

Source: My Republica; 8 Feb 2016

Sunkoshi hydro project starts generating power after 18 months

Around 18 months of the destruction by the Jure landslide and further aggravation by the April 25 earthquake, the 2.6 megawatt Sunkoshi Hydropower Project has started producing electricity.

Managing Director at the Project Subarnadas Shrestha said that the power house submerged after the Jure landslides blocking the Sunkoshi River one year ago has started generating up to 1.2 megawatt power after the water level receded significantly. He added that they also repaired the power house damaged by the quake. RSS

Source: My Republica; 8 Feb 2016

Indecision of parliamentary panel on electricity pricing affects hydropower projects

RUDRA PANGENI

Purchasing energy in US dollar has remained a controversial issue for long. The controversy has affected many hydropower projects.

The Public Accounts Committee (PAC) of parliament had, 18 months ago, formed a sub-committee to study the pros and cons of signing Power Purchase Agreement (PPA) in US dollar and give clear policy direction to the government. The sub-committee is led by Top Bahadur Rayamajhi who is now the Minister for Energy. But the sub-committee has remained largely inactive. Members of the sub-committee were divided on the issue. Though the sub-committee didn't take any formal decision, members had tentatively agreed that PPA in US dollar should not be given to projects below 100 MW, according to Mina Pun - a member of the sub-committee. But Rayamajhi has a different opinion on the issue now. He wants to buy energy from hydropower projects in foreign currency.

"I have repeatedly raised this issue in the meeting of PAC. But I don't know why this sub-committee has remained idle," added Pun.

Sharma couldn't be reached for comment over telephone.

PAC hasn't even chosen a new coordinator for the sub-committee.

Former energy minister Radha Gyawali had repeatedly drawn the attention of PAC on the issue, saying that its indecisiveness has affected many hydropower projects. But her pleas went unheard.

Speaking at an interaction on 'Three Problems in Hydroelectricity Projects' organized in Kathmandu on Sunday, Rayamajhi said he was never against signing PPA in US dollar. "We should give priority to domestic investors as well as create investment-friendly environment for foreign investors," Rayamajhi said at the program.

Government officials say Rayamajhi has changed his opinion after assuming office at the Ministry of Energy. A member of PAC said this is not the first time that lawmakers have changed their opinions after joining the government.

PAC's indecision has affected project development agreement with Upper Trishuli I (210 MW) which is being developed by a Korean investor. Similarly, it has affected Tila 1 (440 MW) and Tila 2 (420 MW) projects which are being developed by Indian investors. Indecision on the issue

can hinder foreign investment in hydropower sector.

Speaking at the program, Energy Secretary Suman Sharma said preventing PPA in foreign currency suggests that the country wants to be dependent on India for energy too. "We desperately need foreign investment particularly in storage projects," Sharma said, adding that the country should find an amicable solution for sharing risks.

In its plan for declaring energy emergency, Ministry of Energy has prepared a plan to offer pricing in foreign currency until loan payback period, or for initial ten years of the project operation, as part of sharing currency fluctuation risks. MoE has said that the decision would at least help in forwarding undergoing projects which have applied for PPA for foreign currency.

Nepal Electricity Authority (NEA) is suffering huge loss while paying developers of Khimti Hydropwer Project and Upper Bhotekoshi Hydropower Project in US dollar terms. The two projects were developed in late 1990s.

Gagan Thapa, chairman of parliamentary Agriculture and Water Resources Committee, said the idea of purchasing energy in foreign currency only for loan payment period seems reasonable.

Source: Karobar; 8 Feb 2016

Plan to generate 10000 MW in 10 years

BABURAM KHADKA

The government has prepared a 10-year Energy Crisis Management Action Plan to guide the country toward prosperity by generating 10000 MW within 10 years. The action plan, which will be implemented as electricity development decade, aims to move generation, and transmission and distribution systems forward simultaneously.

It will come into implementation in the current fiscal year and will remain in place till the fiscal year 2082/83. It aims to rid the country of load-shedding within three years. It plans to end load-shedding in Nepal by importing Indian electricity at first and then end dependence on India through expansion in generation and even export surplus energy.

It aims to develop reservoir based projects with combined installed capacity of 5000 MW, peaking run of the river projects of 2000 MW, run of the river projects of 2500 MW and others of 500 MW based on other renewable sources. The action plan, being a policy concept, does not include the cost of generating 10000 MW and development of transmission and distribution systems.

Deputy Prime Minister and Energy Minister Top Bahadur Rayamajhi said the action plan will be presented in the next cabinet meeting after discussion with PM KP Sharma Oli. He revealed that preparations are on in a way to implement it from the next month. "The plan brought earlier for generation of 10000 MW in 10 years could not materialize. This action plan will bear fruits. Wait and see, work will be expedited from the next month and load-shedding will also be ended," he claimed and added that it will resolve all the problems seen in the energy sector.

