FINAL REPORT

ASSESSMENT OF ENERGY RELATED SERVICES IN COMESA

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Table of Contents

Executive Summary

Background of the Study

Trade in energy is very critical, it is a tool that spurs national and global economic development as well as international competitiveness. Energy is key to international competitiveness, it is both a strategic and political asset, because of its finite resource which also requires a unique infrastructure system, exploitation and trading among nations is possible. Given energy is a state-owned resource in many nations, it explains why energy security has more focus and importance than other service sectors.

This study assessed energy and energy related service within COMESA. Energy services is among the prioritized services in COMESA; however, energy and energy related services lack a separate classification under the World Trade Organization (WTO) classification List (W/120). The United Nations Provisional Central Product Classification (UNCPC) also does not list energy services as a separate category. This has affected the preparation of schedules on specific commitment on energy services within COMESA. Thus, the study aims to provide clarity on the energy sub-sectors, Member States can commit and suggest the classification that can be adopted.

In 2009, COMESA adopted the trading service regulations that are intended to: (1) spur countries to achieve sustainable growth and development through eliminating the barriers to trade in services; (2) enhance cooperation with aims of improving efficiency, competitiveness, production, supply diversity, as well as distribution of services by service suppliers; (3) liberalize trade in services; and (4) lastly increase, improve and develop the export of services.

Among the key fundamental principles under the COMESA trading service agreements that have been agreed by Member States and mainly related to this study is on first, the GATS principles as guiding principles for negotiating services at the regional level; second, the agreement to adopt the positive list approach for the basis of progressive liberalization and the right to regulate as essential to meet national policy objectives.

Findings of the Study

Specifically, this study establishes the following findings based on the terms of reference:

a) The current state of trade in this sector in the region.

i) **Concept on 'energy services' and 'energy related services** including how trade in electricity should be recorded is not clear among members.

- Energy is classified as non-renewable energy resources (conventional sources of energy) and renewable sources (non-conventional sources of energy).
- In the energy sector, trade happens in three levels:

i) **Trade in natural resources needed to produce energy'** also known as the trade in energy goods or products such as natural gas, crude oil, refined petroleum products, other hydrocarbon products, natural gas liquids, etc.

ii) **Trade in energy itself** also known as the trade in energy services such as trade in electricity.
iii) **Trade in energy related services** also known as services provided to energy companies at various levels of the energy value chain.

- Thus, **energy services** are those functions performed using energy which are means to obtain or facilitate desired end services or states.
- **Energy related services** are services supplied to energy companies at a fee (either directly or indirectly through their contractors or sub- contractors) at different levels of the energy value chain. That is upstream activities (exploration, developing & extraction, and generation/production), midstream activities (transporting & trading) and downstream activities (marketing & sales).
- **Some Member States view and record electricity** as a 'good' mainly because it can be produced, quantified, and even traded beyond national borders. While others view and treat electricity as a 'service' either when it is imported or transmitted and distributed to final consumers.

ii) Based on mapping of energy resources in COMESA:

- **COMESA Member States have vast energy resources** from both fossil fuels to renewable energy sources though unevenly distributed.
- **Oil and Gas is a resource among few countries** like Comoros, Egypt, Libya, Madagascar, Malawi, Sudan, Tunisia, etc. Most countries are undertaking exploration to identify their potential.
- **Hydro is the dominant and traditional energy resource**, though solar power (because of large radiation in Africa) and wind power are also finding their way in Members' energy mix.
- **Commercialization of Biomass suffers from technological challenges**.
- **Geothermal is an infinite energy resource** located in countries with great rift valley features such as Kenya, Ethiopia, Burundi, Uganda, and Rwanda.

iii) Energy resources trading COMESA:

- **Electricity imports happen among neighboring/bordering countries** largely for electricity exchange and trading purposes (i.e., Burundi imports electricity from DRC and Kingdom of Eswatini imports electricity from South Africa, etc.)
- **Oil and Gas and refined products imports and exports occur within COMESA and abroad** (i.e., Imports of LPG by Kenya from Tanzania, Oil & Gas imports by Tunisia from Algeria, etc.).
- **Biomass, coal, ethanol exports happen within COMESA and abroad** i.e., exports of Ethanol from Mauritius to France, exports of coal and biomass fuels from Kingdom of Eswatini to China, Japan, etc.

iv) Energy and Energy related services trading:

- There is no data on trade in energy and energy related services, available data is rather too general and focused on construction services, maintenance and repair services,

manufacturing services, related to business services, transport services, travel services and commercial services.

- **For most energy services, they are provided through imports** from China, South Africa, India, Europe (UK, Germany), United Arab Emirates, Canada among other western countries.

v) Energy prices Among COMESA Member States:

In between 2020 and 2022, there has been an increase in energy prices due to Covid 19 and Russia invasion in Ukraine. In addition, the price fluctuations experienced especially across Member States may be explained by other factors such as foreign exchange rates, various taxes and subsidies.

b) Commitments of Member States in the sector at WTO under GATS and other RECs.

Generally, **commitments made in the energy and energy related services at WTO under GATS and other Regional Economic Communities (RECs) occur mainly in 3 sectors** (construction, distribution, and business services) as follows:

i) Construction and related engineering services:

- General construction work for building, including pipelines and mining,
- General construction work for civil engineering including long distance pipelines, communication, and power lines (cables) to construction for mining and manufacturing,
- Installation work: - gas fitting construction work,
- Services incidental to mining, exploration, etc.,
- Integrated engineering services,
- Site preparation work for mining and energy services, and
- Installation work and assembly work related to manufacturing activities (from prospecting, mining, or processing of minerals to energy generation).

ii) Distribution including transport services:

- General distribution services,
- Distribution services including commission agents,
- Wholesale trade services, and
- Retailing services.

iii) Business services

- Other business also covers professional services and engineering services,
- Management consulting services related to energy and mining sector only,
- Services related to management consulting related to energy sector only,
- Technical testing and analysis services only for gas, mining, and oil industry,
- Research and development for crude oil, natural gas and condensate (analysis of petroleum products).
- Related scientific and technical consulting services only for the gas, mining, and oil industry.
- Site investigation work, and

- Renting services related to equipment for construction or demolition of buildings or civil engineering works, with operation.

Regional Economic Communities and the specific Member Countries that have made commitments on energy services and energy related services are as follows:

- Common Market for Eastern and Southern Africa (COMESA) countries – Democratic Republic of Congo, Kingdom of Eswatini, Egypt, Madagascar, Seychelles, Zambia
- Economic Community of West African States (ECOWAS) countries - Cape Verde, Cote d'Ivoire, Liberia, and Ghana.
- Southern African Development Community (SADC) countries - Botswana, Lesotho, South Africa including Democratic Republic of Congo, Eswatini, Malawi, Seychelles (also Members of COMESA).
- Economic Community of Central African States (ECCAS) countries -Democratic Republic of Congo (also Members of COMESA).

COMESA and SADC have mutual members, where 60% of SADC members are also COMESA members. They include Comoros, Democratic Republic of Congo, Kingdom of Eswatini, Madagascar, Malawi, Mauritius, Seychelles, Zambia, and Zimbabwe. However, for unclear reasons only 3 Member States, Comoros, Mauritius and Zimbabwe have not made commitments to energy and energy related services.

c) The regulatory regime and trade openness, structure of the sector and level of competition and liberalization across and in each of the COMESA Member States in Energy Services and Energy Related Services.

Meaningful trade in energy and energy related service is possible when Member States put in place regulation that helps in defining the sector structure and dictates the level of liberalization and competition that can happen. Thus, to achieve trade openness, there must be trade liberalization.

i) **Trade openness**

- **The energy related service businesses are vast and diversified**, and requires business suppliers with specialized, technical skills and experience that are largely lacking within COMESA.
- **These services are imported or sourced from foreign based companies** in Europe, Asia and United States of America, United Arab Emirates, etc.
- However, **there is evidence of exports in energy and energy related services within COMESA and beyond.** For example, Tunisia exports construction services, distribution services, engineering services, support and operation services, installation services, public administration services, maintenance and repair services, and energy manufacturing services to Gulf and Africa countries including to Seychelles and Malagasy.

ii) **Regulatory regime (plans, laws, policies, and regulations)**

- **Plans:**
  - **Laws and regulation are available, some very general and others very specific** addressing key energy issues, but even when absent the sector has policies and plans that inform the development of the sector.
  - For instance, a review of such plans shows the use of several categories of plans: short-term plans or long-term plans, general comprehensive sector plans or specific sub-sector plans, and sector master plans or strategic plans i.e., as the case of Kingdom of Eswatini (Energy Master Plan) and Uganda (Electricity Sector Strategic Plan).
  - **There are plans that focus on key energy issues** such as *electrification* (i.e., Electricity Master Plan of Eritrea, Rural Electrification Fund of Malawi), *renewable energy generation* (Renewable Energy Road Map of Libya), *Energy Efficiency and Conservation* as for the case of Rwanda and Kenya.
  - **Present are also plans that are anchored on the energy value chain**, as the case for Kenya and Zimbabwe have a separate distribution plan, while others have a transmission plan that is either merged with generation (like Kenya) or distribution (Zimbabwe).

- **Enacted laws**
  - Similar to the Plans, **there are laws that are more general and focused on the wider sector and laws that are sub-sector specific** with some anchored-on energy value chain activities, that is generation, transmission, and distribution such as Egypt (with Law No. 18/1998).
  - **In particular to sub-sector specific laws, there are those laws that separates petroleum and electricity sub-sector** i.e., are observed in Mauritius, Rwanda, Seychelles, etc., and those enhance private sector participation like for Burundi & Eritrea.
  - In addition, **there are also laws that focus on sector programs such as on energy infrastructure investment** i.e., Burundi and Rwanda Petroleum code in Comoros, electricity code in DRC, Zambia and Zimbabwe, and Grid code in Mauritius and Madagascar.

- **Policies:**
  - Policies are recognized either as of energy or petroleum sub-sectors.
  - In some cases, sub-sector energy policies are separate from petroleum policies as the case for Somalia.
  - Present also is **the sector issue-based policies** such as *electricity policy* mainly present in Eritrea and *renewable energy policy* found in Comoros, Egypt, Eritrea, and the Kingdom of Eswatini; *Biofuels industry policy* is also available in Zambia and *Efficiency and conservation policy* is available in Eritrea, Kingdom of Eswatini, Mauritius, Tunisia, and Zambia.
  - Also recorded is the **oil and gas policy that is separate from wider sector policy** as is the case in Uganda and Zambia.
  - There are **policies geared to enhancing private sector participation** like for Burundi, Eritrea, Kingdom of Eswatini. Alternatively, **the use of Feed in Tariffs** has also been

important in enhancing private sector participation and is currently applied in Egypt, Eritrea, Kenya, Rwanda, Zambia, Zimbabwe, and Ethiopia.

- There are other **innovative policies prioritized on revenue generation** i.e., the National Electrification Fund of Democratic Republic of Rwanda.

iii) The structure of the energy sector

- **Presence of an enabling institution framework for sustainable energy development and services:**
  - The structure of the energy sector in COMESA has the **Energy Ministry as the institution dominant in energy development and policy formulation**.
  - However, some **Ministry in charge of the energy sector for some Member States is integrated with those of other sectors** like Water, Irrigation, Mines and Mineral Development, Infrastructure, Industry, such as Rwanda, Somalia, Zambia, Burundi, Uganda, and Tunisia.
  - **Some Member States have a Ministry for Energy/Renewable Energy as separate Ministries from that of petroleum** (like in Kenya, Somali, etc)
  - **Some Member States have independent agencies/institutions that focus on pertinent sector issues such as on:** (i) petroleum sub-sectors i.e, with oil & gas, coal, agencies etc (like Egypt, Kenya, etc.) while others have agencies that focus on (ii) renewable energy such as hydro power and solar (i.e., in Libya and Egypt); (iii) other Member States have agencies that are focused on the sector value chain such as power generation, transmission, and distribution (like in Sudan, Zimbabwe); and (iv) others have agencies that seek to address pertinent sector issues such as rural electrification (Almost All members) while other agencies are centered on addressing energy conservation (i.e. for Tunisia).

- **Presence of a Functional Energy Regulator**
  - **Some have no independent energy regulator** (i.e., Burundi, Djibouti, Libya).
  - **Others have a commission, committee or board taking the roles of a regulator** (i.e., Zambia, Seychelles, Eritrea).
  - **Others have a separate regulator for electricity and petroleum** (i.e., Uganda).

- **Structure of power utilities**
  - **Electricity sector in some Member States is vertically integrated** (i.e., Comoros, DRC, Djibouti, Eritrea, Ethiopia, Libya, Madagascar, Mauritius, Seychelles, Somalia, Tunisia, Eswatini, Zambia, and Zimbabwe). Thus, the government through the ministry/department and in some cases the state-owned bodies take authority as regards the overall function of the electricity sector.
  - **Electricity sector that is unbundled are present in Burundi, Egypt, Kenya, Malawi, Rwanda, Sudan, and Uganda.** Thus, have separate institutions that are responsible for generation, transmission, and distribution of electricity like Kenya.
  - **There are some Member States that have partially unbundled energy sector** where either only transmission or distribution is separate from generation (like Egypt, Malawi and Burundi).

- **Sudan's electricity sector is unique, beyond having a purely unbundled structure, the generation function and structure is legally separated and disintegrated** based on energy sources like hydro, petroleum, and thermal generations companies.
- The Rwanda electricity sector though is unbundled, **its structure is very different and segregated into two functions: one focusing on development and another on operations and maintenance.**

- **Structure of petroleum sub-sector**
- **The petroleum sector has evolved to an integrated service provision** rather than a traditional dis-integrated way of providing service based on the value chain by energy suppliers.
- **The structure of petroleum sector can be classified into upstream, mid-stream and down-stream activities.** Upstream services consider the process of exploration, development and production of crude oil and natural gas. The mid-stream services involve storage, refining and transportation of crude oil into consumable petroleum products and downstream services which ensures refined products are made available to the consumers through supply and distribution and well-structured markets/ commercialization.
- In most countries, **Exploration, development and production, these activities are performed through both public private sector participation**. Some of the Member States that have such an arrangement are DRC, Egypt, Eswatini, Kenya, Libya, Madagascar, Seychelles, Somalia, Sudan, Tunisia, Uganda, Zambia, and Zimbabwe.
- In Rwanda, such **upstream activities still lie under the close operations and management of the government solely.** For Comoros, Eritrea, Ethiopia, Malawi, Mauritius **upstream activities are dominated purely by the private sector.**
- **Mid-stream** activities also **display varying participation of the players** from both private and government sectors among COMESA Member States.
- For **importation**, **this is purely a government function**, thus any private sector participation is done fully under the watch and guidance of the government.
- However, **some Member States such as Mauritius show dominance of private sector** engagement for **importation**.
- **Pipeline services require heavy government investment and are absent among most COMESA Member States**. Thus, it is also a major function of the government, for most Member States such as Egypt, Zambia, Zimbabwe, Kenya, and Libya.
- The large capital outlay for establishing a refinery may explain the reasons why most Member States lack this critical infrastructure, especially among non-oil producing countries. **Some Member States such as Libya, Djibouti, Egypt, Eritrea, Madagascar, and Kenya have a refinery in place and mainly operated by the government.** However, for the inactive refinery, poor management and funding mainly explains why they are not operational at least for the Kenya Petroleum Refinery limited.

iv) Level of liberalization and competition

- **Energy and energy services sector levels of commitments for COMESA and other Africa RECs for all the 4 modes of supply are recorded either as 'full commitment', 'commitment with limitations' or 'no commitment'.**
- For Horizontal Commitments, in COMESA Member States have made schedules on national treatment and market access limitations targeting foreign companies on areas such as: requirements on real estate/land acquisition, requirements on the amount of loans and overdraft, re-entry and work permit for technical processional, requirements on training of locals with higher skills to assume specialized roles, limitations on loan and overdraft.
- Further, **modes of supply 3(commercial presence) followed by mode 4 (presence of natural persons) are the modes of supply with the most 'commitment with limitations'**, implying that they are less liberalized when compared to mode of supply 1(cross border) and mode 2 (consumption abroad).
- For sector specific commitments, limitations have been recorded under the construction service sub-sector, followed by distribution service sectors and business service sub-sectors both for COMESA and other RECs. However, when compared to other RECs, COMESA has few limitations on these sectors. Further, mode of supply 2 (consumption abroad) and mode 3(commercial presence) have less restrictions or limitations than modes 1 (cross border) and 4 (presence of natural persons).
- **In COMESA, for the construction and related engineering service sector, mode of supply 2 (consumption abroad) and mode 3(commercial presence) have fewer restrictions or limitations than mode 1 (cross border) and 4 (presence of natural persons).** Limitations are centered on joint-venture companies and foreign capital equity, and natural persons and cross borders including subsidies.
- Also, for **distribution service sector, mode of supply 4 (presence of natural persons) is common and has more restrictions centered on natural persons.**
- For the **business service sector, mode of supply 4 (presence of natural persons) is common followed by modes 1 (cross border) and mode 3(commercial presence**). Restrictions are observed on natural persons, jobs created and value addition criterion.

d) Recommend an appropriate approach to be adopted by COMESA in negotiating commitments in this sector in order to maximize potential benefits of liberalization, drawing from best practices including from other RECs and the WTO.

Types of approaches

- **The 'positive list' approach** allows COMESA Member States to select sectors that will be open to market access and national treatment for inclusion in the schedule of specific commitments. It is mainly applied in WTO.
- **The 'negative list' approach** opens all sectors to market access and national treatment except those on the List(s) of Nonconforming Measures. It is mainly applied in in North American Free Trade Agreement (NAFTA),

- **Hybrid approach** considers variation of positive listing and negative listing. It has been applied in Services Agreement (TISA), and the EU among different countries.
- **According to the COMESA trading service regulations, Member States have agreed on making progressive liberalization using a positive list approach.**
- Positive listing approach allows the registration of national treatment and market access commitments only in those areas where countries are prepared to guarantee these, therefore it leaves more policy space than the negative approach.
- The positive approach is also flexible, realistic, and easier to accept for countries concerned about maintaining a balance with their development policies.

e) Recommend a detailed Checklist of priority sub-sectors and relevant codes to be included in the classification of Energy Services and Energy Related Services for negotiation under COMESA, based on WTO W/120 classification and the UN CPC Version 2.

i) Issues with clarification

- The WTO "Services Sectoral Classification List" (document MTN.GNS/W/120), does not include a separate comprehensive entry for energy services. The United Nations Provisional Central Product Classification (UNCPC) also does not list energy services as a separate category.
- **The results of the stakeholder survey showed the need for a separate energy classification** (among 75% of the respondents) is because: (i) Energy is highly technical field and skills, and knowledge requirements differ across the value chain, (i) Energy efficiency and their markets are not included in the existing energy classification, particularly on the energy efficiency appliances, building codes, energy performance testing, energy audit, etc.) (iii) Renewable energy which covers energy storage technologies like hydrogen application, is also missing in the current classification. (iv) With a separate energy services sector classification, it will be clear and easy for Member States to understand what commitments have been made under energy services.
- **Only 25% disagreed on the need to have a separate energy classification**, because they perceive CPC classification to be an inclusive classification and does not make room for classification of the same economic activity in different industries. For instance, the construction service sector integrates all activities as regarding construction of energy facilities and plants.
- **The proposed energy and energy related services, provides 3 key sub-sectors or categories of energy sector and the related economic activities for each**. The three sub-sectors include upstream services, mid-stream services and down-stream services as detailed in table 7 of the report.

Recommendation of the Study

In respect to the terms of reference, the study establishes the following for policy considerations:

a) Related to trade in energy services:

1. With the recent economic shocks from Covid Pandemic and Russia invasion to Ukraine, there is need to encourage countries to diversify their energy mix and enhance power generation from renewable sources to avoid reliance of fossil fuels that fluctuates based on geopolitics and foreign exchange rates factors.
2. To spur energy generation and later trading, there is need to encourage Innovative financing (such as green financing, use of SACCOs, Multinational Financial Institutions, project finance and leasing, etc.) that will address high capital cost of renewable projects.
3. Encourage Member States to make investment in grid infrastructure transmission and distribution as an avenue that can enhance power trading in power pools and lower transmission and distribution system losses.
4. Encourage countries to collect and publish data on potential energy sources. Specifically, data, should be collected on current supply of primary and secondary energy sources including both local energy demand, energy exports and imports.
5. Data on energy and energy related services traded is not available at the WTO and COMESA, there is need for key institutions to fast-track collection and continuously update data collection on this sector including related commitments undertaken by Member States.

b) Related to commitments:

1. Establish why some Member States are not making commitments even despite having mutual membership with other Regional Economic Communities.
2. Develop capacity of Member States to enhance their technical skills, improve their knowledge on the importance, understanding and practice of commitment negotiations in the energy sector and the approach to making the negotiations. Such capacity building activities should integrate trade focal person, and the ministry in charge of energy as well as other government agencies in the energy sector.
3. Learning from ECOWAS, COMESA may consider having schedules that stretch beyond the focus on subsidies to that of incentives and state support measures that are intended to enhance national investment but are targeted to specific groups e.g., regions, categories of persons, or enterprises.
    - If participation of small and medium enterprises is low for a Member State, then tax incentives consideration to spur growth of small and medium enterprises may be considered.
    - To ensure professionalism in provision of services is achieved and maintained, requirements on registration with the appropriate professional body should be considered.
4. Learning from SADC, COMESA may weigh whether introducing schedules recorded in SADC may lead to national growth at the expense of liberalization.
    - In SADC, these restrictions are recorded on fixed ratio of equity, formation of joint ventures with local investors, registration requirements and right to practice of specialized foreign companies at their countries of origin, notification of all sale of business interests, mergers, and take-overs, priority to locals to purchase interest sold by foreign investor and requirement to be recognized and be registered by the appropriate committee or council.

- Further requirement may be considered where local borrowing is capped to certain percentage based on non-resident shareholding rates.

5. Learning from other RECS (ECOWAS and SADC) as regards liberalization and competition in energy and energy related services, there is need for COMESA to broaden the commitments made on mode of supply, beyond the current mode of supply 4 (presence of natural persons) to other modes (1 and 3) especially for distribution services; and modes 3 for construction and engineering services).

c) Related to regulatory framework:

1. Support Member States to formulate and implement key regulatory frameworks in energy sector that allows for liberalization and competition. For instance, energy sector laws, policies, regulations, and plans should be pitched to enhance private sector participation, accompanied with targets on improving efficiency, competitive prices, and overall energy access.
2. Create awareness among Member States especially on the structure of the sector with intentions of encouraging Member States to establish energy sector regulators, unbundling the sector to have separate agents working on production/generation, transmission, or distribution mandates. This are critical steps towards liberalization.
3. Collaborate with energy and other related sector stakeholders to provide mechanisms on how integrate education and training on key energy and energy related services business that will offer the much-needed skills and experience in this nascent sector.
4. In addition, support formation and implementation of the Local content policy and regulations among Member States that allows for local participation in energy businesses currently dominated by foreign companies outside COMESA.
5. Support initiatives on joint training among government official of Member States targeting visions, policy and programs planning to strengthen the understanding of sector planning, regulatory regime, trade openness, structure of the energy sector, competition, and liberalization.
6. Most importantly, support harmonization of the energy sector regulatory framework among Member States, as an avenue of promoting energy trading.
7. Encourage development of laws, policies and plans targeting key energy sub-sectors and issues for instance on biofuels resources which is critical towards the development of such sectors for trading.

d) Related to negotiation approaches:

1. As regards the best practice on the appropriate approach to negotiate commitments, Member States should be encouraged to implement the COMESA Trading service regulations where Member States had agreed on making progressive liberalization using a positive list approach.

e) Related to energy services classification:

1. COMESA Member States to review how to record electricity. If considered as a good, COMESA can learn from the World Custom Organization (WCO) Harmonized Commodity Description and Coding System (HS) which classifies electrical energy as a commodity

together with other energy goods such as coal, gas, and oil. Unlike other energy goods, however, electrical energy is an optional heading in the WCO HS so that WCO Members are not required to classify it as commodity for tariff purposes.

2. Member States to deliberate and agree on way forward regarding the implementation of the proposed energy and energy related service classification.

1.0 Introduction

1.1 Background of the study

Energy Services is one the prioritized services in COMESA, but unfortunately, under the World Trade Organization (WTO) classification List (W/120), Energy Services and the Energy Related Services are not part of the 12 sectors identified under Trade in Services. Even so, the UN Central Product Classification (CPC Provisional version) have165 sectors, energy included. The COMESA Member States still face challenges in preparing their schedules on specific commitments on Energy Services. The Member States seek for clarity on which sub-sectors of the energy sector they are supposed to commit, and which classification they are going to use.

COMESA in 2009, adopted the trading services regulations. The regulations has four key objectives, namely: (i) to attain sustainable growth and development of the Member States by eliminating the barriers to trade in services especially those faced by small and medium scale enterprises (SMEs) exporters; (ii) to enhance cooperation in services amongst Member States in order to improve the efficiency and competitiveness of their services markets, including by diversifying production capacity and supply, and enhancing the distribution of services of their service suppliers within and outside the Common Market; (iii) to liberalize trade in services by expanding the depth and scope of liberalization in line with Article V of the GATS; and (iv) to increase, improve and develop the export of services.

The COMESA trading service agreements, offers fundamental principles that have been agreed by Member States including but not limited to:

i) the GATS principles as guiding principles for negotiating services at the regional level.
ii) the region's liberalization in trade in services will be undertaken in conformity with the provisions of GATS Articles V and XIX on progressive liberalization basis using a positive list approach adapted to the development of the Member States both in overall terms and in terms of their service sectors and sub-sectors and specific constraints.
iii) the right to regulate as essential to meet national policy objectives, etc.

COMESA Member States are negotiating liberalization of trade in services under GATS article V. This study therefore is intended to guide COMESA Member States on what to commit in Energy and Energy Related Services, and which are the sub-sector in which they are expected to commit. In other words, the study was commissioned to guide COMESA Member States on how to negotiate on the trade in Energy and Energy Related Services.

1.2 Objectives of the study

The broad objective of the study was to conduct analytical work on Energy Services and Energy Related Services within COMESA.

The specific tasks covered: -

a) The current state of trade in this sector in the region.
b) Commitments of Member States in the sector at WTO under GATS and other RECs.

c) The regulatory regime and trade openness, structure of the sector and level of competition, and level of liberalization across and in each of the COMESA Member States in Energy Services and Energy Related Services.
d) Drawing from best practices including from other RECs and the WTO recommend an appropriate approach to be adopted by COMESA in negotiating commitments in this sector in order to maximize potential benefits of liberalization; and
e) Based on WTO W/120 classification and the UN CPC Version 2 recommend a detailed Checklist of priority sub-sectors and relevant codes to be included in the classification of Energy Services and Energy Related Services for negotiation under COMESA.

2.0 Approach and Methodology

2.1 Study Methodology

To address the objectives of the study that aimed to conduct analytical work on energy services (electricity trading) and energy related services within the COMESA and specific study objectives. A mixed method research approach was employed that considers both qualitative and quantitative data collection and analysis. The data collected was sourced from both primary and secondary sources.

The study employed two key approaches that were used to collect and analyze data. These are:

a) Situation and Diagnostics Analyses (secondary data collection approach).
b) Stakeholder Analysis (primary data collection approach).

2.2 Situation and Diagnostic Analyses

The intention of undertaking situation analysis was mainly to understand the strengths, weaknesses, opportunities, and threats for the trade in energy services and energy related services. The findings of the situation analysis are intended to provide information to stakeholders on Energy and Energy Related Services and its critical role in influencing benefits of liberalization and in economic growth and development. The diagnostic analysis moves beyond the analysis performed under situation analysis, to consider the key causes of failures and successes, and based on this, recommendations focused on the causes of the weaknesses and strengths are made.

Through use of review of literature and best practices, the study was able to address objectives (a) to (e) and effectively provide situation and diagnostic analyses of the Energy and Energy Related Services in COMESA.

a) Literature Review:

- The literature review exercise entailed reviewing secondary data sources from other relevant studies both published and grey literature, government documents, treaties (WTO and UN), etc.

- The literature review focused on the assessment of energy services (electricity trading) and energy related services and in specific to COMESA Member States:
  - trading,
  - commitments,
  - regulatory environment,
  - trade openness,
  - energy sector structure,
  - competition, and
  - liberalization.

b) **Best practices review**:
Based on review of best practices from other Regional Economic Communities (RECs) such as The Arab Maghreb Union (AMU), Economic Community of Central African States (ECCAS), East Africa Community (EAC), Economic Community of West African States(ECOWAS) and Southern African Development Community (SADC) and WTO, recommendations of a detailed checklist of priority sub-sectors and relevant codes as well as appropriate approaches to be adopted by COMESA in negotiating commitments for energy services (electricity trading) and energy related services were undertaken.

2.3 Stakeholder Analysis

The gaps identified from the situation and diagnostic analysis were addressed by undertaking primary data collection through use of a stakeholder analysis. To carry out stakeholder analysis effectively; this involved conducting stakeholders mapping, stakeholders' consultations, and stakeholders' validation activities.

a) stakeholders mapping

The use of stakeholder mapping was undertaken to understand the actors, institutions, and their connection in relation to Energy and Energy Related Services in COMESA. The actors here are considered as those who influence or are influenced by trading in energy services (electricity trading) and energy related services. The actors were identified from the 3 key stages of energy services value chain; that is upstream (exploration, developing & extraction, and generation/production), midstream (transporting & storage) and downstream (refining, marketing & sales).

Broadly the key stakeholders considered were:

- The power producers,
- Transmission system operators (TSOs),
- Distribution system operators/Utility companies,
- Regulatory bodies,
- Regional trade organizations.
- Ministries of trade and energy.

Out of the 21 COMESA Member States targeted, 10 Member States were able to participate in the stakeholders' meetings/interviews and respond to the online questionnaire/survey. They include Burundi, Kenya, Kingdom of Eswatini, Madagascar, Malawi, Mauritius, Rwanda, Seychelles, Somalia, and Tunisia.

b) stakeholders' interviews

The primary data collection was undertaken mainly through stakeholders' interviews/key informant interviews and targeted selected stakeholders as discussed in section 2.3(a). Data collection was through a short expert questionnaire/tool (see Appendix 3).

c) stakeholders' validation

The stakeholder's validation workshop exercise is intended to verify and validate the information documented in the draft study report. The feedback received during the exercise is aimed to refine the report. The study approach and methodology that was adopted is presented in figure 1.

2.4 Scope and coverage

The study aimed to understand the energy and energy related services in COMESA and more specific to trading, commitments, regulatory environment, trade openness, energy sector structure, competition, and liberalization, appropriate approaches for negotiating commitments for energy services and energy related services.

The study covers 21 COMESA Member States (Burundi, Comoros, Democratic Republic of Congo, Djibouti, Egypt, Eritrea Kingdom of Eswatini, Ethiopia, Kenya, Libya, Madagascar, Malawi, Mauritius, Rwanda, Seychelles, Somalia, Sudan, Tunisia, Uganda, Zambia, and Zimbabwe). It also involved analysis of the 5 Regional Economic Communities: Arab Maghreb Union (AMU), Economic Community of Central African States (ECCAS), East African Community (EAC), Economic Community of West African States (ECOWAS) and Southern African Development Community (SADC). The justification to focus on all the five (5) RECs in Africa where appropriate is based on the uniqueness and diversified countries in Africa as regards energy and energy related services. Such that it is difficult to observe a REC that is well developed and prosperous in all areas that pertains to energy and energy related services such as trading, commitments, regulatory environment, trade openness, energy sector structure, competition, and liberalization which forms the scope of this study.

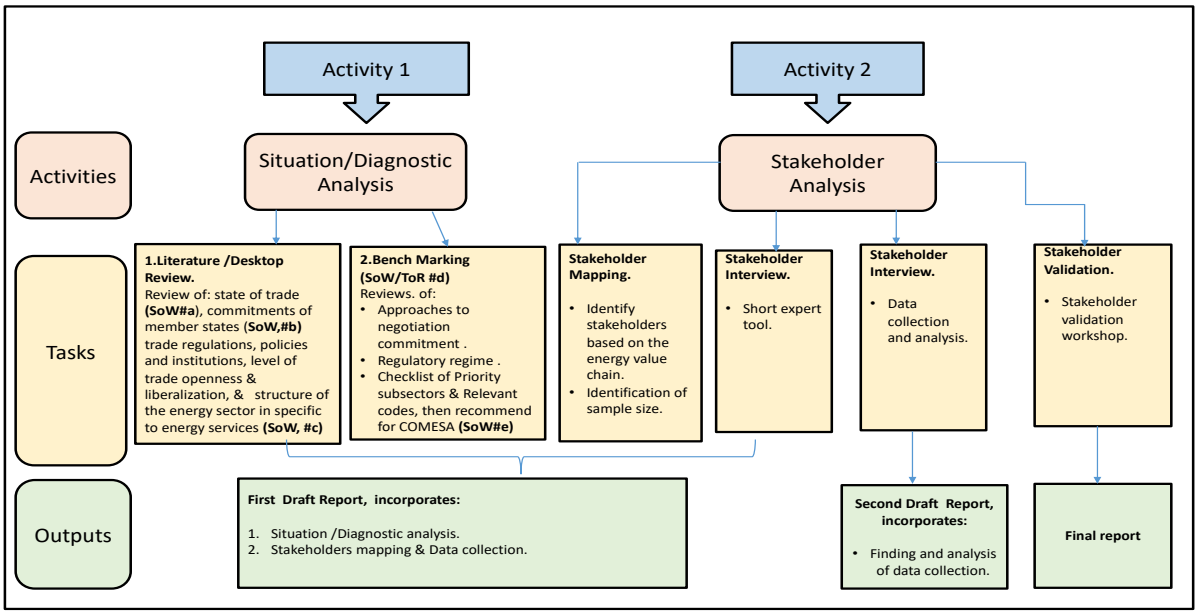


Figure 1: Approach and Methodology

3.0 Context: Trade in the Energy Sector within COMESA

3.1 Importance of energy and the concept of energy trade

Importance of energy

Energy is important towards the economic development of any country and its final users can be classified into residential, commercial, industrial spanning various economic sectors such as transportation, storage, information & communication technologies, financial & insurance, agriculture, fishing & forestry, among others.

Energy can be classified by its sources, as either non-renewable or renewable energy. Non-renewable energy resources (conventional sources of energy) are finite and exhaustible and include fossil fuels such as coal, natural gas, and oil, etc. Renewable sources (non-conventional sources of energy) are infinite and non-exhaustible and include non-fossil fuels such as solar energy, bioenergy, hydro power, geothermal power, wind power, and ocean energy, etc.

Energy is desired not for its own sake, but for the services it provides (Fell, 2017). Energy provides various services that allow for the well-functioning of the several sectors. These services are commonly referred to as 'energy services' and include heating, cooling, lighting, cooking, refrigeration/freezing, transportation, along with others. According to the World Trade Organization (WTO) services play an important function in the production, transformation, transportation, distribution, and sale of energy.

The concept of energy trade

There are conceptual issues as regards 'energy services' and 'energy related services. Fell (2017) provides clarity on how we should define energy services. According to Fell, 'energy services' are those functions performed using energy which are means to obtain or facilitate desired end services or states. For instance, heating (space) is a measure of 'energy service' that allows one to obtain the desired thermal comfort which is a measure of 'end service or state".

'Energy related services' are services supplied to energy companies at a fee (either directly or indirectly through their contractors or sub- contractors) at different levels of the energy value chain; that is upstream (exploration, developing & extraction, and generation/production), midstream (transporting & trading) and downstream (marketing & sales). Broadly this includes the design, construction, installation, inspection, maintenance, adjustment or repair of energy-related products.

Trade is basically defined as the action of buying and selling goods and services. In the energy sector, trade happens in three levels; *first* is through, 'trade in natural resources needed to produce energy' also known as the trade in energy goods or products such as natural gas, crude oil, refined petroleum products, other hydrocarbon products, natural gas liquids, etc. *Second* is through, 'trade in energy itself' also known as the trade in energy services such as trade in electricity. *Third* is through, 'trade in energy related services' also known as services provided to energy companies at various levels of the energy value chain.

WTO does not delineate 'energy service' from 'energy related services. However, their definition of energy services is what this study captures as 'energy related services'. Also in the study, we

highlight the challenges Member States face on whether to classify electricity as a 'service' or a 'good', which remains an unaddressed matter even at the WTO. For some COMESA Member States electricity is treated either as a 'good' or as a 'service' or both. Thus, electricity is recorded as a 'good' mainly because it can be produced, quantified, and even traded beyond national borders. Electricity is also treated as a 'service' either when imported or transmitted and distributed to final consumers.

3.2 Importance of trade in energy and energy related services

Energy is critical to all economies and is a major sector of international trade, there is a variety of reasons that makes trade in energy critical and unique (Leal-Arcas & Abu Gosh, 2014)[1]:

1) ***Energy as a tool that spurs national and global economic development as well as international competitiveness.***

Trade in energy products constitutes the largest share of international trade, in terms of value and share of world merchandise export. The UNCTAD (2020) report shows the value of energy products (oil, gas, coal, and petroleum products) to be among the top five ranked products in terms of value by sector, estimated almost at US$ 1.5 trillion in 2020 [2]. Energy is consumed in almost all sectors, thus reliable and quality of energy supply is important for the well function of all economic operators.

Thus, the development of other sectors and industries in particular to manufacturing and services relies heavily on energy. Social development and quality of life improvements worldwide have benefitted from accessibility and affordability of energy products.

2) Energy as a key to international competitiveness

The cost of energy impacts the prices of all other products and services and, as a result, affects the entire economy. High energy prices may lead to an increase in export prices of goods and services, which impedes international competitiveness and vice versa.

3) Energy as strategic and political Asset

Energy resources and products influence global security and political stability. Famous conflicts witnessed since World War 1 in 1914 to the recent Iraq War in 2003 were mainly driven by energy resources markets and trade. The differences in energy resources endowment at national, regional and international level, where some countries have abundance in energy resources, helps explain the importance of geopolitics of energy and more on political stability and national sovereignty.

