya synchronized network, the Ethiopia - Sudan – Djibouti synchronized network, the Kenya – Uganda synchronized network, and the Rwanda-Burundi-East DRC synchronized network with exchanges purely based on Power Purchasing Agreements (PPAs). Countries in the region also operate cross border transmission / distribution lines to supply or electrify remote or isolated border cities of a country from the closest power grid of the neighboring country.

1.11. To address some of the challenges associated with current situation, EAPP has partnered before with regional and international stakeholders and development partners to fast track regional and continental integration efforts in the power sector aimed at growing regional power trade and

improving access to reliable and competitively priced electricity for both domestic and industrial consumers. Some of the key milestones achieved under these initiatives include:-

- a. Development of Regional Power System Master Plan and Grid Code (2011)
- b. Development of Structures for enabling for Regional Trade including Regional Market
- c. Design and the enabling environment with the support of European Union
- d. Operationalization of the EAPP – General Secretariat, Independent Regulatory Body (IRB) and Technical committees to spearhead respective activities within the region with Norwegian support
- e. Further development of regional trading structures under the Powering Progress and Power Africa Partnership Initiatives with support of USAID (2011-2017)
- f. Formulation and implementation of regional Interconnection Code Compliance program

## **2. Towards implementation of Power Trade in the region**

2.1. The EAPP undertook development of a pilot short-term power-trading platform under the auspices of twinning arrangement in 2014. The scope covered the update of Regional Market Roadmap- initially developed in 2011 and conducting a Short - term Trade. The short – term trade developed to a full Pilot with the support and Approval from EAPP Steering Committee.

2.2. Various tools were developed and training conducted for the Technical Committee of Operation members. The Pilot run from March to December 2014. The overall goal of the Pilot was to minimize the variable cost of generation for all of the participating countries simultaneously;

2.3. Using the Criteria of existing interconnectors, four Countries were selected for the initial pilot namely (Ethiopia, Sudan, Kenya and Uganda). In the EAPP area today, there is no Power exchange on international interconnectors based on short-term power trade arrangement, only exchange based on long-term bilateral contracts. The eight months Pilot showed that there are real economic benefits that could be accrued in addition to the fact at variable generation costs from all the countries involved could be greatly minimized, compared with a situation where no –or only little (long - term) power trade takes place via the existing interconnectors.

2.4. The Pilot also showed that a point of departure is required to enable the region start a full-fledged market as reflected in the EAPP Market Roadmap. This revolves around a look at existing regulations on long - term contracts, PPAs, the market rules and trading arrangements and technical compliance of participating countries, which will define exactly when a real Market can start. Based on this outcome, the EAPP focused on the Regional Power Market Development as a key theme to facilitate the inception of a centrally coordinated short - term trade in the region and enhance the liquidity and diversity of the regional power market.

- a. The initiatives below were subsequently identified as key and entrenched in the 10 year strategic plan and its Three Year Action Plan approved by the EAPP Council of Ministers (COM).
- b. Finalization and approvals for the draft market rules, guidelines, wheeling arrangements etc. and other regulatory documents.
- c. Establishment and Operationalization of a permanent Market Committee.
- d. Harmonization of regulatory provisions that address national/regional power sector issues that impede power market development. (Ensuring they are in harmony with the regional framework and rules and linkages with SAPP)

- e. Introduction of new trading platforms with capacity for various other products (intra-day, ancillary, etc.), definition of control areas and SCADA implementation and eventual commencement of real trade on existing interconnections and laying the ground work for trade on future interconnections.
- 2.5 Apart from its own efforts to start the power trade within the countries, the EAPP is also pursuing efforts to interconnect and synchronize the EAPP to the SAPP, which will create the largest geographical energy market in the world, extending from Cape Town in Southern Africa to as far north as Cairo in Egypt.

2.6 To realize this goal starting the market as well as synchronization with the SAPP, the EAPP revised its road map and subsequently developed the EAPP Road Map (2015-2025)<sup>2</sup>, primarily focus on the key elements for realization of the regional power system integration and cross border power trade, which will be implemented through a series of short-term (three-year) action plans.

