**Ethiopian Energy experiences:**

Thank you, Madam Undersecretary general, for giving me the floor to share Ethiopia's Experience of accelerating energy development, which is ultimately SDG7 implementation.

Excellencies, Ladies, and gentlemen,

It is a great honor for me to speak on this important event, regarding Ethiopia's national effort to transform the energy sector.

It is needless to say that energy is the lifeline of an entire sector of economic and social development of any economy. Therefore, energy sector infrastructural development, particularly improving access to modern renewable and clean energy is also as such crucial for developing economy like ours, hence, it attracted a significant attention in Ethiopia’s development endeavors.

Over the past more than a decade year, Ethiopia’s economy has been one of the fastest-growing economies in the world, it has an averaging more than 10 percent increase in GDP each year. This record GDP growth, coupled with a population growth rate of 2.3 percent, has meant a fast rise in demand for modern energy, with an annual electricity demand increment of more than 25% a year. My country is making significant efforts to satisfy the prevailing demand and upholding growth. I will try to briefly highlight these efforts in a given timeframe.

The Second Growth and Transformation plan (GTP2) which is a five-year development plan encompassing 2016 – 2020/21 crafted with objectives of bringing about transformative social and economic changes in Ethiopia that will put us on our way to become a lower middle-income country by the middle of the next decade. GTP2 has a target
to increase generation capacity to over 17000MW by 2020 with an overall potential of 35000MW by 2037.

In this regard, the government of Ethiopia invested the relatively far better amount of capital on basic infrastructures, including railway, road and industrial parks across the country. Furthermore, in compliment to these development efforts and long aspirations, since 2011, Ethiopia has implemented the Climate- Resilient Green Economy (CRGE) strategy, which substitutes conventional development tracks by means of harnessing clean energy sources like hydropower, wind, geothermal, solar and biomass, and implementing energy-efficient technologies in the transport and industrial sectors. Also, Ethiopia has ambitious plans to achieve a climate resilient development till 2025, that was made the country among the first developing country which submitted its NDC (Nationally Determined Contribution) at the UNFCCC (United Nations Framework Convention on Climate Change) and therefore takes a leading role in climate policy of the most vulnerable countries to climate change.
In fact, one of the main pillars of our green economy is the exploitation of renewable energy sources for electricity generation. In that aspect, Ethiopia is endowed with huge potential in hydropower, wind, solar, geothermal and bioenergy resources. It is thus the combination of this potential, the national dedication to its exploitation and the country’s strategic location that makes the country a potential renewable energy hub in the eastern Africa region.

Ethiopia is among the richest water resources in Africa that distributed across eight major basins with an exploitable hydropower potential of 45,000 MW. Over half of this potential is located in the Abbay river basins and Omo river basins, where the nearly-completed 6,000 MW Grand Ethiopian Renaissance Dam (GERD) and the recently-completed 1,870 MW Gibe III project, are among the others. Gibe III, the tallest roller-compacted concrete (RCC) dam in the world, with 246 m dam height and 630 m crest length, was inaugurated in December 2016. That has been constructed by 1.8 billion USD, and the construction was financed 40 percent by the Ethiopian Government, and 60 percent by the China Exim Bank. While all turbines have been installed and commissioned, not all are yet online, as reservoir filling is still in progress. One of the flagship projects, GERD construction is in good progress.

In addition, the 254 MW Genale Dawa hydropower plant is near completion, the 2,160 MW Koysha hydro project is under construction. This project is also financed between EEP and the Italian Export Credit Agency, now it under development by Salini Impregilo, for 2.8 billion USD cost. Other hydropower projects in the bidding phase are Tams (1,700 MW), Chemoga Yeda (280 MW), and the Geba complex (385 MW).

The country also envisions exploiting alternative sources such as wind, solar, geothermal and biogas resources. The exploitable capacity from other sources is estimated at 1.3 million MW (wind) and 5,000-10,000 MW (geothermal), solar 5.5kwh/m2.

The 1,000 MW Corbetti geothermal power project, with a cost of USD 4 billion, is expected to be commissioned in 2018. Currently, the 300 MW Aysha, 100 MW Debreberhan and 150 MW Itaya wind farms are under development, with others like the 100 MW Assela under final study.

Ethiopia is also rapidly expanding its transmission and distribution network in order to light up the country. The country has ambitions of becoming the ‘energy hub’ within the Eastern Africa Power Pool to realize Regional connectivity. Existing cross-border interconnections, Ethiopia is exporting electricity to Djibouti (up to 60 MW) and to Sudan (up to 100 MW) and has concluded power export deals with Kenya and South Sudan.
Construction of an Ethio-Kenya-Tanzania transmission line is expected to be completed in 2018. Ethiopia has plans to export up to 400 MW of electricity to Tanzania. Furthermore, the Government has plans to construct an additional 9,000 kilometers of distribution lines and to complete, in the next few years, construction of 102 kilometers of 66 KV transmission line, 3,706 kilometers of 132 KV transmission line, 4,546 kilometers of 230 KV transmission line, 2,947 kilometers of 400 KV transmission line and 61 kilometers of 500 KV transmission line.

Ethiopia recognizes that engagement with the private sector as Independent Power Producers (IPP) for power generation is crucial to meet the country’s needs. Ethiopia Electric Power (EEP) is developing procurement processes to select contractors and is awarding projects using a competitive bidding process. Under the Global Procurement Initiative (GPI), Crown Agents International, a U.S. based firm, is developing a procurement manual for EEP using a U.S. Trade and Development Agency (USTDA) grant. Power Africa has been assisting EEP with the development of IPP tender documents and the legal and regulatory IPP framework. Ethiopia is drafting its feed-in tariff bill, which should offer independent power producers the option to sell renewable energy power to the national grid at specified rates. Engineering Procurement Contracts (EPC) are still considered as an unsolicited contract when companies are providing amicable solutions and bring the finance.

Finally, Mr. Chairman, Overall, Ethiopia has abundant renewable energy resources and has a potential to generate over 60,000 megawatts (MW) of electric power from hydroelectric, wind, solar and geothermal sources. Despite Ethiopia’s huge energy potential, the country is experiencing energy shortages as it struggles to serve a population of over 100 million people and meet growing electricity demand which is forecasted to grow by approximately 30% per year. Despite the good efforts made so far, yet Only 58% of the country has access to electricity. Out of this, only 25% of the households are connected to the grid. The challenge for the energy sector now is to keep ahead of this steep rise in energy demand so that the sector will play its role in the social and economic development of the country. Therefore, international, regional partnership is critically important to bring about sustainable financial, technological and human capacity in that regards.

I thank you,