Trade in energy services and related services relies on both primary and secondary sources of energy. Primary sources consist of non-renewable energy sources such as oil, coal, natural gas,

[1] https://www.ourenergypolicy.org/wp-content/uploads/2014/06/london.pdf

[2] See UNCTAD (2020). *Key Statistics and Trends in International Trade. Trade Trends During Covid 19 Pandemic.* Available at: https://unctad.org/system/files/official-document/ditctab2020d4_en.pdf

and nuclear energy, while renewable energy covers solar, geothermal, wind, tidal and bioenergy. Secondary sources are generated from primary resources such as electricity. Because of its variability, the energy resources value chain from exploration to distribution to final consumers, relies on a unique range of energy services and related services that require special trade treatments and regulations.

4) Exploitation and trading of finite resources

In the recent past, the energy trade in services and energy related services was domiciled by fossil fuel resources such as coal, oil and natural gas with finite amounts available within proven natural reserves. Very few countries are endowed with such fossil fuel-based resources while most of the countries lack such energy resources. With the declining fossil fuel-based energy resources and the new climate change demands of reducing emissions through sustainable development, renewable energy has become popular. This is because of the new developments in renewable energy generations that are proven to be sustainable and affordable. Thus, to grow the nascent renewable energy resources requires states and regions to make consideration of the uniqueness of the energy sector and make provision for energy treaties and regulations that focus also on energy services and trading.

5) Energy security

Energy security considers consistent supply of energy at affordable prices; thus, it is critical for development at national and global level. For instance, provision of stable electricity is possible through trade as countries complement their generation profiles. In addition, it has close linkages with political stability and economic survival of both exporting and importing countries. Even though most of the importing countries are many, they seek to secure consistent and affordable energy supply, an interest that differs from the exporting countries, who are few, and they seek to maximize income and rent from the sale of its natural wealth for the benefit and development of its nations and economies.

6) Relies on unique transportation system

Transportation services for energy resources and products are different and the major trade that happens is defined by the existing fixed infrastructure among states and regions that have adequate networks. For instance, electric power is transported via fixed grid infrastructure while natural gas and oil via fixed pipelines or special tankers via sea and rail.

7) Energy as a state-owned resource

Energy resources in most cases belong to the state and many countries have structured their petroleum and electricity sectors around state own enterprises. Thus, making energy goods and services are to be different from any typical good and services and one that requires a rules-based system that guarantees the operations of market mechanisms through non-discrimination (meaning national and most-favored-nation treatment), regulatory transparency and access to fair, open and impartial adjudicative processes.

3.3 The GATS and its Importance to energy trade

The General Agreement on Trade in Services (GATs) is the first multilateral agreement covering trade in services under the World Trade Organization (WTO). It was negotiated during the Uruguay round (the last round of multilateral trade negotiations) and came into force in 1995. GATS provides rules that govern international trade in services and shapes Member States laws and regulations.

Trade in services under GATS (Article 1.2) is defined as the supply of service through four modes of supply: cross border[3], consumption abroad[4], commercial presence[5], and the presence of natural persons[6]. The differences among the four modes of supply are based on whether the service supplier and the consumer are present in the same country or different countries when the transaction occurs.

3.4 Mapping of energy resources

COMESA Member States have vast energy resources from both fossil fuels to renewable energy sources. However, the distribution of these resources is uneven as presented in the table 1. Hydro power is an old renewable energy technology and has been the dominant source of electricity generation in most COMESA Member States. Biomass including biofuels and wastes are potential energy sources for electricity generation, its electricity exploitation is low in all Member States. According to Liu (2020)[7], despite commercialization of biomass power plants and reforming plants, challenges of developing more effective and economic technologies to further improve the conversion efficiency and reduce the environmental impacts in the

[3] Cross-border supply is considered when a service is produced in one country but consumed in another one. This mode of supply is similar to that of traditional trade, when a good is delivered across a border both the supplier and the consumer remain in their respective countries (Niman and Rostami, 2018)[3]. Example of cross-border supply in energy services include cross border interconnection of electricity grids, transporting of oil and gas through pipelines, online trading and brokering services, and transmission of designs services via the Internet, among others (Taapalano, 2011).

[4] Consumption abroad takes place when services are consumed in the country where they are produced. The consumer or his/her property is abroad when the service is supplied. For example, a tourist may visit a museum while abroad or the property of a consumer, such as a ship, may be sent abroad to be repaired (Niman and Rostami, 2018).

[5] Commercial presence takes place when a service supplier establishes a presence abroad in order to provide services (Niman and Rostami, 2018). Examples include services, such as, seismic surveying, energy efficiency auditing, energy marketing and other activities that can be reasonably supplied only through the physical establishment of a commercial presence in a foreign country (Taapalano, 2011).

[6] Presence of natural persons takes place when an individual is present abroad in order to provide a commercial service. The service is produced in the country where it is consumed. For example, an engineering consultant may travel abroad to oversee construction and upgrading of energy facilities and grids.

[7] Liu, W. Liu, C., Gogoi, P. and Deng. Y (2020). Overview of Biomass Conversion to Electricity and Hydrogen and Recent Developments in Low-Temperature Electrochemical Approaches. *Engineering, 6(12*) 1351 – 1363.

conversion process persist. Due to the large abundance of solar radiation in Africa, all COMESA Member States have considered integrating solar power as part of their energy mix. The potential for wind resources is mainly in East Africa and North Africa while geothermal is an infinite energy resource located in countries with great rift valley features such as Kenya Ethiopia, Burundi, Uganda, and Rwanda.

Table 1: Potential primary energy sources and supply

COMESA Member States	Potential primary energy resources/Supply
Burundi	Solar Energy , Wind, Biomass, Peat, **Hydropower, Geothermal,**
Comoros	**Coal, Oil, LPG, Petrouleum Products, Biofuels**
Dem Rep of Congo	**Hydro**, Solar, Natural Gas, Wind, **Biofuels** & Wastes
Djibouti	Solar, Gethermal & Wind, **Biofuels & Wastes**
Egypt	**Coal, Oil & Other petroleum products,**Solar, Wind, **Hydro,** LPG, **Natural Gas**, Biofuels & Wastes
Eritrea	Coal, Oil, Wind,Solar, **Biofuels & Wastes**
Ethiopia	Oils, Wind, Solar, **Hydro**, Geothermal, **Biofules & Wastes,** Coal
Kenya	Oils, **Wind**, Solar, **Hydro**, **Geothermal**, **Biofules & Wastes**, Coal
Libya	**Natural Gas,** Wind, Solar, **Oil, Biofuels** & Wastes
Magadascar	Wind, Solar, **Hydro, Coal, Natural Gas**, **Bio-Fuels**
Malawi	**Coal, Petroleum Products, Natural Gas,** Solar,**Hydro**
Mauritius	**Oil, Petroleum Products, Coal,** Wind, Solar, Hydro, **Biofuels & Wastes**
Rwanda	Wind, Solar, Hydro, Geothermal, **Biofules & Wastes, Gas,** Oil
Seychelles	Hydro, Wind, Solar, **Biofuels &**, Wastes
Somalia	Hydro, Wind, Natural gas, Oil, **Biomass & Wastes**
Sudan	**Oil,** Hydro,Solar, **Biofuels & Wastes**
Kingdom of Eswatini	**Coal,** Hydro, Solar, Wind, **Biomass & Wastes**
Tunisia	**Convectional and Non-convectional hydrocarbons, Biofuels & Wastes**, Wind, Solar, Hydro
Uganda	Oil, Gas, Solar, **Hydro,** Wind, Solar, **Biofuels & Wastes,** Geothermal
Zambia	**Coal,** Oil, **Hydro, Biofuels & Wastes**
Zimbabwe	**Coal,** Oil, Solar, **Hydro, Biofuels & Wastes**

Sources: United Nations Statistics Division (2021)[8], IEA[9], Energypedia & Wikipedia
Bold primary energy sources signify more of current domestic production

Sample Member States Energy Resources Trading:

- Burundi – Imports electricity from Democratic Republic of Congo.
- Kingdom of Eswatini**: -** Imports electricity, biomass fuels, coal and oil from South Africa and Mozambique while they export biomass fuels and coal to China, Japan and other international markets.
- Kenya: - undertakes electricity trading with Ethiopia, Tanzania and Uganda and exports petroleum products to Uganda and Rwanda.
- Malawi: - Imports electricity and oil from neighboring countries; Tanzania, Mozambique, and Zambia and at the same time exports electricity to Zambia and Mozambique.

[8] http://data.un.org/Data.aspx?d=ComTrade&f=_l1Code%3A28
[9] https://www.iea.org/regions/africa

- Madagascar: – Imports petroleum products from United Arabs Emirates and export LPG to Comoros.
- Mauritius: - Imports fuel oil from and coal United Arabs Emirates and exports ethanol to Europe (France).
- Rwanda: – Imports electricity, natural gas and oil from Uganda, Democratic Republic of Congo, United Arabs Emirates, Qatar, India and Turkey and exports electricity to Uganda and Democratic Republic of Congo.
- Seychelles: - Imports oil from United Arab Emirates, Asia based on needs.
- Somali: - Imports natural gas and oil form United Arab Emirates and does not export any energy resource to other countries.
- Tunisia: - Imports electricity and oil from Algeria and exports oil and gas products to Italy and Algeria.

3.5 Trade trends in energy services and energy related services

Trade in Service is critical for the growth and development of COMESA Member States, creation of jobs and it also enhances competitiveness. In 2009, COMESA identified seven priority sectors, that is; business, communication, financial, transport, construction, energy-related and tourism services that are aimed at enhancing development and diversification of regional services and increasing Trade in Services. However, there is no data on trade in energy and energy related services. Available data on trade in energy and energy related services is rather too general and focused on construction services, maintenance and repair services, manufacturing services, related to business services, and transport services, travel services and commercial services.

According to UNCTADstat (2020), the African region had the lowest contribution to the total world exports of services estimated at 2.2% in 2018. The growth of the region's service export declined while that of the region's service exports increased between 2017 and 2018 with travel, and transport sectors outperforming all other service exports in Africa (WT0, 2020). As of 2018, Northern Africa represented the largest share of the service exports by region followed by Eastern Africa, Southern African, Western African while central Africa had the least share of service exports.

On average, COMESA's regional GDP was estimated at Million USD 804,673 in 2019, with about three quarters of the GDP shared within Egypt, Ethiopia and Kenya (COMESA[10], 2021). In 2017 COMESA's total service exports were estimated at Million USD 39,583 and imports were approximately at Million USD 42,543 as shown in figure 2. Beyond 2017 international trade has been affected by poor economic performance, trade tension between United States of America and China, Brexit effects in Europe, negative global output and COVID 19.

[10] https://comstat.comesa.int/

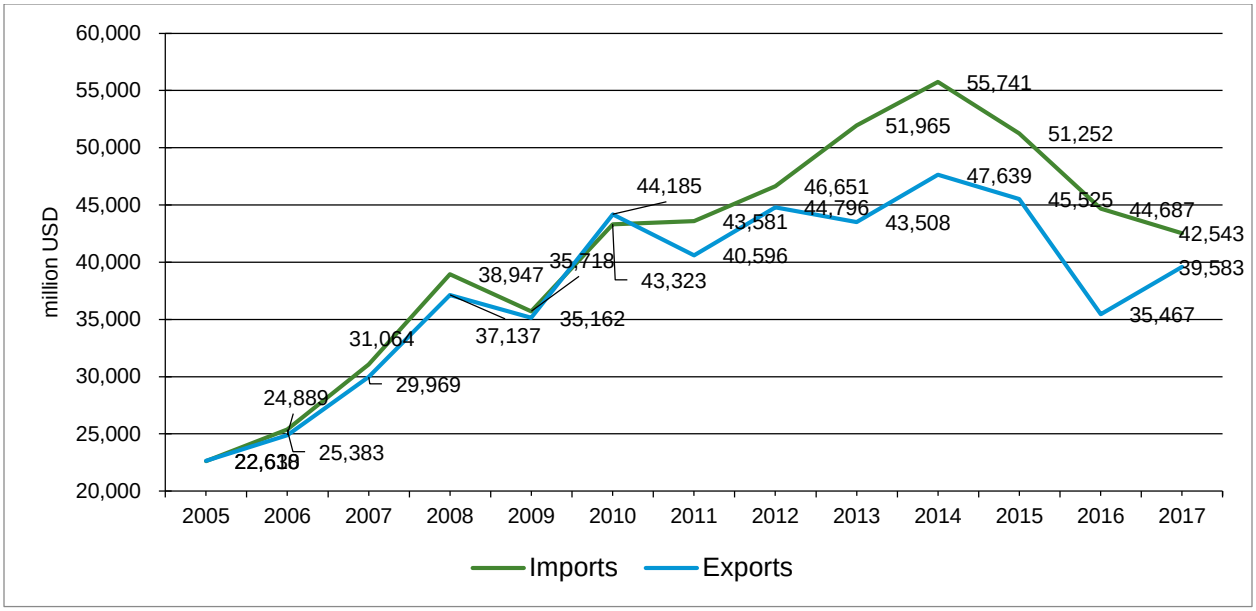


Figure 2: COMESA, Total Services, Source: COMESA (2021)

Energy services is not considered as a separate sub-section in WTO W/120 classification and UN CPC Version 2 has one of the sectors that focuses on energy. However, In WTO W/120 classification, energy and energy related services are captured in other sub-sectors such as business services, construction and related engineering services, distribution services, and transportation services. Both in 2005 and 2017, the transport services had the largest share of combined energy services at 71.4% and 80.3% as shown in figure 3. Other business services reduced from 22.4% in 2005 to 13.3% in 2017 while construction services had a steady contribution of 6.2% in 2005 and 6.1% In 2017. Contribution from maintenance and repair services as well as manufacturing services on physical inputs owned by others were lacking in 2005 but in 2017, they were estimated at 0.20% and 0.13% respectively within the same period.

The same trend was experienced for imports, transport services accounted for the largest share at 70.3% in 2005, while in 2017, transport services shrunk to 69.9%. Other business services also dropped from 25.9% in 2005 to 23.3% in 2017 while construction services had a slight increase from 3.8% in 2005 to 4.9% In 2017. Contribution from maintenance and repair services as well as manufacturing services on physical inputs owned by others though absent in 2005 in 2017, they were estimated at 0.96% and 0.35% respectively within the same period.

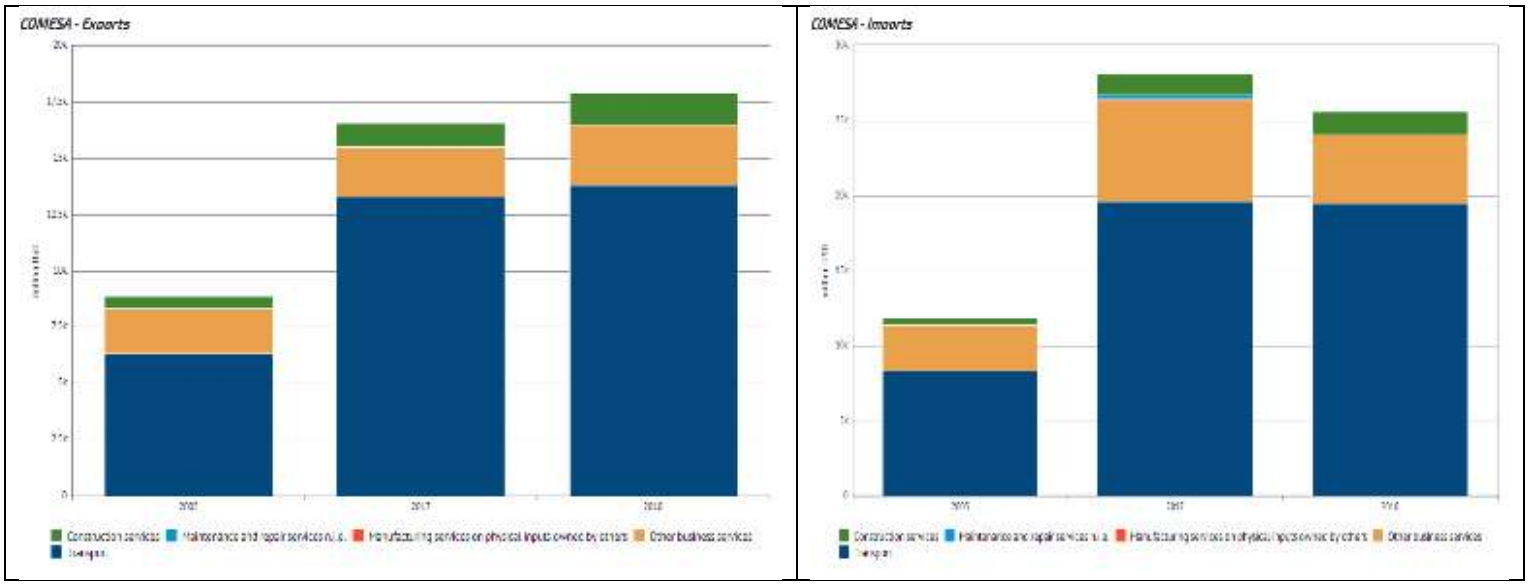


Figure 3: Exports and Imports of energy services and energy related services ((Source: COMESA, 2021)

Construction Services in COMESA

Egypt had the largest construction services exports of 60.5% in 2017, closely followed by Tunisia which had 27.8%. Kenya led in construction services imports with 30.7% followed by Egypt with 22.5% and Tunisia 17.0% as shown in figure 4.

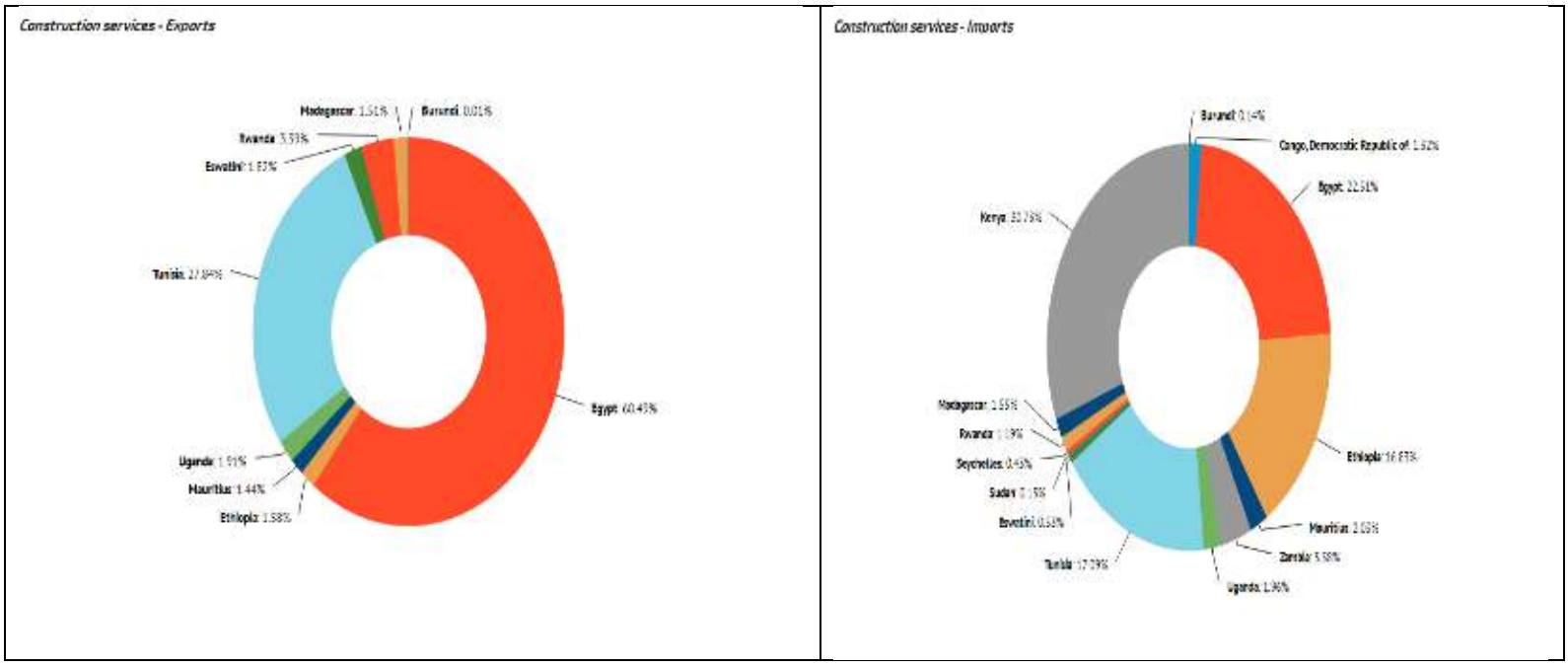


Figure 4: Construction Services – COMESA, Source: COMESA (2021)

Maintenance and Repair Services in COMESA

Kenya led in maintenance and repair services exports with 57.3% of total maintenance and repair services exports in 2017, followed by Rwanda with 30%. As regards imports, Rwanda had the largest share of 33.2% closely followed by Mauritius and Kenya at 29.4% and 25.4% respectively as shown in figure 5.

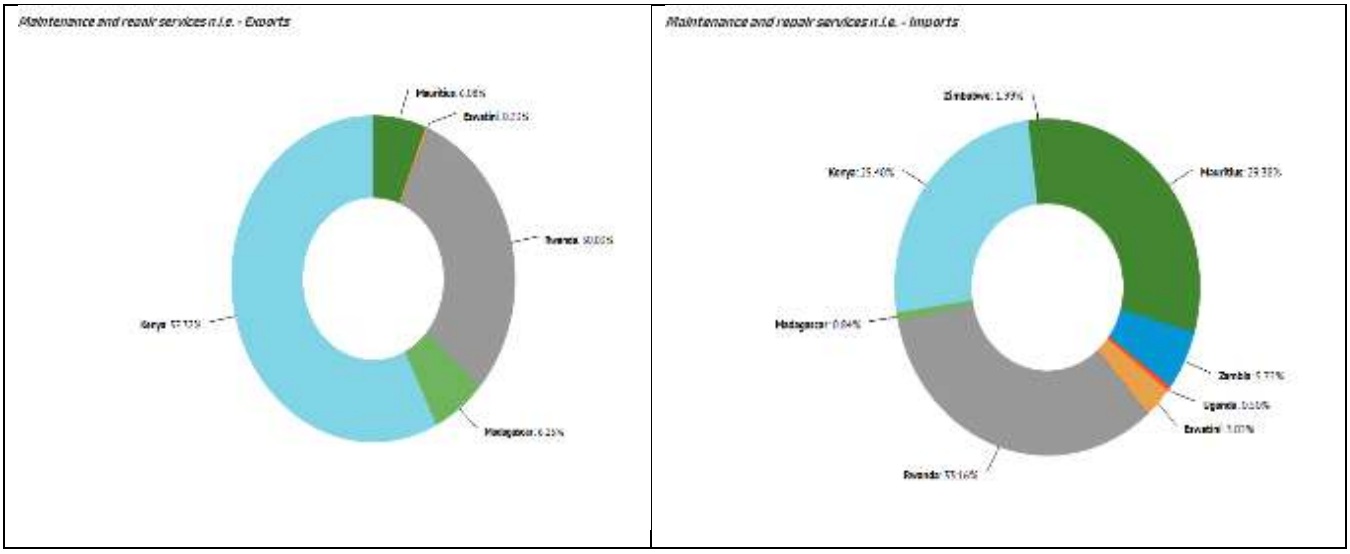


Figure 5: Maintenance and Repair Services in COMESA, Source: COMESA (2021)

Manufacturing services on physical inputs owned by others within COMESA

The largest share of exports from manufacturing services on physical inputs owned by others comes from Kingdom of Eswatini at 95% while Zimbabwe contributed 4.9% as at 2017. Imports from manufacturing services on physical inputs owned by others shows Kingdom of Eswatini has the largest contribution of 86.7% in 2017, followed by Sudan, Zambia and Zimbabwe by 8.9%, 2.3% and 2.1% respectively as shown in figure 6.

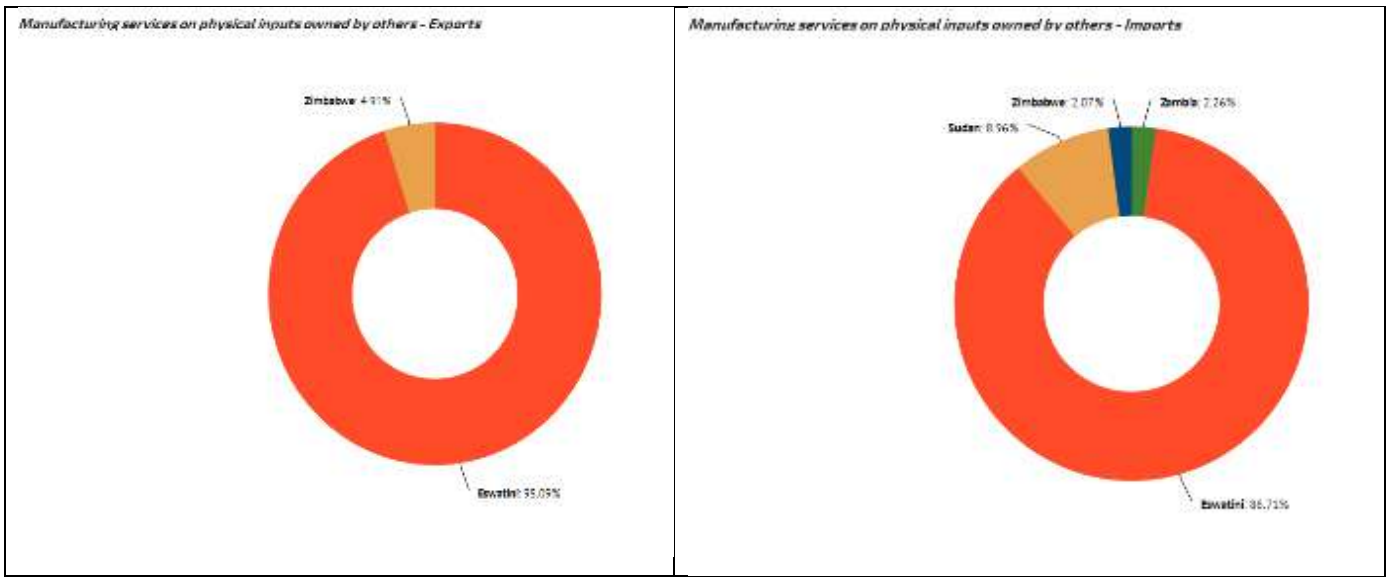


Figure 6: Manufacturing services on physical inputs owned by others within COMESA**, Source: COMESA (2021)**

Other business services within COMESA

In 2017, Other business service exports highest record was from Mauritius with 27.2%, followed by Egypt, Sudan, Uganda, and Ethiopia 19%, 14.1%, 8.9%, and 5.6% respectively. For exports, Egypt takes the lead with 51.6%, followed by Mauritius at 8.1%, Kenya at 7.2%, Uganda at 7.1%, and Zimbabwe at 4.4% in that order respectively as shown in figure 7.

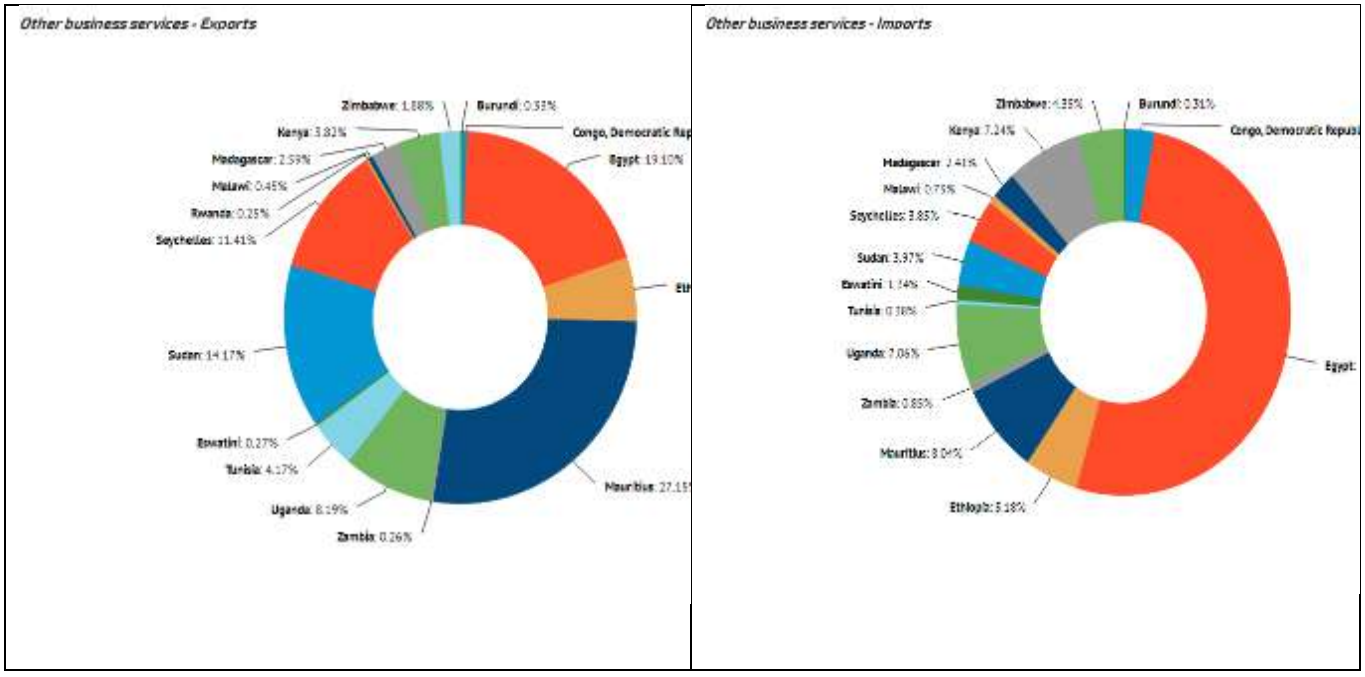
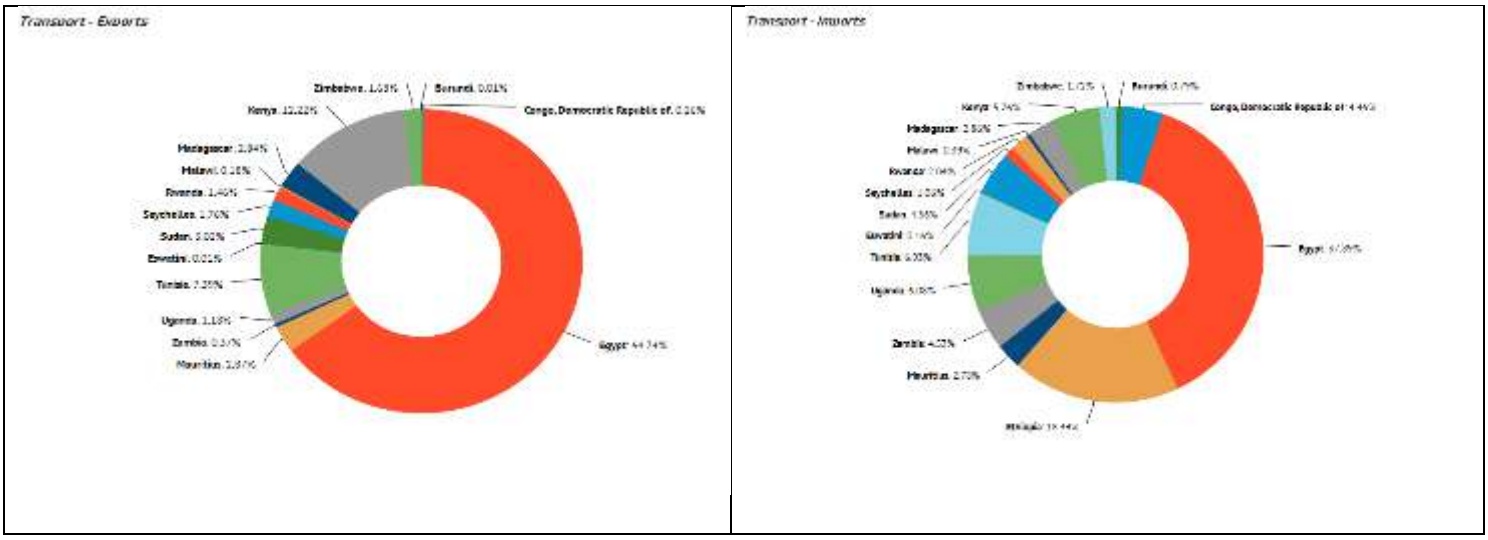


Figure 7: Other business services within **COMESA**, **Source: COMESA (2021)**

Transport services within COMESA

The largest share of exports from transport services came from Egypt at 64.8%. Kenya and Tunisia contributions follow with 12.2% and 7.4% as at 2017. Imports from transport services shows Egypt had the largest contribution of 37.9% in 2017, followed by Ethiopia, Tunisia, Uganda and Kenya by 18.4%, 6.9%, 6.1% and 5.3% respectively.



Transport services within COMESA, Source: COMESA (2021)

Sample Member States energy and energy related services trading:

- Burundi – Imports maintenance and repair and exports public administration services,
- Kingdom of Eswatini**: -** Imports construction services, distribution services, transport services, engineering services, and scientific and other technical services from mainly China and South Africa and exports other professional, technical, and business services.
- Kenya: - Imports construction services, distribution services, transportation services, engineering services, scientific and other technical services, support and operation services, installation services, and energy manufacturing services from China, India, Germany, United Arab Emirates and Uganda and exports scientific and other technical services, support and operation services, installation services and maintenance and repair services to United Arab Emirates, Democratic Republic of Congo., Ethiopia, Tanzania and Uganda.
- Malawi: - Imports construction services, distribution services, engineering services and installation services from China, Europe, and South Africa and at the same time exports construction services and distribution services to neighboring countries such as Zambia and Mozambique.
- Mauritius: - Imports engineering services, scientific and other technical services, support and operation services, support and operation services, and installation services from China, India, United States of America, and United Kingdom and exports engineering, scientific and other technical services, and other professional, technical, and business services to Sub-Saharan Africa.
- Rwanda: – Imports construction services, transport services, engineering services, scientific and other technical services, and energy manufacturing services from China, India, Germany, Canada and South Africa and exports construction services, distribution services, engineering services and energy manufacturing services to Zimbabwe, Democratic Republic of Congo, and Uganda.
- Seychelles: - Imports almost all key service such as construction services, engineering services, scientific and other technical services, other professional, technical, and business

services, support and operation services, installation services, maintenance and repair services, and energy manufacturing services from China, Europe and South Africa and exports other professional, technical, and business services, public administrative services, and energy manufacturing services.

- Somalia: - Imports construction, transport services, engineering services, distribution services, scientific and other technical services, installation services, and energy manufacturing services from China, India, United Arabs Emirates and Europe and exports construction services, support and operation services, maintenance and repair services, other professional, technical, and business services to Kenya, Uganda, and Ethiopia.
- Tunisia: - Imports almost all key service such as construction services, distribution services, engineering services, scientific and other technical services, support and operation services, installation services, public administration services, maintenance and repair services, and energy manufacturing services and exports construction services, distribution services, engineering services, support and operation services, installation services, public administration services, maintenance and repair services, and energy manufacturing services to Gulf and Africa countries including to Seychelles and Malagasy.

3.6 Energy prices Among COMESA Member States

Energy prices among COMESA Member States between 2018 and 2022 have been fluctuating. In between 2020 and 2022, there has been an increase in energy prices due to Covid 19 and Russia invasion in Ukraine as presented in Table 2. In addition, the price fluctuations especially across Member States may be explained by other factors such as foreign exchange rates, various taxes, and subsidies.

Table 2: 2018 – 2022 Energy prices Among COMESA Member States

	Petrol/ Gasoline Prices		Diesel Prices		Kerosene Prices	Household Electricity Tariffs	Commercial/ Business Electricity Tariffs
	2018	2022*	2018	2022*	2022*	2021	2021
Burundi	1.254	1.357	1.254	1.317	1.1930		
Comoros		1.360b		1.020b	0.570b		
Dem Rep of Congo	1.194	1.090	1.200a	1.085	0.8940	0.083	0.097
Djibouti	1.32a		0.980a				
Egypt	0.434	0.524	0.306	0.363	0.3630	0.044	0.062
Eritrea	2.000a		1.330a				
Ethiopia	0.671	0.619	0.582	0.565	0.4520	0.007	0.02
Kenya	1.254	1.250	1.135	1.086	0.9820	0.215	0.176
Libya	0.11a	0.032	0.11a	0.032		0.004	0.007
Madagascar	1.194	1.025	1.007	0.850	0.5330	0.145	0.111

	Petrol/ Gasoline Prices		Diesel Prices		Kerosene Prices	Household Electricity Tariffs	Commercial/ Business Electricity Tariffs
Malawi	1.204	1.417	1.214	1.380	1.0270	0.138	0.192
Mauritius	1.431	1.425	1.155	1.048		0.141	0.126
Rwanda	1.244	1.332	1.224	1.341		0.252	0.094
Seychelles		1.640		1.699	2.0950		
Somalia	1.410a		1.180a				
Sudan	0.336	1.503	0.227	1.436		0.002	0.023
Kingdom of Eswatini	0.859	1.294	0.859	1.332		0.119	0.078
Tunisia	0.691	0.775	0.602	0.668		0.070	0.101
Uganda	1.066	1.481	0.987	1.407	1.200	0.189	0.148
Zambia	1.481	1.510	1.293	1.494	1.1010	0.032	0.049
Zimbabwe	1.451	2.353	1.303	2.353		0.047	

Colors: Blue – increase in prices between 2018 and 2022, **Green** - fall in prices between 2018 and 2022, **Yellow** – tariffs are lower for commercial electricity consumers, **Brown** – tariffs are higher for household electricity consumers.
a - 2016 prices, **b** – 2019 prices, ***** - fuels prices/ liter as at 18.04.2022, ****** - Electricity prices/kWh as at 01.09.2021
Source: GlobalPetrolPrices.com (2022) and Globaleconomy.com (2017)

Covid 19 pandemic and the invasion of Ukraine by Russia led to supply and price disruptions of crude oil and petroleum products globally. For instance, in 2018 the average world gasoline price per litre was $0.94 (IEA, 2019[1]) and in 2022 as of 18th April, the price per litre had increased to $1.29[2]. For diesel, the average price per litre increased in 2018 from $1.05 to $1.34 in 2022.