## **2.7 Support for the Strategic Plan**

2.7.1 Following the approval of the strategic plan and the first three years' action plan (2018 - 2020) by EAPP's steering committee (SCM) and Council of Ministers (COM) on February 14, 2016, the EAPP has received support from the World Bank for some components (strategic themes) in the strategic plan under an IDA Grant as well as under the Multi-Donor Trust Fund (MDTF) supported by WB & SIDA and other DPs like USAID (PA).

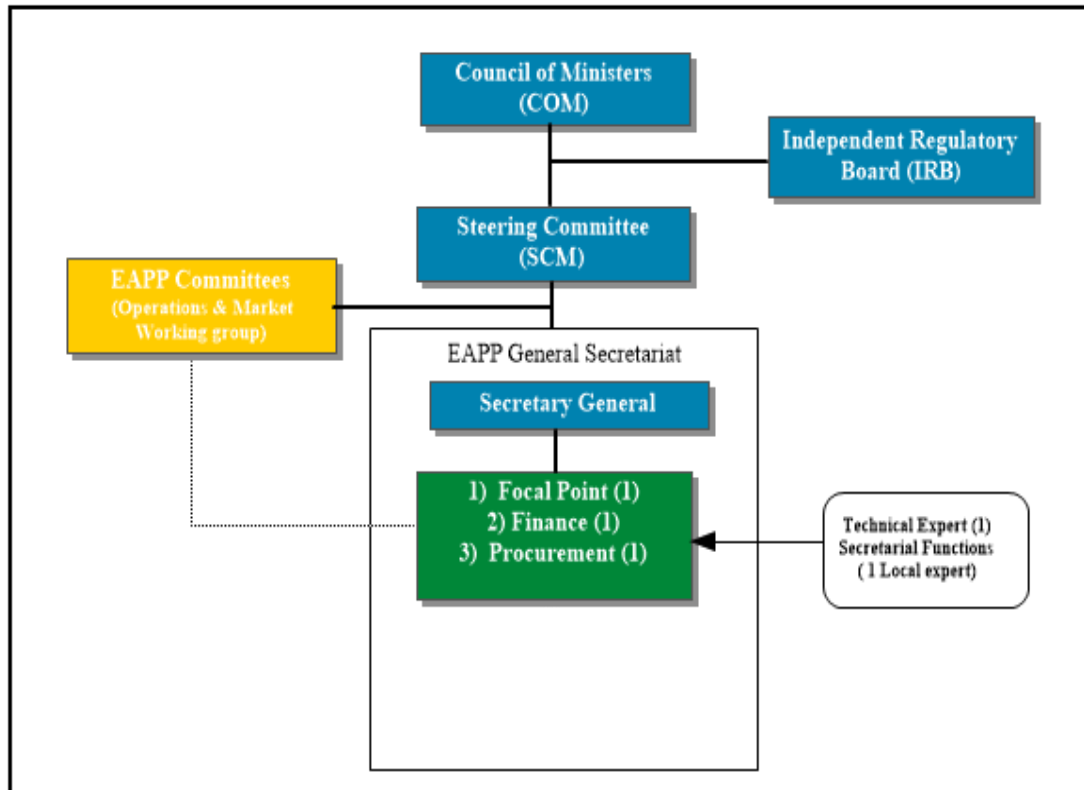
Under the IDA grant, the World Bank is providing a US\$10 million grant (IDA Grant) for Technical Assistance (TA) to EAPP under component IV of the Tanzania – Zambia Interconnector Project. The Technical Assistance will (i) facilitate knowledge sharing between SAPP and EAPP (South-South exchange); and (ii) help design and operationalize a market operator for the EAPP to facilitate short-term power trade. This component may also support measures to facilitate interconnection of EAPP and SAPP, such as grid code harmonization, and putting in place the legal and regulatory frameworks.

Summary of the ongoing DPs support activities outlined in Appendix 4 below.