This will be the third such action plan brought by the government. The then government had brought a plan of generating 10000 MW in 10 years seven years ago, and that of generating 4500 MW in five years three years later. But both the action plans could not be implemented. The new action plan with 95 points stresses on facilitation in forest and environment, and also includes provision to shorten the processes.

It has also paved the way for power purchase agreement (PPA) with foreign promoters in US dollar during the payback period for loans taken deeming that foreign investment is needed for big projects. Both the promoters and the Nepal Electricity Authority (NEA) will bear the risk involved in doing PPA in dollar. The action plan includes provision of the government bearing some additional liability of the NEA.

The action plan includes provision of signing take or pay PPA by removing the provision of dispatchable PPA wherein the NEA can procure the generated electricity on the basis of needs. The deadline for the grant of Rs 5 million for every MW has also been extended till 2082/83. The provision of full tax waiver for 10 years and 50 percent waiver for the next five has also been continued. License period and time for PPA of the projects destroyed by the earthquake will

also be extended while the deadline for generation for the under-construction projects has also been extended. The environment conservation fee of one percent has also been removed.

Coordinator of the action plan and Joint Secretary at the Energy Ministry Dinesh Kumar Ghimire said the action plan has been prepared assuming that energy demand will rise annually by 12 percent. He revealed that the provision of government keeping 15 percent energy in reserve has also been included. “The target of generating 10000 MW in 10 years will be met by constructing big reservoir-based projects,” he added.

The action plan states that transmission lines of varying capacity will be developed across the country and connected to the capital by implementing the master plan for transmission lines prepared by Electricite de France. It also includes plans of improving and modernizing the distribution system, developing underground transmission line and constructing substations of 12000 mVA capacity.

Source: The Kathmandu Post; 9 Feb 2016

Energy Emergency scheme to be shown to PM today

SANJEEV GIRI

The Ministry of Energy plans to present the working procedure for the declaration of the Energy Emergency to Prime Minister KP Sharma Oli on Tuesday. It had prepared a presentation for the Prime Minister on Monday, but it was called off at the last hour, officials said.

The proposed working procedure has laid emphasis on fast-tracking the construction of under-construction and planned hydropower projects apart from expediting reconstruction of plants damaged by last year's earthquake, constructing at least one storage-type project and upgrading and enhancing cross-border transmission lines.

"On our part, we are ready with the action plan. We will be presenting the document to the Prime Minister and we are waiting for a call from his office," said Energy Secretary Suman Prasad Sharma without divulging further details.

The ministry's Deputy Spokesperson Gokarna Pant said that the presentation for the Prime Minister was being readied for Tuesday. "Based on the Prime Minister's feedback, there will be further advancement," Pant added.

Pant indicated that if the Prime Minister was satisfied with the presentation and gives the go-ahead, the working procedure will be sent to the Cabinet for its endorsement this week.

Addressing an interaction on Sunday, Energy Minister Top Bahadur Rayamajhi too had said that the ministry would take the action plan to the Cabinet this week.

The theme of the Energy Emergency is "Energy Crisis Elimination Decade", according to Energy Ministry sources. The government plans to boost electricity generation to 10,000 MW in the next 10 years. Though the action plan has several items on the agenda like eliminating load-shedding within a year and promoting alternative energy sources, the focus of the Energy Emergency will be making the country self-reliant in power within a decade.

In order to end load-shedding within a year, the government aims to speed up the reconstruction of earthquake-damaged hydropower projects with a combined capacity of 90 MW as soon as possible and rush the construction of projects that are currently being built.

Likewise, the government plans to complete the construction of the 1,200 MW Budhi Gandaki, the only storage-type project whose detailed project report (DPR) has been prepared, within the emergency period.

The action plan has also proposed signing power purchase agreements (PPA) with potential hydropower developers in US dollar terms for a period of 10 years in a bid to attract foreign direct investment (FDI) in the sector.

Signing PPAs in US dollar terms has been a controversial issue in Nepal as the Nepal Electricity Authority (NEA) has been incurring losses from the

60 MW Khimti and 36 MW Bhote Koshi projects. The NEA has been stating 40 percent of its revenue goes into making payments for these two projects.

Once the action plan is endorsed by the Cabinet, a number of bills will be presented to Parliament to amend acts and policies related to land acquisition, forest clearance and compensation, among others, to make sure legalities do not stall the endeavour to make the country self-reliant in energy.

In 2008, the government had also declared an energy emergency during the tenure of Water Resources Minister Bishnu Prasad Poudel. However, it flopped as there were no concrete plans and programmes. The government said that it was aware of the mistakes committed then and that its action was based on past experience.