Among the COMESA Member States that experienced large increases in prices of gasoline between 2018 and 2022, include Zimbabwe, Kingdom of Eswatini, and Malawi. For diesel, large increases in price were experienced in Sudan, Zimbabwe, Kingdom of Eswatini, Uganda and Zambia. At the same time, large price reductions of gasoline were observed in Madagascar and Democratic Republic of Congo and large price reductions of diesel in Madagascar and Mauritius respectively. Lower Kerosene prices were observed in Egypt, Ethiopia, Madagascar, and Comoros while higher Kerosene prices were recorded in Seychelles, Uganda, Burundi, Zambia, and Malawi.

As regards electricity, in 2021 higher tariffs among households' consumers were experienced in Rwanda, Kenya, Uganda, Madagascar and Mauritius while lower tariffs among households' consumers were observed in Sudan, Libya, and Ethiopia. For Commercial consumers, Member States that experienced higher tariffs were Malawi, Kenya, Uganda, Mauritius, and Madagascar. Those Member States that experienced low commercial tariffs were Libya, Ethiopia, Sudan, and Zambia. However, most countries are in favor of lower electricity tariffs for commercial consumers than for household consumers.

4.0 Commitments of COMESA Member States in the Sector at WTO under GATS and Other RECs

4.1 Overview of Commitments in the Energy and Energy Related Services

The WTO defines a specific commitment in a services schedule as an undertaking to provide market access and national treatment for the service activity in question on the terms and conditions specified in the schedule. By making a commitment, a government therefore binds the specified level of market access and national treatment and undertakes not to impose any new measures that would restrict entry into the market or the operation of the service. Specific commitments thus have an effect like a tariff binding. Though such commitments can be withdrawn or modified after the agreement of compensatory adjustments with affected members, and no withdrawals or modifications may be made until three years after entry into force of the commitments as per the WTO. Such modifications of commitments may not affect the application of most-favored-nation (MFN) treatment. Commitments can however be added or improved at any time.

The specific commitments drawn by Member States are presented in national schedules that conform to standard format to allow for comparisons. Generally according to WTO, each service sector or sub-sector that is listed, the schedule must indicate, with respect to each of the four modes of supply, any limitations on market access or national treatment which are to be maintained.

Despite the importance of commitments in trade in energy services, the levels of commitments among WTO Member States remain very low under GATS. Current recorded and existing commitments among WTO Member States are focused on market access or national treatment in three energy-specific sub-sectors. They include construction, distribution (including transport) and business services. Specific examples of some of the services offered in the three aforementioned services are as follows:

i) Construction and related engineering services:

- General construction work for building, including pipelines and mining,
- General construction work for civil engineering including long distance pipelines, communication, and power lines (cables) to construction for mining and manufacturing,
- Installation work: - gas fitting construction work,
- Services incidental to mining, exploration, etc.,
- Integrated engineering services,
- Site preparation work for mining and energy services,
- Installation work and assembly work related to manufacturing activities (from prospecting, mining, or processing of minerals to energy generation).

ii) Distribution including transport services:

- General distribution services,
- Distribution services including commission agents,

- Wholesale trade services,
- Retailing services.

iii) Business services

- Other business also covers professional services and engineering services,
- Management consulting services related to energy and mining sector only,
- Services related to management consulting related to energy sector only,
- Technical testing and analysis services only for gas, mining, and oil industry,
- Research and development for crude oil, natural gas and condensate (analysis of petroleum product).
- Related scientific and technical consulting services only for gas, mining, and oil industry.
- Site investigation work.
- Renting services related to equipment for construction or demolition of buildings or civil engineering works, with operation.

The WTO statistics on the level of energy services commitments show that as of 1st December 2020, commitments made by WTO Member States were mainly on construction, distribution and transportation, and business services. About 45 members had made commitments on services relating to mining, 18 on services relating to energy distribution and 12 on transportation of fuels. Though the scope of commitments on services relating to mining and to energy distribution for several members are limited to advisory and consultancy services.

Sections 4.2 presents commitments in energy and energy related services at WTO under GATS for COMESA while section 4.3 presents the same for Other RECs. Section 5.0 focuses on level of liberalization and competition, which incorporates discussions on the horizontal commitments and sector specific commitments for Member States of COMESA and other RECs.

4.2 Commitments of COMESA Member States in Energy and Energy Related Services at WTO under GATS.

Out of 21 COMESA Member States only 7 Member States (Democratic Republic Congo, Kingdom of Eswatini, Egypt, Madagascar, Malawi, Seychelles, and Zambia) had made commitments on energy services based on WTO statistics as shown in table 3. Further, the level of commitments by COMESA Member States in the energy and energy related services at WTO under GATS are centered on national treatment and market access on the following energy services sub-sectors:

- Construction services,
- Distribution services,
- Business services.

Table 3: Commitments by COMESA Member States as regards energy sector

Comesa Countries	Construction Services	Distribution Services	Business services	Total Number of Commitments by Member States
Democratic Republic of Congo	(a1,a2)			**2**
Kingdom of Eswatini	(a5)		(c1,c2, c5)	**4**
Egypt	(a2, a3)			**2**
Madagascar			(c4)	**1**
Malawi	(a4)		(c4)	**2**
Seychelles	(a1, a2, a4, a5, a6)	(b2, b3, b4)	(c2, c3,c4, c5, c6, c7, c8)	**15**
Zambia	(a4)		(c4)	**2**
Total Number of Commitments on energy and energy related services	**12**	**3**	**13**	**28**

a1- General construction work for building, including pipelines and mining, a2 -General construction work for civil engineering including long distance pipelines, communication, and power lines (cables) to construction for mining and manufacturing, a3 - Installation work: - gas fitting construction work, a4- Services incidental to mining, exploration, etc., and a5 - Integrated engineering services.
b2-Distribution services including commission agents, b3 - Wholesale trade services, and b4 -Retailing services.
C1 - Other business also covers professional services and engineering services, c2 - Management consulting services related to energy and mining sector only, c3 - Services related to management consulting related to energy sector only, c4 - Technical testing and analysis services only for gas, mining, and oil industry, c5 - Research and development for crude oil, natural gas and condensate (analysis of petroleum product), c6 - Related scientific and technical consulting services only for gas, mining, and oil industry, c7 - Site investigation work, and c8 - Renting services related to equipment for construction or demolition of buildings or civil engineering works, with operation.

Generally, under COMESA Member States, energy and energy related services commitments are lacking for: public administration services, maintenance and repair and energy manufacturing services. Although, the most commitments made on energy and energy related services were recorded under construction services followed by business services, and distribution services. Detailed discussion of these commitments is presented as follows.

Construction service sector – energy and energy related services commitments:

- General construction work for civil engineering including long distance pipelines, communication, and power lines (cables) to construction for mining and manufacturing (a2), is a common commitment in Democratic Republic of Congo, Egypt and Seychelles.
- Services incidental to mining, exploration, etc. (a4), is a common commitment in Malawi, Seychelles, and Zambia.
- General construction work for building, including pipelines and mining (a1), is a common commitment in Democratic Republic of Congo and Seychelles.
- Integrated engineering services (a5) is a common commitment recorded in Kingdom of Eswatini and Seychelles.
- Installation work: - gas fitting construction works (a3) and site preparation work for mining and energy services (a6) is a commitment in Egypt and Seychelles respectively.

Distribution services sector – energy and energy related services commitments:

- Distribution services including commission agents (b2), wholesale trade services (b3), and retailing services (b4) are commitments recorded in Seychelles.

Business sector services sector - energy and energy related services commitments:

- Technical testing and analysis services only for gas, mining, and oil industry (c4), is a common commitment recorded in Madagascar, Malawi, Seychelles, and Zambia.
- Management consulting services related to energy and mining sector only (c2), and Research and development for crude oil, natural gas, and condensate (analysis of petroleum product) service (c5), are common commitment recorded both in kingdom of Eswatini and Seychelles.
- Other business also covers professional services and engineering services (c1), is a common commitment recorded in kingdom of Eswatini.
- Services related to management consulting related to energy sector only (c3), Related scientific and technical consulting services only for gas, mining, and oil industry (c6), site investigation work (c7), and renting services related to equipment for construction or demolition of buildings or civil engineering works, with operation (c8), are commitments recorded in Seychelles.

4.3 Commitments of Other RECs in Energy and Energy Related Services at WTO under GATS.

This section discusses commitment of other RECs in Africa where appropriate, namely: Arab Maghreb Union (UMA), Economic Community of Central African States (ECCAS), East African Community (EAC), Economic Community of West African States (ECOWAS) and Southern African Development Community (SADC).

a) Economic Community of West African States (ECOWAS)

Under ECOWAS about 4 Member States (Cape Verde, Cote d'Ivoire, DRC, Ghana, and Liberia) had made commitments on energy and energy related services based on WTO statistics as shown in table 4.

Table 4: Commitments by ECOWAS Member States as regards energy and energy related services

ECOWAs Countries	Construction services	Distribution Services	Total Number of Commitments by Member States
Cape Verde	(a1, a2, a4, a5,)	(b3, b4)	**6**
Cote d'ivoire	(a7)		**1**
Ghana	(a7)		**1**
Liberia	(a1, a2, a4, a5, a7)	b4	**6**
Total Number of Commitments on energy and energy related services	**11**	**3**	**14**

Similar to COMESA, ECOWAS Member States, energy, and energy related services are lacking for: public administration Services, maintenance and repair and energy manufacturing services. Although, the bulk of the commitments were recorded under construction services and distribution services.

Construction service sector – energy and energy related services commitments:

- General construction work for building, including pipelines and mining (a1), general construction work for civil engineering including long distance pipelines, communication, and power lines (cables) to construction for mining and manufacturing (a2), services incidental to mining, exploration, etc. (a4), and integrated engineering services (c5) are common commitments recorded both in Cape Verde and Liberia.
- Installation work and assembly work related to manufacturing activities (from prospecting, mining, or processing of minerals to energy generation) service (a7) is a mutual commitment records in Cote d'Ivoire, Ghana and Liberia.

Distribution services sector – energy and energy related services commitments:

- Retailing services (b4) is mutual commitment recorded in Cape Verde and Liberia.
- Wholesale trade services (b3) is a commitment recorded in Cape Verde.

b) Southern African Development Community (SADC)

Also, under SADC about 7 Member States (Botswana, DRC, Kingdom of Eswatini, Lesotho, Malawi, Seychelles, and South Africa) had made commitments on energy and energy related services based on WTO statistics as shown as table 5. There are about 60% of SADC members who are also members of COMESA, and they include Comoros, Democratic Republic of Congo, Kingdom of Eswatini, Madagascar, Malawi, Mauritius, Seychelles, Zambia, and Zimbabwe. However, for unclear reasons only 3 Member States, Comoros, Mauritius, and Zimbabwe have not made commitments to energy and energy related services.

Table 5: Commitments by SADC Member States as regards energy sector

SADC Countries	Construction services	Distribution Services	Business services	Total Number of Commitments by Member States
Botswana	(a5)			**1**
Ddemocratic Republic of Congo	(a1, a2)			**2**
Kingdom of Eswatini	(a5)		(c1)	**2**
Lesotho	(a1, a2, a4, a5, a7)	(b3, b4)		**7**
Malawi	(a4,a5)			**2**
Seychelles	(a1, a2, a4, a5, a6)	(b2, b3, b4)	(c2, c3, c4, c5, c6, c7, c8)	**15**
South Africa	(a1, a2, a7)	(b3, b4)		**5**
Total Number of Commitments on energy and energy related services	**19**	**7**	**8**	**34**

Most commitments made on energy and energy related services in SADC are recorded under construction services followed by business services, and distribution services. Detailed discussion of these commitments is presented as follows.

Construction service sector – energy and energy related services commitments:

- Integrated engineering services (a5) was a common commitment recorded in Botswana, Kingdom of Eswatini, Lesotho, Lesotho, Malawi, and Seychelles.
- General construction work for building, including pipelines and mining (a1) is a commitment in Democratic Republic of Congo, Lesotho, Seychelles, and South Africa.
- General construction work for civil engineering including long distance pipelines, communication, and power lines (cables) to construction for mining and manufacturing (a2) is a joint commitment in Democratic Republic of Congo, Lesotho, Seychelles, and South Africa.
- Services incidental to mining, exploration, etc. (a4) is a common commitment recorded in Lesotho Malawi, and Seychelles.
- Installation work and assembly work related to manufacturing activities (from prospecting, mining, or processing of minerals to energy generation), (a7) is a common commitment recorded in Lesotho and South Africa.
- Site investigation work (c7) is a commitment recorded in Seychelles.

Distribution services sector – energy and energy related services commitments:

- Wholesale trade services (b3), and Retailing services (b4) are common commitments recorded in Lesotho, Seychelles, and South Africa.
- Distribution services including commission agents (b2) is a commitment recorded in Seychelles.

Business services sector – energy and energy related services commitments:

- Other business also covers professional services and engineering services (c1), is a commitment recorded in kingdom of Eswatini.
- Management consulting services related to energy and mining sector only (c2), Services related to management consulting related to energy sector only (c3), Technical testing and analysis services only for gas, mining, and oil industry (c4), Research and development for crude oil, natural gas, and condensate (analysis of petroleum product) service (c5), Related scientific and technical consulting services only for gas, mining, and oil industry (c6), Site investigation work (c7), and Renting services related to equipment for construction or demolition of buildings or civil engineering works, with operation (c8), are commitments recorded in Seychelles.

c) EAC, ECCAS, AMU

Analysis of energy and energy related services commitments under The Arab Maghreb Union (AMU), Economic Community of Central African States (ECCAS), and East African Community (EAC) Member States in energy and energy relates services, show only Democratic Republic Congo had made commitments on energy and related services based on WTO statistics as shown in table 6.

Table 6: Commitments by EAC and AMU Member States as regards energy sector

ECCAS Member States	Construction services	Distribution Services	Business services	Total Number of Commitments by Member States
DRC	(a1,a2)			2
EAC Member States				
-				0
UMA Member States				
-				0
Total Commitments from ECCAS, EAC and UMA RECs on energy and energy related services	2	0	0	2

Construction service sector – energy and energy related services commitments:

- General construction work for building, including pipelines and mining (a1) and General construction work for civil engineering including long distance pipelines, communication, and power lines (cables) to construction for mining and manufacturing (a2) are commitments recorded in Democratic Republic of Congo.

5.0 Regulatory Regime, Trade Openness, Level of Liberalization and Competition

5.1 Overview of Trade Regulations, Trade Openness, Level of Liberalization and Competition

This section recognizes trade to refer to both exchange of goods and services but limit the analysis on services and specifically on energy and related services only. Services performances rely on the quality of policies, regulations, and institutional frameworks. As services become more liberalized, the need to secure coherent approaches to domestic regulation and trade liberalization in the services cannot be ignored. In fact, UNCTAD (2016) highlights the importance of working towards 'best-fit regulations" while recognizing risks and trade-offs that such a reform agenda may entail for national regulatory autonomy, policy space and development imperatives.

Taapano (2011) observes that a lack of regulation has been a major barrier towards liberalization (see section 5.5 on regulatory regime). Lack of regulations specific to trade in energy services and the use of political and diplomatic considerations to trade in energy services, reflects more of lack of transparency, certainty, stability, and predictability of trade in energy services (Arca and Gosh, 2014). Sector regulations are also very critical and help in describing the structure of the sector (see section 5.4 on the structure of the sector).

Trade openness is different from trade liberalization. In this report, trade openness is contextualized as one of the approaches used to measure the extent to which a country is engaged in international trade based on the actual level of registered imports and exports in a country (see section 5.2 on trade openness). Trade liberalization considers removal or reduction of restrictions or barriers on the free exchange of goods and services between countries (see section 5.5 on trade liberalization and competition). To achieve trade openness, there must be trade liberalization.

The level of competition is also defined by the regulations imposed in different market structures of the energy sector. As prescribed in GATS, the stricter regulations on monopolies will translate into healthy competition which have positive implications on energy consumers and boosts energy security worldwide (Arca and Gosh, 2014). Through appropriate regulatory regime, countries can ensure there is optimal energy pricing, service, universal access and interconnection between monopoly and competitive elements within energy supply chains (UNCTAD, 2009).

Thus, to enhance Trade in Services, among COMESA Member States, COMESA has adopted the regulation on Trade in Services which aims to (i) promote sustainable growth and development by eliminating the barriers to trade in services, (ii) enhance cooperation in services to improve the efficiency and competitiveness of their services markets, (ii) liberalize trade in services by expanding the depth and scope of liberalization in line with Article V of the GATS, and lastly (iv) to increase, improve and develop the export of services.

To date, energy and energy related services lack a separate classification under WTO W/120 classification. Hence trade in energy and energy related services within COMESA Member States

(as well as other selected RECs) and the rest of the world are recorded in other service sectors like construction and related engineering services, distribution services, business services, distribution services, and travel related services, among others. Based on this understanding, discussion of trade openness as regards trade in energy and energy related services within COMESA Member States (as well as other selected RECs) and the rest of the world relies on the available data provided by COMSTAT on overall total services, transport and travel services, and other services.

The preceding sub-sections presents the level of trade openness of COMESA Member States with the World (sub-section 5.2.1) and trade openness of selected RECs with the World (sub-section 5.2.2). Further reviews of the regulatory regime in COMESA Member States and selected RECs are discussed in sub-section 5.3.1 and 5.3.2 respectively while the structure of the energy sector, as well as the level of competition and liberalization within COMESA Member States and other selected RECs are presented in sections 5.4 and 5.5 correspondingly.

5.2 Trade Openness

5.2.1 Trade Openness of COMESA Member States with the World

Trade openness index for COMESA Member States is presented in figure 8. It is measured as the trade to GDP ratio (%) or calculated as the ratio of the sum of the exports and imports of the countries to the national income. Seychelles, Djibouti and Kingdom of Eswatini were among the top 3 Member States with high trade openness index between 2016 and 2017. Member States with low trade openness index for the same period were Burundi and Eritrea.

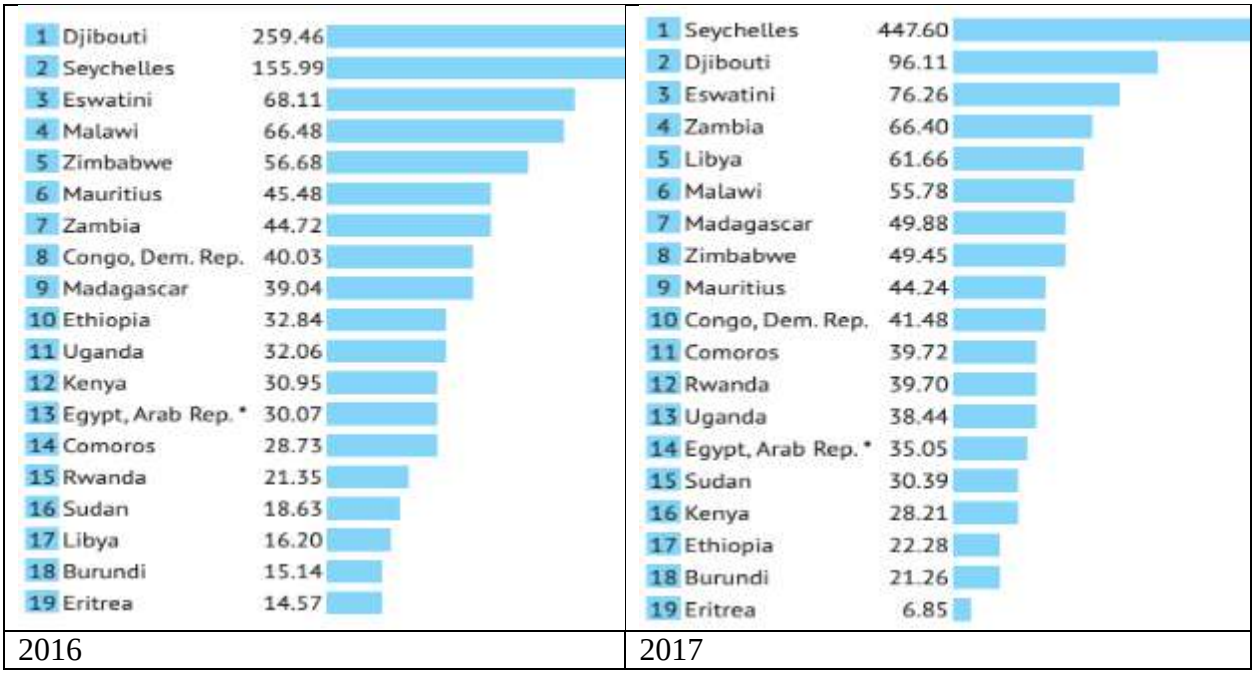


Figure 8: Trade Openness Index (Trade to GDP Ratio ,%), Source: COMSTAT (2018)

COMESA Trade in Services

Trade focuses on both imports and exports of goods and services. Figure 9 shows the trend of trade in services for COMESA Member States for 2010, 2015, 2017 and 2019 as reported in the World Development Indicators Report by World Bank. Again, topping in the list as regards trade in services is Seychelles, Djibouti, and Mauritius while low trade services were recorded in Burundi and Eritrea.

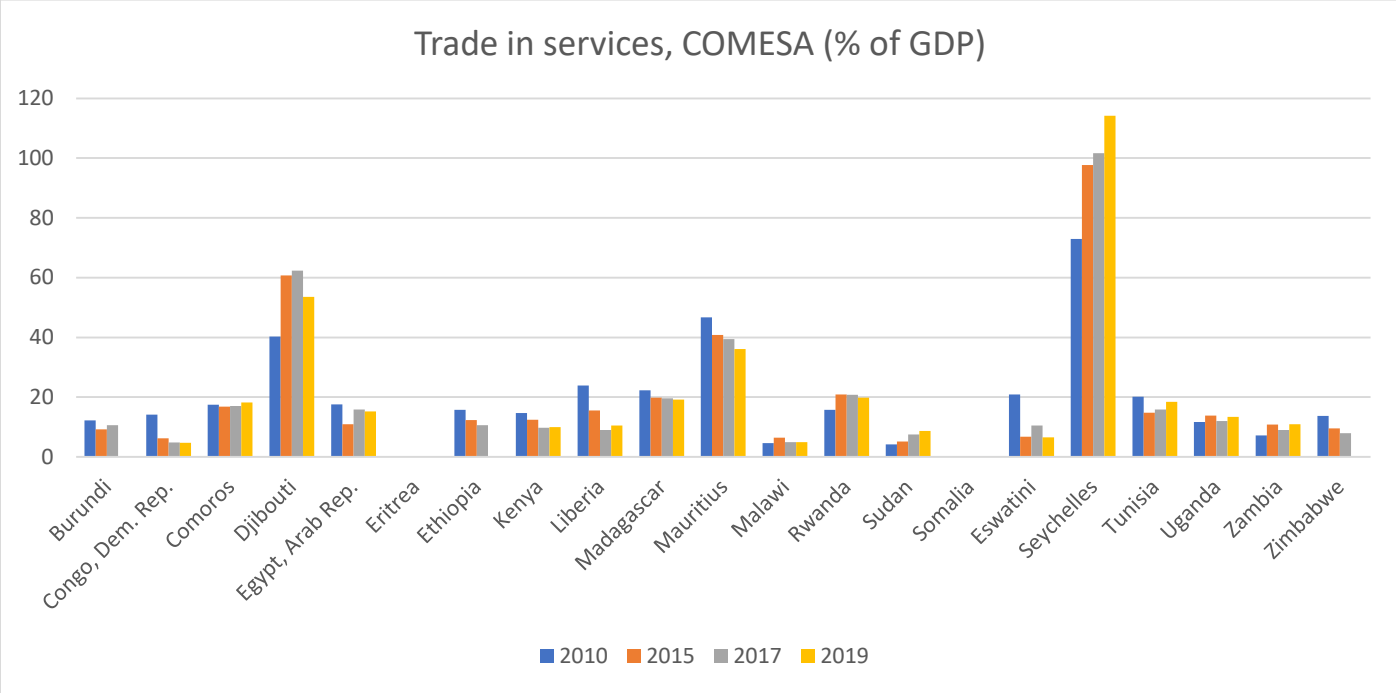


Figure 9: Trade in services for COMESA, Source: World Bank (2020)

COMESA imports and exports of trade in total services

COMESA imports and exports of trade in services with the World trading partner is presented in figure 10. While the trend of exports closely mimics that of imports. The performance of exports was more volatile than imports between 2008 and 2016. Increased performance in exports were attributed to improved export performance in DRC, Rwanda, Libya, Sudan, Zambia, Seychelles, Kingdom of Eswatini, Ethiopia, Comoros, Egypt, Uganda, and Rwanda (as presented in figure 10 on the right). For imports the declined performance was due to low imports performance in Egypt, Libya, Ethiopia, and Djibouti (as presented in figure 10 on the left). Also, the performance of imports and exports of trade in services with the World in 2019 was largely affected by COVID 19 pandemic.

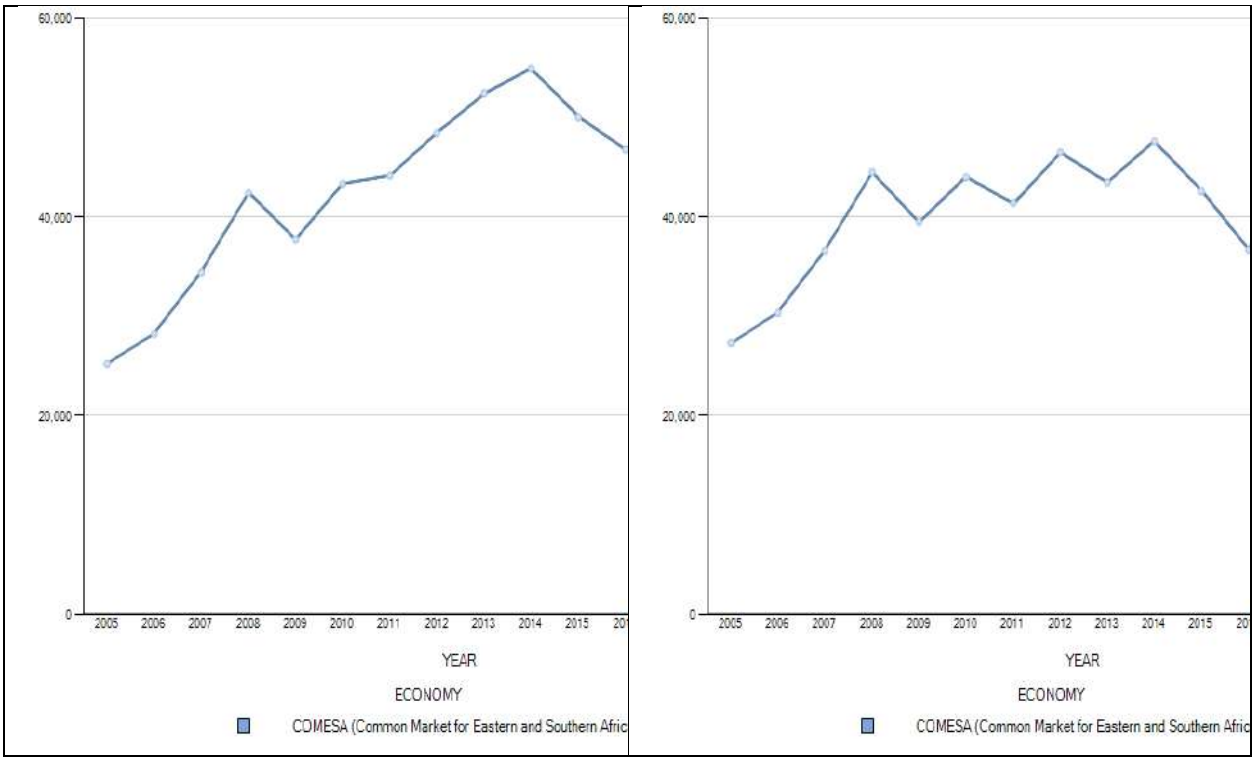


Figure 10: COMESA Exports (Right) and imports (Left) of trade in total services with World as trade-partner, Source: COMSTAT (2021)

COMESA Member States imports and exports of trade in services

Imports and exports of trade in total services between 2005 and 2020 by COMESA Member States with the World as a trading partner is presented in Figure 11. For exports between 2015 and 2020, among Member States with improved performance were recorded in Egypt, Ethiopia, Kenya, and Seychelles while for imports, among Member States with increased volume of imports were recorded in Egypt, Tunisia, and Kenya.

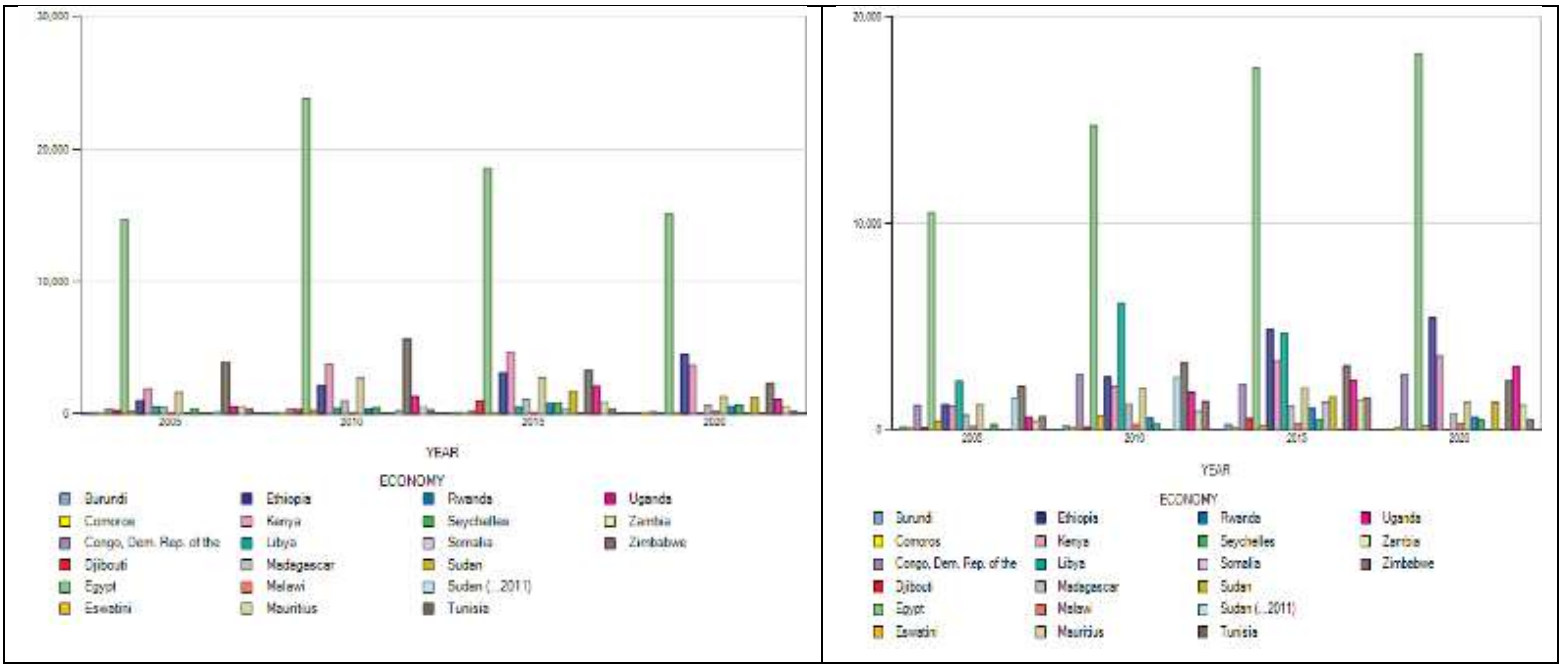


Figure 11: COMESA Member States Exports (Right) and imports (Left) of services with the World, Source: COMSTAT (2021)

COMESA Member States Exports and imports of transport services

Since some energy and energy related services are also recorded under transportation and distribution. This study also presents the level of imports and exports of trade in transport services between 2005 and 2020 by COMESA Member States with the World as a trading partner as shown in Figure 12. Egypt, Libya, and Ethiopia have the largest level of imports while Egypt, Tunisia, Kenya, and Ethiopia have the largest exports in transports with the stated period.

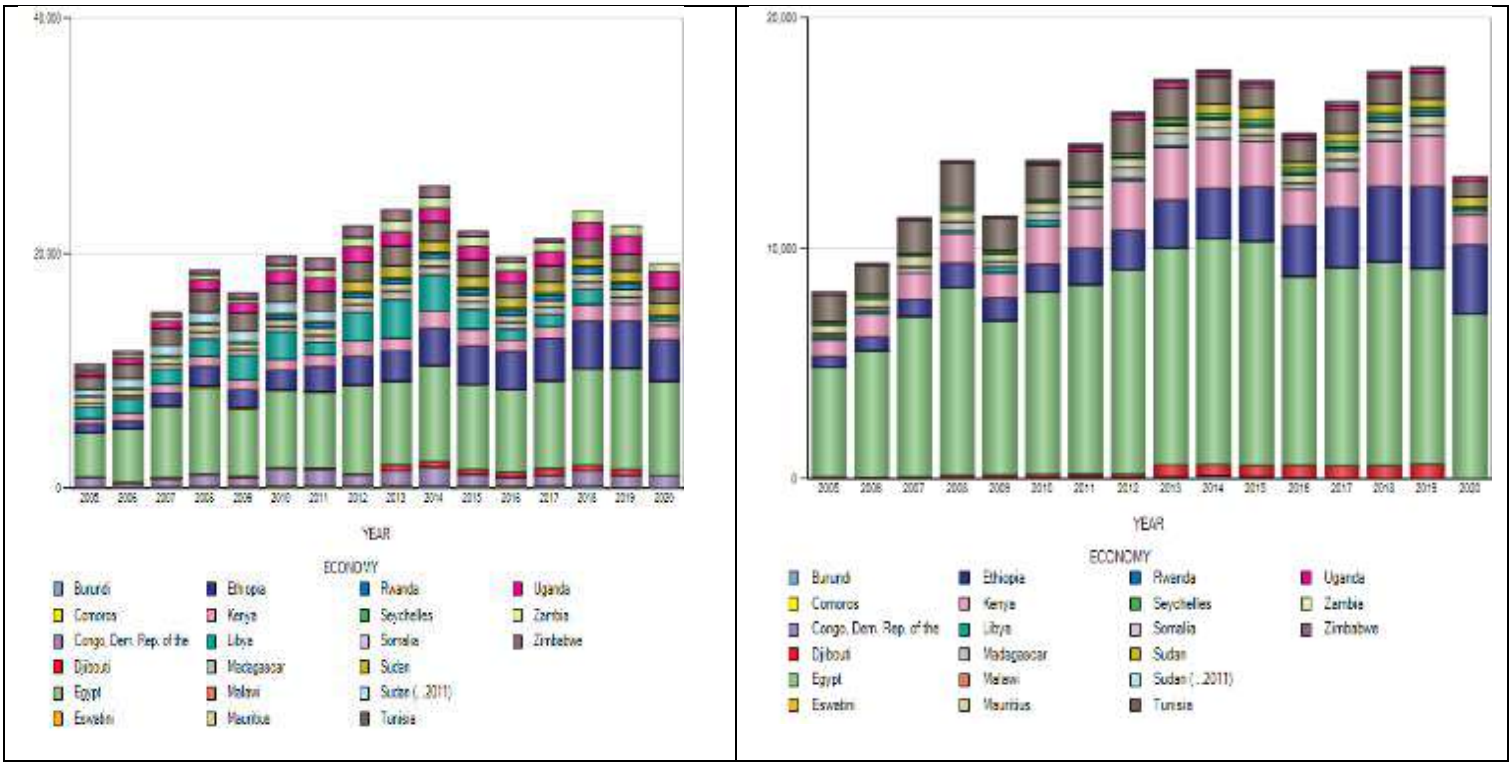


Figure 12: COMESA Member States Exports (Right) and imports (Left) of transport services with the World, Source: COMSTAT (2021)

COMESA Member States Exports and imports of travel services

COMESA imports and exports of trade in travel services with the World as a trading partner is presented in figure 13. Among the top two Member States with largest level of imports of travel services with the World is Egypt and Libya. However, for Libya in 2019 and 2020, the levels of imports were low, and this may be explained due to COVID 19 pandemic travel restrictions. For exports the two best performing Member States across board between 2006 to 2020 were Egypt and Tunisia.

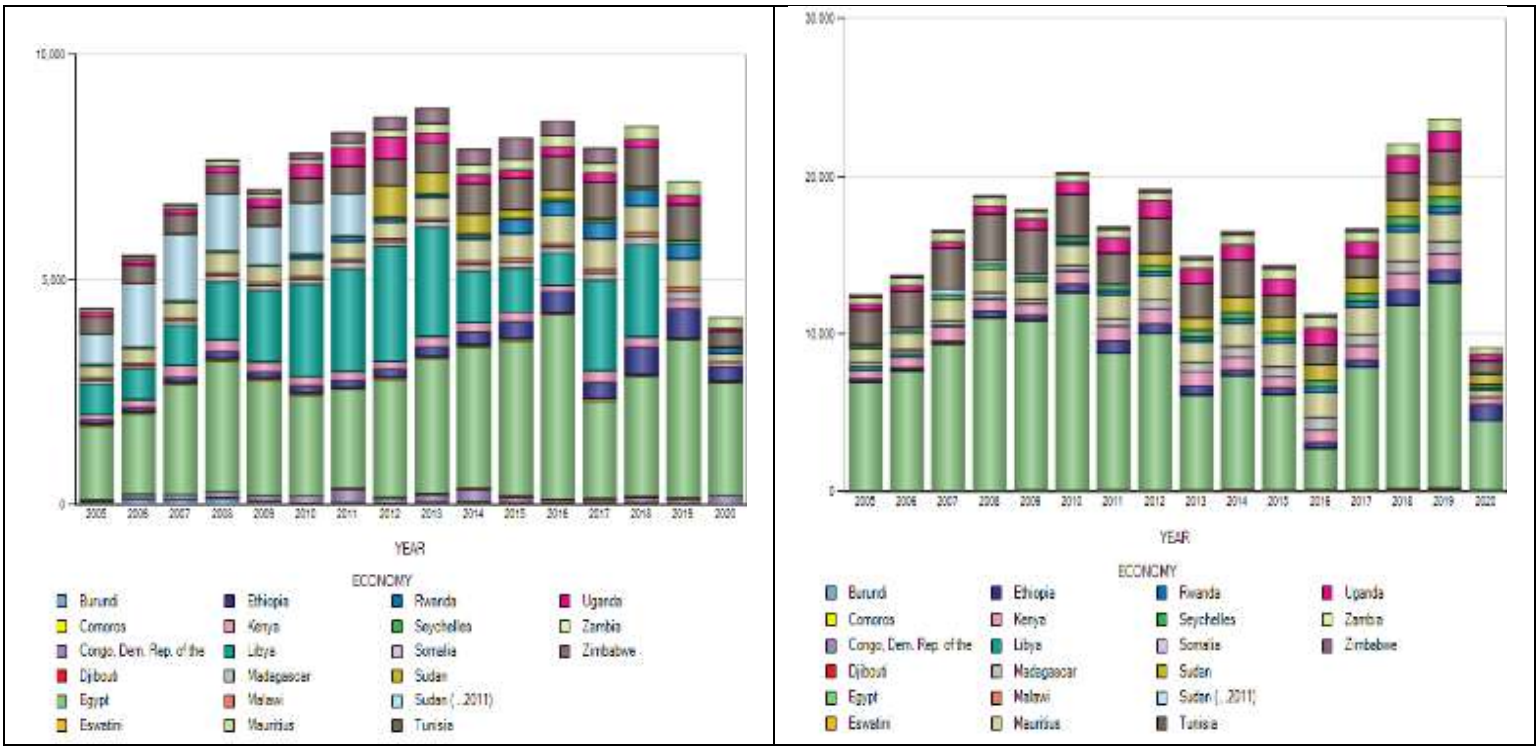


Figure 13: COMESA Member States Exports (Right) and imports (Left) of travel services with the World, Source: COMSTAT (2021).

