



Expanding Malawi's transmission network

Often times, the discourse in Malawi's public domain on the persistent power outage is the need to increase power generation in order to meet the growing demand of electricity in the country. Well, before the Compact, many of us assumed that the solution to reduction of the blackouts is indeed to increase power generation. No thoughts were put on whether the transmission and distribution of power could also be contributing towards the never ending blackouts. However, there are many factors contributing to low supply and distribution of power to homes and businesses.

It can not be disputed that reduced capacity in power generation is possibly the major factor affecting the supply of reliable and affordable power.

It is also important to note that for so many years, one of the restrictions to power generation investments in Malawi has been grid capacity limitations. Little has been mentioned on Malawi's transmission network backbone which is too long and old and in some cases, has resulted failure to efficiently evacuate power. Engineers will tell you that long

transmission lines do result into loss of power. But the question is how do we lose power during transmission?

In simple terms, as electricity is being transmitted, the power lines heat up (especially on hot sunny days) resulting in power being lost.

To reduce losses, improve transmission of power, reduce frequent blackouts, get more Malawians to access electricity and get the nation connected to the Southern Africa Power Pool (SAPP), the Compact is constructing new transmission lines and substations. The country will for the first time have a 400,000 volt overhead transmission line running parallel to the existing 132,000 volt line from the south to central region.

This new line will provide a secure transmission link between the Southern (where 99 percent of power is generated) and the Central regions.

Hence for Malawi, it is not investment in power generation only that can reduce these blackouts. We also need a modernized, expanded and reliable transmission and distribution network that is attractive for the private sector

to invest in generation of power.

However, with the new power infrastructure, coupled with a basket of reforms in the power sector, there is great optimism that this sector is bound to attract more investors.

The Transmission Network Upgrade sub-activity under the IDP is expanding and upgrading Malawi's transmission network as part of the Compact's broader objective effort to improve access to reliable electricity in the country.

Currently, three new transmission substations are under constructions. Two 132,000/400,000 volt substations at Phombeya in Balaka and Nkhoma in Lilongwe will be completed by May 2018. The transmission line linking the two substations will be completed by May 2018.

The two substations are not only important for the new transmission line. Both stations are key for connecting Malawi to the Southern Africa Power Pool. The expectation is that the Phombeya substation will be the landing and take-off point for the highly publicized Malawi-Mozambique interconnector while Nkhoma substation will connect Malawi to Zambia.

As a member of SAPP, Malawi

will be able to import and export power thereby bringing the much needed foreign currency into the country. By importing power, Malawi should expect to reduce blackouts and have more people connected to the national grid.

The third substation under construction is New Bwengu in Mzimba North. This is also very key for growth in the region. This 132,000 volt substation will also connect the country with Tanzania. But the most important benefit here is increased access to reliable electricity in the North. The substation will be linked with Luwunga Substation in Mzuzu. All this is aimed at meeting the growing demand of electricity in the country.

Under this project MCA-Malawi is also rehabilitating and expanding Bunda Turn-Off substation. Currently, 21,000 customers are benefiting from this station. Upon completion though, it is expected that ESCOM will connect about 8,000 new customers.

Still on transmission, the Compact is currently constructing a 32km radius line with self-supporting steel lattice and single pole towers which will replace the existing wooden

poles. The new towers will reduce the cases of vandalism of the power infrastructure and is expected to stabilize power supply and increase access to electricity in the City.

The new transmission line will go round the city from Bunda Turn-Off substation to Lilongwe A substation (near Town Hall), then to Area 48 substation (behind Bingu National Stadium) up to Kauma substation, before connecting Lilongwe C substation (near Kamuzu Barracks) and back to Bunda Turn-Off.

Successful completion of the above transmission line will create a pathway for increased power evacuation. This additional power will either be generated locally through Independent Power Producers (IPPs), or through importation from our neighbouring countries such as Zambia, Mozambique and Tanzania. This is in addition to the existing power generated by EGENCO.

Next week, we will now talk about another important component in the IDP and this is the Transmission and Distribution upgrade, expansion and rehabilitation.

Join us next week!

For more information on the Malawi Compact please visit our website on

<http://www.mca-m.gov.mw/>

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