

In this first of a two-part series, e-comesa brings you an article from the Energy Desk of the Infrastructure Division at the Secretariat. Increasing energy security is a major objective not only of the COMESA region but also many entities in the world mandated to design strategies, prepare plans and initiate policies to encourage investment in the energy sector.

“Energy security”, means to ensure the availability of energy resources in a sustainable manner in terms of quantities; and at a less cost to the consumer. Also, the energy needs that support economic growth and assist in poverty alleviation should be adequately met. Attention should also be paid to the environmental dimension in the sense that the environment should not be harmed in the process of ensuring energy security.

Energy plays a critical role in the development process, as a domestic necessity but also as a factor of production whose cost directly affects prices of other goods and services and the competitiveness of enterprises. As the COMESA region's economy and trade continue to grow, energy is a needed, critical element to support and sustain the achieved growth.

COMESA has recognized energy infrastructure development as a priority and strategic focus area that requires special attention. This strategic objective aims to effectively address constraints related to the improvement of energy infrastructure in the region in order to foster physical, regional, energy connectivity and integration as well as enhance competitiveness in national, regional and international markets.

The removal of constraints related to energy provision is essential for improved market access and enhanced productive capacity. It is also a critical factor in reducing the cost of doing business.

The COMESA region is endowed with huge, natural energy resources. However, energy is a scarce and expensive. This could be attributed, among others, to the fact that the region's modern energy resources are still underdeveloped including their infrastructure such as electricity transmission and distribution networks, and petroleum and gas pipelines.

The high cost of energy in most Member States (for instance the average electricity cost in the region is around US \$0.10 to US \$0.12 per kilowatt hour) is, therefore, an impediment to doing business in the region.

Inadequate energy infrastructure in the region has also led to lower electricity access. To this end, the access to electricity in many Member States, with the exception of Egypt, Libya, Mauritius and Seychelles, is low. The average access rate was around 33 percent in 2010 as shown in Table 1.

Table 1: Percentage of Population with Access to Electricity and Per Capita Electricity Consumption in the COMESA Region (2010-2030)

Detail / Year

UNIT

2010

2015

2020

2030

Overall growth 2010 -2030 Compound annual growth rate (CAGR)

Population
projections

Million

451

510

570

695

2.19

Population with access to electricity

Million

150

232

348

541

6.6

Percentage of population with access to electricity

%

33

46

61

78

Per capita electricity consumption

Kilowatt-hours (KWH) per person

475

605

781

1200

Source: Computed by the COMESA Secretariat

Moreover, per capita electricity consumption for the COMESA region was 475 kilowatt-hours (KWH) per person in 2010. It was also very low compared to the per capita electricity consumption of the developing counties of the year 2005 which was 1169 KWH as indicated in Table 1.

However, insufficient investment in the energy sector, increased demand for economic growth and inefficient use of the available energy systems are among the factors that are contributing to the existing energy challenges of the region.

Table 2 also shows that the COMESA installed capacity was 27,425 MW, 30,697 MW, 38,831 MW and 42,889 MW in 2002, 2004, 2006 and 2008 respectively. The increase of the COMESA installed capacity from 2002 to 2008 was 56 percent. The total installed capacity of the region at present is around 52,141 megawatts. Almost 69 percent of the installed capacity is thermal, whereas 30 percent of it is hydro. This means that COMESA is generating clean energy.

Table 2: Historical Electricity Consumption and Installed Capacity for the COMESA Region (2002–2008)

Detail/Year

Unit

2002

2004

2006

2008

2010

2012

Installed Capacity

Megawatt (MW)

27,425

30,697

38,831

42,889

48,730

52,141

Source: Based on surveys conducted by the COMESA Secretariat

The COMESA installed capacity is projected to grow annually by 7 percent from 2010 to 2030 as indicated in Table 3. It is, therefore, expected to increase from 48,730 megawatts in 2010 to 68,346 megawatts in 2015, 95,859 megawatts in 2020 and 188,569 megawatts in 2030. These figures indicate this capacity shall double each ten years in order to meet the growing electricity demand as a result of economic and population growth. This may constitute an opportunity for investors from the COMESA region and beyond who may wish to invest in electricity generation and transmission facilities.

Table 3: COMESA Installed Capacity Forecast (2010–2030)

Detail/ Year

Unit

2010

2015

2020

2030

Overall growth

2010-2030 Compound annual growth rate (CAGR)

Installed capacity required

Megawatt (MW)

48,730

68,346

95,859

188,569

7

Source: Computed by the COMESA Secretariat

The Energy sector should always be given due consideration and priority in the agenda setting of each country. Thus, the importance of the energy sector in the economy necessitates that a long-term planning approach for energy development be developed, adopted and implemented and it should be in line with the overall macro-economic policies. Each Member States’ energy policy should, therefore, be focused on the key issues of: supply and demand side objectives and the instruments that are required to achieve these objectives.

For instance the electric power sub-sector issues that should be addressed in many Member States include: insufficient investment to develop electricity generation, transmission and distribution projects including the interconnection projects among the countries that can

facilitate and enhance the energy trade; large technical and non-technical electricity losses; inadequate maintenance; high costs of supply due to the past insufficient investment in power generation, transmission and distribution and a very low operational efficiency and lack of financial planning; lack of cost reflective tariffs; lower electricity coverage (access to electricity). Particular attention should be paid to the rural areas; low quality of electricity supply and customer service; inefficient commercial operations in terms of lack of an accurate customer database, inadequate systems and controls for meter reading and high accounts receivable; and an electricity sub-sector that needs to be restructured and reformed.

COMESA Member States should, therefore, be encouraged to formulate Energy policies that ensure adequate, quality, cost-effective and affordable supply of energy to achieve a remarkable economic growth and sustain development.

End of Part I