5.2.2 Trade Openness of selected RECs with the World

This sub-section discusses the trade openness in selected RECs in Africa with the World as the trading partner. The selected RECs discussed are AMU, COMESA, EAC. ECCAS, ECOWAS, and SADC. The selected RECs targeted were mainly from Africa and based on the availability of data on trade openness from COMSTAT. Further, ECOWAS and SADC are chosen as the study's focus because, among the existing RECs in Africa, ECOWAS and SADC are two of the most successful regional integration agreements with large imports and exports of both financial and non-financial goods and services (Ejemeyovwi et al., 2018, World Bank, 2019). Hence, these selected RECs provide good samples to investigate the impact of economic growth on trade openness, replicable to the other Africa's RECs.

As earlier discussed, energy and energy related services lack a separate classification under W/120 classification, as a result, trade in energy services worldwide are recorded in other service sectors like construction and related engineering services, distribution services, business services, distribution services, and travel related services, among others. Based on this understanding, discussion of trade openness as regards trade in energy and energy related services for the selected RECs with the world relies on the available data provided by UNCTADSTAT on overall total services, transport and travel services, and other services as follows.

Selected RECs exports and imports of total services

Imports and exports of trade in total services between 2005 and 2020 by selected RECs with the World as a trading partner are presented in Figure 14. While there was a general upward trend as regards both imports and exports of total services during the assessment period, large volumes of trade in total services were experienced in imports rather than export. There was a general drop in imports of total services in 2016 (for all selected RECs and in 2017 for ECOWAS only) and in exports of total services in 2016 for all selected RECs except for ECOWAS). REC with the largest volume of imports of total services was recorded in COMESA while the lowest volume of imports was recorded in EAC followed by ECCAS. RECs with the largest volume of exports on total services was recorded in COMESA while the lowest volume of exports on total services was recorded in ECCAS and followed by EAC and ECOWAS.

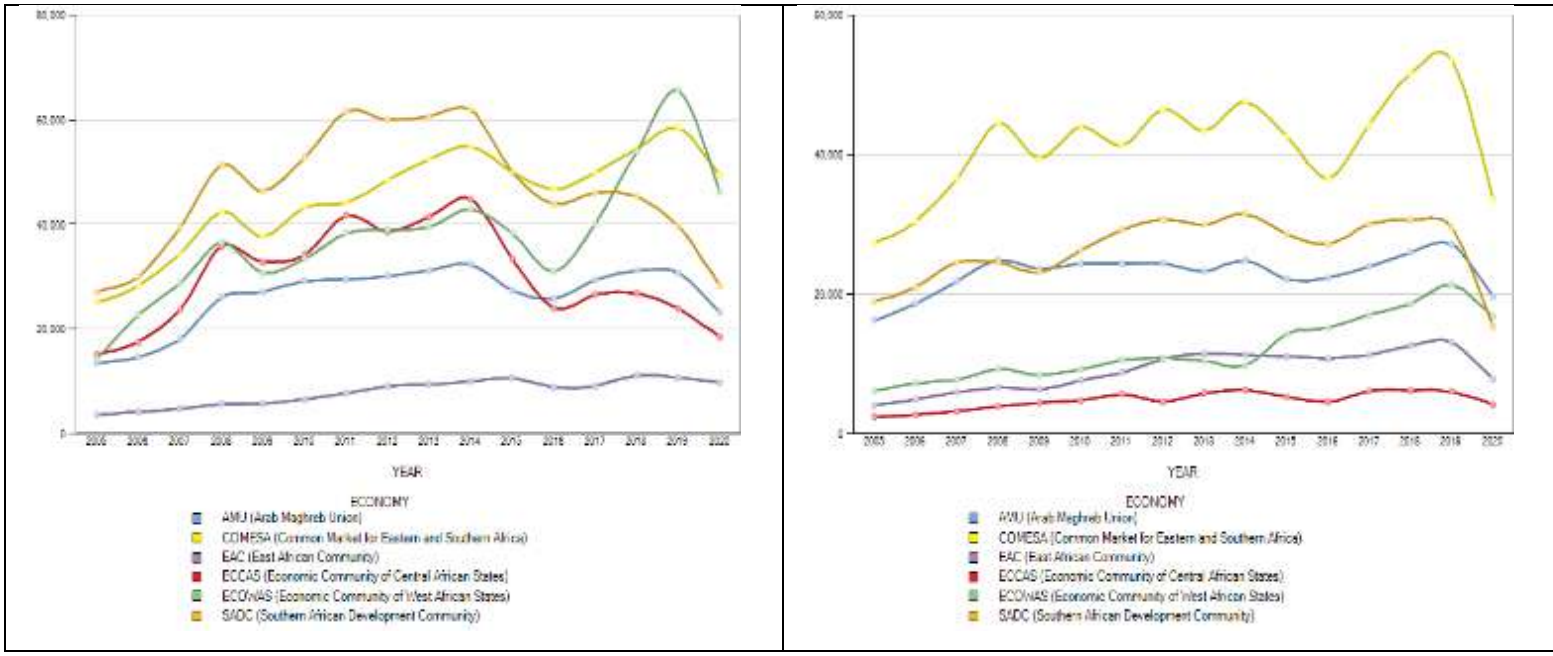


Figure 14: Selected Africa RECs Exports (Right) and imports (Left) of total services with the World, Source: COMSTAT (2021)

Selected RECs exports and imports of transport services

Imports and exports of trade in transport services between 2005 and 2020 by selected RECs with the World as a trading partner are presented in Figure15. There were fluctuations experienced for both imports and exports of trade in transport services during the period, with notable spikes in 2009 due to global financial crisis, in 2016 due to either slowing Chinese economy, falling commodity prices, worsening financial market volatility, and exposure of countries with large foreign debts to sharp exchange rate movements and in 2020 because of COVID 19 pandemic. Amidst these challenges, for imports of total services ECOWAS was among the RECs that were highly affected by these shocks. COMESA had the largest volume of imports and exports of transport services recorded while the lowest volume of imports of transport services were recorded ECA then followed by ECCAS and that for export of transport services were largely recorded in ECCAS then followed by ECOWAS and EAC within the same period.

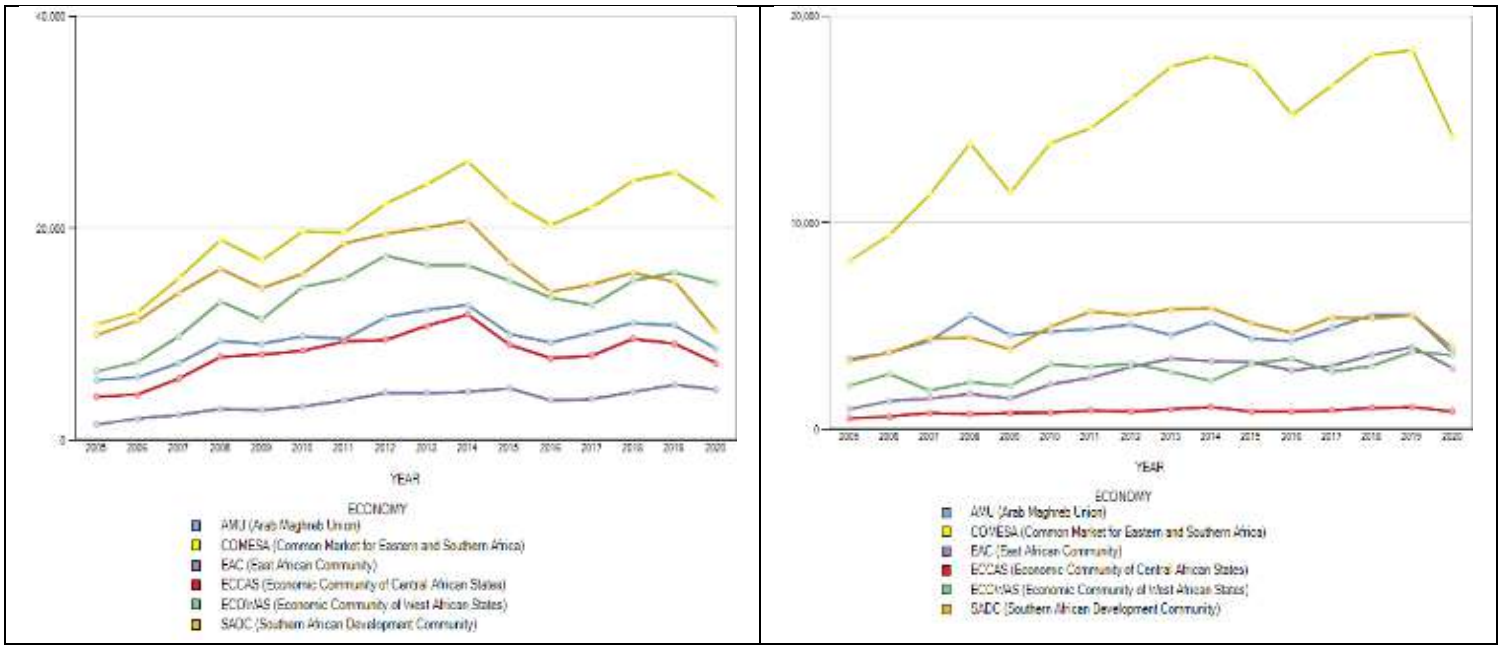


Figure 15: Selected Africa RECs Exports (Right) and imports (Left) of transport services with the World, Source: COMSTAT (2021)

Selected RECs exports and imports of travel services

Figure 16 shows imports and exports of trade in travel services between 2005 and 2020 by selected RECs with the World as a trading partner. During this period, there were fluctuations experienced for both imports and exports of trade in travel services with notable points in 2009, 2016, 2019 and 2020. For imports, COMESA had largest volumes of trade in travel services until 2016 when it was surpassed by ECOWAS while the lowest volumes of trade in travel services was recorded in EAC. For exports, COMESA again had largest volumes of trade in travel services recorded while the lowest volumes of trade in travel services were recorded in ECCAS and EAC during the same period.

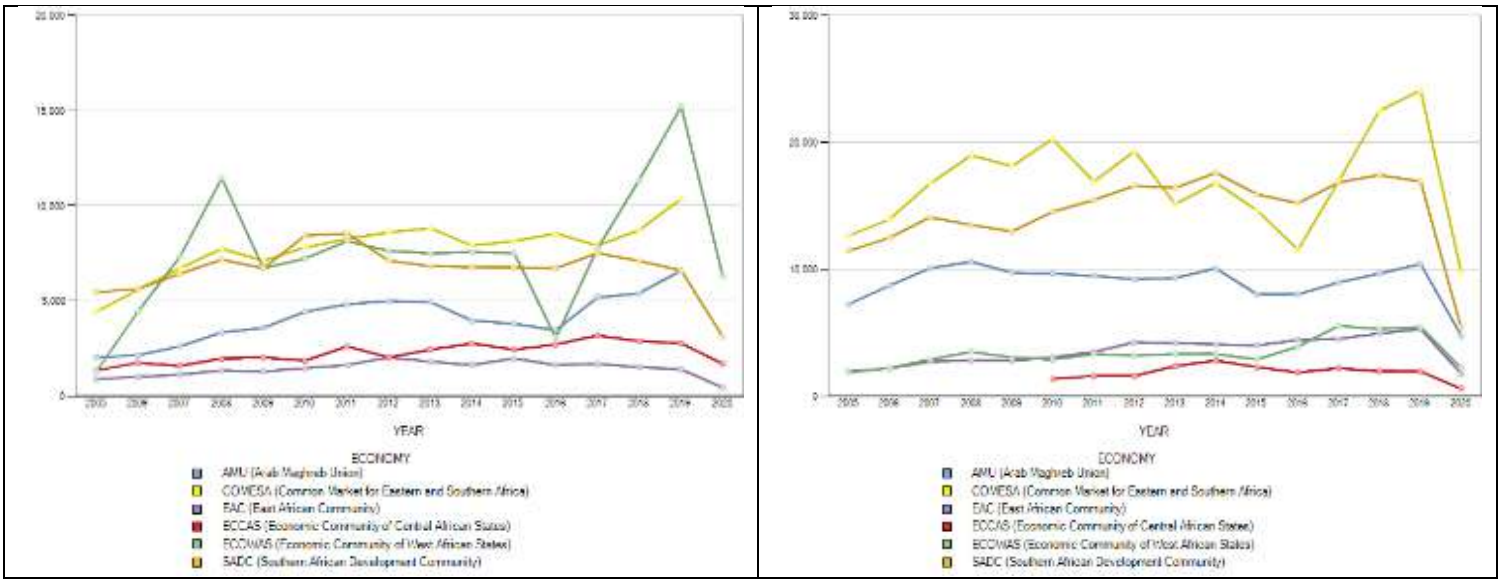


Figure 16: Selected Africa RECs Exports (Right) and imports (Left) of travel services with the World, Source: COMSTAT (2021)

Selected RECs exports and imports of commercial services

Selected RECs imports and exports of trade in commercial services with the World as a trading partner between 2005 and 2020 is presented in figure 17. There was general upward trend as regards both imports and exports of commercial services during the assessment period except in 2009, 2016 and 2019 as earlier discussed. SADC and COMESA had the largest volumes of trade in commercial services until 2016 when ECOWAS level of imports for commercial services began to increase to surpass that of SADC and COMESA. The lowest volumes of trade in commercial services were recorded in EAC. For exports, COMESA again had largest volumes of trade in travel services recorded while the lowest volumes of trade in travel services were recorded in ECCAS and EAC during the same period.

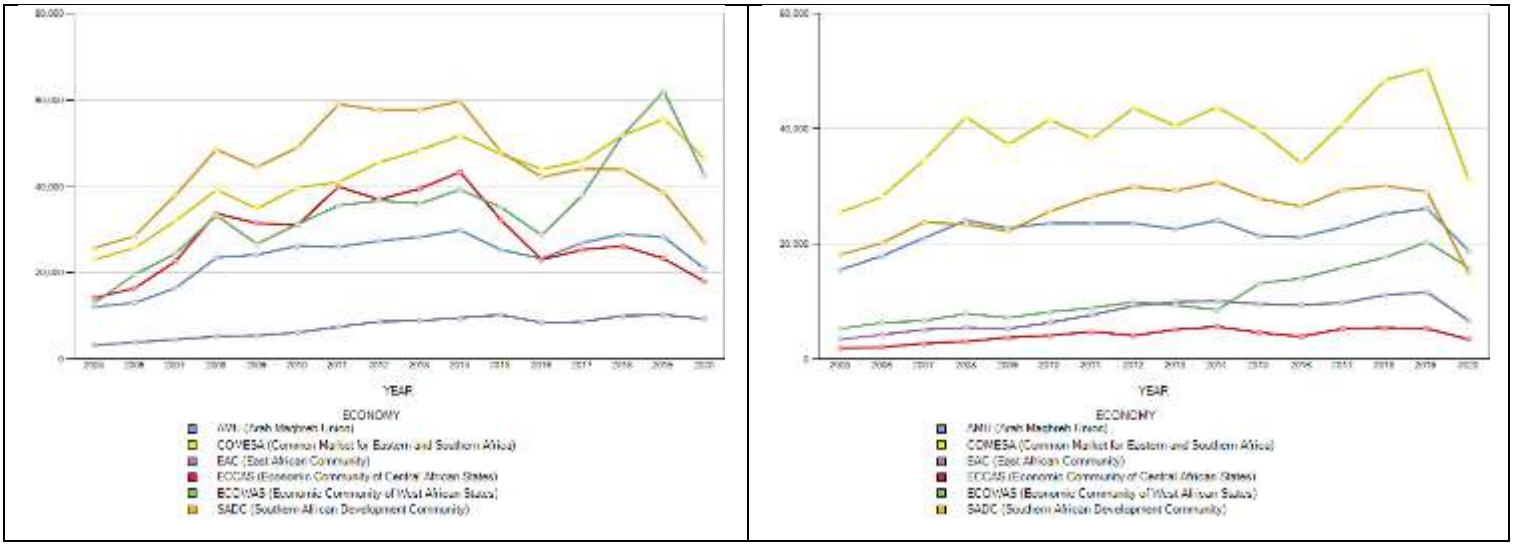


Figure 17: Selected Africa RECs Exports (Right) and imports (Left) of commercial services with the World, Source: COMSTAT (2021)

5.3 Regulatory regimes

5.3.1 Regulatory regimes in COMESA Member States

a) Key master and strategic planning documents

How developed and well performing an energy sector is, may depend on whether countries have key planning documents that provide direction for action with clear goals and objectives. Such planning documents may be long term (Master Plans) or short term (Strategic Plans) as presented in Appendix table 1. Some Member States have plans that focus on the general energy sector development such as Comoros, Kingdom of Eswatini, Ethiopia, Libya, Mauritius, Rwanda, Somali and Zambia. While there are few plans among Member States that focus on specific energy sub-sectors. For instance, electricity planning as is the case of Eritrea (Electricity

Master Plan), Ethiopia (Ethiopian Electric Power Strategy), Burundi (Power Master Plan), Kingdom of Eswatini (Energy Master Plan) and Uganda (Electricity Sector Strategic Plan).

The approach of energy sector planning has evolved beyond focusing on sector and sub-sector planning, towards addressing pertinent energy issues such as electrification including both urban and rural, reduction of carbon emissions energy generation, energy efficiency and conservation among others. Given the importance of reducing carbon emission from energy generation, most countries through elaborate renewable energy strategy plans have proposed to diversify their power generation to consider renewable energy sources. A sample of these Member States include Egypt, Eritrea Libya, Sudan, Kingdom of Eswatini and Tunisia. The case of Rwanda, and Kingdom of ESwatini are unique, they have in place a Biomass Energy and Biofuels strategic plans respectively while that of Eritrea has a Utility financing plan. Further, beyond funding plan, there are some Member States that have a fund established like in Ethiopia, Uganda, Malawi and Zambia which have a Rural Electrification Fund while Madagascar and Democratic Republic of Congo have a National Electrification Fund.

In an attempt to enhance access to electricity, Member States have put in plans for electrification such as Mauritius and Rwanda. In particular, for Eritrea, Kingdom of Eswatini and Uganda their electrification plans are integrated with that of the Rural Electrification Program. While the electrification intervention in Ethiopia is anchored on access to off-grid solutions planning (i.e., Off -grid Rural Electrification Master Plan of Ethiopia). As governments aim to enhance power generation and consumption, interventions to promote energy efficiency and conservation have become critical. Examples of Member States that have considered such planning are Libya, Egypt and Rwanda which have National Energy Efficiency Action Plan (NEEAP), National Strategy for Development of Energy Conservation respectively and Energy Efficiency Strategy respectively.

There are also plans that are anchored purely on the energy value chain activities, that is generation, transmission, and distribution. For instance, Member States that have plans that focus on generation and transmission i.e., in Kenya; those that have plans that integrate transmission and distribution i.e., in Zimbabwe while Kenya and Mauritius have separate planning documents on distribution.

Regulation

Regulation of any sector is necessary to allow well-functioning of economies and societies. Given this importance, most COMESA Member States have put in place at least some laws and regulations to help in the functioning of the energy sector (see Appendix table 1). Some laws and regulations are very general while others are very specific seeking to address key energy issues. In absence of laws and regulations, national plans including both sector master plans and strategic plans as well as sector policies become very critical.

They are Member States that have in place a general law on energy like Kenya, Madagascar, Malawi, Tunisia, Zambia and Zimbabwe while some Member States have more elaborate laws that focus on a particular energy source, in this case renewable energy law which is applied in

Egypt, Mauritius, Tunisia and the Electricity Law that is present in Burundi, DRC, Egypt, Eritrea, Ethiopia, Mauritius, Malawi, Rwanda, Kingdom of Eswatini, Somali, Sudan, Uganda, Zambia and Zimbabwe. Some energy laws are outright directed for financing purposes like the National Energy Fund of Tunisia and Madagascar, and Rural Electrification Fund of Ethiopia, Malawi, Uganda, and Zambia. Democratic Republic of Congo has a policy on the National Electrification Fund.

Similar to the plans, there are also laws that are anchored purely on the energy value chain activities, that is generation, transmission, and distribution such as Egypt (with Law No. 18/1998 – on electricity generation, transmission, and distribution). In addition, there are laws that focus on generation, they include the Least cost development plan of Eritrea, Ethiopia, Kenya, Rwanda, and Uganda.

As regards petroleum sector, Petroleum law is present in Kenya, Mauritius, Somali and Uganda. In fact, Malawi, Sudan, and Uganda, have specific petroleum law with provision on exploration, development, production, supply, and value additions. Sudan also has a petroleum law with specific provision in Petroleum Wealth. Libya is one of the Member States that have integrated laws on both electricity and petroleum law.

In order to strengthen the functioning of the energy sector, sector policies are equally important. As regards policies based on sub-sector, Somalia is one of the Member States that have an elaborate policy for petroleum separate from energy or electricity. For Comoros and Kenya, their respective policies are clearly titled or named to 'energy and petroleum policies' while for the rest of the COMESA states, the policies of the two subsectors petroleum and energy are combined and titled 'energy policies'.

More prioritized sector issue-based policy is the electricity policy mainly present in Eritrea and renewable energy policy found in Comoros, Egypt, Eritrea and the Kingdom of Eswatini. Further, biofuels industry policy is also available in Zambia. While the Efficiency and conservation policy is established in Eritrea, Kingdom of Eswatini, Mauritius, Tunisia, and Zambia.

Policies focusing on specific petroleum sub-sector development such as the oil and gas policy is common in Uganda and Zambia. There are also policies geared to enhancing private sector participation like for Burundi, Eritrea, Kingdom of Eswatini. Alternatively, the use of Feed in Tariffs has also been important in enhancing private sector participation and is currently applied in Egypt, Eritrea, Kenya, Rwanda, Zambia, Zimbabwe, and Ethiopia. Kenya is also considering adoption of Renewable Energy Auctions in place of feed in Tariffs. Some Member States have also deployed several interventions to enhance investments in the sector, this includes the use of Interconnection & isolated network rules in Eritrea, Investments code in Burundi and Rwanda Petroleum code in Comoros, electricity code in DRC, Zambia and Zimbabwe, and Grid code in Mauritius and Madagascar. Beside the grid code regulations, Zimbabwe has additional legislations on the electricity distribution code regulations.

5.3.2 Regulatory regimes in selected RECs

Most of the policies, laws and regulations that govern the energy sector in COMESA Member States are similar to those of the other selected RECs (see Appendix table 2). This sub-section points out to those policies, laws and regulations that have not yet been considered within COMESA Member States.

From South Africa, the use of the Integrated Resource Plan is similar to the Least Cost Power Development Plan that is in place for most COMESA Member States. However, South Africa has in place a Nuclear Energy Act and National Nuclear Regulatory Act while Nigeria has a Nuclear Safety and Radiation Protection Act which are key nuclear regulations that are not available within COMESA Member States. Some COMESA Member States are considering adoption of Nuclear Energy in their energy mix such as Uganda, Sudan, Zambia and Kenya, while such an intervention might lead to lower costs of power generation and have potential of reducing green gas emissions and meeting climate change goals including those spelt by each nation through the Nationally Determined Contributions (NDC). The use of Nuclear is still not widely and socially accepted among many countries in Africa.

Local content policies encourage local employment and the use of local goods and services in backward-linked supply chains of companies active in a given country (Ovadia, 2017). Tanzania has in place Local Content Act, this regulation is not common in many countries, even though most countries are in the path of creating one and have in place draft local content bills like Kenya. Such a regulation in place will help transfer skills and knowledge, enhance employment and incomes at the local level. Beyond funding, lack of skills and knowledge has limited local participation in the sector nationally and internationally.

On more deliberate efforts of accelerating renewable energy generation. Morocco has a special agency, the National Agency for the Promotion of Renewable Energy and Energy Conservation (ADEREE). As regards solar promotion and development, it has another agency, the Moroccan Agency for Solar Energy (MASEN). Similar to Morocco is Algeria which also has an agency, the National Energy Efficiency Fund of Algeria (FNME) that was established to oversee energy efficiency and implement the national energy efficiency program through funding from FNME. While creation of such agencies might be beneficial to COMESA Member States, this should be deployed on a case-to-case basis, where member countries will need to weigh this against the existing sector institutions to avoid duplication of roles, but most importantly taking consideration of the required funding for agency staffing and operations.

5.4 Structure of the Energy Sector

This section discusses the structure of the energy sector. It reviews whether COMESA Member States have an enabling institutional framework and energy regulatory body, this is discussed in sub-section 5.4.1. Discussions of regional energy infrastructure participation and the structure of power utilities are discussed in sub-sections 5.4.2 and 5.43 respectively while the discussion of structure of petroleum sub-sector is presented in sub- section 5.4.4.

5.4.1 Presence of an enabling institutional framework and energy regulatory body

COMESA Member States have an elaborate institutional framework, where each Member State has a Ministry that oversees sustainable energy development and services. The legal framework establishes key government bodies, private enterprises, and regulatory agencies that allows well-functioning of the energy sector. This sub-section highlights key institutional framework and the energy regulatory body for each of the 21 COMESA Member States (see Appendix table 3).

There are some Member States have a Ministry for Energy/Renewable Energy as separate Ministries from that of petroleum (like in Kenya, Somali, etc.). Some Member States have independent agencies/institutions that focus on pertinent sector issues such as on: (i) petroleum sub-sectors i.e., with oil & gas, coal, agencies etc. (like Egypt, Kenya, etc.) while others have agencies that focus on (ii) renewable energy such as hydro power and solar (i.e., in Libya and Egypt); (iii) other Member States have agencies that are focused on the sector value chain such as power generation, transmission, and distribution (like in Sudan, Zimbabwe); and (iv) others have agencies that seek to address pertinent sector issues such as rural electrification (Almost All members) while other agencies are centered on addressing energy conservation (i.e. for Tunisia). The discussion that follows examines the presence of an enabling institutional framework and energy regulatory body for each of the COMESA Member States.

In **Burundi,** the Ministry of Energy and Mines mission has several functions that includes to: design and implement the National EnergyPolicy; develop an energy supply program to ensure sustainable access of the population to modern energy sources; promote renewable energies through adequate research and dissemination actions; planning, construction, and management of energy infrastructures; and to develop and monitor the department's investment projects. The Water and Energy Regulatory Authority is a state corporation responsible for controlling, regulating, and monitoring electricity activities while promoting competition in the sector. As regard production of power, SINELAC which has a Democratic Republic of Congo (DRC), Burundi and Rwanda, are shareholders, operates the Community hydroelectric power station of Ruzizi II as well as to market the energy produced in the three Member States through their national electricity companies, i.e., National Electricity Company (NEC) for the Democratic Republic of Congo, REGIDESO for Burundi and ELECTROGAZ for Rwanda., REGIDESO is a public monopoly company in charge of the production, transmission and distribution of electricity in Burundi. Acceleration of rural electrification activities including development of micro-grid projects is done by Rural Electrification Agency (ABER), a state-owned body.

The Ministry of Production, Environment, Energy, Industry and Crafts in **Comoros**, is the lead government agency overseeing the energy sector. The ministry also oversees energy regulation in Comoros. National Comorian Electricity Company - Société Nationale d'Electricité des Comores (SONELEC) is responsible for generation, transmission, and distribution across all three islands Anjouan, Gande Comore, and Mohéli.

In **Democratic Republic of Congo,** the Ministry of Energy and Hydraulic Resources oversees the energy sector while the Electricity Regulation Authority (ARE) is responsible for energy

regulation. The Société National d'Electricité (SNEL) is the sole generator, transmitter, distributor, and marketer of electric energy. The Agency for the Electrification of Rural and Peri-Urban Areas (ANSER) is in charge of promotion of planning and financing of rural electrification projects. ARE and ANSWER are new agencies yet to be operationalized according to the 2014 Electricity Law.

The Ministry of Energy and Natural Resources is responsible for designing, defining, and developing government policy on energy and natural resources in **Djibouti**. The Ministry is also responsible for the rules, regulations, statutory instruments, and legislation for the energy sector including electricity, petroleum products and renewable energy. As regards electricity generation, transmission and distribution, Djibouti Electricity Company which is a monopoly utility owned and run by the state takes charge. Other government agencies include International Hydrocarbon which is responsible for hydrocarbon imports, processing, and operations. Djibouti Social Development Agency (Agence Djiboutienne de Développement Sociale) (ADDS) aimed at accelerating electricity access in non-grid/rural areas. The government body in charge of energy efficiency and renewable energy in all economic sectors is the Djiboutian Agency for Energy Management, Agence Djiboutienne de Maîtrise de l'Energie (ADME). The main role of the National Energy Commission is to assists the government plan, implement, and monitor the Djibouti National Energy Master Plan, and to update the energy map of the country.

Egypt has the Ministry of Electricity and Energy (MOEE) which manages and oversees the development of the energy sector while the Electric Utilities and Consumer Protection Regulatory Agency (EgyptERA) is responsible for energy sector regulation. Egyptian Electricity Holding Company (EEHC), established in 1976 as the Egyptian Electricity Authority, is a state-owned organization that is responsible for generation, transmission, and distribution of electricity in the country. The country's transmission network is currently under the Egyptian Electricity Transmission Company (EETC).

In **Eritrea**, the Ministry of Energy and Mines oversees the planning and development of the energy sector while Electricity Regulatory Committee (ERC) is the energy regulator. Eritrean Electric Corporation (EEC) is responsible for managing facilities for generating, transmitting, and distributing electric power. The renewable energy body in Eritrea is the Renewable Energy Centre mainly for promotion of renewable energy development.

In **Kingdom of Eswatini,** the Energy Department of the Ministry of Natural Resources & Energy is the custodian of policy and operational activities pertaining to the energy sector. The ministry aims to effectively manage the national energy resources and to work towards affordable and sustainable energy provision for all the people, at the same time ensuring the international competitiveness of the energy sector. The regulatory authority, the Energy Regulatory Authority, is further tasked with enforcing compliance standards, approving tariffs, adjudicating concerns from consumers, and promoting economic efficiency in the energy industry.

The Ministry in charge of the energy sector in **Ethiopia** is the Ministry of Water, Irrigation and Electricity. The Ministry is responsible for planning, development and management of resources,

preparation and implementation of guidelines, strategies, polices, programs, and sectoral laws and regulations. In addition, the Ministry also conducts studies and research activities and provides technical support to the government. Ethiopian Energy Authority (EEA) is the Regulatory body for electricity and energy efficiency while Ethiopian Electric power (EEP) is mandated to champion generation, transmission and substation construction and operation. Ethiopian Electric Utility (EEU)is responsible for sub transmission and substation operation, distribution network construction and operation, energy retail and implementation of the National Electrification Program.

In **Kenya** the Ministry of Energy and the Ministry of Petroleum and Mining are key for energy and petroleum sector development. The Energy and Petroleum Regulatory Authority (EPRA) is the government body in charge of both energy and petroleum sector regulation. Kenya Electricity Generating Company (KENGEN) a government body oversees electricity generation. Transmission activities are undertaken by Kenya Electricity Transmission Company (KETRACO) while Distribution is done by Kenya Power. Promotion of renewable energy development and electricity acceleration is a responsibility of the Rural Electrification and Renewable Energy Corporation (REREC) which is state owned.

The Ministry of Electricity and Renewable Energy in **Libya** is responsible for the energy sector development, management, and regulation. The state-owned electricity company, General Electricity Company of Libya (GECOL) is responsible for power generation, transmission, and distribution. The Renewable Energy Authority of Libya (REAOL) is mandated to oversee development and use of renewable energies in the production of electrical energy from available sources of solar energy and wind energy.

In **Madagascar,** the Ministry of Energy is in charge of increasing access and affordability of electricity and developing the renewable energy sector. The Board of Electricity Regulation (ORE) was established to regulate the sector and facilitate the participation of independent power producers. Agency for the Development of Rural Electrification (ADER) uses funds from National Electricity Fund, to accelerate the electrification of the country, promote access to basic electricity services for the rural population, and develop renewable energy sources including the scaling up of renewable energy powered mini grids in the country. Jiro Sy Rano Malagasy, also known as Jirama, produces, transports, and distributes a large part of the electricity in Madagascar.

The Ministry of Natural Resources, Energy and Mining oversees energy policy formulation and development in **Malawi.** Malawi Energy Regulatory Authority is responsible for putting place policies, regulations and framework that enhance development of the sector. The state-owned Electricity Supply Corporation of Malawi Limited (ESCOM is responsible for transmission and distribution of power while the Electricity Generation Company Limited (EGENCO) is a company that generates electricity in Malawi.

In **Mauritius,** the responsible ministry in charge of energy sector development is the Ministry of Energy and Public Utilities while the Utility Regulatory Authority (URA) set up in 2016 regulates

utility services, namely electricity, water and wastewater. The Central Electricity Board (CEB) is a parastatal body wholly owned by the Government for transmission, distribution, and sale of electricity in Mauritius.

The Ministry of Infrastructure, directorate of energy in **Rwanda** is responsible for the energy sector development. It accomplishes its function through the State-owned Rwanda Energy Group (REG) which was incorporated in 2014 to expand, maintain and operate the energy infrastructure in Rwanda through its two subsidiaries – the Energy Utility Corporation (EUCL) and the Energy Development Corporation (EDCL). The Energy Utility Corporation Limited (EUCL) undertakes operations and maintenance of existing generation plants, transmission and distribution network and retail of electricity to end-users. The Energy Development Corporation Limited (EDCL) is mandated to Increase investment in development of new energy generation projects, develop appropriate transmission infrastructure and plan and execute energy access projects. The Rwanda Utilities Regulatory Authority (RURA) is mandated to regulate the sector.

In **Seychelles,** the Ministry of Environment & Energy (MEECC) is in charge of planning and development of the energy sector. The Energy Commission (SEC), a state-owned body, is the regulator and regulates the generation, transmission, distribution, supply, and use of electricity. SEC is also mandated to promote the use of energy efficient technologies and renewable resources. The Public Utilities Company (PUC) is state owned and a sole generator, transmitter, and distributor of electric energy.

The energy department under the ministry of energy and water resources is responsible for regulating and managing the supply of electricity, transmission, energy conservation, and alternative energy in **Somalia**. At the same time, regulation, management of development and utilization of energy resources in Somaliland is done by the Somaliland Energy Regulatory Commission. The main electricity supplier, Nugal Electrical Company (NEC) is a public/private company based in Garowe, the capital city of Puntland State in Somalia. NEC generates, transmits, and distributes electricity to the immediate area and was formerly known as Nugal Electrical power Agency (NEPA) established in 1971.

In **Sudan** the Ministry of Water Resources, Irrigation, and Electricity (MoWRIE) is the Ministry in charge of the energy sector while the sector regulator is the Electricity Regulatory Authority (ERA). Power generation is undertaken by two state-owned bodies, Sudan Hydro and Renewable Energy Company (SHREC) and Sudanese Thermal Power Generation Company (STPG). Sudanese Electricity Distribution Company (SEDC) is the Sudanese Electricity Holding Company (SEHC) subsidiary in charge of power distribution, managing the national distribution grid and some isolated grid systems. Sudanese Electricity Transmission Company (SETCO) is responsible for the management, maintenance, and operation of the power transmission system and for supervising the construction of transmission infrastructure.

Tunisian energy sector is managed by the Ministry of Industry, Energy and Mines and is responsible for electricity infrastructure, planning and the implementation of national policy in

the field of electricity, energy efficiency and renewable energy, with regulatory oversight also carried out by the ministry. The energy regulator is the National Agency for Energy Management (NAEM). Société Tunisienne de l'Electricité et du Gaz (STEG) is a state-owned company responsible for managing the production, transmission and distribution of electricity and gas in Tunisia in high-medium and low-voltage lines and pipelines, including the implementation and operation of renewable energy projects.

In **Uganda**, the mandate of the Ministry of Energy and Mineral Development (MEMD) is to establish, promote the development, strategically manage, and safeguard the rational and sustainable exploitation and utilization of energy and mineral resources for social and economic development. Uganda Electricity Generation Company Limited (UEGCL) is a parastatal company whose primary purpose is to generate electric power for use in Uganda and for sale to neighboring countries. The Uganda Electricity Transmission Company Ltd (UETCL) is a single operator in charge of the transmission system while the Uganda Electricity Distribution Company Limited (UEDCL) is a parastatal company whose primary purpose is to distribute electric power to domestic and commercial end-users in Uganda.

Zambia ministry of energy has the mandate to develop and implement policies, programmes and projects on renewable energy, energy efficiency, electricity, and power development in order to facilitate socio-economic development. There are five main electricity generation companies in Zambia: the state-owned Zambia Electricity Supply Corporation (ZESCO) Limited. Other IPP include Copperbelt Energy Corporation (CEC); North-Western Energy Corporation (NWEC); Lunsemfwa Hydro Power Company (LHPC); and Maamba Collieries Limited. ZESCO, as a vertically integrated parastatal and the country's largest electricity company, runs and operates power stations, transmission lines, and distribution networks, and is the only utility-scale off taker of independent power producers (IPPs).

