



The Theme: 10000 MW by 10 Years

All around us, small countries, poor countries, countries that have come out of conflict, countries with greater natural disaster, countries in all five continents –progressed faster, moved ahead of us. Now it is a race against time, let us gear up for 10,000MW in 10 years.

Rationale

After establishment of Nepal as a republican state, successive governments in Nepal since 2008 have worked on several fronts to expedite the hydropower development in Nepal. There have been numerous pledges to develop large quantum of hydropower since 2008. Rather than contradicting that pledge successive government enhanced it with further commitment. Ten thousand megawatts in ten years, cross boarder transmission lines, sectoral reform and establishment of national transmission companies, power trade agreement, project development agreement- all these have been sincere initiatives.

Coupled these initiatives and all political parties signing a jointcommitment to hydropower and explicit write-up in the election manifesto has clearly shown that there is a broad political consensus when it comes to the development of the hydropower. Now, coupled that with the nation's commitment to graduate to developing country status by 2022 shows that, the only point remaining is the development action plan. The recent 99 points vision(work plan) from the Ministry of Energy and approved by the Cabinet is the culmination of the all those commitments are explicitly stated in a substantial elaborative and realistic and workable plan basis.

As we move towards large scale hydropower development, the issues related to climate change adaption, disaster management, watershed management, basin level approach on plant operation and resource optimization, cumulative approach on environment management will be highly important for a Himalayan country like Nepal.

Power Summit 2016 (PS16) will highlight every facet of the 10000MW plan and find a way out to consolidate these plans in a way that, it becomes the guiding document and a monitoring tool for Nepalese to refer to until we reach our achievement.

Coverage

1. 10,000 MW in 10 years

Three successive governments had formed task force for recommending the hydropower vision of 10,000 MW in 10 years, 25,000 MW in 20 years but the document published in February 18, 2016 is the most comprehensive one outlining the rationale, time line and project names that could be taken up to reach 10,000MW in ten years. It needs wider dissemination among the stakeholder and also demands interdepartmental support in the government and wider acceptance across the political spectrum. PS16 will highlight the who, why, when and how of the 10KMW.

2. Energy Security: the pre-requisite of the National Security

Five months of disturbance at the Nepal-India border and drastic reduction in the importation of the petroleum products had created immense hardship in the day to day life of Nepalese. The impact was not only to the government to whom the blockade was targeted but to each and every walks of Nepalese life. A great lesson has to be learned from this. Nepal needs to work seriously on energy security least its national security is in jeopardy. It needs to diversify petroleum procurement, Nepal needs to increase petroleum storage capacity to a global standard, Nepal needs to use petroleum entry points more evenly, but most of all Nepal needs to develop large storage type projects and switch to renewable source rather than fossil fuel. The Pre-cursor of the energy emergency was also the realization that, now Nepal needs to expedite if it really wants to be a secure nation. PS16 will highlight the concept of energy security, what steps country has taken post blockade and way to replacing our petroleum use by hydropower.

3. Electricity demand estimation: Accounting for the whole nation

In absence of a clear national electricity demand forecast, there have been claims and counterclaims on determining what is the most probable electricity demand in the country over and able what NEA does for its own commercial purposes. The, confusion is now done with and the National Planning Commission has come out with an independent assessment of the electricity demand forecast. This has to be taken as a milestone and a good supplement to the vision of developing 10000MW in ten years. PS16 will give information on the latest electricity demand forecast and why Nepal has to migrate from the traditional forecast model.

4. Showcase Project 1: Budhigandaki - Can Nepal learn from GERD?

Grand Ethiopian Renaissance Dam (GERD) is a new motivation for us how a poor nation whose name was taken as synonymous with poverty and which was recognized through an iconic photo of a vulture staring to a malnutrition crawling baby has taken up the largest project in Africa a whopping 6000MW project from their existing 1800MW built so far. Can we as a nation learn to take decisions, can we really agree to move ahead. Budhigandaki is the only large storage project that can start shoveling but only when right decisions are taken on time today in this summit. PS16 will highlight the Budhigandaki project and tell us what are the critical steps that we need to take today to follow GERD.