#### Appendix 4: Summary of Development Partners' Support

Donor	Ongoing support activities
MTDF/WB	Solar Measurement Campaign (mapping) for EAPP countries
MTDF/WB	Develop IRB Strategic Plan and assessment of any legal or regulatory changes necessary to allow IRB to fulfil its mandate.
MTDF/WB	Implementation of legal and regulatory changes identified through the development of the strategic plan
MTDF/WB	Delivery Capacity building support to the EAPP Secretariat
MTDF/WB	Develop Capacities of technical committees
MTDF/WB	Capacity development support to IRB
PA	Develop and update regional Network load-flow models for all EAPP member states - 2020 scenario
PA/MTDF (WB)	Complete dynamic study of EAPP interconnection of all member states and identify protection need and Package and present capital requirements
PA	Load Flow Analysis of Ethiopia-Kenya-Tanzania 200 MW Wheeling Transaction & power loss study for transfer of 200 MW
PA	Transmission Capacity Study for use in KETRACO Cost allocation for the EKT Transaction
PA	Generic wheeling documents: Produce generic documents and standardised methodology to accelerate future wheeling negotiations based on the EKT transaction.
PA/MTDF (WB)	Develop Standardised documents that can be used in future Bilateral trades.
PA/MTDF (WB)	Develop basic agreements and establish short term bilateral trading platform;
PA/MTDF (WB)	Develop approach for technical and commercial interconnection with SAPP;
PA/MTDF (WB)	Complete the Approved EAPP IC Compliance Program and Gap Validation: EAPP IC Compliance Program for all countries
PA/MTDF (WB)	Produce Gap Mitigation Plan for all countries: EAPP IC Compliance Program
PA/MTDF (WB)	Establish Permanent IC Compliance Monitoring Function
PA/MTDF (WB)	Package and present national level plans to deliver operational improvements
PA/MTDF (WB)	Develop Operating Guidelines
PA/MTDF (WB)	Certification of Control areas / control area operators: and development of control area control performance standards
PA/MTDF (WB)	Development and implementation of primary reserve policies and procedures
PA/MTDF (WB)	Development of standards to harmonise operational planning:

## EAPP Organigram



**Appendix 5. Map of the Project Area (11 EAPP Member Countries)**





**AFRICAN DEVELOPMENT FUND**

**BOARD OF DIRECTORS**

**Resolution N° F/Z1/2019/87**

Adopted by the Board of Directors on a lapse-of-time basis, on 24 October 2019

**Multinational: Grant to the Eastern Africa Power Pool to finance part of the costs of the Capacity Building for the Operationalization of the EAPP Regional Power Market Trade Project**

**THE BOARD OF DIRECTORS,**

**HAVING REGARD** to: (i) Articles 1, 2, 11, 12, 14, 15, 16, 26 and 30 of the Agreement Establishing the African Development Fund (the “Fund” or “ADF”); (ii) the Report on the Fourteenth General Replenishment of the Resources of the Fund (“ADF-14”); (iii) the applicable ADF-14 Country Resource Allocation; (iv) the Guidelines for the Financing of Multinational Operations; and (v) the appraisal report contained in Document ADF/BD/WP/2019/156/Approval (the “Appraisal Report”);

**RECALLING** the Strategic and Operational Framework for Regional Operations contained in Document ADB/BD/WP/2008/31- ADF/BD/WP/2008/16; and

**NOTING** the availability of sufficient resources to enable the Fund to commit the amount of the Grant;

**DECIDES** as follows:

1. To award to the Eastern Africa Power Pool General Secretariat (the “Recipient” or “ EAPP”), from the resources of the Fund, a grant of an amount not exceeding the equivalent of Seven Hundred and Fifteen Thousand Units of Account (UA 715,000) (the “Grant”) to finance part of the costs of the Capacity Building for the Operationalization of the EAPP Regional Power Market Trade Project;
2. To authorize the President to conclude a protocol of agreement between the Fund and the Recipient (the “Protocol of Agreement”) on the terms and conditions specified in the General Conditions Applicable to Protocols of Agreement for Grants of the African Development Fund and the Appraisal Report;
3. The President may cancel the Grant if the Protocol of Agreement is not signed within ninety (90) days from the date of approval of the Grant by this Board; and
4. This Resolution shall become effective on the date above-mentioned.