The Ministry of Energy and Power Development in **Zimbabwe** has responsibilities to ensure the provision of adequate and sustainable energy through formulating and implementing effective Policies and Regulatory Frameworks. Zimbabwe Electricity Supply Authority (ZESA) whose official name is ZESA Holdings (Private) Limited, is a state-owned company whose task is to generate, transmit, and distribute electricity in Zimbabwe. It has organized this task by delegation to its subsidiaries, the energy generating company Zimbabwe Power Company (ZPC) and the Zimbabwe Electricity Transmission and Distribution Company (ZETDC). Zimbabwe Power Company (ZPC) operates and manages five power stations while Zimbabwe Electricity Transmission and Distribution Company (ZETDC) carries out the system/network operator function, operates the transmission and distribution networks and conducts trade regionally through the Southern African Power Pool (SAPP).

5.4.2 Regional Energy Infrastructure Participation and Structure of power utilities

Energy infrastructure consists of: (i) generation, transmission, and distribution of electricity; and (ii) physical networks of oil and natural gas pipelines, oil refineries, including transportation elements such as marine and rail transportation as well petroleum products storage facility. In this sub-section, the discussion is centered on (a) regional power pools and COMESA

participation and (b) the structure of power pools. More importantly, in this sub-section we consider services and operations mainly on energy infrastructure in relation to generation, transmission, and distribution of electricity. Sub-section 5.4.4 discusses services and operations mainly on energy infrastructure with close focus on physical networks of oil and natural gas pipelines, oil refineries, including transportation elements such as marine and rail transportation.

a) Regional Power Pools and COMESA Participation

Regional power pools are important to energy producers and utilities of Member States, they allow energy generators obtain access to larger markets, helps reduce excessive grid losses by selling to customers close to where energy is produced, and it enhances access to reliable power beyond national borders and especially to areas that are faced with energy deficits and limited energy generation (Medinilla, et al. 2019). There are however other objectives of regional power pools which include: to; optimize the usage of energy resources available within a region, increase power supply within regions, reduce electricity cost, facilitate financing of integration projects and facilitate the development of the electricity market in the Region (PIDA, 2019).

Thus, based on the benefits of regional power pools, COMESA Member States are observed to participate in at least one of the five regional power pools, namely, Eastern Africa Power Pool (EAPP), Central Africa Power Pool (CAPP or COMELEC (Maghreb Electricity Committee), North Africa Power Pool (NAPP), and Southern Africa Power Pool (SAPP) (see Appendix table 4). It is only the Democratic Republic of Congo that has membership in three of the five regional power pools. The three power pools are the SAPP, CAPP, and EAPP. Member States that belong to two power pools are Burundi (EAP & CAPP) and Libya (EAPP &NAPP).

Burundi, Democratic Republic of Congo, Djibouti, Egypt, Eritrea, Ethiopia, Kenya, Libya, Rwanda, Sudan and Uganda are members of the EAPP. In addition, Somalia has shown interest in joining the EAPP. The membership of CAPP from COMESA Member States includes Burundi and Democratic Republic of Congo while Libya and Tunisia are members of NAPP. SAPP members are Democratic Republic of Congo, Madagascar, Malawi, Mauritius, Seychelles, Kingdom of Eswatini, Zambia, and Zimbabwe.

b) 5.4.3 Structure of power utilities

In the electricity sector, unbundling refers to the functional, structural and/or legal separation of different components of electricity production and supply. In particular to generation, transmission, distribution and retail supply or sale of electricity (Chawla & Pollitt, 2013; Sen et al., 2016). When there is absence of unbundling, we consider this state or situation as 'vertically integrated'.

In reference to COMESA Member States, the electricity sector in Comoros, DRC, Djibouti, Eritrea, Ethiopia, Libya, Madagascar, Mauritius, Seychelles, Somalia, Tunisia, Kingdom of Eswatini, Zambia, and Zimbabwe are vertically integrated (see Appendix table 4). In such a case, mainly the government through the ministry/department and in some cases the state-owned bodies take authority as regards the overall function of the electricity sector. Member States with an electricity sector that is unbundled include Burundi, Egypt, Kenya, Malawi, Rwanda, Sudan, and

Uganda. Such Member States have separate institutions that are responsible for generation, transmission, and distribution of electricity like Kenya. There are some Member States that have partially unbundled where either only transmission or distribution is separate from generation (like Egypt, Malawi, and Burundi). Sudan's electricity sector is unique, beyond having a purely unbundled structure, the generation function and structure is legally separated and disintegrated based on energy sources like hydro, petroleum, and thermal generations companies. The Rwanda electricity sector though is unbundled, its structure is very different and segregated into two functions: one focusing on development and another on operations and maintenance.

5.4.3 Structure of petroleum sub-sector

In this sub-section, the focus is to discuss whether upstream, mid-stream or down-stream services and operations are privatized or state-owned, or a mixture of both private and government in respect to the oil and gas (petroleum) sector (see Appendix table 5). Besides analyzing the sector players, this sector briefly highlights the existing energy infrastructure including storage facilities, refineries, pipelines, and other major transportations among COMESA Member States.

The value chain for oil and gas including associated petroleum products has developed from the traditional concept where upstream, mid-stream and down-stream activities are separated, managed, and operated by different actors to a conventional concept where all or partial upstream, mid-stream and down-stream activities are combined, managed, and operated by a single actor such as the integrated oil companies. The upstream activities involve the process of exploration, development and production of crude oil and natural gas. The mid-stream activities consider storage, and transportation of crude oil into consumable petroleum products whereas in the downstream activities, covers refinery and also refined products are made available to the consumers through supply and distribution and well-structured markets/commercialization.

Though Most of the COMESA Member States are actively undertaking exploration, development and production, these activities are performed through both private and government sector participation. Some of the Member States that have such an arrangement are DRC, Egypt, Kingdom of Eswatini, Kenya, Libya, Madagascar, Seychelles, Somalia, Sudan, Tunisia, Uganda, Zambia, and Zimbabwe. In Rwanda, such upstream activities still lie under the close operations and management of the government solely. For Comoros, Eritrea, Ethiopia, Malawi, Mauritius upstream activities are dominated purely by the private sector.

Mid-stream activities also display varying participation of the players from both private and government sectors among COMESA Member States. For importation, this is purely a government function, thus any private sector participation is done fully under the watch and guidance of the government. However, some Member States such as Mauritius show dominance of private sector engagement for importation. Pipeline services require heavy government investment and are absent among most COMESA Member States. Thus, it is also a major function of the government, for most Member States such as Egypt, Zambia, Zimbabwe, Kenya, and Libya. The large capital outlay for establishing a refinery may explain the reasons why most

Member States lack this critical infrastructure, especially among non-oil producing countries. Some Member States such as Libya, Djibouti, Egypt, Eritrea, Madagascar, and Kenya have a refinery in place and mainly operated by the government. However, for the inactive refinery, poor management and funding mainly explains why they are not operational at least for the Kenya Petroleum Refinery limited. The remaining discussion of this sub-section outlines key structure of the petroleum sub-sector in each of the COMESA Member States.

Burundi has not yet discovered oil and gas. The Ministry of Commerce, Industry and Tourism is in charge of the petroleum sector and supervises oil imports via its company Interpetrol. Delta Burundi is a private company that takes charge of storage and delivery of petroleum products in Burundi under a storage agreement with the Societe d Entreposage des Produits Petroliers (SEP). Maestro Oil and Gas Solutions (MOGAS) is a multinational integrated downstream oil marketing company.

Comoros is undertaking oil and gas exploration, a service that is privatized and undertaken by foreign multinationals companies. Société Comorienne des Hydrocarbures (SCH) is a state-owned company established by Law No. 80-27 of January 1980. The SCH is under the supervision of the Ministry of Finance and is responsible for importation, storage, commercialization, and distribution of petroleum products in Comoros.

Democratic Republic of Congo began oil exploration in the 1960s and offshore production kicked off in 1975. Exploration, development, and production are activities jointly partaken by both the government and the private sector. Cohydro is a state-owned company and is involved in exploration, exports, imports, and distribution of hydrocarbons in DRC. Several foreign companies participate in the oil industry in DRC for instance, SEP Congo supports importation, storage and distribution of petroleum products. Some of the actors participating in refinery activities are the state-owned company Société Congo-Italienne de Raffinage (SOCIR) which is yet to resume refining and Puma Energy Holdings Ltd of Singapore.

In **Djibouti** oil and gas finds are yet to be discovered and the country relies on imports. The state-owned company, Djibouti International Hydrocarbons Company (SIHD) and two other companies (Shell and Total) share the import market and, where applicable, the export, exploitation, processing, storage and marketing of hydrocarbons and their by-products. The Djibouti Oil Refinery is the only refining facility in the country and is currently 75% owned by the Al Brooge Security Company of the United Arab Emirates.

In **Egypt** oil exploration began in the 18th century. The petroleum industry in Egypt is managed by the Ministry of Petroleum and Mineral Resources, under which five state owned companies operate. The Egyptian General Petroleum Corporation (EGPC) is responsible for crude oil exploration, refining, and storage. The Egyptian Natural Gas Holding Company (EGAS) which owns and manages state stakes in different gas projects including issuing of natural gas exploration licenses in Egypt. The Egyptian Petrochemicals Holding Company (ECHEM was established in January 2002 to manage and develop the Petrochemicals industry in Egypt through new promising areas of investment. The Ganoub El-Wadi Holding Company (GANOPE)

is mainly responsible for all oil exploration and exploitation activities carried out by contractors in the southern region of Egypt. The Egyptian General Mining Resources Authority formerly the Egyptian Geological Survey and Mining Authority (EMRA) is tasked similarly to provide geological surveys including mapping, grass-roots mineral exploration, geohazard and geoenvironmental studies and hydro geological studies. Storage and pipeline services are mainly undertaken by Arab Petroleum Pipelines company which is 50% state owned by Egyptian General Petroleum Corporation (EGPC), while Mubadala, Saudi Aramco, and Kuwait Investment Authority all hold a 15% stake each. The remaining 5% is owned by Qatar Petroleum]. The responsibilities of commercialization and distribution is mainly state owned through Egyptian Natural Gas Holding Company (EGAS), Arab Petroleum Pipelines. Refining is also state-owned with several national companies involved: Middle East Oil Refinery (MIDOR), Cairo Oil Refining Company (CORC), Egyptian Refining Company (ERC), Alexandria Petroleum Company (APC). Alexandria Minerals and Oils Company (AMOC), Alexandria National Refining and Petrochemicals Company (ANRPC), Nasr Petroleum Company (NPC), Amreya Petroleum Refining Company (ARPC), Suez Oil Processing Company (SOPC), Assuit Oil Refining Company (AORC).

Kingdom of Eswatini has The Kingdom of Eswatini National Petroleum Company (ENPC) completements foreign companies functions and participates in exploration, importation, storage, commercialization and distribution of oil and gas.

Eritrea exploration, development and production activities are mainly privatized, while that of importation and storage involves government arrangements with the Ethiopian Petroleum Supply Enterprise (EPSE) of Ethiopia and Erigas Company of Eritrea.

In **Ethiopia** Exploration and production activities are privatised actors are mainly foreign based companies. Ethiopian Petroleum Supply Enterprise (EPSE), is a public Enterprise responsible for securing a strategic national oil reserve as well as importing and supplying refined petroleum products to the country. National Oil Ethiopia is planned to be engaged in the importation, distribution and retailing of petroleum products including Jet Fuels, Gasoline, Gas oil, Kerosene, Fuel Oils, Lubricants, Bitumen, LPG, Petroleum Coke, Chemicals, and products of petroleum.

Kenya exploration, development and production is an activity heavily dependent on services of foreign based companies. Since the discovery of oil in 2011, commercial production has not taken place, thus refined petroleum products are imported. The Ministry coordinates this activity with oil marketing companies through a process known as an Open Tender System. The Kenya Pipeline Company provides product movement infrastructure including storage and oil pipeline services. Distribution and Marketing of petroleum products is done by oil marketing companies. The National Oil Corporation of Kenya (NOCK) is the state body that is engaged in this area. It is also involved in upstream activities. The only refinery currently not operational was owned by Kenya Petroleum Refinery Limited (KPRL) but now under the management of the Kenya Pipeline Company (KPC) which is involved in ensuring sufficient and reliable supply of petroleum products.

Libya's exploration and production industry has both government and private sector involvement. For instance, Libya has the state-owned Arabian Gulf Oil Company (Agoco) in addition to Sirte Oil Company, Waha Oil Company, Zueltina Oil Comay Mellitah Oil & Gas B.V all of Libya as players. Storage and refining activities involve a mixture of private and state-owned assets such as Libya's National Oil Corporation (NOC). Commercialization and distribution activities though it has a mixture of private and government participation, it is heavily dominated by national companies. Generally, many foreign International Oil Marketing (IOC) companies are present in the market through joint ventures, EPSA agreements, concessions, and fully owned subsidiaries of NOC.

Madagascar, despite presence of privatized companies undertaking exploration and production, has government bodies participating in exploration such as the Office Malgache des Hydrocarbures (OMH), Malagasy Hydrocarbons Board (Madagascar). Storage activities are partaken also by state owned company the Madagascar Oil Company while refining activities is by state owned by Solitany Malagasy (SOLIMA). Jovena is the leading Malagasy firm in the petroleum products distribution in Libya.

Malawi is active in exploration and production activities, mainly undertaken by private foreign based organizations. Yazam Energy Company Ltd (YECL) is a Malawi based company which specializes in the importation and distribution of petroleum products and thermal energy products. The National Oil Company of Malawi (NOCMA) was established in 2010 under the Companies Act of 1984 and its Mandate is to manage a strategic fuel reserve facility, providing avenues for promoting competition of upstream oil and gas exploration.

Mauritius exploration, development, extraction including commercialization and distribution activities is mostly privatized. However, provision of storage services is by Mauritius State Trading Corporation (STC).

Rwanda has no oil finds yet, the state owned Ngali Holding Ltd is involved with exploration and production activities. Though importation, commercialization and distribution is heavily practiced by the private sector, the state owned Societe Petroliere Ltd (Rwanda) also is supporting the government in this role.

Seychelles has both government and private sector involvement in exploration and production of oil and gas. For instance, the PetroSeychelles - which is an arm of government - oversees the upstream petroleum sector, promoting and supervising oil exploration programs in the Seychelles Exclusive Economic Zone. A government-owned company, Seychelles Petroleum Company (SEYPEC), operates in the downstream sector. SEYPEC has Seychelles Petroleum Company Ltd. (SEYPEC) has sole responsibility for the importation, distribution, and storage of petroleum products.

Somali exploration and production activities are undertaken by government and private sector players. The Somalia Petroleum Corporation (SPC), also known as the Somalia Petroleum Company, is a hydrocarbon exploration and production firm based in Mogadishu, Somalia. It

was established in 2007, following the passing of the Somalia Petroleum Law by the Transitional Federal Government. Importation, storage, commercialization, and distribution relies on both private and local companies' involvement. Though storage facilities are privatized, activities on refining, commercialization and distribution are undertaken by both government and private sector. Key state actors involved in this area are the Khartoum refinery company (KRC) and Matthew Petroleum.

Tunisia, beside private foreign companies participating in exploration and production of oil and gas, Tunisia Local companies such as Entreprise Tunisienne d'Activités Pétrolières (ETAP) are also involved. In addition, for transportation services of the oil and gas industry, Eni of Rome is one of the companies involved. Commercialization and distribution services are handled locally by the National Oil Distribution Company AGIL SA (Tunisia), and Tunisia Electricity and Gas (STEG).

Uganda exploration and production has been an activity undertaken by the government and mostly the private sector. Importation services are also supported by the state-owned company the Uganda National Oil Company. Storage Commercialization and distribution services are dominated by foreign oil companies.

Zambia exploration and production is also a blend of both public companies and private sector companies' participation. Government participation is feasible under provision of pipeline and storage services through the Tazama Pipeline Limited (jointly owned by Tanzania and Zambia). Indeni Petroleum Refinery is a company with mandates for importing and refining of oil and gas products. Commercialization and distribution services are also provided by foreign and national companies Energy Petroleum (Z) Limited of Zambia.

In Zimbabwe, exploration, production, importation, commerciality, and distribution is heavily from the private sector. The The National Oil Infrastructure Company of Zimbabwe (NOIC, a Private Limited company) was formed at the beginning of 2011 as a private entity wholly owned by the Government. Its main responsibility is to transport petroleum products into the country using the pipeline from Beira in Mozambique to Msasa Depot in Harare.

5.5 Level of Liberalization and Competition

This section examines the level of liberalization and competition among COMESA Member States and Other selected RECs on energy and energy related services. The discussion in this section builds up from section 4.0 that discusses commitment of COMESA Member States and other RECs in the Sector at WTO and under GATS.

National schedules are fundamental elements of the GATS, they specify the level of liberalization a member guarantees in the listed sector and are based on a positive listing approach with focus on market access, national treatment, and any other additional commitments. The market access commitment is one that allows each other's services suppliers or investors to have access

to the domestic services market and the national treatment is a commitment to treat foreign services suppliers or investors no less favorably than one's own service suppliers or investor

The level of liberalization and competition among COMESA Member States and other RECs is discussed based on:

i) Three sectors, namely, Construction and Related Engineering Services, Distribution Services, and Business Services which have recorded commitments on energy and energy related services.
ii) Both horizontal commitments and sector specific commitments in the three sectors identified in (i)
iii) Further discussion on the level of liberalization and competition is discussed in relation to the levels of commitments in the identified sectors in (i)

A horizontal commitment[11] applies to trade in services in all scheduled services sectors unless otherwise specified. Though some horizontal measures may be specific to only one mode of supply, it is in effect a binding, either of a measure which constitutes a limitation on market access or national treatment or of a situation in which there are no such limitations. Where measures constituting limitations are referred to, the commitment should describe the measure concisely, indicating the elements which make it inconsistent with Articles XVI or XVII.

The levels of commitments may limit market access and/or national treatment with respect to each of the modes of supply. Thus, there are various levels of commitment, namely:

i) **Full commitment**: recorded as '**NONE**', In this case the Member does not seek in any way to limit market access or national treatment in a given sector and mode of supply through measures inconsistent with Articles XVI and XVII.
ii) **Commitment with limitations** recorded as '**Unbound except as indicated in the horizontal section**' considers two bindings, The first is the binding of an existing situation ("standstill") and the second is the binding of a more liberal situation where some, but not all, of the measures inconsistent with Articles XVI or XVII will be removed ("rollback").
iii) **No commitment**: recorded as '**UNBOUND**', in this case, the Member remains free in a given sector and mode of supply to introduce or maintain measures inconsistent with market access or national treatment.
iv) **No commitment technically feasible**: recorded as UNBOUND*, it implies in some situations, a particular mode of supply may not be technically feasible.
v) **Special case as follows**: considers the cases where instead of the usage of the term 'unbound', a member state can state the specific limitations under cross border trade that amounts to an 'unbound' for instance reservation for a residence requirement, a nationality condition or a commercial presence requirement.

[11] See: WTO Guidelines for the scheduling of specific commitments under the general agreement on trade in services (GATS), S/L/92 28 March 2001, (01-1542).

The following sub-section discusses the level of liberalization and competition among COMESA Member States (sub-section 5.5.1) and other RECs (sub-section 5.5.2) on energy and energy related services. In particular horizontal commitments within COMESA Member States (sub-section 5.51.1) and other RECs Member States (sub-section 5.5.2.1) by mode of supply market access and national treatment are discussed. Further specific sector commitment COMESA Member States (sub-section 5.51.2-5.51.4) and other RECs Member States (sub-section 5.5.2.2 - 5.5.2.4) by mode of supply as well as under market access and national treatment are also discussed.

5.5.1 Level of liberalization and competition in COMESA Member States

5.5.1.1 Horizontal Commitments made within COMESA

Mode 1(Cross Border) and Mode 2 (Consumption Abroad)

- In **Seychelles** subsidies are unbound on national treatment limitations.

Modes 3 (Commercial Presence)

a) **Market access**

- In **Democratic Republic of Congo,** Real estate by foreigners is subject to authorization.

b) National treatment

- In **Democratic Republic of Congo** acquisition of real estate by foreigners is subject to authorization while for **Egypt**, both acquisition of land and real estate requires authorization.
- **Zambia and Malawi** allow a foreign-controlled company to obtain some limited amounts of loans or overdrafts where approval is done by the national local bank regulator).
- **Seychelles** provides varying periods upon which foreign persons can lease/rent (non) movable property including land.
- In **Seychelles** subsidies are unbound on national treatment limitations.

Mode 4 (Presence of natural persons)

a) Market access

- In relation to entry and temporary stay of foreign personnel:
  - In **Democratic Republic of Congo**, it is limited for a year but may be extended for senior executives and specialists.
  - **Egypt** allows a limited number for foreign personnel necessary to the supply of services in any entity.
  - In **Malawi and Zambia** entry and temporary stay of foreign persons is limited to management and expert jobs for the implementation of foreign investment.
  - **Seychelles** allows entry and temporary stay for business visitors & profession i.e., Managers, executives, specialists, contractual services suppliers, independent professionals, installers, and maintenance (Seychelles).

- **In Zambia,** enterprises must also provide for training in higher skills for locals to enable them to assume specialized roles.

b) National treatment

- In relation to entry and temporary stay of foreign personnel:
  - In **Democratic Republic of Congo**, the entry and temporary stay is for a period of one year, which may be extended for senior executives and specialists.
  - In **Malawi and Zambia** allows the entry and temporary stay of management and expert jobs for the implementation of foreign investment.

- In **Egypt** the acquisition of land and/or real estate property in free zone areas is unbound (Egypt), though for **Seychelles** it is possible in private lands upon approval.
- Similar to market access, **Seychelles** allows entry and temporary stay for business visitors and professionals i.e., Managers, executives, specialists, contractual services suppliers, independent professionals, installers, and maintenance (Seychelles).
- In **Seychelles** subsidies are unbound on national treatment limitations.

5.5.1.2 Construction and Related Engineering Services - Sector Specific Commitments -

COMESA Member States that have made commitments under Construction and Related Engineering Services include Democratic Republic of Congo, Egypt, Kingdom of Eswatini, Malawi, Seychelles, and Zambia. Appendix 2 tables 1 and 2 presents the level of liberalization and competition in these countries for Construction and related engineering service sector.

Recordings of level of liberalization and competition among COMESA Member States on energy and energy related services under Construction and Related Engineering Services sector have been undertaken in the following sub-sectors but the discussion focuses more on those 'commitment with limitations' and 'no commitment':

1. **General Construction Work for Building including pipelines and mining.**
   Market Access and National Treatment:
   - **In DRC and Seychelles**, the mode of supply 4 (presence of natural persons) is Unbound, except as indicated in the horizontal section (refer to sub-section 5.5.1.1). This implies that they have made commitment with limitations, thus they are considered not fully liberalized as some practices remain restricted in mode 4.

2. **General Construction Work for Civil Engineering. Covers long distance pipelines, communication and power lines cables - Construction for mining and manufacturing.**
   Market Access:
   - **In DRC and Seychelles,** the mode of supply 4 (presence of natural persons) is Unbound, except as indicated in the horizontal section (refer to sub-section 5.5.1.1. This means that they have made commitment with limitations, thus they are considered not fully liberalized as some practices remain restricted in mode 4.
   - **In Egypt,** the mode of supply 1(Cross border) & 2 (Consumption Abroad) are Unbound, except as indicated in the horizontal section (refer to section sub-5.5.1.1). In addition, mode of supply 3 (Commercial Presence) is Unbound, commercial presence is only

allowed for joint-venture companies and foreign capital equity shall not exceed 49 per cent of the total capital required for the project. This implies that Egypt has made commitment with limitations, thus it is considered not fully liberalized as some practices remain restricted in mode 4. not fully liberalized as some practices remain restricted in mode 4.

National Treatment:

- **In DRC and Seychelles,** the mode of supply 4 (presence of natural persons) is Unbound, except as indicated in the horizontal section (refer to sub-section 5.5.1.1). This means DRC and Seychelles have made commitment with limitations; thus, they are considered not fully liberalized as some practices remain restricted in mode 4.

3. **Installation work: - Gas fitting construction work.**
   Market Access:
   - **In Egypt,** the mode of supply 1(Cross border) & 2 (Consumption Abroad) are Unbound, except as indicated in the horizontal section (refer to sub-section 5.5.1.1). In addition, mode of supply 3 (Commercial Presence) is Unbound, in particular, commercial presence is only allowed for joint-venture companies and foreign capital equity shall not exceed 49 per cent of the total capital required for the project. This implies Egypt has made commitment with limitations; thus, it is considered not fully liberalized as some practices remain restricted in mode 3.

4. **Services incidental to mining & exploration**
   Market Access:
   - **In Malawi, Seychelles, and Zambia,** the mode of supply 4 (presence of natural persons) is Unbound, except as indicated in the horizontal section (refer to sub-section 5.5.1.1). This implies that these Member States have made commitment with limitations, thus they are considered not fully liberalized as some practices remain restricted in mode 4.

   National Treatment:
   - **In Malawi, Seychelles, and Zambia,** the mode of supply 4 (presence of natural persons) is Unbound, except as indicated in the horizontal section (refer to sub-section 5.5.1.1). This means that these Member States have made commitment with limitations, thus they are considered not fully liberalized as some practices remain restricted in mode 4.

5. **Integrated engineering services**
   Market Access:
   - **In Kingdom of Eswatini** the mode of supply 1(Cross border) and mode of supply 4 (presence of natural persons) are Unbound. This implies Kingdom of Eswatini has not made commitment in these modes, thus they are considered non-committal.
   - Presence of natural persons is unbound except for professional personnel with a higher university degree or professional training and who are not available in Swaziland.
   - In Seychelles, the mode of supply 4 (presence of natural persons) is Unbound, except as indicated in the horizontal section (refer to sub-section 5.5.1.1). This means that

Seychelles has made commitment with limitations, thus it is considered not fully liberalized as some practices remain restricted in mode 4.

National Treatment:

- In Seychelles, the mode of supply 4 (presence of natural persons) is Unbound, except as indicated in the horizontal section (refer to sub-section 5.5.1.1). This implies that Seychelles has made commitment with limitations, thus it is considered partly but not fully liberalized.

6. Site preparation work for mining and energy services.

Market Access:

- In Seychelles, the mode of supply 4 (presence of natural persons) is Unbound, except as indicated in the horizontal section (refer to sub-section 5.5.1.1). This means that Seychelles has made commitment with limitations, thus it is considered not fully liberalized as some practices remain restricted in mode 4.

National Treatment:

- In Seychelles, the mode of supply 4 (presence of natural persons) is Unbound, except as indicated in the horizontal section (refer to sub-section 5.5.1.1). This implies that Seychelles has made commitment with limitations, thus it is considered not fully liberalized as some practices remain restricted in mode 4.

5.5.1.3 Distribution Services - Sector Specific Commitments

COMESA Member States that have made commitments under Distribution Services sector is Seychelles. Appendix 2 table 3 presents the level of liberalization and competition in Seychelles for Distribution service sector.

Listings of level of liberalization and competition in Seychelles on energy and energy related services under Distribution Services sector have been done in the following sub-sectors but the discussion focuses more on those 'commitment with limitations' and 'no commitment':

1. **Distribution services including commission agents**
   Market Access and National Treatment:
   - **In Seychelles,** the mode of supply 4 (presence of natural persons) is Unbound, except as indicated in the horizontal section (refer to sub-section 5.5.1.1). In addition, licensed commission agents must be citizens of Seychelles. This means that Seychelles has made commitment with limitations, thus it is considered not fully liberalized as some practices remain restricted in mode 4.

2. **Wholesale services and Retail Services**
   Market Access and National Treatment:
   - **In Seychelles,** the mode of supply 4 (presence of natural persons) is Unbound, except as indicated in the horizontal commitments (refer to sub-section 5.5.1.1). This implies that Seychelles has made commitment with limitations, thus it is considered not fully liberalized as some practices remain restricted in mode 4.

5.5.1.4 Business Services - Sector Specific Commitments

COMESA Member States that have made commitments under Business Service Sector include Kingdom of Eswatini, Madagascar, Malawi, Seychelles, and Zambia. Appendix 2 tables 4 and 5 presents the level of liberalization and competition in these countries for Construction and related engineering service sector.

Recordings of level of liberalization and competition in Seychelles on energy and energy related services under Distribution Services sector have been done in the following sub-sectors but the discussion focuses more on those 'commitment with limitations' and 'no commitment':

1. **Other Business also covers professional Services and Engineering services**
   Market Access:
- **In Kingdom of Eswatini,** the mode of supply 4 (presence of natural persons) is Unbound, except as indicated in the horizontal section (refer to sub-section 5.5.1.1). This means that Kingdom of Eswatini has made commitment with limitations, thus it is considered not fully liberalized as some practices remain restricted in mode 4.

2. **Management consulting services related to energy and mining sector**
   Market Access:
- **In Kingdom of Eswatini,** the mode of supply 1(Cross border) & the mode of supply 4 (presence of natural persons) is Unbound, except for personnel with a senior university degree or professional training who are not available in Swaziland. This means that Kingdom of Eswatini has made commitment with limitations, thus it is considered not fully liberalized as some practices remain restricted in mode 4.

- **In Seychelles,** the mode of supply 4 (presence of natural persons) is Unbound, except as indicated in the horizontal section (refer to sub-section 5.5.1.1). This means that Seychelles has made commitment with limitations, thus it is considered not fully liberalized as some practices remain restricted in mode 4.

National Treatment:

- **In Seychelles,** the mode of supply 4 (presence of natural persons) is Unbound, except as indicated in the horizontal section (refer to sub-section 5.5.1.1). This implies that Seychelles has made commitment with limitations, thus it is considered not fully liberalized as some practices remain restricted in mode 4.

3. **Services related to management consulting related to energy sector.**
   Market Access and National Treatment:

- **In Seychelles,** the mode of supply 4 (presence of natural persons) is Unbound, except as indicated in the horizontal section (refer to sub-section 5.5.1.1). This means that Seychelles has made commitment with limitations, thus it is considered not fully liberalized as some practices remain restricted in mode 4.

4. **Technical testing and analysis services only for gas, mining and oil industry**
   Market Access:

- **In Kingdom of Eswatini and Madagascar** the mode of supply 1(Cross border) is Unbound. This means that Kingdom of Eswatini and Madagascar are considered non-committal.
- **In Madagascar** the mode of supply 3 (Commercial Presence) is Unbound, Enterprises must obtain approval from the authorities concerned and comply with the performance requirements set forth in the approval document in accordance with the stipulated criteria, including the number of local jobs created and the national value-added criterion. This means that Madagascar has made commitment with limitations, thus it is considered not fully liberalized as some practices remain restricted in mode 3.
- **In Malawi, Seychelles and Zambia,** the mode of supply 4 (presence of natural persons) is Unbound, except as indicated in the horizontal section. This means that these Member States have made commitment with limitations, thus they are considered not fully liberalized as some practices remain restricted in mode 4.

National Treatment:

- **In Madagascar** the mode of supply 1(Cross border) is Unbound. This means that Madagascar has not made any commitments, thus they are considered non-committal.
- **In Malawi, Seychelles and Zambia,** the mode of supply 4 (presence of natural persons) is Unbound, except as indicated in the horizontal section (refer to sub-section 5.5.1.1). This means that these Member States have made commitment with limitations, thus they are considered not fully liberalized as some practices remain restricted in mode 4.

5. **Research and development for crude oil, natural gas and condensate analysis of petroleum product including engineering services.**
   Market Access:

- **In Kingdom of Eswatini** the mode of supply 1(Cross border) is Unbound. This means that Kingdom of Eswatini has not made any commitments, thus it is considered non-committal.
- **In Seychelles,** the mode of supply 4 (presence of natural persons) is Unbound, except as indicated in the horizontal section (refer to sub-section 5.5.1.1). This means that Seychelles has made commitment with limitations, thus it is considered not fully liberalized as some practices remain restricted in mode 4.

National Treatment:

- **In Seychelles,** the mode of supply 4 (presence of natural persons) is Unbound, except as indicated in the horizontal section (refer to sub-section 5.5.1.1). This implies that Seychelles has made commitment with limitations, thus it is considered not fully liberalized as some practices remain restricted in mode 4.

6. Related scientific and technical consulting services only for gas, mining and oil industry subsector, site investigation works sub-sector, and Renting services related to equipment for construction or demolition of buildings or civil engineering works, with operation sub-sector.

Market Access and National Treatment:

- **In Seychelles,** the mode of supply 4 (presence of natural persons) is Unbound, except as indicated in the horizontal section (refer to sub-section 5.5.1.1). This means not fully liberalized as some practices remain restricted in mode 4.

5.5.2 Level of liberalization and competition in selected RECs

5.5.2.1 Horizontal Commitments made within other RECs

1. ECOWAS

Mode 1(Cross Border) and Mode 2 (Consumption Abroad)

- In **Liberia** modes 1 and 2 are unbound with respect to subsidies, investment incentives, and other state support measures, eligibility for which may be limited to regions, categories of persons, or enterprises.

Modes 3 (Commercial Presence)

a) **Market access**

- In **Ghana** foreign-owned enterprises including joint-venture enterprises with locals must satisfy minimum capital outlay and foreign equity requirements.
- Also, **Ghana** requires automatic entry and work permit to be granted to up to 4 expatriate senior executives and specialized skill personnel in accordance with relevant provisions in the Investment Promotion Law, beyond which approval is required.
- Further in, **Ghana** Enterprises must also provide for training in higher skills for Ghanaians to enable them to assume specialized roles.

b) National treatment

- In **Cape Verde and Liberia,** foreign firms are required to train and upgrade the technical and management skills of local employees.

- **Liberia** allows entry and temporary stay of business visitor's and professions i.e., Managers, executives, specialists, and contractual services suppliers.
- In **Cape Verde** eligibility for subsidies may be limited to local service suppliers.
- Also, in **Cape Verde** on land ownership, foreigners might be limited to the right to lease only, but not to own land.
- In **Liberia** mode 3 is unbound with respect to subsidies, investment incentives, and other state support measures, eligibility for which may be limited to regions, categories of persons, or enterprises.
- In **Liberia,** tax incentives favoring Liberian nationals may apply, i.e., generally pertaining to small and medium enterprises.

Modes 4 (Presence of Natural Persons)

a) Market Access

- **Cape Verde and Liberia** allows entry and temporary stay of business visitor's & professionals i.e., managers, executives, specialists, contractual services suppliers but with a limited period.
- In **Liberia** mode 4 is unbound with respect to subsidies, investment incentives, and other state support measures, eligibility for which may be limited to regions, categories of persons, or enterprises.

2. SADC

Mode 1(Cross Border) and Mode 2 (Consumption Abroad)

a) National treatment

- In **Botswana** capital remittances and transfer of funds including fees payable to the bank and non-resident service suppliers require approval of the local national bank. regulator

Modes 3 (Commercial Presence)

a) **Market access**

- **Botswana** requires juridical persons to be registered with the Registrar of Companies and licensed by relevant authorities.

b) National treatment

- In **Botswana** the Government does not have a fixed ratio of equity.
- In **Botswana** foreign investors are encouraged to enter joint ventures with local investors.
- In **Botswana** juridical persons who specialize in providing services should be registered in their countries of origin.
- Also, **Botswana** requires notification of all sales of business interests, mergers, and take-overs to ministry of commerce.
- **Botswana** requires when foreign investors sell their interests in resident companies, locals should be given priority to purchase such interests.
- **In Botswana** foreign-owned enterprises including joint venture enterprises, must satisfy minimum capital outlay and foreign equity requirements.
- In **Lesotho**, foreign-owned enterprises including joint venture enterprises, must satisfy minimum capital outlay and foreign equity requirements.

- In **South Africa,** local borrowing by South African registered companies with a non-resident shareholding of 25 per cent or more is limited.

Modes 4 (Presence of Natural Persons)

a) **Market access**

- **In Botswana** entry and residence including employment by foreigners is subject to local laws, regulations, guidelines, and procedures.
- **In Botswana** for foreign natural persons to work in Botswana a residence and work permit is required and shall be employed by companies that provide services within Botswana as managers, executives, special technicians, and highly qualified professionals. Investors are required to conform to the requirements of the localization policy.
- **Botswana also requires** foreign firms to train local employees to enable them to assume senior management positions. Botswana).
- Further in **Botswana** professionals are required to register with the appropriate professional body.
- **South Africa** allows entry and temporary stay including that of services salesperson, inter-corporate transferees and personnel engaged in establishment. The inter-corporate transferees are for a year for managers, executives, specialists, contractual services suppliers, independent professionals, installers and maintenance and also personnel engaged in establishment.

b) National treatment

- In **Botswana**, professional foreign should have rights to practice in their countries of origin, recognized and be registered by the appropriate committee or council.
- In **Lesotho,** automatic entry and work permit is granted for up to 4 expatriate senior executives and specialized skill personnel but approval is required for any additional expatriate.
- Also in **Lesotho,** enterprises must also provide for training in higher skills for the locals to enable them to assume specialized roles.
- In **South Africa** local borrowing by South African registered companies with a non-resident shareholding of 25 per cent or more is limited.
- Similar to market access, **South Africa** Allows services salesperson and inter-corporate transferees for a year for managers, executives, specialists, contractual services suppliers, independent professionals, installers and maintenance and also personnel engaged in establishment.

5.5.2.2 Construction and Related Engineering Services -Sector Specific Commitments

Other RECs (ECOWAS and SADC) Member States that have made commitments under Construction and Related Engineering Services include Cape Verde, Cote d'Ivoire, and Liberia of ECOWAS, Lesotho, Seychelles, and South Africa of SADC. Democratic Republic of Congo has several memberships including that of ECCAS, SADC and COMESA. Appendix 2 tables 6 and 7 presents the level of liberalization and competition in these countries for Construction and related engineering service sector.

Recordings of level of liberalization and competition among other RECs Member States on energy and energy related services under Construction and Related Engineering Services

sector have been undertaken in the following sub-sectors but the discussion focuses more on those 'commitment with limitations' and 'no commitment':

1. **General Construction Work for Building including pipelines and mining**
   Market Access:

- **In Cape Verde (ECOWAS),** the mode of supply 1 (Cross Border) is Unbound. This means that Cape Verde has not made any commitment on mode 1, thus it is considered non-committal.

- **In Cape Verde and Liberia (ECOWAS), Democratic Republic of Congo (ECCAS, SADC & COMESA) and Lesotho (SADC), Seychelles (SADC & COMESA) and South Africa (SADC)** the mode of supply 4 (presence of natural persons) is Unbound, except as indicated in the horizontal section (refer to sub-section 5.5.1.2). This implies that these Member States have made commitment with limitations on mode 1, thus they are considered not fully liberalized as some practices remain restricted.

