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(Prof., Dept of Civil Engineering,
MANIT, Bhopal)*Editorial***Develop Electricity Projects and Transmission lines in a 'War Footing'**

Access to reliable and quality energy at an affordable cost is pre-requisite to the economic and social growth of the nation. However, nearly 36% of Nepali people are deprived of modern energy that is electricity.

It has been more than seven years since load shedding started in Nepal and it appears it may continue for many years in the future if not addressed properly. The current 12 hours per day is a painful barrier to development. An energy emergency has been declared twice in our country; but nothing concrete has emerged in terms of avoiding these crises. One example from Sindhuli district is instructive regarding inability to construct six towers of transmission lines. That is incurring loss of about 10MW due to long unnecessary long detouring of transmission lines. The inability to construct these towers means that available energy cannot reach the people who need it. To counteract these obstacles, standard operating procedure is no longer sufficient and we need drastic measures to eliminate load shedding. Furthermore, the implementation of hydro projects in Nepal is comparatively very slow. In the public sector, there has not been single MW added to the grid since the commissioning of the 70MW Middle Marsyangdi HEP in 2008. In the three-year National Plan, only 0.5km of transmission lines were erected against a target of more than 408km.

Policy makers and top bureaucrats in the energy business normally bank on the import of electricity from India as the only quick solution. Experience has shown that this is not reliable option. Nepal-India electricity relations do not depend upon the market forces, but political ones. This reality is not understood by the policy makers in Nepal.

Hydropower is clean energy and it has a great role to play encountering the effects of greenhouse gases. Hydropower has several other advantages: it can be started and stopped quickly; it accommodates load fluctuations easily; and it improves system reliability. Many hydro plants in the world are still operating flawlessly even after more than 65 years of operation.

Hydro development faces additional challenges. As energy technologies are improving, other forms of energy such as solar are becoming cheaper and more competitive. As well, climate change and retreating glaciers have led some to question the long-term sustainability of hydropower. Hence, the hydroelectric potential of the country must be utilized without delay before it is too late.

This special issue of the HYDRO Nepal on hydropower development explores hydro lessons learnt in Nepal and from the other countries in this region.

It has been learned that the NEA has requested the Electricity Tariff Fixation Committee to establish a 20% tariff increase in the sale price of electricity. An electricity tariff increase in Nepal will not come easily as the new government in Delhi is determined to lower its electricity tariff by 50%, creating a difficult standard of comparison for Nepal. In this scenario, it is paramount for NEA to cut its expenses, which includes reducing high electricity system loss (currently ~26%), expediting the implementation of ongoing hydro projects, and dealing judiciously with PPA's to large size hydro projects. On the latter count, NEA should figure economies of scale for projects larger than say 40MW.

We also strongly suggest that the Energy Ministry of the Government of Nepal take drastic measures in War Footing to expedite electricity development.

Jeewan P. Thanju
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