5. Financing Hydropower project: The domestic Capital

“Nepal has its own hydropower development model” and it is different than Laos Model, Bhutan Model and other models that one can name. These models are based on a purely commercial financing and wide public participation. Each successive year larger projects are attaining their financial closure. Almost MW of projects have done financial closure, by today the largest being 86MW. HIDCL is poised to be the institution that will set the Can benchmark for project financial standards. Large remittance fund normally going for wasteful consumption is now capitalized for investment and mainly for hydropower projects. PS16 will highlight financing success of large domestic projects and the benchmarking procedures for financing a hydropower project from a domestic fund.

6. Showcase Project 2: UT1: An example of FDI

Took several years to take up larger FDI project post Khimti and Bhotekoshi, although Marsyangdia 50MW project is completed with Chinese Company with Chinese financing, Upper Trishuli 1 is the second FDI project which is developed by ... and using multilateral funding thus fulfilling many international requirements. Nepal needs foreign direct invest to develop large scale hydropower project. Hear from the developer of Upper Trishuli 1, a 216 MW project which will generate almost 40% of the today's NEA total generated energy.

7. Formation of National Transmission Grid Company

Transmission function has generally been a national monopoly of the electric supply chain around the world. In Nepal, transmission function has been part of NEA which has brought a systemic flaw in transmission planning at a national level in the context that NEA itself is a generating company and also an off-taker whereas private developers use different institutions for developing their project. It took several years to realize that, however for future market development a national transmission grid company is established to make national transmission line plan, construct transmission lines above 132kV and provide non-discriminatory access to the power producer both state owned and privately owned.

PS2016 will highlight the government's vision of national grid company, the model this company will adopt for private developer to be able to build and transfer the sub-basin and smaller transmission lines starting from the sub-basin projects to a delivery point pool.

8. PGCIL – One of the largest Grid Company in the world: What Nepal can learn

9. Transmission Lines - Key constraints on hydropower development

10. Showcase Project 3: Dhalkebar-Mujaffarpur Transmission Line: What learning and how fast we can build another XBTL line?

11. Impact of Climate change and natural disaster on Hydropower

Increasing extreme weather event, cloud-burst, GLOF, rapidly changing hydrology, are some of the new events seen with higher frequency. The knowledge to predict it and the mechanism to have early warning and mitigate such impact will be of paramount importance in days to come. PS16 will cover issues related to climate change, disaster prevention and mitigation.

12. Developing sustainable Hydropower

Development of hydropower has a multidimensional aspect. Local's demand for participation in the project (benefit sharing), locals demand for declaring them project affected area, local's demand of addressing the indigenous community and tribal rights (ILO169) has come up in the fore-front as a challenge for implementing hydropower.

If these issues are not identified on time by taking a good baseline survey to proper environmental Impact Assessments for hydropower projects and devising a proper mitigation measures or environmental safeguards may trigger a perpetual conflict of project with locals.

IPPAN has conducted national wide workshop in these aspects and the Power Summit 2016 will highlight the findings and invite expert comments so that, the hydropower we develop will be sustainable and with a minimized conflict.

13. Expediting private sector projects

First the hospitality industry the hotels and travel business, then bank and now the hydropower is some of the strong examples of blooming private sector hydropower. Unlike any other country, Nepal's hydropower development has its own model. All projects are developed from private equity utilizing commercial financing and they being done on time and within budget and more and more project now offer equity to the local areas. If managed properly, private sector hydropower in Nepal could be the example to the outside world.

PS 16 will highlight, the contribution of private sector in the power system of Nepal, the problem they face and the future they have and how the government should nurture this indigenous model of its own. Majority of action points in the Electricity Development Decade address the need of expediting private sector projects.

Organizations in discussion for PS16 participation:

- IPPAN
- GoN/MoEN
- Chinese Embassy
- Indian Embassy
- Norwegian Embassy
- US Embassy
- The World Bank
- Niti Foundation
- IFC
- ADB
- FNCCI
- CNI
- HIDCL
- NICCI
- USAID
- MCC
- Etc.