National Treatment:

- **In Cape Verde (ECOWAS), Lesotho and South Africa (SADC),** the mode of supply 1 (Cross Border) is Unbound. This means that Cape Verde has not made any commitment on mode 1, thus it is considered non-committal.

- **In Cape Verde and Liberia (ECOWAS), Democratic Republic of Congo (ECCAS, SADC& COMESA) and Lesotho (SADC), Seychelles (SADC & COMESA) and South Africa (SADC)** the mode of supply 4 (presence of natural persons) is Unbound, except as indicated in the horizontal section (refer to sub-section 5.5.1.2). This implies that they have made commitment with limitations, thus they are considered not fully liberalized as some practices remain restricted in mode 4

2. **General Construction Work for Civil Engineering. Covers long distance pipelines, communication and power lines cables, construction for mining and manufacturing, etc.**
   Market Access:

- **In Cape Verde (ECOWAS), Lesotho and South Africa (SADC)** the mode of supply 1 (Cross Border) is Unbound. This implies that these Member States have not made any commitment with limitations in mode, thus they are considered non-committal in mode 1.

- **In Cape Verde and Liberia (ECOWAS), Democratic Republic of Congo (ECCAS, SADC& COMESA), Lesotho (SADC), Seychelles (SADC & COMESA) and South Africa (SADC)** the mode of supply 4 (presence of natural persons) is Unbound, except as indicated in the horizontal section (refer to sub-section 5.5.1.2). This implies that they have made commitment with limitations, thus they are considered partly but not fully liberalized.

National Treatment:

- **In Cape Verde (ECOWAS), Lesotho and South Africa (SADC),** the mode of supply 1 (Cross Border) is Unbound. This implies that these Member States have

not made any commitment with limitations in mode, thus they are considered non-committal in mode 1.

- **In Cape Verde and Liberia (ECOWAS), Democratic Republic of Congo (ECCAS, SADC& COMESA), Lesotho (SADC), Seychelles (SADC & COMESA) and South Africa (SADC)** the mode of supply 4 (presence of natural persons) is Unbound, except as indicated in the horizontal section (refer to sub-section 5.5.1.2). This implies that they have made commitment with limitations, thus they are considered not fully liberalized as some practices remain restricted in mode 4

3. **Services incidental to mining & exploration.**
   Market Access:

- **In Cape Verde and Liberia (ECOWAS), Lesotho (SADC), Seychelles (SADC & COMESA) and Malawi (SADC & COMESA)** the mode of supply 4 (presence of natural persons) is Unbound, except as indicated under horizontal commitments (refer to sub-section 5.5.1.2). This implies that they have made commitment with limitations, thus they are considered not fully liberalized as some practices remain restricted in mode 4.

National Treatment:

- **In Cape Verde and Liberia (ECOWAS), Lesotho (SADC), Seychelles (SADC & COMESA) and Malawi (SADC & COMESA)** the mode of supply 4 (presence of natural persons) is Unbound, except as indicated under horizontal commitments (refer to sub-section 5.5.1.2). This implies that they have made commitment with limitations, thus they are considered not fully liberalized as some practices remain restricted in mode 4.

4. **Integrated engineering services**
   Market Access and National Treatment:

- **In Botswana (SADC), Kingdom of Eswatini (SADC & COMESA) and Malawi (SADC & COMESA),** the mode of supply 1 (Cross Border) is Unbound. This means that these Member States have not made any commitment on mode 1, thus it is considered non-committal in mode 1.

- **In Botswana (SADC)** the mode of supply 3 (Commercial Presence) is Unbound. In addition, the foreign company should be registered institution and allowed to practice in its country of origin. This implies that they have made commitment with limitations, thus they are considered not fully liberalized as some practices remain restricted in mode 3

- **In Cape Verde and Liberia (ECOWAS), Botswana (SADC), Lesotho (SADC), Seychelles (SADC & COMESA) and Malawi (SADC & COMESA)** the mode of supply 4 (presence of natural persons) is Unbound, except as indicated under horizontal commitments (refer to sub-section 5.5.1.2). This means that they have made commitment with limitations, thus they are considered not fully liberalized as some practices remain restricted in mode 4.

- **In Kingdom of Eswatini (SADC & COMESA),** the mode of supply 4 (presence of natural persons) is Unbound, except for professional personnel with a higher university degree or professional training and who are not available in Swaziland. This implies that Kingdom of Eswatini has made commitment with limitations, thus it is considered not fully liberalized as some practices remain restricted in mode 4.

5. **Site preparation work for mining and energy services.**
   Market Access and National Treatment:

- **In Seychelles (SADC & COMESA)** the mode of supply 4 (presence of natural persons) is Unbound, except as indicated under horizontal commitments (refer to sub-section 5.5.1.2). This implies that Seychelles has made commitment with limitations, thus they are considered not fully liberalized as some practices remain restricted in mode 4.

6. **Installation work and assembly work related to manufacturing activities - Prospecting, mining or processing of minerals, energy generation, etc.**
   Market Access:

- **In Cote d'Ivoire (ECOWAS), Lesotho (SADC), and South Africa (SADC)** the mode of supply 1 (Cross Border) is Unbound. This implies that they have made commitment with limitations, thus they are considered not fully liberalized as some practices remain restricted in mode 1.
- **In Cote d'Ivoire (ECOWAS)** the mode of supply 2 (Consumption Abroad) is Unbound. This implies that these Member States have not made any commitment with limitations in mode, 2 thus they are considered non-committal.

- **In Cape Verde, Ghana and Liberia (ECOWAS), Lesotho and South Africa (SADC)** the mode of supply 4 (presence of natural persons) is Unbound, except as indicated under horizontal commitments (refer to sub-section 5.5.1.2). This implies that they have made commitment with limitations, thus they are considered not fully liberalized as some practices remain restricted in mode 4.
- **In Cote d'Ivoire (ECOWAS)** the mode of supply 4 (presence of natural persons) is Unbound, except for measures affecting the entry and temporary stay of natural persons - who are employees of a company and transferred to a company incorporated in Cote d'Ivoire belonging to, controlled by or a subsidiary of the former - in the following categories: managers, senior, executives, and specialists who possess knowledge that is essential to the provision of the service. This implies that they have made commitment with limitations, thus they are considered not fully liberalized as some practices remain restricted in mode 4.

National Treatment:

- **In Cote d'Ivoire (ECOWAS), Lesotho (SADC), and South Africa (SADC)** the mode of supply 1 (Cross Border) is Unbound. This implies that these Member States have not made any commitment with limitations in mode, thus they are considered non-committal in mode 1.
- **In Cote d'Ivoire (ECOWAS)** the mode of supply 2 (Consumption Abroad) is Unbound. This implies that these Member States have not made any commitment with limitations in mode, thus they are considered non-committal in mode 2.

- **In Cape Verde, Ghana and Liberia (ECOWAS), Lesotho and South Africa (SADC)** the mode of supply 4 (presence of natural persons) is Unbound, except as indicated under horizontal commitments (refer to sub-section 5.5.1.2). This implies that these Member States have not made any commitment with limitations in mode, thus they are considered non-committal in mode 4.

- **In Cote d'Ivoire (ECOWAS)** the mode of supply 4 (presence of natural persons) is Unbound and Enterprises must receive government approval. The criteria that must be satisfied in order to obtain approval may include: - The preferential use of local services to the extent that they are available under conditions of quality, price, and delivery equivalent to those of products of foreign origin - The employment and training of local executives and supervisors. This means that Cape Verde has made commitment with limitations, thus it is considered not fully liberalized as some practices remain restricted in mode 4.

5.5.2.3 Distribution Services sector – Sector Specific Commitments

Other RECs (ECOWAS and SADC) Member States that have made commitments under Distribution Services sector include Cape Verde and Liberia of ECOWAS, Lesotho, Seychelles, and South Africa of SADC. Appendix 2 table 8 presents the level of liberalization and competition in these countries for Distribution service sector.

Recordings of level of liberalization and competition among other RECs Member States on energy and energy related services under Distribution Services sector have been undertaken in the following sub-sectors but the discussion focuses more on those 'commitment with limitations' and 'no commitment':

1. **Distribution services including commission agents**

Market Access and National Treatments:

- **In Seychelles (SADC & COMESA)** the mode of supply 1 (Cross Border) is Unbound. This implies that these Member States have not made any commitment with limitations in mode 1, thus they are considered non-committal.
- **In Seychelles (SADC & COMESA)** the mode of supply 2 (Consumption Abroad) is Unbound. This implies that these Member States have not made any commitment with limitations in mode 2, thus they are considered non-committal.
- **In Liberia (ECOWAS) and Seychelles (SADC & COMESA)** the mode of supply 4 (presence of natural persons) is Unbound, except as indicated under horizontal commitments. For Seychelles (SADC & COMESA) under national treatment, the mode of supply 4 (presence of natural persons) is Unbound. In addition, licensed commission agents must be citizens of Seychelles. This implies that these Member States have made commitment with limitations, thus they are considered not fully liberalized as some practices remain restricted in mode 4.

2. **Wholesale Services**

Market Access and National Treatments:

- **In Cape Verde (ECOWAS), Lesotho (SADC), and Seychelles (SADC & COMESA)** the mode of supply 1 (Cross Border) is Unbound. This implies that these Member States have not made any commitment with limitations in mode 1, they are thus they are considered non-committal.

- **In Cape Verde (ECOWAS), Lesotho (SADC), and Seychelles (SADC & COMESA) and South Africa (SADC)** the mode of supply 4 (presence of natural persons) is Unbound, except as indicated under horizontal commitments (refer to sub-section 5.5.1.2). This implies that they have made commitment with limitations, thus they are considered not fully liberalized as some practices remain restricted in mode 4.

3. **Retail Services**
   Market Access and National Treatments:

- **In Cape Verde (ECOWAS), Lesotho (SADC), and Seychelles (SADC & COMESA)** the mode of supply 1 (Cross Border) is Unbound.
- **In Cape Verde and Liberia (ECOWAS), Lesotho (SADC), and Seychelles (SADC & COMESA) and South Africa (SADC)** the mode of supply 4 (presence of natural persons) is Unbound, except as indicated under horizontal commitments. In particular to South Africa (SADC) under the national treatment, the mode of supply 4 (presence of natural persons) is Unbound except for senior qualified chartered engineers. This implies that they have made commitment with limitations, thus they are considered partly not fully liberalized as some practices remain restricted in mode 4.

5.5.2.4 Business Services -Sector Specific Commitments

Other RECs (ECOWAS and SADC) Member States that have made commitments under Business Services sector include Kingdom of Eswatini and Seychelles which draws its membership from both COMESA and SADC. Appendix 2 tables 9 and 10 presents the level of liberalization and competition in these countries for Business service sector.

Recordings of level of liberalization and competition among other RECs Member States on energy and energy related services under Business Services sector have been undertaken in the following sub-sectors but the discussion focuses more on those 'commitment with limitations' and 'no commitment':

1. **Other Business i.e., professional Services and Engineering services.**
   Market Access:

- **In Kingdom of Eswatini (SADC and COMESA)** the mode of supply 1 (Cross Border) is Unbound. This implies that Kingdom of Eswatini has not made any commitment with limitations in mode 1, thus they are considered non-committal.
- **In Kingdom of Eswatini (SADC and COMESA)** the mode of supply 4 (presence of natural persons) is Unbound, except for senior qualified chartered engineers. This means that Kingdom of Eswatini has made commitment with limitations, thus it is considered not fully liberalized as some practices remain restricted in mode 4.

2. **Management consulting services related to energy and mining sub-sector,** Services related to management consulting related to energy sub-sector, and Technical testing and analysis services only for gas, mining and oil industry sub-sector, Research and development for crude oil, natural gas and condensate analysis of petroleum product including engineering services, Related scientific and technical consulting services only for gas, mining and oil industry, and Site investigation work, Renting services related to equipment for construction or demolition of buildings or civil engineering works, with operation.
   Market Access and National Treatments:

- **In Seychelles (SADC & COMESA)** the mode of supply 4 (presence of natural persons) is Unbound, except for senior qualified chartered engineers. This implies that Seychelles has made commitment with limitations, thus it is considered not fully liberalized as some practices remain restricted in mode 4.

5.5.3 Summary of Horizontal Commitments of COMESA, ECOWAS and SADC

Generally, In **COMESA** Member States have made schedules on **national treatment and market access** limitations targeting foreign companies on areas such as: requirements on real estate/land acquisition, requirements on the amount of loans and overdraft, re-entry and work permit for technical processional, requirements on training of locals with higher skills to assume specialized roles, limitations on loan and overdraft. Modes of supply 3(commercial presence) followed by mode 4 (presence of natural persons) are the modes of supply with the most commitment with limitation, implying that they are less liberalized when compared to mode of supply 1(cross border) and mode 2 (consumption abroad).

Learning from **ECOWAS, COMESA** may consider having schedules that stretch beyond the focus on subsidies to that of incentives and state support measures that are intended to enhance national investment but are targeted to specific groups e.g., regions, categories of persons, or enterprises. If participation of small and medium enterprises is low for a Member State, then tax incentives consideration to spur growth of small and medium enterprises may be considered. To ensure professionalism in provision of services is achieved and maintained, requirements on registration with the appropriate professional body should be considered.

Learning from **SADC, COMESA** may weigh whether introducing schedules recorded in **SADC may** lead to national growth at the expense of liberalization. In SADC, these restrictions are recorded on fixed ratio of equity, formation of joint ventures with local investors, registration requirements and right to practice of specialized foreign companies at their countries of origin, notification of all sale of business interests, mergers, and take-overs, priority to locals to purchase interest sold by foreign investor and requirement to be recognized and be registered by the appropriate committee or council. Further requirements may be considered where local borrowing is capped to a certain percentage based on non-resident shareholding rates.

A further summary of commitments with limitations by mode of supply within COMESA, ECOWAS and SADC are presented as follows:

a) Mode 1(Cross Border) and Mode 2 (Consumption Abroad)

On modes 1 and 2, in **Seychelles (COMESA)** and **Liberia (ECOWAS)** have scheduled **national treatment** limitations which specify that subsidies are unbound. However, for **Liberia**, schedules made are focused on investment incentives, and other state support measures, eligibility for which may be limited to regions, categories of persons, or enterprises is unbound. **Botswana (SADC)** does not consider subsidies, instead they have scheduled **national treatment** limitations on capital remittances, transfer of funds and associated payable fees.

b) Modes 3 (Commercial Presence)

On mode 3, in **Democratic Republic of Congo (COMESA)** have scheduled **market access** limitations which require approval for real estate acquisitions. In **Ghana (ECOWAS)** schedules on **market access** limitations are focused on capital outlay and foreign equity requirements, entry and work permit for technical processional and training of locals with higher skills to assume specialized roles. While in **Botswana (SADC)** has made schedules on **market access** limitations which require registration and licensing of judicial persons.

On modes 3, in **Democratic Republic of Congo (COMESA)** has scheduled **national treatment** limitations which require approval for Real Estate acquisitions while for **Egypt (COMESA)** approvals are required for both Real Estate and Land acquisition. For Cape Verde (ECOWAS) approvals are required for leasing of land only but not ownership of land.

On modes 3, in **Zambia and Malawi (COMESA)** scheduled **national treatment** limitations are targeted on amounts of loans and overdraft that can be drawn by foreign controlled companies while for **South Africa (SADC)** limitations on local borrowing targets those with South African registered companies with a non-resident shareholding of 25 per cent or more.

Seychelles' (COMESA) scheduled **national treatment** limitations on mode 3 are focused on subsidies which are unbound, while in **Cape Verde (ECOWAS)** such subsidies may be limited to local service suppliers. However, in **Liberia (ECOWAS**) beyond subsidies, investment incentives, and other state support measures are also unbound both for market access and national treatment.

In **ECOWAS,** scheduled **national treatment** limitations on mode 3 that are unique compared to other RECs are focused on training local employees on technical and management skills, entry and temporary stay of technical profession and tax incentives targeting small and medium enterprises (**Liberia).**

In **SADC,** scheduled **national treatment** limitations on mode 3 that are unique compared to other RECs are focused on fixed ratio of equity, encouraging joint ventures with local investors, requirements on registration of specialized foreign companies at their countries of origin, notification of all sale of business interests, mergers, and take-overs, priority to locals to purchase interest sold by foreign investors as the case of **Botswana**. Capital outlay and foreign equity requirements by foreign companies is also a key focus by both **Botswana and Lesotho**.

c) Modes 4 (Presence of Natural Persons)

On modes 4, in **Democratic Republic of Congo, Egypt, Malawi, Zambia, Seychelles of COMESA; Cape Verde and Liberia of ECOWAS;** and **Botswana and South Africa** of **SADC** have scheduled **market access** limitations that focus on entry and temporary stay of technical professional but in **Zambia** and **Botswana** the focus surpasses the mere entry and temporary stay, to requirements on training of higher skills for local to enable them to assume specialized roles. Further **Botswana** professionals are required to register with the appropriate professional body.

On modes 4, in **Democratic Republic of Congo, Malawi, Zambia, Seychelles of COMESA;** and **Botswana, Lesotho and South Africa** of **SADC** have scheduled **national treatment** limitations that focus on entry and temporary stay of technical professional but in **Lesotho** the focus extends to limiting the number of the expatriates executives and specialized skill personnel, requirements on training in higher skills for local to enable them to assume specialized roles, requirements to rights to practice in their countries of origin, to be recognized and be registered by the appropriate committee or council.

In **COMESA** scheduled **market access** limitations on mode 4 that are unique compared to other RECs are focused on acquisition of land and/or real estate property both in **Seychelles and Egypt.** However, in **Seychelles** the focus is also on subsidies.

5.5.4 Summary of Specific Commitments made within COMESA and Other RECs

Overall, energy and energy related services sector specific commitments have more limitations that happen under construction service sub-sector, followed by distribution service sectors and business service sub-sectors both for COMESA and other RECs. However, when compared to other RECs, COMESA has few limitations on these sectors. Further, mode of supply 2 (consumption abroad) and mode 3(commercial presence) have less restrictions or limitations than modes 1 (cross border) and 4 (presence of natural persons).

For construction and related engineering service sectors, mode of supply 2 (consumption abroad) and mode 3(commercial presence) have less restrictions or limitations than mode 1 (cross border) and 4 (presence of natural persons). This suggests that modes 2 and 3 are more liberalized than modes 1 and 4 but mode 4 is more restricting than 1. Thus, in COMESA these limitations are centered on joint-venture companies and foreign capital equity, and natural persons and cross borders including subsidies. While in other RECs limitations are observed on foreign company registration and practice at their origin, natural persons, and cross borders including subsidies.

In COMESA, for distribution service sector, mode of supply 4 (presence of natural persons) is common and has more restrictions centered on natural persons. While in other RECs, besides mode 4 which is common, other restrictions imposed under distribution service sector are on mode of supply 1 (Cross Border), mode of supply 2 (Consumption Abroad) and mode 3(commercial presence). In all these modes of supply, the restrictions are focused on natural persons, cross border including subsidies, and consumption abroad such as incentives, and other state support measures.

In COMESA, for business service sector, mode of supply 4 (presence of natural persons) is common followed by modes 1 (cross border) and mode 3(commercial presence). Restrictions are observed in more restrictions centered on natural persons, jobs created and value addition criterion. In other RECs restrictions on mode of supply 4 (presence of natural persons) is common followed by modes 1 (cross border) and mainly categorized under natural persons and cross borders including subsidies.

Learning from other RECS (ECOWAS and SADC) as regards liberalization and competition in energy and energy related services, there is need for COMESA to broaden the focus on

mode of supply, beyond the current mode of supply 4 (presence of natural persons) to other modes (1 and 3) especially for distribution services; and modes 3 for construction and engineering services).

6.0 Best Practices: Appropriate Approaches to Negotiating Commitments

6.1 Review of Negotiating Commitments Approaches in COMESA

The need for negotiation is mainly driven by the aim of enhancing trade liberalization. There are two major approaches used to negotiate commitments of trade in services; the "positive list," or "bottom-up," approach; and the "negative list," or "top-down," approach discussed in GATS. The 'positive list' allows COMESA Member States to select sectors that will be open to market access and national treatment for inclusion in the schedule of specific commitments. In other words, COMESA Members are free to choose which sectors they wish to liberalize (or negotiate on) at the time of negotiation. The 'negative list' approach opens all sectors to market access and national treatment except those on the List(s) of Nonconforming Measures. Nonconforming measures list(s) include all sector-specific measures and other restrictions that do not comply with full openness (therefore called noncomplying or nonconforming measures). These then form the basis for future negotiations.

According to WTO (2002) the positive list approach registers in commitment schedules only those areas where countries' parties have agreed to national treatment and liberalization. While negative list approach, member countries grant national treatment for all areas in principle, registering areas as exceptions. Under positive lists, two steps are critical. First step allows a party to explicitly (positively) list those sectors and subsectors in which it undertakes market access and national treatment commitments. The second step, the party lists all exceptions or conditions to these commitments, stating the market access and/or national treatment limitations it wants to apply. Regarding the negative lists, parties only need to go through the second step (EU, 2016). This implies that all sectors that are not listed automatically are open to foreign service suppliers under the same conditions as for domestic service suppliers.

Parties may also opt for additional instruments such as "standstill" and/or "ratchet" clauses to further refine their respective commitments. A "standstill clause" is a provision through which the Parties commit to keep the market at least as open as it was at the time of the agreement. In other words, the Parties agree not to take reservations for future measures. A "ratchet clause" is a provision through which the Parties commit that, if they unilaterally decide in the future to further open up their respective markets in one specific sector, such opening would be "locked in" – i.e. there can be no step backwards (EU, 2016).

6.2 Application of Positive, Negative and Hybrid Approaches

Most Member States of the World Trade Organization apply the use of the positive listing approach based on the GATS). There is no pure 'positive approach', once a member has chosen to include a given sector in its schedule of commitments, it must list all restrictions that apply (just like in a negative list), EU (2016).

Negative listing approach is common with North American Free Trade Agreement (NAFTA), its application has increased since 2000 and has become a standard practice for the majority of regional trade agreements (RTAs). For instance, in North – North agreements and North – South Agreements and in investment treaties, such as bilateral investment treaties.

In some service agreements both approaches have been used (also referred to as "hybrid approach"). For instance, in the Trade in Services Agreement (TISA), nationtl treatment commitments are scheduled using a negative list approach while a positive list approach is applied for market access commitments. In addition, the EU has both negative and positive commitments with different countries.

6.3 Critics of Negotiating Approaches

Positive listing approach allows the registration of national treatment and market access commitments only in those areas where countries are prepared to guarantee these, therefore it leaves more policy space than the negative approach. The positive approach is flexible, realistic, and easier to accept for countries concerned about maintaining a balance with their development policies. There are critics as to whether flexibility is a good thing or not and whether positive schedules are thus sensible to business.

Negative listing approach has been argued to consider current regulations; therefore, this provides stability and predictability to investors. Negative listing is more transparent because of its clarity on the non-conforming regulations, and it indicates where discrimination is practised. Negative approach also serves as a review and audit of national regulations (Stephenson, 2015).

For COMESA Member States, though there was a major preference (88%) to continue with a positive listing approach, the use of hybrid approach was also proposed. But it is important to note that according to the COMESA trading service regulations, Member States have agreed on making progressive liberalization using a positive list approach.

7.0 Classification of Energy Related Services: Checklist of Priority Sub-Sectors and Relevant Codes

7.1 Classification of energy related services

The importance of understanding classification provides clarity on how to describe sectors in the schedule, since lack of clarity and ambiguity of sectoral description may result in conflict. Under WTO, the services sectoral classification list (W/120) is a comprehensive list of services sectors and sub-sectors covered under the GATS. The WTO W/120 classification comprises of 165 sub-sectors that are defined as aggregate of the more detailed categories contained in the United Nations provisional Central Product Classification (CPC).

The trade in services consists of 12 sectors[12], though energy services is not included as part of the World Trade Organization Services Sectoral Classification List (W/120). However, the UN Central Product Classification (CPC Provisional version) has a separate section on energy services. In GATS energy services may encompass services supplied in relation to upstream activities (such as exploration and extraction, as well as related construction services), transportation and transmission of energy, as well as downstream activities, including those relating to the commercialization and supply of energy to the final consumer.

Under the WTO[13], Energy services were included in the services negotiations, which began in January 2000. Most of the proposals tabled in the first few years of the negotiations[14] stressed that the services sector classification under the GATS did not define energy services as a distinct sector. The negotiating proposals defined the scope of energy services as covering the whole range of activities along the energy chain and suggested different approaches for their classification. However, after Hong Kong Ministerial Conference in 2005, request made identified 12 types of activities of relevance to the energy industry, belonging to three main sectors, namely business services (such as engineering, technical testing and analysis, services incidental to mining, etc.), construction (of long-distance and local pipelines, for instance) and distribution (wholesale and retail of certain energy products). Based on these gaps, this study proposes a detailed checklist of priority sub-sectors and relevant codes to be included in the Classification of energy and energy related services for negotiation under COMESA (as discussed in section 7.2).

7.2 Energy and Energy Related Service Sub-Sectors and Related Codes

Discussion of whether to have a separate section of energy and energy related service drew a mix of feedback. The results of the stakeholder's survey show that majority (75%) of the respondents agree that a separate classification on energy sector would work. Cited reasons for this response, was first, because energy is a highly technical field and skills, and knowledge

[12] Other sectors include: (1) Business Services, (2) Communication Services, (3) Construction and Related Engineering Services, (4) Distribution Services, (5) Educational Services, (6) Environmental Services, (7) Financial Services, (8) Health Related and Social Services, (9) Tourism and Travel Related Services, (10) Recreational, Cultural and Sporting Services, (11) Transport Services, and (12) Other Services Not Included Elsewhere.

[13] https://www.wto.org/english/tratop_e/serv_e/energy_e/energy_e.htm

[14] In the early phase of negotiations, negotiating proposals relating to energy services were submitted by Canada (S/CSS/W/58), Chile (S/CSS/W/88), Cuba (S/CSS/W/144), the European Union (S/CSS/W/60), Japan (S/CSS/W/42), Norway (S/CSS/W/59) and the United States (S/CSS/W/24).

requirements differ across the value chain. Second, energy efficiency and their markets are not included in the classification (in particular to energy efficiency appliances, building codes, energy performance testing, energy audit, etc.). Same to Renewable Energy which covers energy storage technologies like hydrogen application, yet it is missing in the current classification. Third and final, with an energy services sector classification, it will be clear and easy to understand what commitments have been made in energy in accordance with the classifications. For the respondents who disagreed on the need to have a separate energy classification, among the reasons provided is that CPC classification is inclusive and does not make room for classification of the same economic activity in different industries. For instance, the construction service sector integrates all activities as regarding construction of energy facilities and plants.

Table 7 provides a detailed checklist of priority sub-sectors and relevant code to be included in the classification of energy and energy related services for negotiation following references from WTO W/120 classification and UN CPC Version 2.

Table 7: Classification of energy and energy related services

Service Sector	Sub-Sectors (Corresponding CPC codes)
A. Upstream services	• Geological and geophysical consulting services (83411) • Geophysical services (83412) • Mineral exploration and evaluation (83413) • Surface surveying services (83421) • Map-making services (83422) • Composition and purity testing and analysis services (83441) • Testing and analysis services of physical properties (83442) • Testing and analysis services of integrated mechanical and electrical systems (83443) • Other technical testing and analysis services (83449) • public administration services related to mining and mineral resources, manufacturing, and Construction (91132) • Environmental consulting services (83931) • Engineering services for industrial and manufacturing projects (83322)
	• Mining constructions (53261) • Power plants (53262) • Site formation and clearance services (54320) • General construction services of mines (54261) • General construction services of power plants (54262)
	• Support services to oil and gas extraction (86211) • Support services to other mining (86219) • Oil and gas extraction services on resources owned by others (86221) • other mining services on resources owned by others (86229) • engineering services for power projects (83324) covers electricity generation • Mining, quarrying and construction machinery manufacturing services (88774) • Engines and turbine manufacturing services (88761) • Electrical equipment manufacturing services 8875
B. Mid-stream services	• Long-distance pipelines (53241) • Long-distance communication and power lines (cables) (53242) • Local pipelines (53251) • Local cables and related works (53252. • General construction services of long-distance pipelines (54241) • General construction services of long-distance communication and power lines (cables) (54242) • General construction services of local pipelines (54251) • General construction services of local cables and related works (54252). • Engineering services for transportation projects (83323) • Road transport services of freight by tank trucks or semi-trailers (65112) • Railway transport services of freight (petroleum products (crude oil, natural gas and refined petroleum • products) and other bulk liquids or gases by special tanker cars (65122)

	• Transport services via pipeline of petroleum products and natural gas (65131) • Coastal and transoceanic water transport services of freight (petroleum products and natural gas) by special tankers (65212). • Inland water transport services of freight (petroleum products and natural gas) by special tankers (65222). • Other supporting transport services n.e.c. (67990). • Maintenance and repair of transport machinery and equipment (8714) • Transport equipment manufacturing services (888) • Electric motor, generator, transformer and electricity distribution and control apparatus manufacturing services (88751) • Battery and accumulator manufacturing services (88752)
	• Bulk liquid or gas storage services (67220) • construction engineering services of storage facility. • manufacturing of storage equipment (missing) • repair and maintenance of storage facilities (missing) • Hydrogen power storage (missing)
C. Down-Stream Services	• Related to coke oven products (88411) • Refined petroleum products (88412) • Related to steam generator (88713) • Engineering services for industrial and manufacturing projects (83322). • Construction engineering services of refinery (missing) • manufacturing of refinery machinery and equipment (missing) • repair and maintenance of refinery facilities (missing)
	• public administration related to fuel and energy (91132) • Electricity transmission services (on a fee or contract basis) (86311) • Electricity distribution services (on a fee or contract basis) (86312) • Gas distribution services through mains (on a fee or contract basis) (86320) • Distribution services of steam through mains (on a fee or contract basis). • Wholesale trade services, except on a fee or contract basis, of solid, liquid and gaseous fuels and related products (61191) • Wholesale trade services, except on a fee or contract basis, of electricity (61197) • Engineering services for power projects (83324) covers electricity transmission and distribution. • Electrical wiring and fitting services (54611) • Gas fitting installation services (54640) • Maintenance of electricity and electric meters (69112), • Maintenance of gas, gas meters (69120). • Maintenance and repair services of electrical distribution and control apparatus and other electrical equipment n.e.c (87152) • Maintenance and repair services of electrical machinery and apparatus (87152)

8.0 Conclusion and Recommendations

8.1 Conclusion

The broad objective of the study was to conduct analytical work on Energy Services and Energy Related Services within COMESA. Energy services is among the prioritized services in COMESA however energy and energy related services lack a separate classification under the World Trade Organization (WTO) classification List (W/120). This has affected the preparation of schedules on specific commitment on energy services within COMESA. Thus, the study aims to provide clarity on the energy sub-sectors Member States can commit and suggest the classification that can be adopted.

Trade in energy is very critical, it is a tool that spurs national and global economic development as well as international competitiveness. Energy is key to international competitiveness, it is both a strategic and political asset, because of its finite resource which also requires a unique infrastructure system, exploitation and trading among nations is possible. Given energy is a state-owned resource in many nations, it explains why energy security has more focus and importance than other service sectors.

Given electricity is recorded to some as a 'good' and other as a 'service'. COMESA may learn from The World Custom Organization (WCO) Harmonized Commodity Description and Coding System (HS) which classifies electrical energy as a commodity together with other energy goods such as coal, gas, and oil. Unlike other energy goods, however, electrical energy is an optional heading in the WCO HS so that WCO Members are not required to classify it as commodity for tariff purposes.

COMESA Member States have a wide range of energy resources from oil, gas, coal to solar, wind, geothermal, hydro, biomass, and waste power sources. However, there is heavy reliance on fossil fuels and hydro sources for electricity generation, transport, industry, and other economic sectors. High capital costs and technical capacity are major hindrances to large scale growth of renewable energy resources such as solar and wind, despite some resources being geographically limiting like geothermal. Electricity generation is dominated by hydro power plants, a technology that is considered mature compared to other renewable energy sources. For most COMESA Member States, importation of refined petroleum products is common, while imports and exports of electricity is limited and mainly for strengthening power reliability and stability in neighboring countries. By doing so, thus, also lowers transmission and distribution system losses.

The energy sector value chain for both electricity and petroleum sub-sectors considers three phases; upstream (where exploration, development, extraction, and production/generation services happen), mid-stream (which capture transportation/transmission and storage services) and downstream activities (where refining, marketing and distribution happens). This energy related services business is vast and diversified and requires specialized and technical skills and experience that are largely lacking in developing countries and in this case COMESA. Thus, existing energy related services undertaken are mainly from foreign based companies in Europe, Asia and United States of America, United Arab Emirates, etc. There is evidence of exports in energy and energy related services within COMESA and beyond. For example, Tunisia exports construction services, distribution services, engineering

services, support and operation services, installation services, public administration services, maintenance and repair services, and energy manufacturing services to Gulf and Africa countries including to Seychelles and Malagasy. Important to note is that there is no data on trade in energy and energy related services, available data is rather too general and focused on construction services, maintenance and repair services, manufacturing services, related to business services, transport services, travel services and commercial services. Further, in between 2020 and 2022, there has been an increase in energy prices due to Covid 19 and Russia invasion in Ukraine, but significant difference in energy prices can also be explained by other factors such as foreign exchange rates, various taxes, and subsidies.

Because of limited commitments recorded generally with COMESA, lack of data required to inform policy and consequent sector development is limited. Lack of technical capacity was cited as a major hindrance to lack of participation in energy negotiations among COMESA members. Commitments happen only in 3 sectors: construction, distribution, and business services. ECOWAS leads in terms of the energy and energy related services commitments, followed by COMESA, and ECOWAS. Overall commitments are higher in construction, business, and distribution in that order.

Meaningful trade in energy and energy related service is possible when Member States put in place regulation that helps in defining the sector structure and dictates the level of liberalization and competition that can happen. For instance, energy planning is important to inform sector current and future development. But such plans have evolved from the general planning focus approach to specific planning approach that gives priority to sustainable development goals like poverty reduction, reduction of emissions among others. Examples of such planning focus approaches include: the electrification plans, efficiency, and conservation plan as well as on renewable energy generation plans. In addition, the structure of the energy sector may also explain the level of liberationalisation, and competition experienced. Similarly, the sector laws and policies follow a similar discussion to that of energy plans. In some Member States they are structured; into sub-sectors policies and law, priorities to address specific sector issues, and boost private sector participation among others.

In addition, the structure of the energy sector and power utilities may also explain the level of liberationalisation, and competition experienced. This is indicated by whether the structure of the sector is ‘unbundled’ or ‘vertically integrated’. An ‘unbundled structure’ has legal provisions for example different components of electricity production and supply. Such that Member States can have separate government agencies with varying mandates to oversee generation, transmission, and supply of power. In addition, such a sector structure allows for private sector participation at least in each of the components in the electricity subsector and in the petroleum sub-sector.

Generally, theory postulates a positive relationship between level of liberalization and competition. For instance, when there is increased competition from abroad because of trade liberalization, this creates an incentive for greater efficiency and cheaper production by domestic firms. Though many service sectors have been liberalized through GATS, energy service sectors have not attained a significant liberalization.

Under Horizontal Commitment, COMESA Member States have made schedules on national treatment and market access limitations targeting foreign companies on areas such as: requirements on real estate/land acquisition, requirements on the amount of loans and overdraft, re-entry and work permit for technical processional, requirements on training of locals with higher skills to assume specialized roles, limitations on loan and overdraft. Modes of supply 3(commercial presence) followed by mode 4 (presence of natural persons) are the modes of supply with the most commitment with limitation, implying that they are less liberalized when compared to mode of supply 1(cross border) and mode 2 (consumption abroad).

- For sector specific commitments, limitations have been recorded under construction service sub-sector, followed by distribution service sectors and business service sub-sectors both for COMESA and other RECs. However, when compared to other RECs, COMESA has few limitations on these sectors. Further, mode of supply 2 (consumption abroad) and mode 3(commercial presence) have less restrictions or limitations than modes 1 (cross border) and 4 (presence of natural persons).
- In COMESA, for construction and related engineering service sector, mode of supply 2 (consumption abroad) and mode 3(commercial presence) have fewer restrictions or limitations than mode 1 (cross border) and 4 (presence of natural persons). Limitations are centered on joint-venture companies and foreign capital equity, and natural persons and cross borders including subsidies.
- Also, for distribution service sector, mode of supply 4 (presence of natural persons) is common and has more restrictions centered on natural persons.

As regards the best practice on the appropriate approach, it is important to note that according to the COMESA Trading service regulation, Member States have agreed on making progressive liberalization using a positive list approach. Positive listing approach is associated with several benefits. Positive listing approach allows the registration of national treatment and market access commitments only in those areas where countries are prepared to guarantee these, therefore it leaves more policy space than the negative approach. The positive approach is also flexible, realistic, and easier to accept for countries concerned about maintaining a balance with their development policies.

With the majority of members in need of a separate energy service classification, the proposed classification is comprehensive and captures economic activities related to energy based on the energy value chain classification; upstream services, mid-stream services and down-stream services.

8.2 Policy Recommendation

Based on the assessment of energy and energy related services in COMESA, this study recommends the following:

a) Related to trade in energy services:

1. With the recent economic shocks from Covid Pandemic and Russia invasion of Ukraine, there is a need to encourage countries to diversify their energy mix and enhance power

generation from renewable sources to avoid reliance on fossil fuels that fluctuates based on geopolitics and foreign exchange rates factors.

2. To spur energy generation and later trading, there is a need to encourage Innovative financing (such as green financing, use of SACCOs, Multinational Financial Institutions, project finance and leasing, etc.) that will address high capital cost of renewable projects.
3. Encourage Member States to make investment in grid infrastructure transmission and distribution as an avenue that can enhance power trading in power pools and lower transmission and distribution system losses.
4. Encourage countries to collect and publish data on potential energy sources. Specifically, data should be collected on current supply of primary and secondary energy sources including both local energy demand, energy exports and imports.
5. Data on energy and energy related services traded is not available at the WTO and COMESA, there is a need for key institutions to fast-track collection and continuously update data collection on this sector including related commitments undertaken by Member States.

b) Related to commitments:

1. Establish why some Member States are not making commitments even despite having mutual membership with other Regional Economic Communities.
2. Develop capacity of Member States to enhance their technical skills, improve their knowledge on the importance, understanding and practice of commitment negotiations in the energy sector and the approach to making the negotiations. Such capacity building activities should integrate trade focal persons, and the ministry in charge of energy as well as other government agencies in the energy sector.
3. Learning from ECOWAS, COMESA may consider having schedules that stretch beyond the focus on subsidies to that of incentives and state support measures that are intended to enhance national investment but are targeted to specific groups e.g., regions, categories of persons, or enterprises.
    - If participation of small and medium enterprises is low for a Member State, then tax incentives consideration to spur growth of small and medium enterprises may be considered.
    - To ensure professionalism in provision of services is achieved and maintained, requirements on registration with the appropriate professional body should be considered.
4. Learning from SADC, COMESA may weigh whether introducing schedules recorded in SADC may lead to national growth at the expense of liberalization.
    - In SADC, these restrictions are recorded on fixed ratio of equity, formation of joint ventures with local investors, registration requirements and right to practice of specialized foreign companies at their countries of origin, notification of all sale of business interests, mergers, and take-overs, priority to locals to purchase interest sold by foreign investor and requirement to be recognized and be registered by the appropriate committee or council.
    - Further requirement may be considered where local borrowing is capped to a certain percentage based on non-resident shareholding rates.
5. Learning from other RECS (ECOWAS and SADC) as regards liberalization and competition in energy and energy related services, there is need for COMESA to broaden the commitments made on mode of supply, beyond the current mode of supply 4 (presence

of natural persons) to other modes (1 and 3) especially for distribution services; and modes 3 for construction and engineering services).

c) Related to regulatory framework:

1. Support Member States to formulate and implement key regulatory frameworks in energy sector that allows for liberalization and competition. For instance, energy sector laws, policies, regulations, and plans should be pitched to enhance private sector participation, accompanied with targets on improving efficiency, competitive prices, and overall energy access.
2. Create awareness among Member States especially on the structure of the sector with intentions of encouraging Member States to establish energy sector regulators, unbundling the sector to have separate agents working on production/generation, transmission, or distribution mandates. This are critical steps towards liberalization.
3. Collaborate with energy and other related sector stakeholders to provide mechanisms on how to integrate education and training on key energy and energy related services business that will offer the much-needed skills and experience in this nascent sector.
4. In addition, support formation and implementation of the Local content policy and regulations among Member States that allows for local participation in energy businesses currently dominated by foreign companies outside COMESA.
5. Support initiatives on joint training among government officials of Member States targeting visions, policy and programs planning to strengthen the understanding of sector planning, regulatory regime, trade openness, structure of the energy sector, competition, and liberalization.
6. Most importantly, support harmonization of the energy sector regulatory framework among Member States, as an avenue of promoting energy trading.
7. Encourage development of laws, policies and plans targeting key energy sub-sectors and issues for instance on biofuels resources which is critical towards the development of such sectors for trading.

d) Related to negotiation approaches:

1. As regards the best practice on the appropriate approach to negotiate commitments, Member States should be encouraged to implement the COMESA Trading service regulations where Member States had agreed on making progressive liberalization using a positive list approach.

e) Related to energy services classification:

1. COMESA Member States to review how to record electricity. If considered as a good, COMESA can learn from the World Custom Organization (WCO) Harmonized Commodity Description and Coding System (HS) which classifies electrical energy as a commodity together with other energy goods such as coal, gas, and oil. Unlike other energy goods, however, electrical energy is an optional heading in the WCO HS so that WCO Members are not required to classify it as commodity for tariff purposes.
2. Member States to deliberate and agree on a way forward regarding the implementation of the proposed energy and energy related service classification.

8.3 Limitations of the Study

The study was aimed at evaluating energy and energy related services within COMESA; however, the study faced some challenges during implementation.

- Challenges related to data mainly affected the following specific objectives:
    - current state of trade in this sector in the region because most Member States do not publish their information and data on energy resources capacity and supplies, potential capacity, demand, exports, and imports levels, including their trading partners.
    - regulatory regime, structure of the sector and level of competition and liberalization. Member States do not publish on their website or lack a repository knowledge management platform where energy documents such soft copies of the national laws, plans, policy are deposited.
- There is low awareness among sector stakeholders in COMESA on energy and energy services commitments and negotiation approaches currently in practice. To address this, participation of the trade focal contact in each Member States was critical during data collection exercise.
- Lack of motivation for online meetings explained why some members did not participate in the online stakeholders' meetings. The online survey helped address this challenge.
- Long lead times taken while securing meetings with energy sector stakeholders as requests to hold the meeting local stakeholders remain unanswered. Commitment to consistent and frequent emails including telephone calls were important measures that were deployed.
- Some national documents were in other languages other than English, this not only made data collection a challenge but also poses a great limitation to Member States on their awareness and knowledge of the sector especially as it relates to commitments, liberalization, and competition. The online stakeholders meeting and google translator helped address this challenge. Besides email, other communication avenues such as telephone calls can reduce the long lead time to securing meeting

There is a need to encourage Member States to develop appropriate data banks in collaboration with industry players and translate them to languages that can easily be read by a wider population. Complementing survey data with stakeholder meetings is important in harnessing volumes of data but also it ensures there is in- depth of the information provided. Finally, a dedicated support team to help in language translations is important.

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Appendix 1: Structure of the Petroleum sub-sector within COMESA Member States

Table 1: Regulatory regimes in COMESA Member States

Country	Current enabling policies (including: RE; EE; private sector participation; & PPPs facilitation) (list 5 max) most critical ones	Current enabling laws/pieces of legislation (including: RE; EE; private sector participation; & PPPs facilitation) – including electricity/grid codes & oil codes (5 max or yes/ no) most critical ones
Burundi	National Energy Supply Strategy Power Generation Master Plan	• Law No. I/014 of 2000 on electricity liberalization and regulation. • A law on PPP (Public Private Partnership). • Law No. 1/24 of 2008 on investment code. • Law No. 1/23 of 2008 tax benefits for investors. • Decree No. 100/318 of 2011 creation of Rural Electrification Agency.
Comoros	• Policy on electricity and petroleum products • Renewable Energy Policy, 2008 • Strategy and Energy Action Pla,n 2013 • National Energy Sector Strategy, 2012	• Petroleum Code 2012.

Country	Current enabling policies (including: RE; EE; private sector participation; & PPPs facilitation) (list 5 max) most critical ones	Current enabling laws/pieces of legislation (including: RE; EE; private sector participation; & PPPs facilitation) – including electricity/grid codes & oil codes (5 max or yes/ no) most critical ones
DRC	• National Electrification Fund policy • Energy Sector Policy, 2009	• Electricity Law of 2014. • Law No 14-2003 on the Electricity Code. • Law No 17-2003on creation of development funds for electricity sector (FDSEL). • Law No 16-2003 on creation of regulatory agency for electricity sector (ARSEL). • Law No 15-2003 on creation of National Agency for Rural Electrification (ANER). • Decree No 241-2010 on the organization of the Ministry of Energy and Hydraulics.
Egypt	• National Strategy for Development of Energy Conservation. • Measures and Renewable Energy Application 1982. • Renewable Energy Strategy of 2008. • Policy proposal to establish a dedicated transmission body for solar energy, the Solar Energy Trader (SET). • Feed in Tariffs policy.	• Electricity Law 87/2015. • Egypt Renewable Energy Law (Decree No 203/2014). • Law No. 1103/1974 on reorganization of Ministry of Electricity and Energy (MOEE). • Law No. 12/1976 on establishing the Egyptian Electric Utility. • Law No.100/1996 on amendment of Law No. 12/1976 establishing Egyptian Electricity body. • Law No. 18/1998 – on electricity generation, transmission and distribution. • Egyptian Electricity Holding Company Decree No. 86/2005 on commercialization of electricity distribution companies. • Prime Minister's Decree No. 1795/2008 on price revision of natural gas & electricity. • Prime Minister's Decree No. 2130/ 2010 on law amendment on electricity sales to industrial companies.
Eritrea	• Energy Policy 2009. • Rural Electrification Programme • National Power Development Master Plan. • Renewable Energy Policy and Development Framework (2010). • National Energy Development Framework (2010). • Least cost development plan. • Electricity master plan. • Utility financing plan. • Feed in tariff policy. • Tariff policy. • Interconnection and isolated network rules.	• Proclamation No. 141/2004 on promoting efficiency, safety, environmental protection and private sector involvement. • Proclamation number 142/2004 reforming the electricity sector. • Proclamation No. 68/1995 on development of Mineral resources (including geothermal resources). • Proclamation No. 108/2000 on governance of petroleum operations • Proclamation No.141/2004 Establishment of the Eritrean Electric Corporation.
Kingdom of Eswatini	• National Energy Policy 2003. • National Energy Policy Implementation Strategy 2009. • Swaziland Utilization of Renewable Energy Action Plan, 1997. • National Biofuels Development Strategy and Action Plan. • Public Private Partnership policy 2013. • Renewable Energy Independent Power Producers Policy (REIPPP). • National Energy Efficiency and Conservation Policy. • Kingdom Of Eswatini Energy Masterplan 2034 Grid code Subsidy framework Kingdom of Eswatini Short Term Generation Expansion Plan Energy Master Plan Eswatini, 2034	• Electricity Act, 2007. • Energy Regulatory Authority Act, 2007 • Petroleum Act, 2020
Ethiopia	• National Energy Policy 2013. • Letter of power sector policy (2003). • Ethiopian Electric Power Strategy. • Rural Electrification Fund. • Off -grid Rural Electrification Master Plan . • Alternative Energy Development and Promotion Programme. • Ethiopia energy development strategy.	• Electricity Proclamation No. 86/1997 established the EAA • Proclamation No. 691/ 2010 establishing the Ministry of Water and Energy (MWE) • Electricity Operations Regulations (49/1999). • Investment proclamation (280/2004) encouraging IPP. • Electricity Feed-in-Tariff Bill, 2012..

Country	Current enabling policies (including: RE; EE; private sector participation; & PPPs facilitation) (list 5 max) most critical ones	Current enabling laws/pieces of legislation (including: RE; EE; private sector participation; & PPPs facilitation) – including electricity/grid codes & oil codes (5 max or yes/ no) most critical ones
	• Least cost power development plan 2020-2040	
Kenya	• Sessional Paper No. 4 of 2004 on Energy. • National Energy and Petroleum Policy 2015 • Least cost power development plan 2021-2030. • Renewable Energy Auction Policy (REAP). • Feed-in-Tariffs Policy on Renewable Energy Resource Generated Electricity. • Power generation and transmission master plan. • Kenya distribution master plan. Bio-Energy Strategy 2020 - 2027 • National Energy Efficiency and Conservation Strategy • Kenya national electrification strategy • National transmission and distribution grid code	• Energy Act 2019,. • Petroleum Act 2019. •The Energy (Solar Photovoltaic Systems) regulations, 2012. •The Energy (Solar Water Heating) regulations, 2012 • Energy (Appliance Energy Performance and Labelling (amended) regulations, 2018.
Libya	• Renewable energy roadmap to 2030. • National Energy Efficiency Action Plan (NEEAP). • Libya Renewable Energy Strategic Plan 2013–2025.	• Prime Ministerial Decision of 8, 2009 establishing Energy Council. • Draft Electricity Bill Petroleum Law No 25 of 1955.
Madagascar	• National Electricity Fund (FNE) 2002. • Energy Policy	• Law No. 98-032 on energy in 1999. • Electricity grid
Malawi	• National Energy Policy 2003 (rev 2018) • Rural Electrification Fund.	• Act 20, the Energy Regulation Act. • Act 21, the Rural Electrification Act. • Act 22, the Electricity Act, 2004. • Act 23, the Liquid Fuels and Gas (Production and Supply) Act. • Petroleum (Exploration and Production) Act (Chapter 61:02).
Mauritius	• Outline of the Energy Policy 2007-2025 in 2007. • Long Term Energy Strategy 2009-2025 in 2008. • Integrated Electricity Plan (IEP) 2003-2012. • Transmission and distribution plan 2013-2022.	• Electricity Act of 1939 (amended 1991). • Utility Regulatory Authority Act 2005. • Grid Code 2009. • Maurice Ile Durable (MID) Levy 2008. • Energy Efficiency Act 2011. • Central Electricity Board Act 1964. • Petroleum Act of 1970 (amended 1991). • Mauritius Renewable Energy Agency Act. • Radiation Safety And Nuclear Security Legislations https://www.ecolex.org/details/legislation/mauritius-renewable-energy-agency-act-2015-no-11-of-2015-lex-faoc161112/
Rwanda	• Energy Policy 2015, rev 2008. • National Energy Strategy (2008-2020). • Least cost power development plan Rwanda 2019-2040. • Feed in Tariffs policy. • Energy Efficiency Strategy 2018 • Biomass Strategy 2018 • Electrification plan • Petroleum Policy • Rural Electrification Strategy • Methane Strategy	• Electricity Law No. 21/2011. • Law No. 39/2001 creating Rwanda Utilities Regulatory. • Decree No.18/76 of April 1976 establishing ELECTROGAZ.. • Law of January 31, 2014 establishing Rwanda Energy Group (REG Limited). • Draft Gas Law and Regulations for methane project. • National Petroleum law. • Investment code • Law on Petroleum • Oil and Gas law and regulations 2022
Seychelles	• Seychelles Energy Policy, 2013.	• Public Utility Company Act 1985. • Seychelles Energy Commission Act No. 5 of 2010. • The Public Utilities Corporation Act (1985).

Country	Current enabling policies (including: RE; EE; private sector participation; & PPPs facilitation) (list 5 max) most critical ones	Current enabling laws/pieces of legislation (including: RE; EE; private sector participation; & PPPs facilitation) – including electricity/grid codes & oil codes (5 max or yes/ no) most critical ones
		• Seychelles Energy Commission Act (2010). • Energy Regulatory Act 2012.
Somali	• Somalia: Power master plan, 2015. • Somali National Petroleum Policy.	• Somaliland Electrical Energy Act of 2013. • Petroleum Law of Somalia Law No. XGB/712/08.
Sudan	• Sudan Renewable Energy Master Plan 2005	• Petroleum Wealth Act, 1998. • Regulations for Protection of the Environment in Petroleum Industry 200. • Sudan electricity Act, 2001.
Tunisia	• Energy management programme 2008-2011.	• Energy Sector is Law No. 200, 4-72 of 2004 on the rational use of energy • Law No. 62-8 of 1962 that established the Société Tunisienne d'Electricité et du Gaz (STEG) • Law N° 2005-106 that created the National Energy Fund • Act 2009-7 of 2009 amending the 2004 Law on Energy Conservation to allow IPPs • Renewable energy law 2015
Uganda	• Renewable Energy Feed in Tariff • Energy Policy of 2002 • Oil and Gas Policy 2008 • Renewable Energy Policy 2007 • Electricity Sector Strategic Plan 2014/15-2023/24 • Rural Electrification Master Plan • Rural Electrification Fund • Rural Electrification Strategy and Plan 2013-2022 • Strategic Plan for the Uganda Power Sector, 1997 • Least Cost Power Development Plan 2016-2025.	• The Electricity Act 1999 • Petroleum Act of 1964 • Petroleum (Exploration and Production) Act of 1985 • Petroleum (Exploration and Production) (Conduct of Exploration Operations) Regulations of 1993 • Petroleum (Exploration, Development, Production and Value Addition) Bill, 2010 • Energy Efficiency and Conservation Bill
Zambia	• Energy Policy of 2002. • Oil and Gas Policy 2008. • Renewable Energy Policy 2007. • Electricity Sector Strategic Plan 2014/15-2023/24. • Rural Electrification Master Plan, 2008-2030. • Rural Electrification Fund. • Rural Electrification Strategy and Plan 2013-2022. • Power system development master plan for Zambia. • Feed in Tariffs policy. • Biofuels industry policy	• The Electricity Act 2003, 1999. • Petroleum Act of 1964. • Petroleum (Exploration and Production) Act of 1985. • Petroleum (Exploration and Production) (Conduct of Exploration Operations) Regulations of 1993. • Petroleum (Exploration, Development, Production and Value Addition) Bill, 2010. • Energy Efficiency and Conservation Bill. • Energy Regulation Act • Electricity Grid Code
Zimbabwe	• The National Energy Policy 2012. • A Master Plan for The Zimbabwe Electricity Transmission and Distribution Company (ZETDC). • Feed in Tariffs policy.	• Decree No 2010-241 of March 16, 2010 on the organization of the Ministry of Energy and Hydraulic Zimbabwe petroleum act 2006. Petroleum Act • Electricity amendment act • Electricity Distribution Code Regulations • Electricity Grid Code Regulations • Energy Regulatory Act

Sources: United Nations Environment Programme (2017), Member States energy sector Websites, European Union's Technical Assistance Facility (TAF) for the Sustainable Energy for All (SE4ALL) (2015).

Table 2: Regulatory regimes in selected RECs

Countries	Current enabling policies (including: RE; EE; private sector participation; & PPPs facilitation) (list 5 max) most critical ones	Current enabling laws/pieces of legislation (including: RE; EE; private sector participation; & PPPs facilitation) – including electricity/grid codes & oil codes (5 max or yes/ no) most critical ones
South Africa (SADC)	• Department of Energy Strategic Plan 2015 – 2020). • White Paper on the Energy Policy 1998. • Integrated Energy Plan (IEP) 2003. • White Paper on Renewable Energy 2003. • Energy Efficiency Strategy 2005. • Biofuels Industrial Strategy 2007. • Renewable Energy Policy Roadmaps. • Integrated Resource Plan (IRP) (2010-2030) 2011.	• National Energy Regulator Act, 2004 (Act No.40 of 2004) • Electricity Regulation Act, 2006 (Act No. 4 of 2006) • National Energy Act, 2008 (Act No. 34 of 2008) • Petroleum Products Act, 1977 (Act No. 120 of 1977 • Central Energy Fund Act, 1977 (Act No. 38 of 1977) • Nuclear Energy Act, 1999 (Act No. 46 of 1999) • National Nuclear Regulator Act, 1999 (Act No. 47 of 1999) • Petroleum Pipelines Act, 2003 (Act No. 60 of 2003) • Petroleum Pipelines Levies Act, 2004 (Act No. 28 of 2004) • Gas Act, 2001 (Act No. 48 of 2001) • Gas Regulator Levies Act, 2002 (Act No. 75 of 2002
Angola (SADC)	• National Energy Security Strategy and • Angola Energy 2025	• General Electricity Act No. 14-A/96 of 1996. • Decree 20/90 of 1990 on setting tariffs . • Decree 45/01 of 2001 on standardizing tariffs. • Decree 4/02 of 2002 establishing the sector regulator, the Instituto Regulador de Sector Eléctrico (IRSE).
Tanzania (EAC & SADC)	• Draft National Energy Policy of 2015 • Petroleum Policy 2015. • Natural Gas Policy 2015. • Local Content Policy 2014. • Rural Energy Fund. • Tanzania's Rural Energy Master Plan (REMP). • The Power System Master Plan 2016 (PSMP2016). • Feed in Tariffs policy	• Electricity Act (2008). • Petroleum (Exploration and Production) Act 1980. • Petroleum Act 2008. • Rural Energy Act 2005.
Cameroon (ECCAS)	• National Policy, Strategy and Action Plan for Energy. • Efficiency in the Electricity Sector in Cameroon 2014. • Energy Sector Development Plan (PDSE 2030). • Renewable energy policy. • Rural electrification master plan. • Energy Master Planning for Resilient Public Communities. • Feed in Tariffs policy	• Law No. 98/022 of 1998 governing the electricity sector. • Decree No. 99 /125 of 1999 on setting organization and functioning of Electricity Sector Regulatory Agency. • Decree No, 99 /193 of 1999 on organization and functioning of Rural Electrification Agency. • Decree No. 2000/464/PM of 30 June 2000 governing of electricity sector.
Morocco	• National Energy Strategy 2009. • Energy Development Fund 2009. • Long Term Generation Expansion Plan 2022-2041.	• Law No.13-09 Renewable Energy Law. • Law No.16-09 creating the National Agency for the Promotion of Renewable Energy and Energy Conservation (ADEREE). • Law No. 57-09 creating the Moroccan Agency for Solar Energy (MASEN). • Bill No. 48-15 on regulation of the electricity sector adopted in September 2015. • Law No.47-09 relating to energy efficiency. • Draft law on Public-Private Partnerships (PPPs).
Algeria	• Energy Sector Policy. • National Energy Efficiency Programme (PNME) • National Rural Electrification Programme. • National Programme for the promotion of RE until 2020 . • National Energy Efficiency Fund of Algeria (FNME). • Feed in Tariffs policy	• Law No. 02-01 establishing the Algerian Electricity and Gas Regulation Commission (CREG) as the national energy regulator • Decree no. 2000-116) establishing National Energy Efficiency Fund of Algeria (FNME). • Energy Efficiency Law of July, 1999. • Law on Renewable Energy of August 2004. • Decree on the Diversification of Power Generating Costs adopted in January 2004. • Electricity re-structuring Law enacted in 2002. • Hydrocarbons Law of March 2005.

Countries	Current enabling policies (including: RE; EE; private sector participation; & PPPs facilitation) (list 5 max) most critical ones	Current enabling laws/pieces of legislation (including: RE; EE; private sector participation; & PPPs facilitation) – including electricity/grid codes & oil codes (5 max or yes/ no) most critical ones
Nigeria (ECOWAS)	• National Electric Power Policy (NEPP), 2001. • National Integrated Power Project (NIPP) – established in 2004. • Energizing Access to Sustainable Energy (EASE). • Roadmap for Power Sector Reform (RPSR), 2013. • Nigeria Renewable Energy Master Plan (REMP). • National Energy Master Plan. • Transmission Expansion Plan. • Feed in Tariffs policy	• Electric Power Sector Reform Act (EPSR), 2005 (Act No. 6 of 2005). • Energy Commission of Nigeria Act (Cap 109 LFN of 1990. • Nuclear Safety and Radiation Protection Act (1995) • Electricity Industry (Enforcement) Regulations (2014). • Draft Regulations for Investment in Electricity Networks in Nigeria (2014).
Ghana (ECOWAS)	• National Energy Policy. • National Electrification Scheme (NES). • National Renewable Energy Policy . • Policy Framework for Street Lighting in Ghana (2011). • Ghana Renewable energy master plan. • Strategic National Energy Plan. • Feed in Tariffs policy	• Energy Commission Act. • Volta River Development Act (1961). • Public Utilities and Regulatory Commission Act, 1997 (Act 538). • Renewable Energy Act, 2011 (Act 832). • National Petroleum Authority Act, 2005 (Act 691). • Petroleum Exploration and Production Bill 2016. • Petroleum Revenue Management Act 2011.

Sources: United Nations Environment Programme (2017), Member States energy sector Websites, EU TAF SE4ALL (2015).

Table 3: Enabling institutional framework and energy regulator

Countries	Presence of an Enabling Institutional Framework for sustainable energy development and services (Max 5 institutions) most critical ones	Presence of a Functional Energy Regulator
Burundi	• Ministry of Energy and Mines. • Burundian Agency for Rural Electrification (ABER). • Rural Electrification Agency. • Régie de distribution d'eau (Regideso). • Burundi Renewable Energy Association (BUREA). • The Great Lakes International Electricity Company (SINELAC);	• Water and Energy Regulatory Authority (AREEN).
Comoros	• Ministry of Production, Environment, Energy, Industry and Crafts. • National Comorian Electricity Company - Société Nationale d'Electricité des Comores (SINELEC)	• Ministry of Production, Environment, Energy, Industry and Crafts
Dem Rep Congo	• Ministry of Energy and Hydraulic Resources • National Agency for Rural Energy Services. • National Society of Electricity (SNEL). • National Rural Electrification Agency (ANER). • National Energy Commission (NCE). • National Renewable Energies Service (SENEN). Agency for the Electrification of Rural and Peri-Urban Areas (ANSER)	• Electricity Regulation Authority (ARE).
Djibouti	• Ministry of Energy and Natural Resources. • Djiboutian Agency for Energy Management" (ADME). • International Hydrocarbon Company. • Djibouti Eelectricity Company (Électricité de Djibouti, EDD). • Djibouti Social Development Agency (Agence Djiboutienne de Developpement Sociale) (ADDS). • The Geothermal .Energy Development Office • National Energy Commission	• Ministry of Energy and Natural Resources
Egypt	• Ministry of Electricity andRenewable Energy . Ministry of Petroleum (MOP) regulates the petroleum subsector. • Egyptian Electricity Holding Company (EEHC). • Rural Electrification Authority (REA). • Hydro Power Plants Authority (HPPA). • Atomic Energy Authority (AEA). • Nuclear Power Plants Authority (NPPA). • Nuclear Materials Authority (NMA). • New and Renewable Energy Authority (NREA). • Egyptian Electricity Transmission Company (EETC).	• Electric Utilities and Consumer Protection Regulatory Agency(EgyptERA)
Eritrea	• Ministry of Energy and Mines. • Renewable Energy Centre. • The Eritrean Electricity Corporation (EEC). • Eritrea Power Distribution and Rural Electrification	• Electricity Regulatory Committee (ERC)
Kingdom of Eswatini	• Ministry of Natural Resources and Energy • The Swaziland Electricity Company • Swaziland Electricity Board (SEB)	• Eswatini Energy Regulatory Authority (ESERA)

Countries	Presence of an Enabling Institutional Framework for sustainable energy development and services (Max 5 institutions) most critical ones	Presence of a Functional Energy Regulator
	• Eswatini Electricity Company	
Ethiopia	• Ministry of Water, Irrigation and Energy (MWIE). • Ethiopia Electric Utility. • Ethiopia Electric Power. • Regional Energy Agencies. • Ethiopian Rural Energy Development and Promotion Centre (EREDPC).	• Ethiopian Energy Authority (EEA)
Kenya	• Ministry of Energy. • Ministry of Petroleum and Mining. • Energy Tribuanal. • Kenya Pipeline Company (KPC). • National Oil Company Kenya (NOCK). • Kenya Transmission Company (KETRACO). • Kenya Power and Lighting Company PLC • Rural Electrification and Renewable Energy Corporation (REREC). • Kenya Generating Company (KENGEN). • Geothermal Development Company (GDC). • Independent Power Producers. • Nuclear Power and Energy Agency (NuPEA)https://www.nuclear.co.ke/	• Energy and Petroleum Regulatory Authority
Libya	• Ministry of Electricity and Renewable Energy • Energy Council • Atomic Authority • Solar Energy Research Centre management, • Renewable Energy Authority of Libya (REAOL) 2007 • National Oil Corporation (NOC) • General Electricity Company of Libya (GECOL)	None, regulation is done by Ministry.
Madagascar	• Ministry of Energy • Agency for the Development of Rural Electrifi cation (ADER) Jiro sy rano Malagasy (JIRAMA)	• Board of Electricity Regulation (ORE) 2004
Malawi	• Ministry Of Natural Resources, Energy and Mining • Rural Electrification Management Committee. • Electricity Supply Corporation of Malawi (ESCOM). • Electricity Generation Company of Malawi (EGENCO)	• Malawi Energy Regulatory Authority
Mauritius	• Ministry of Energy and Public Utilities • Energy Efficiency Management Office • Radiation Safety and Nuclear Security Authority • Central Electricity Board • Energy Projects in Mauritius and Rodrigues • Mauritius Renewable Energy Agency (MARENA)	• Utility Regulatory Authority
Rwanda	• Ministry of Infrastructure, directorate of energy • Rwanda Energy Group (REG) • Energy Utility Corporation (EUCL) • Energy Development Corporation (EDCL).	• Rwanda Utilities Regulatory Authority (RURA)
Seychelles	• Ministry of Environment & Energy (MEECC) • Public Utilities Company (PUC)	• Seychelles Energy Commission
Somalia	• Ministry of Energy and Water Resources • Nugal Electrical Company (NEC)	• Somaliland Energy Regulatory Commission
Sudan	• Ministry of Water Resources, Irrigation, and Electricity (MoWRIE) • Sudanese Petroleum Corporation • Sudan Hydro and Renewable Energy Company (SHREC) • Sudanese Thermal Power Generation Company (STPG) • Sudanese Electricity Transmission Company (SETCO) • Sudanese Electricity Distribution Company (SEDC) • Sudanese Electricity Holding Company (SEHC)	• Electricity Regulatory Authority (ERA)
Tunisia	• Ministry of Ministry of Industry, Energy and Mines. • Tunisian Enterprise for Petroleum Activities (ETAP) • Tunisia's state-owned gas and electricity company (STEG) • National Agency for Energy Conservation (ANME)	• National Agency for Energy Management.
Uganda	• Ministry of Energy and Mineral Development • Uganda Electricity Generation Company ltd (UEGCL) • Rural Electrification Agency • Uganda Electricity Transmission Company ltd (UETCL) • Uganda Electricity Distribution Company Limited (UEDCL). • Uganda Energy Credit Capitalization Company	• Electricity Regulatory Authority • Petroleum Authority of Uganda
Zambia	• Ministry of Mines, Energy and Water Development, Zambia •The Rural Electrification Authority (REA) • The Energy Sector Advisory Group • The Zambia Electricity Supply Corporation (ZESCO)	• The Energy Regulation Board (ERB)
Zimbabwe	• Ministry of Energy and Power Development • ZESA Holdings Private Limited • Zimbabwe Power Company Private Limited (ZPC) – (Hwange Electricity Supply Company Private Limited and Kariba Hydro Power Company Private Limited). • ZESA Enterprises Private Limited (ZENT)	• Zimbabwe Energy Regulatory Authority (ZERA)

Countries	Presence of an Enabling Institutional Framework for sustainable energy development and services (Max 5 institutions) most critical ones	Presence of a Functional Energy Regulator
	• Powertel Communications Private Limited • Zimbabwe Electricity Transmission and Distribution Company Private Limited (ZETDC) • Rural Electrification Fund (REF) • Zambezi River Authority (ZRA) • National Oil Company of Zimbabwe Private Limited (NOCZIM) • Petrotrade Private Limited • Petrozim Line Private Limited	

Sources: United Nations Environment Programme (2017), Member States energy sector Websites, EU TAF SE4ALL (2015).

Table 4:Regional Energy Infrastructure Participation and Structure of power utilities

Countries	Level of participation in regional energy infrastructure (Power Pools)	Whether the Power Utility(ies) is/are vertically integrated or there is unbundling	Power Utility(ies) is/are unbundled (list the Companies)
Burundi	• EAPP • CAPP	• Unboundled	• Régie de distribution d'eau (Regideso). • The Great Lakes International Electricity Company (SINELAC)
Comoros	None	• vertically	• National Comorian Electricity Company - Société Nationale d'Electricité des Comores (SINELEC)
Dem Rep Congo	• SAPP • CAPP • EAPP	• vertically	• The Société National d'Electricité (SNEL)
Djibouti	• EAPP	• vertically	• Djibouti Electricity Company
Egypt	• EAPP-(joined 2005 left 2016)	• Unboundled	• Egyptian Electricity Holding Company (EEHC), • Egyptian Electricity Transmission Company (EETC).
Eritrea	• EAPP	• Vertically	• Eritrean Electric Corporation (EEC)
Ethiopia	• EAPP	• Vertically	• Ethiopian Electric Utility (EEU) • Ethiopian Electric power (EEP
Kenya	• EAPP	• Unboundled	• Kenya Power, • KETRACO • KENGEN
Libya	• EAPP • NAPP/ Comite Maghrebin de L'electricite (COMELEC)	• Vertically	• General Electric Company of Libya (GECOL)
Madagascar	• SAPP	• Vertically	• Jiro sy rano Malagasy (JIRAMA)
Malawi	• SAPP	• Unboundled	• Electricity Supply Corporation of Malawi (ESCOM) Limited • Electricity Generation Company (Malawi) Limited (EGENCO)
Mauritius	• SAPP.	• Vertically	• Central Electricity Board
Rwanda	• EAPP	• Unboundled	• Rwanda energy group (REG) has two subsidiaries, the: Energy Utility Corporation (EUCL) Energy Development Corporation (EDCL).
Seychelles	• SAPP	• Vertically	• Public Utility Company (PUC)
Somalia	• Possibility of joining EAPP	• Vertically	• The energy deparment under the ministry of energy and water resources. Nugal Electrical Company (NEC)
Sudan	• EAPP	• Unboundled	National Electricity Corporation (NEC) . Sudanese Petroleum Corporation Sudanese Hydrower Generation Company (SHGC) Sudanese Thermal Power Generation Company (STPG) Sudanese Electricity Transmission Company (SETCO) Sudanese Electricity Distribution Company (SEDC) Sudanese Electricity Holding Company (SEHC)
Tunisia	• NAPP/ Comite Maghrebin de L'electricite (COMELEC)	• Vertically	• Tunisian Company for Electricity and Gas (Société Tunisienne de l'Electricité et du Gaz, STEG)
Eswatini	• SAPP	• Vertically	• Kingdom of Eswatini Electricity Company
Uganda	• EAPP	• Unboundled	• Uganda Electricity Generation Company Limited (UEGCL) • Uganda Electricity Transmission Company (UETLC) Uganda Electricity Distribution Company Limited (UEDCL)
Zambia	• SAPP	• Vertically	• The Zambia Electricity Supply Corporation (ZESCO)
Zimbabwe	• SAPP	• Vertically	• State owned Zimbabwe Electricity Supply Authority (ZESA) Holdings and subsidiaries: • Zimbabwe Power Company • Zimbabwe Electricity Transmission and Distribution Company (ZETDC)

Sources: United Nations Environment Programme (2017), Member States energy sector Websites, EU TAF SE4ALL (2015).

Table 5: Structure of the Petroleum sub-sector within COMESA Member States

Countries	Whether upstream/mid-sream/down-stream services and operations are privatized or state-owned, or a mixture (private or state-owned)		
	Presence of Upstream activities covers exploration, extraction,construction/development, production/generation services.	**Middle stream activities covers; storage, transportation, and transmission of energy.**	**Down stream activities covers; refining, commercialization, and supply/ distribution of energy to the final consumer.**
Burundi	• No oil and gas finds	**Importation:** Privatized (i.e., Interpetrol). **Storage:** Privatized (i.e., Delta Burundi)	**Commercialization& distribution**: Privatized (i.e., Interpetrol), Maestro Oil and Gas Solutions (MOGAS)
Comoros	**Exploration & Production**: Privatized: (i.e., Bahari Resources Ltd (Kenya and Exploration license to GX Technology Corporation (America)	**Importation & storage:** State-owned – (i.e., Société Comorienne des Hydrocarbures-SCH)	**Commercialization& distribution**: State-owned (i.e., Société Comorienne des Hydrocarbures, SCH)
Dem Rep Congo	**Exploration & Production**: Mixture (private or state-owned, i.e., DRC parastatal Cohydro (DRC), Total Energies (France), Perenco,(independent Anglo (French London and Paris), the Société Nationale des Pétrolers du Congo (SNPC) (DRC), Chevron (American), Lukoil (Russian).	**Importation:** Mixture (private or state-owned), i.e., SEP Congo, Cohydro (DRC). **Storage:** Privatized (SEP Congo, Trafigura group & Puma Energy, (Singapore), Sononagol EP (Angola State-owned).	**Refinery:** Mixture (private or state-owned) i.e., Société Congo-Italienne de Raffinage -SOCIR (DRC), Puma Energy Holdings Ltd (Singapore). **Commercialization & distribution**: Mixture (private or state-owned) i.e., (Puma Energy Holdings, (Singapore), Cohydro and SEP Congo (DRC).
Djibouti	No oil and gas finds.	**Storage:** Mixture (private or state-owned), i.e., International Hydrocarbons Company -SIHD, (Djibouti), Shell (Netherlands), Total (France)	**Refinery:** State-owned (The Djibouti Oil Refinery). **Commercialization& distribution:** Mixture (private or state-owned), i.e., International Hydrocarbons Company -SIHD (Djibouti), (Shell (Netherlands), Total (France).
Egypt	**Exploration & Production**: Mixture (private or state-owned, i.e., San Donato Milanese (Milan, Italy), BP (Britain), Edison (Italy), Egyptian Natural Gas Holding Company (EGAS), Egyptian General Petroleum Corporation (EGPC), Egyptian Natural Gas Holding Company (EGAS), The Egyptian Petrochemicals Holding Company (ECHEM), The Ganoub El-Wadi Holding Company (GANOPE), and The Egyptian Geological Survey and Mining Authority (EMRA).	**Storage & Pipeline:** State-owned i.e., Arab Petroleum Pipelines (Egypt).	**Refining:** State-owned dominated i.e., Middle East Oil Refinery (MIDOR), Cairo Oil Refining Company (CORC), Egyptian Refining Company (ERC), Alexandria Petroleum Company (APC). Alexandria Minerals and Oils Company (AMOC), Alexandria National Refining and Petrochemicals Company (ANRPC), Nasr Petroleum Company (NPC), Amreya Petroleum Refining Company (ARPC), Suez Oil Processing Company (SOPC), Assuit Oil Refining Company (AORC) **Commercialization & distribution**: State-owned i.e.., Egyptian Natural Gas Holding Company (EGAS), Arab Petroleum Pipelines.
Kingdom of Eswatini	**Exploration & Production**: Mixture (private or state-owned, i.e., Yams Petroleum, glencore international (Switzerland), Galp (South Africa).	**Storage, Importation and Exportation;** The Eswatini National Petroleum Company (ENPC)	**Commercialization& distribution: :** Mixture (private or state-owned) i.e., The Eswatini National Petroleum Company (ENPC), **Distribution:** Galp Swaziland, - Eswatini, Fuelex (Canada), Kosotape (Eswatini), Phakama Oil (South Africa), Puma Swaziland (Eswatini), Swazi Oil (Eswatini), Tholo Oil (South Africa), Total (France), The South African Petroleum Industry Association – (South Africa).
Eritrea	**Exploration & Production**: Privatized i.e., ENI (Italy), Anadarko Petroleum (US), Perenco (France), CMS Oil and Gas (US), Defba Oil Share Company (a Chinese-Eritrean joint venture).	**Importation & storage:** Mixture (private and state-owned, i.e., Ethiopian Petroleum Supply Enterprise -EPSE (Ethiopia), Erigas Company (Eritrea).	**Refining:** state owned i.e., petroleum company of Eritrea (PCE) **Commercialization& distribution:** Privatized Exxon Mobil (USA), Shell (Netherlands), Total (France)
Ethiopia	**Exploration & Production**: Privatized i.e., Poly GCL Petroleum Investments(China), Africa Oil (Canada), New Age (United Kingdom), Delonex Energy (United Kingdom),, Gazprom (Russia), South West Energy (Ethiopia).	**Importation & storage:** State-owned), i.e., Ethiopian Petroleum Supply Enterprise -EPSE (Ethiopia)	**Commercialization& distribution:** National Oil Ethiopia
Kenya	**Exploration & Production**: Mixture (private or state-owned, i.e., National Oil Corporation of Kenya, Shell (Netherlands), Tullow Oil (Ireland) KenolKobil (Kenya), MOGAS (Dubai), Hass (German), Hashi Energy (Kenya), Gulf Energy (Kenya), Olympic (America), Dalbit Petroleum (Kenya), Petrocam (Nigeria)	**Importation:** Oil marketing companies with coordination from Ministry of Petroleum **Storage:** Kenya Petroleum Refineries Limited (KPRL) **Pipeline:** Kenya Pipeline Company (KPC).	**Refining:** Kenya Petroleum Refineries Limited (KPRL) now defunct **Commercialization& distribution:** National Oil Corporation of Kenya

Countries	Whether upstream/mid-sream/down-stream services and operations are privatized or state-owned, or a mixture (private or state-owned)		
	Presence of Upstream activities covers exploration, extraction,construction/development, production/generation services.	**Middle stream activities covers; storage, transportation, and transmission of energy.**	**Down stream activities covers; refining, commercialization, and supply/ distribution of energy to the final consumer.**
Libya	**Exploration & Production**: Mixture (private or state-owned) i.e., National Oil Corporation, Agoco, Sirte Oil Company, Waha Oil Company, Zueltina Oil Comay Mellitah Oil & Gas B.V all of Libya. International Oil Companies: Occidental Petroleum (America), Repsol (Spain), Total (France), ExxonMobil (American), Suncor (canada) Tatneft (Russia's).	**Storage:** Mixture (private or state-owned, i.e.,, National Oil Corporation (Libya), ConocoPhillips Corporation (America), Eni SpA (Italy), Total SA (France), Suncor Energy Inc (Canada) **Pipeline:** Mellitah Oil & Gas B.V (Libya)	**Refining:** State-owned i.e, National Oil Corporation (NOC, (Libya), Ras Lanuf Oil & Gas Processing Company (RASCO, Libya), Zueltina Oil Company (Libya), Sirte Oil Company (Libya), Agoco (Libya) **Commercialization& distribution:** State-owned dominated i.e, Brega Marketing Company, Mellitah Oil & Gas B.V Libyan Branch and Oillibya all are from Libya and Tamoil (is of USA).
Madagascar	**Exploration & Production**: Mixture (private or state-owned), i.e., Total (France), Galana (Madagascar), Shell (Netherlands), Madagascar Oil (Singapore), Office Malgache des Hydrocarbures (OMH), Malagasy Hydrocarbons Board (Madagascar).	**Storage:** State-owned i.e., Madagascar oil (Madagascar)	**Refining:** Solitany Malagasy (SOLIMA) **Commercialization& distribution**: ie. JOVENNA (Madagascar), Solitany Malagasy (SOLIMA)
Malawi	**Exploration & Production**: Privatized i.e., Hamra Oil & RAK Gas (UAE), SacOil Holdings (South Africa), Pacific Oil and Gas (Ghana), Heritage Oil (Australia), Jacka Resources Paladin Energy (Australia), Lynas Corporation (Australia), Surestream Limited (UK), Mkango(Canada).	**Importation & storage:** State-owned i.e., The National Oil Company (Malawi), (NOCMA), Yazam Energy Company Ltd (YECL (Malawi).	**Commercialization& distribution**: Yazam Energy Company Ltd (YECL)
Mauritius	**Exploration & Production**: Privatized, i.e., Essar Group -Essar Energy Holdings Limited, Essar Oil & Gas Ltd, Essar Chemicals Limited, Essar Exploration and Production Limited Essar Power Hazira Holdings Limited (India)	**Importation:** Privatized i.e., Shell (Netherlands), Engen/ ex-Caltex, (South Africa, Indianoil (Indian), Total (France), **Storage:** Privatized i.e., Indian Oil Corporation Ltd- IOC (indian), Mangalore Refinery Petrochemicals Ltd – MRPL (Indian), Oil and Natural Gas Corporation (Indian), Mauritius State Trading Corporation -STC (Mauritius).	**Commercialization& distribution:** IndianOil (India), Shell (Netherlands), Total (France), Caltex – Chevron, America).
Rwanda	**Exploration & Production**: State owned i.e., Ngali Holding Ltd (Rwandan)	**Importation:** Mixture (private or state-owned) i.e., KenolKobil (Kenya), Rwanda Energy Group Limited (Rwanda), BP plc. (UK), Societe Petroliere Ltd (Rwanda), Oilcom (T) limited (Tanzania), Abbarci Petroleum Marketing Company Limited (Uganda), Engen (South Africa), Oryx (Canada), Mount Meru Petroleum (Rwanda).	**Commercialization& distribution:** Mixture (private or state-owned) i.e., Societe Petroliere Ltd (Rwanda). Oilcom (T) limited (Tanzania), Abbarci Petroleum Marketing Company Limited (Uganda), Mount Meru Petroleum (Rwanda).
Seychelles	**Exploration & Production**: Mixture (private or state-owned) i.e., PetroSeychelles (Seychelles), Japanese National Oil Company (JOGMEC, Japan), Sub-Sahara Resources Limited (Australia).	**Importation and Storage:** State-owned i.e., Seychelles Petroleum Company Ltd.	**Commercialization& distribution:** State-owned i.e., Seychelles Petroleum Company limited.
Somalia	**Exploration & Production:** Mixture (private or state-owned) i.e., Shell (Netherlands), BP (London, UK) Chevron(America), Coastline Exploration (USA), Somalia Petroleum Corporation -SPC, (Somalia), Greater Nile Petroleum Operating Company (Somalia)	**Importation and Storage:** Somalia Importers (Somalia), Costalina (Kenya), Somalia Fuel Company – SFC(Somalia), Hass (Kenya).	**Commercialization& distribution:** Mixture (private or state-owned) i.e., Red Sea (Egypt), HASS Petroleum – (Kenya), Reem Petroleum – (America), SOMOIL Petroleum (Angola), SOM Petroleum. –(Somalia), Waraabe Petroleum – (Somalia), Indha Birta – (Somalia)
Sudan	**Exploration & Production**: Mixture (private or state-owned, i.e., Oil and Natural Gas Corporation (India), Sudan National Petroleum Corporation (Sudan), China National Petroleum Corporation & Sunagas (China), Petrodar Operating Company (Khartoum), Sudapak Operating Company (Pakistan), White Nile Petroleum Operating Company - WNPOC, (Sudan) Exploration and Production Authority-OEPA, (Sudan)	**Storage:** Greater Nile Petroleum (China)	**Refinery:** Mixture (private or state-owned, i.e., Khartoum refinery company -KRC (Sudan), AlObeid topping Unit (Sudan). **Commercialization& distribution:** Mixture (private or state-owned, i.e., Matthew Petroleum (Sudan), Nile Bakri Petroleum (Kenya), Oil Energy (Kenya), El Methaq Petroleum Company Ltd (Sudan), Greater Nile Petroleum Company Ltd (Sudan), Al Traifi Petroleum Co Ltd (Sudan), Petronas Sudan (Sudan).
Tunisia	**Exploration & Production**: Mixture (private or state-owned, i.e., Tunisia Local companies: Entreprise Tunisienne d'Activités Pétrolières (ETAP), Rigo Oil Company Limited, SEREPT, Carthago Oil Company, Exxoil, MARETAP, PRIMOIL S.A,	**Transportation:** Eni (Rome)	**Commercialization& distribution:** The National Oil Distribution Company AGIL SA (Tunisia), Tunisa Electricitt and Gas (STEG)

Countries	Whether upstream/mid-sream/down-stream services and operations are privatized or state-owned, or a mixture (private or state-owned)		
	Presence of Upstream activities covers exploration, extraction,construction/development, production/generation services.	**Middle stream activities covers; storage, transportation, and transmission of energy.**	**Down stream activities covers; refining, commercialization, and supply/ distribution of energy to the final consumer.**
	SITEP "Societe Italo-Tunisienne d'Exploitation de Petroleum", Tuniisia International companies: British Gas (UK), Samedan Oil (America), Marathon Oil (America), Kuwait Foreign Petroleum Exploration Company (Kuwait), Total (France) Fina, Neste Oy(Finland), Oranje Nassau (Netherlands), Union Texas Petroleum (America), Pluspetrol, (Argentina), EGEP and Walter Enserch-		
Uganda	**Exploration & Production**: Mixture (private or state-owned, i.e., Petrica Energy AS (Norway), Turkey's Petoil Ltd (Uganda) Tullow Uganda Operations Pty Ltd (Ireland), Rift Energy Uganda Ltd (Canada), Glint Energy LLC(USA), Armour Energy Ltd(Australia), Swala Energy Ltd (Australia), Nigeria's Oranto Petroleum International Ltd, Nigeria's Niger Delta Petroleum Resources Ltd, Nigeria's Waltersmith Petroman Oil Ltd, African Exploration Venture (a JV comprising Rapid Africa Energy Pty Ltd. and Africa Energy SA Corp., both of South Africa), Sasol Exploration and Production International Ltd (South Africa), Oil & Natural Gas Corp Videsh Ltd (India), China's and Hong Kong's Brightoil Petroleum (Uganda) Ltd, UAE's MDC Oil and Gas Holding Co. LLC.	**Importation:** Mixture (private or state-owned, i.e., Uganda National Oil Company (Uganda) , TotalEnergies E&P Uganda B.V (France), Liquid gas petroleum company – (Uganda). **Storage:** state-owned i.e., Petrocity Enterprises Uganda Ltd (Kenya).	**Commercialization& distribution:** Total M&S Uganda (Uganda), Vivo Energy Uganda (UK) Stabex International Limited (Kenya), Ola Energy Uganda (Mauritius), Hass Petroleum, Uganda Limited (Kenya), Maestro Oil and Gas Solutions (MOGAS) – (Dubai), Hared Petroleum Company Limited. – (Uganda), Rubis Energy Uganda Limited (Kenya).
Zambia	**Exploration & Production**: Mixture (private or state-owned, i.e., Mafula Energy Limited (Zambia), Sargas Oil Limited (Nigeria), Tiiseza Zambia Limited (Zambia), Barotse Petroleum Limited (Zambia), ZCCM-IH (Zambia).	**Storage**: Oryx Energies (Canada) **Pipeline and Storage:** Tazama Pipeline Limited **Importation:** Mixture (private or state-owned, i.e., Indeni Petroleum Refiner, Company Limited (Zambia), Dalbit Petroleum Zambia (Zambia), Ogaz Zambia Limited (Zambia), TOTAL Limited (France), SGC Investments Ltd (Zambia).	**Refining:** Indeni Petroleum Refinery, Zambia **Commercialization& distribution:** Mixture (private or state-owned, i.e. Oryx Energies (Canada), Devon oil (USA) Rubis (French), Continental Oil Company Ltd – (America), Energy Petroleum (Z) Limited (Zambia) Kobil Zambia Limited (Kenya)
Zimbabwe	**Exploration & Production**: Mixture (private or state-owned, i.e., Invictus *Energy (Australia)* Zimbabwe's Muzarabani oil and gas (Zimbabwe).	**Importation**: Mixture (private or state-owned, i.e., Zueth Petroleum Total Zimbabwe, Glow Petroleum (Zimbabwe,) Ram Petroleum (USA) , Genesis Energy (USA), Vivo Energy (UK), Zuva Petrolelum (Zimbabwe), Sakunda Petroleum (Zimbabwe), and Redan Petroleum (Zimbabwe), . **Pipeline Transportation:** National Oil Infrastructure Company of Zimbabwe (NOIC)	**Commercialization & distribution**: Bulls Power Fuels (Kenya), BOC Gases (Zimbabwe), Castrol (Zimbabwe)

Sources: United Nations Environment Programme (2017), Member States energy sector Websites, EU TAF SE4ALL (2015).

Appendix 2: Level of liberalization and competition (energy relates sector specific commitments.

Table 1: COMESA - Construction and Related Engineering Services Sector Liberalization and Competition

Sub-sector Liberalization	General Construction Work for Building including pipelines and mining								General Construction Work for Civil Engineering. Covers long distance pipelines, communication and power lines cables - Construction for mining and manufacturing								Installation work: - Gas fitting construction work							
	Limitations on market access				Limitation on national treatment				Limitations on market access				Limitation on national treatment				Limitations on market access				Limitation on national treatment			
COMESA / SUPPLY MODE	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
DRC	☒	☒	☒	U	☒	☒	☒	U	☒	☒	☒	U	☒	☒	☒	U								
Egypt									U	U	U	☒					U	U	U	☒	U	U	☒	☒
Seychelles	☒	☒	☒	U	☒	☒	☒	U	☒	☒	☒	U	☒	☒	☒	U								

☒ - None and U -Unbound | Mode of supply: 1 – Cross Border, 2 – Consumption Abroad, 3 – Commercial Presence, 4 – Presence of Natural Persons

Table 2: COMESA - Construction and Related Engineering Services Sector Liberalization and Competition Continuation.

Sub-sector Liberalization	Services incidental to mining & exploration								Integrated engineering services								Site preparation work for mining and energy services CPC 5115								Installation work and assembly work reated to manufacturing activities - Prospecting, mining or processing of minerals - Energy generation							
	Limitations on market access				Limitation on national treatment				Limitations on market access				Limitation on national treatment				Limitations on market access				Limitation on national treatment				Limitations on market access				Limitation on national treatment			
COMESA / SUPPLY MODE	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Eswatini									U	⊠	⊠	U	⊠	⊠	⊠	⊠																
Malawi	⊠	⊠	⊠	U	⊠	⊠	⊠	U																								
Seychelles	⊠	⊠	⊠	U	⊠	⊠	⊠	U	⊠	⊠	⊠	U	⊠	⊠	⊠	U	⊠	⊠	⊠	U	⊠	⊠	⊠	U								
Zambia	⊠	⊠	⊠	U	⊠	⊠	⊠	U																								

⊠ - None and U -Unbound | Mode of supply: 1 – Cross Border, 2 – Consumption Abroad, 3 – Commercial Presence, 4 – Presence of Natural Persons.

Table 3: COMESA - Distribution Services Sector Liberalization and Competition

Sub-sector Liberalization	Distribution services CPC 621 to 6121								Distribution services including commission agents								Wholesale services								Retail services							
	Limitations on market access				Limitation on national treatment				Limitations on market access				Limitation on national treatment				Limitations on market access				Limitation on national treatment				Limitations on market access				Limitation on national treatment			
COMESA / SUPPLY MODE	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Seychelles									U	U	⊠	U	U	U	⊠	U	U	⊠	⊠	U	U	⊠	⊠	U	U	⊠	⊠	U	U	⊠	⊠	U

Table 4: COMESA - Business services sector Liberalization and Competition

Sub-sector Liberalisations	Other Business also covers professional Services and Engineering services								Management consulting services related to energy and mining sector								Services related to management consulting related to energy sector								Technical testing and analysis services only for gas, mining and oil industry							
	Limitations on market access				Limitation on national treatment				Limitations on market access				Limitation on national treatment				Limitations on market access				Limitation on national treatment				Limitations on market access				Limitation on national treatment			
COMESA / SUPPLY MODE	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Eswatini	U	⊠	⊠	U	⊠	⊠	⊠	⊠	U	⊠	⊠	U	⊠	⊠	⊠	⊠									U	⊠	⊠	⊠	⊠	⊠	⊠	⊠
Madagascar																									U	⊠	U	U	U	⊠	⊠	U
Malawi																									⊠	⊠	⊠	U	⊠	⊠	⊠	U
Seychelles									⊠	⊠	⊠	U	⊠	⊠	⊠	U	⊠	⊠	⊠	U	⊠	⊠	⊠	U	⊠	⊠	⊠	U	⊠	⊠	⊠	U
Zambia																									⊠	⊠	⊠	U	⊠	⊠	⊠	U

Table 5: Business service sector Liberalization and Competition continuation

Sub-sector Liberalisations	Research and development for crude oil, natural gas and condensate analysis of petroleum product including engineering services								Related scientific and technical consulting services only for gas, mining and oil industry								Site investigation work								Renting services related to equipment for construction or demolition of buildings or civil engineering works, with operation							
	Limitations on market access				Limitation on national treatment				Limitations on market access				Limitation on national treatment				Limitations on market access				Limitation on national treatment				Limitations on market access				Limitation on national treatment			
COMESA / SUPPLY MODE	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Eswatini	U	⊠	⊠	⊠	⊠	⊠	⊠	⊠																								

Seychelles	⊠	⊠	⊠	U	⊠	⊠	⊠	U	⊠	⊠	⊠	U	⊠	⊠	⊠	U	⊠	⊠	⊠	U	⊠	⊠	⊠	U	⊠	⊠	⊠	U	⊠	⊠	⊠	U

Table 6: Selected RECs - Construction and Engineering services sector Liberalization and Competition

Sub-sector Liberalization/Regional Economic Communities (RECs)	General Construction Work for Building including pipelines and mining								General Construction Work for Civil Engineering. Covers long distance pipelines, communication and power lines cables - Construction for mining and manufacturing								Installation work: - Gas fitting construction work							
	Limitations on market access				Limitation on national treatment				Limitations on market access				Limitation on national treatment				Limitations on market access				Limitation on national treatment			
ECOWAS / SUPPLY MODE	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Cape Verde	U	⊠	⊠	U	U	⊠	⊠	U	U	⊠	⊠	U	U	⊠	⊠	U								
Liberia	⊠	⊠	⊠	U	⊠	⊠	⊠	U	⊠	⊠	⊠	U	⊠	⊠	⊠	U								
ECCAS / SUPPLY MODE	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
DRC*	⊠	⊠	⊠	U	⊠	⊠	⊠	U	⊠	⊠	⊠	U	⊠	⊠	⊠	U								
SADC / SUPPLY MODE	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
DRC*	⊠	⊠	⊠	U	⊠	⊠	⊠	U	⊠	⊠	⊠	U	⊠	⊠	⊠	U								
Lesotho*	U	⊠	⊠	U	U	⊠	⊠	U	U	⊠	⊠	U	U	⊠	⊠	U								
Seychelles	⊠	⊠	⊠	U	⊠	⊠	⊠	U	⊠	⊠	⊠	U	⊠	⊠	⊠	U								
South Africa	U	⊠	⊠	U	U	⊠	⊠	U	U	⊠	⊠	U	U	⊠	⊠	U								

Table 7: Selected RECs - Construction and Engineering services sector Liberalization and Competition Continuation

Sub-sector Liberalization	Services incidental to mining & exploration								Integrated engineering services								Site preparation work for mining and energy services CPC 5115								Installation work and assembly work related to manufacturing activities - Prospecting, mining or processing of minerals - Energy generation							
	Limitations on market access				Limitation on national treatment				Limitations on market access				Limitation on national treatment				Limitations on market access				Limitation on national treatment				Limitations on market access				Limitation on national treatment			
ECOWAS / SUPPLY MODE	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Cape Verde	⊠	⊠	⊠	U	⊠	⊠	⊠	U	⊠	⊠	⊠	U	⊠	⊠	⊠	U									⊠	⊠	⊠	U	⊠	⊠	⊠	U
Cote divore																									U	U	⊠	U	U	U	U	⊠
Ghana																									⊠	⊠	⊠	U	⊠	⊠	⊠	U
Liberia	⊠	⊠	⊠	U	⊠	⊠	⊠	U	⊠	⊠	⊠	U	⊠	⊠	⊠	U									⊠	⊠	⊠	U	⊠	⊠	⊠	U
SADC / SUPPLY MODE	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Botswana									U	⊠	U	U	U	⊠	U	U																
Eswatini									U	⊠	⊠	U	⊠	⊠	⊠	⊠																
Lesotho	⊠	⊠	⊠	U	⊠	⊠	⊠	U	⊠	⊠	⊠	U	⊠	⊠	⊠	U									U	⊠	⊠	U	U	⊠	⊠	U
Malawi	⊠	⊠	⊠	U	⊠	⊠	⊠	U	U	⊠	⊠	U	⊠	⊠	⊠	U																
Seychelles	⊠	⊠	⊠	U	⊠	⊠	⊠	U	⊠	⊠	⊠	U	⊠	⊠	⊠	U	⊠	⊠	⊠	U	⊠	⊠	⊠	U								
South Africa																									U	⊠	⊠	U	U	⊠	⊠	U

Table 8: Selected RECs - Distribution Services sector Liberalization and Competition

Sub-sector Liberalization	Distribution services CPC 621 to 6121								Distribution services including commission agents								Wholesale services								Retail services							
	Limitations on market access				Limitation on national treatment				Limitations on market access				Limitation on national treatment				Limitations on market access				Limitation on national treatment				Limitations on market access				Limitation on national treatment			
ECIWAS / SUPPLY MODE	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

Cape Verde																	U	⊠	⊠	U	U	⊠	⊠	U	U	⊠	⊠	U	U	⊠	⊠	U
Liberia									⊠	⊠	⊠	U	⊠	⊠	⊠	U									⊠	⊠	⊠	U	⊠	⊠	⊠	U
SADC / SUPPLY MODE	**1**	**2**	**3**	**4**	**1**	**2**	**3**	**4**	**1**	**2**	**3**	**4**	**1**	**2**	**3**	**4**	**1**	**2**	**3**	**4**	**1**	**2**	**3**	**4**	**1**	**2**	**3**	**4**	**1**	**2**	**3**	**4**
Lesotho																	U	⊠	⊠	U	U	⊠	⊠	U	U	⊠	⊠	U	U	⊠	⊠	U
Seychelles									U	U	⊠	U	U	U	⊠	U	U	⊠	⊠	U	U	⊠	⊠	U	U	⊠	⊠	U	U	⊠	⊠	U
South Africa																	⊠	⊠	⊠	U	⊠	⊠	⊠	U	⊠	⊠	⊠	U	⊠	⊠	⊠	U

Table 9: Selected RECs - Business Services Sector Liberalization and Competition

Sub-sector Liberalisations	**Other Business also covers professional Services and Engineering services**								**Management consulting services related to energy and mining sector**								**Services related to management consulting related to energy sector**								**Technical testing and analysis services only for gas, mining and oil industry**							
	Limitations on market access				**Limitation on national treatment**				**Limitations on market access**				**Limitation on national treatment**				**Limitations on market access**				**Limitation on national treatment**				**Limitations on market access**				**Limitation on national treatment**			
SADC / SUPPLY MODE	**1**	**2**	**3**	**4**	**1**	**2**	**3**	**4**	**1**	**2**	**3**	**4**	**1**	**2**	**3**	**4**	**1**	**2**	**3**	**4**	**1**	**2**	**3**	**4**	**1**	**2**	**3**	**4**	**1**	**2**	**3**	**4**
Eswatini	U	⊠	⊠	U	⊠	⊠	⊠	⊠																								
Seychelles									⊠	⊠	⊠	U	⊠	⊠	⊠	U	⊠	⊠	⊠	U	⊠	⊠	⊠	U	⊠	⊠	⊠	U	⊠	⊠	⊠	U

Table 10: Business Services Sector Liberalization and Competition

Sub-sector Liberalisations	**Research and development for crude oil, natural gas and condensate analysis of petroleum product including engineering services**								**Related scientific and technical consulting services only for gas, mining and oil industry**								**Site investigation work**								**Renting services related to equipment for construction or demolition of buildings or civil engineering works, with operation**							
	Limitations on market access				**Limitation on national treatment**				**Limitations on market access**				**Limitation on national treatment**				**Limitations on market access**				**Limitation on national treatment**				**Limitations on market access**				**Limitation on national treatment**			
SADC / SUPPLY MODE	**1**	**2**	**3**	**4**	**1**	**2**	**3**	**4**	**1**	**2**	**3**	**4**	**1**	**2**	**3**	**4**	**1**	**2**	**3**	**4**	**1**	**2**	**3**	**4**	**1**	**2**	**3**	**4**	**1**	**2**	**3**	**4**
Seychelles	⊠	⊠	⊠	U	⊠	⊠	⊠	U	⊠	⊠	⊠	U	⊠	⊠	⊠	U	⊠	⊠	⊠	U	⊠	⊠	⊠	U	⊠	⊠	⊠	U	⊠	⊠	⊠	U

Appendix 3: Stakeholder Questionnaire

Stakeholders Interview Questions (Government Representatives) - Study on energy and energy related services within COMESA.

COMESA invites you to participate in this stakeholder's interview for the study on energy and energy related services within COMESA. The study was commissioned to assist Member States adequately prepare for negotiations on this important sector. As a valued stakeholder, COMESA is seeking your input on current state of trade in the energy sector; current classification, commitments, and approach(es) in negotiating commitments made in the energy and energy related services; and policies, laws, regulations, institutions, structure of the energy sector, level of competition and liberalization of energy and related services.

Please take a moment to complete this stakeholder's interview questions which should take approximately fifteen minutes of your time. Your responses will be kept confidential and will be solely used for purposes of this study. If you have any questions regarding this stakeholder's interview, please contact Dr. Helen Hoka at helen.hoka@gmail.com. Thank you for your participation.

Email: **……...**

Part A: Type of Respondent

1. **Country as a respondent…….**

2. **Please indicator the sector of your organization**

Mark only one
☐ Government
☐ Private
☐ Other (please specify) ……

3. **Please specify your category as a respondent.**
☐ Government Representation - Policy and law-making organization i.e., Ministry in charge of Energy and public Utilities)
☐ Government Representation - Regulations/enforcement organization i.e., Utility Regulatory Authority.
☐ Construction Association Representatives – Energy producers/generators organizations.
☐ Construction Association Representatives – Energy suppliers organization.
☐ Construction Association Representatives – Energy transmission system operators organization.
☐ Construction Association Representatives – Energy distribution system operators/utility companies.
☐ National/Regional trade organization

☐ Other (please specify) ……

Part B: Current/Proposed classification of energy and energy related services for negotiation under COMESA.

Energy Services is one the prioritized services in COMESA. Under the WTO classification List (W/120), Energy Services and the Energy Related Services are not part of the 12 sectors identified under Trade in Services. However, the UN Central Product Classification (CPC Provisional version) has a separate section on energy services.

Currently energy services and energy related services are captured and classified in other sub-sectors. Such as business services, construction and related engineering services, distribution services, and transportation services.

1. **What are the other issues with the current classification of energy and energy related services?**

Suppose energy services and energy related services are classified separately under energy sector to capture more sub-sectors (see table 1 below) beyond business services, construction and related engineering services, distribution services, and transportation services to also consider scientific and other technical service; other professional, technical and business services; support and operations; installation service, public administration services; maintenance and repair services; and energy manufacturing services.

Table 1: Classification of energy and energy related services

Sector	Sub-Sectors(codes)
Construction services	• Engineering services related to long-distance pipelines, power lines/cables, mining constructions, power plants, site formation and clearance services, etc.
Distribution services	• Engineering services related to electricity, gas or steam transmission & distribution services (on a fee or contract basis).
Transport services	• Considers road, railway, pipeline & railway transport services of freight for petroleum products (crude oil, natural gas and refined petroleum.
Engineering services	• Engineering services related to mining and metallurgical facilities and processes, petroleum facilities and processes • Engineering advisory services, and Engineering services for transportation and power projects
Scientific and other technical service	• Geological and geophysical consulting, Mineral exploration and evaluation, Surface surveying services, Map-making services, Composition and purity testing and analysis services.
Other professional, technical and business. Services	• Environmental consulting services.

Support and Operation Services	• Related to oil, gas and mining extraction
Installation services	• Electrical wiring and fitting services, Gas fitting installation services.
Public administrative services	• related to fuel and energy, mining and mineral resources.
Maintenance and repair services	• Maintenance of electricity, gas, and electric meters, electrical distribution and control apparatus and other electrical equipment.
Energy manufacturing services	• Related to coke oven products, refined petroleum products and steam generator.

2. **Do you think such a proposed classification (see table 1) of energy and energy related services can work? Why and why not?**

Mark only one

☐ Yes

☐ No

☐ Don't know

3. **Give reasons for your answer (Question No. 2)**

4. **Based on Table 1 below, which energy and energy related services are imported by your country?**

Sector	**Sub-Sectors(codes)**
Construction services	• Engineering services related to long-distance pipelines, power lines/cables, mining constructions, power plants, site formation and clearance services, etc.
Distribution services	• Engineering services related to electricity, gas or steam transmission & distribution services (on a fee or contract basis).
Transport services	• Considers road, railway, pipeline & railway transport services of freight for petroleum products (crude oil, natural gas and refined petroleum.
Engineering services	• Engineering services related to mining and metallurgical facilities and processes, petroleum facilities and processes • Engineering advisory services, and Engineering services for transportation and power projects
Scientific and other technical service	• Geological and geophysical consulting, Mineral exploration and evaluation, Surface surveying services, Map-making services, Composition and purity testing and analysis services.
Other professional, technical and business. Services	• Environmental consulting services.
Support and Operation Services	• Related to oil, gas and mining extraction
Installation services	• Electrical wiring and fitting services, Gas fitting installation services.
Public administrative services	• related to fuel and energy, mining and mineral resources.

Maintenance and repair services	• Maintenance of electricity, gas, and electric meters, electrical distribution and control apparatus and other electrical equipment.
Energy manufacturing services	• Related to coke oven products, refined petroleum products and steam generator.

Tick all that apply

☐ Construction services
☐ Distribution services
☐ Transportation services
☐ Engineering services
☐ Scientific and other technical services
☐ Other professional, technical and business services
☐ Support and operation services
☐ Installation services
☐ Public administrative services
☐ Maintenace and repair services
☐ Energy manufacturing services
☐ Other services (please specify)…….

5. For each of the imported services identified in question 4, what are the countries where the imports are made from?

6. Based on Table 1 below, Which energy and energy related services are exported by your country?

Sector	**Sub-Sectors(codes)**
Construction services	• Engineering services related to long-distance pipelines, power lines/cables, mining constructions, power plants, site formation and clearance services, etc.
Distribution services	• Engineering services related to electricity, gas or steam transmission & distribution services (on a fee or contract basis).
Transport services	• Considers road, railway, pipeline & railway transport services of freight for petroleum products (crude oil, natural gas and refined petroleum.
Engineering services	• Engineering services related to mining and metallurgical facilities and processes, petroleum facilities and processes • Engineering advisory services, and Engineering services for transportation and power projects
Scientific and other technical service	• Geological and geophysical consulting, Mineral exploration and evaluation, Surface surveying services, Map-making services, Composition and purity testing and analysis services.
Other professional, technical and business. Services	• Environmental consulting services.
Support and Operation Services	• Related to oil, gas and mining extraction
Installation services	• Electrical wiring and fitting services, Gas fitting installation services.
Public administrative services	• related to fuel and energy, mining and mineral resources.
Maintenance and repair services	• Maintenance of electricity, gas, and electric meters, electrical distribution and control apparatus and other electrical equipment.

Energy manufacturing services	• Related to coke oven products, refined petroleum products and steam generator.

Tick all that apply

☐ Construction services
☐ Distribution services
☐ Transportation services
☐ Engineering services
☐ Scientific and other technical services
☐ Other professional, technical and business services
☐ Support and operation services
☐ Installation services
☐ Public administrative services
☐ Maintenace and repair services
☐ Energy manufacturing services
☐ Other services (please specify)…….

7. For each of the exported services identified in question 6, what are the countries where the imports are made from.

How is electricity captured in your country? Is it as a good or service and why?

Mark only one

☐ As a good
☐ As a service
☐ Don't know

8. **Give reasons for your answer (Question No. 8)**

Part C: Current state of trade in the energy sector.

1. **What energy sources are available in your country?**

Tick all that apply

☐ Solar
☐ Wind
☐ Hydro
☐ Biomass
☐ Geothermal
☐ Natural gas
☐ Coal
☐ Wastes
☐ Oil
☐ Other (please specify)……

2. **Which energy sources are imported to your country?**

Tick all that apply

☐ Electricity
☐ Biomass fuels
☐ Natural gas
☐ Coal
☐ Oil
☐ Other (please specify)……..

3. **For each of the imported energy sources identified in question 2, what are the countries where the imports are made from?**

4. **Which energy sources are exported from your country?**

Tick all that apply

☐ Electricity
☐ Biomass fuels
☐ Natural gas
☐ Coal
☐ Oil
☐ Other (please specify)

5. **For each of the exported energy sources identified in question 4, what are the countries where the exports are made to?**

Part D: Commitments made in the energy and energy related services at WTO under GATS and RECs

1. **Select relevant sub-sectors, upon which commitments have been made in your country on energy and energy related services at WTO under GATS and other Regional Economic Communities (RECs)?** *

Tick all that apply

☐ Construction services
☐ Distribution services
☐ Transportation services
☐ Engineering services
☐ Scientific and other technical services
☐ Other professional, technical and business services
☐ Support and operation services
☐ Installation services
☐ Public administrative services
☐ Maintenace and repair services
☐ Energy manufacturing services
☐ Other services (please specify)…….

2. **Based on the selected sectors (in Question 1 above), What are some of the specific commitments made in your country on energy and energy related services at WTO under GATS and other Regional Economic Communities (RECs)?)**

Part E: Policies, regulations and institutions of energy and energy related services

Services performances rely on the quality of policies, regulations and institutional frameworks.

1. **What are some of the key policies in your country's energy and energy related services?**

a.
b.
c.
d.

e.

2. **What are some of the key regulations in your country's energy and energy related services?**

a.
b.
c.
d.
e.

3. **What are some of the key current enabling policies (including: RE; EE; private sector participation; & PPPs facilitation)?**

a.
b.
c.
d.
e.

4. **What are some of the current enabling laws/pieces of legislation (including: RE; EE; private sector participation; & PPPs facilitation) – including electricity/grid codes & oil codes, etc.)**

a.
b.
c.
d.
e.

5. **What are the key energy plans in your country (including master plans)?**

a.
b.
c.
d.
e.

Part F: Structure of the energy sector

1. **Identify government institutions (and their main responsibility) that are related with energy development and services in your country?**

a.
b.
c.
d.
e.

2. **Does your country have a functional energy regulator?**

Mark only one

- ☐ Yes
- ☐ No
- ☐ Don't Know

3. **If yes in Question 2, Name the organisations/institutions in charge of energy regulation in your country?**

a.
b.
c.
d.
e.

4. **Are power utilities in your country vertically integrated?**

Mark only one

- ☐ Yes
- ☐ No
- ☐ Don't Know

5. **If vertically integrated, are the responsible institutions different from government institutions stated in question 1 above.**

Mark only one

- ☐ Yes
- ☐ No
- ☐ Don't Know

6. **If yes in question 5 above, which are these responsible institutions?**

a.
b.
c.

d.
e.

7. **How can you classify the services and operations performed across the energy value chain in your country? (based on whether they are privatized or state-owned, or a mixture)?**

(Mark only one response per row)

	Privatized	**State-Owned**	**Mixture (More of state-owned services than privatized services)**	**Mixture (More of privatized services than state-owned services)**	**Don't Know**
Upstream activities - cover exploration, extraction, construction/development, production/generation services					
Mid-stream activities cover transportation and transmission of energy services.					
Downstream activities - cover commercialization and supply of energy to the final consumer.					

Part G: Level of liberalization and competition of energy and energy related services.

Trade liberalization considers removal or reduce of restriction or barriers on the free exchange of good and services between countries.

Under WTO, competition policy seeks to discourage anti-competitive practices of firms (e.g., cartels/non-policies, abuse of a dominant position, anti-competitive mergers) are discouraged under the competition policy in WTO. Thus, competitive markets are considered efficient and protect the interest of consumers/industries.

1. **Based on commitments made in the energy and energy related services at WTO under GATS and other Regional Economic Communities (RECs) by your country, how would you rate the current level of liberalization(s)?**

Mark only one

☐ Low liberalization
☐ Moderate liberalization
☐ High liberalization
☐ Don't know

2. **Based on commitments made in the energy and energy related services at WTO under GATS and other Regional Economic Communities (RECs) by your country, how would you rate the**

current level of liberalization in reference to the four modes of supply of energy and energy related service?

(Mark only one per row)

Mode of service supply	Low Liberalization	Moderate Liberalization	High Liberalization	Don't Know
a. Cross border (is considered when a service is produced in one country but consumed in another one)				
b. Consumption abroad (takes place when services are consumed in the country where they are produced.				
c. Commercial presence (takes place when a service supplier establishes a presence abroad in order to provide services.				
d. Presence of natural persons (takes place when an individual is present abroad in order to provide a commercial service.				

3. **Based on commitments made in the energy and energy related services at WTO under GATS and other Regional Economic Communities (RECs) by your country, how would you rate the current level of competition?**

Mark only one

☐ Low competition
☐ Moderate competition
☐ High competition
☐ Don't know

4. **Based on commitments made in the energy and energy related services at WTO under GATS and other Regional Economic Communities (RECs) by your country, how would you rate the current level of competition in reference to the four modes of supply of energy and energy related services?**

(Mark only one per row)

Mode of service supply	Low Competition	Moderate Competition	High Competition	Don't Know
a. Cross border (is considered when a service is produced in one country but consumed in another one)				
b. Consumption abroad (takes place when services are consumed in the country where they are produced.				

c. Commercial presence (takes place when a service supplier establishes a presence abroad in order to provide services.				
d. Presence of natural persons (takes place when an individual is present abroad in order to provide a commercial service.				

Part H: Current/Proposed approach(es) in negotiating commitments in the energy and energy related services at WTO under GATS and other RECs

*The **'positive list'** allows COMESA Member States to **select sectors that will be open** to market access and national treatment for inclusion in the schedule of specific commitments.*

*The **'negative list'** approach opens **up all sectors to market access and national treatment except** those on the List(s) of Nonconforming Measures.*

1. **What is the current approach used by your country in negotiating commitments?**

Mark only one

☐ Positive List
☐ Negative List
☐ Other: ……

2. **Give reasons to why your country uses the selected approach when negotiating commitments?**

3. **What other alternative approaches would you propose to COMESA for adoption and use in negotiating commitments in the energy and energy related services in your country?**

Mark only one

☐ Positive List
☐ Negative List
☐ Other: ……

4. **Give reasons to why such a proposed approach should be adopted and used for negotiating commitments in COMESA for energy and energy related services**

- E. N. D. -