Source: The Himalayan Times; 10 Feb 2016

Demand-supply reliability: A dry hydropower concept

n solar and wind interventions, two things must be kept in mind before implementing it here in Nepal. Firstly, direct copy paste will not help here and secondly ground reality urges the need for a completely different approach in Nepal. To ensure equal rights of every Nepali citizen over each and every drop of Nepali water, the nation must get the maximum possible revenue from every drop and that is only possible when Nepal adopts a hydropower model with a maximum water-energy conversion mechanism. Surprisingly, nobody asks whether that is happening in Nepal or not? The hydro power development model adopted so far is inefficient both in terms of cost and water-energy conversion efficiency. From the average of 60/62 operational HPPs, one can see the present trend of water-energy conversion of merely 0.18 kWh per 1000 liters of water use.

This is mainly due to the flaws in the Electricity Act that talks about MW royalty but does not talk about royalty for water use on per liter basis. Except for the hydro power industry all other industries in Nepal have to spend a significant amount of money for their raw materials.

Narrow and conventional perspectives always lead to a 'zero sum game' where gains of one must be accompanied by the losses of others. Almost all implemented, on-going and planned HPPs in Nepal are simply aimed for "resource colonization"- favoring haves against have-nots. This dirty water politics under the influence of a few mighty people within and outside the Nepali border are simply trying to capture the rights over water resources thus making money out of this "free" and "clean" form of water fuel.

This free water concept in the name of promoting hydro power development since 1992 has taken us nowhere, and it is in fact a planned hydro scam legally, and, unless it is rectified, there is no end to energy miseries in Nepal.

So, instead of MW based royalty why not ask the developers how much water they annually intend to buy for a particular amount of energy (power) generation?

At this juncture, it's better to coin a new terminology "Water Handling Burden" in the Nepalese hydro power sector. It not only saves water use for the same amount of energy/power generation, but with reduced water handling burden one can imagine an intake pond of an HPP at the peak of a nearby hill to achieve more head.

Except for nuclear power plants almost all reliable electricity generating plants are constructed near load centers and their raw materials (coal, gas, diesel etc.) are transported to them. Only hydro power plants are exceptional in this regard as they are located near its source of raw material, i.e. rivers.

Just for a change, imagine an exceptionally high head water-energy conversion mechanism constructed such that its power house is located near an accessible area and its intake (pond) located at the peak of a hill nearby where a huge amount of rain water harvesting is possible, but

with no major river close by. With ultra high head feature, this establishment will need significantly less water for the same amount of power (energy) generation.

Less water handling burden will make its intake, waterways, powerhouse and downstream design quite small, simple and cheap. Only a longer section of waterways needs a little bit more attention. Requirement of less water also makes it more attractive as the deficit amount can be availed from nearby water sources.

Suppose this rain water harvesting arrangement lies around 300m down from the picking pond like the arrangement of the conceptual high head water-energy conversion mechanism it provides a net head of around 1500 m in full discharge design. Then one can imagine transport of raw materials (i.e. water) to this arrangement which requires an uplift of about 300 m and then it gets discharge through a 1500 m net head. Does it make any sense?

The world has recently started talking a lot about solar and wind energy harvesting. Both of these are intermittent in nature and in cloudy and no air-blow day they are even helpless.

Integrating these highly unreliable generations directly to the grid requires a preparation of a huge backup generations to respond to the demand-supply variations as and when needed. Unfortunately INPS has very little such facilities so far.

But for a change think what happens if we can make use of these intermittent sources of electricity to lift water up in our conceptual high head water-energy conversion mechanism (better term it a dry HPP)? With the said arrangement above, one unit of energy from such intermittent natural solar/wind sources can help generate 3-4 units of energy or more and that too as and when needed with unimaginable reliability.

In solar and wind interventions, two things must be kept in mind before implementing it here in Nepal. Firstly, direct copy paste of the lessons learnt in other parts of the world will not help here and secondly ground reality urges the need for a completely different approach in Nepal.

The steep gradient geographical feature of Nepal and abundantly available water resources (regular and rain water harvesting) gives hilly Nepal a chance where one can pump water up by X meters and can release the same through 2X – 10X meters or more. To store electricity, nature has availed Nepal with a fantastic natural gift of steep gradient feature; it's just a matter of seeing it.

Pokharel is an energy expert

Source: Karobar; 10 Feb 2016

Consultant being selected for DPR of Tamakoshi 5

The process of selecting the consultant for preparing detailed project report (DPR) for the proposed Tamakoshi 5 is into the final stage with evaluation of half a dozen companies who participated in the bidding process completed. The consultant will be selected within a month, according to the project. Lahmeyer International GmbH of Germany, WAPCOS India Limited, Nippon KOEI Company Limited (Japan), AF Consult (Switzerland), MWH International Inc (America) and SP Studio Pietrangeli Consulting Engineers (Italy) have participated in the bidding process initiated by the Nepal Electricity Authority (NEA). The most technically and financially sound company out of these will be selected as consultant.

The selected consultant will prepare DPR within one and half years of starting work. Feasibility study has showed that dam will not be required for the project as water from the under-construction Upper Tamakoshi Project will be directly taken through tunnel. The project will be developed in cascade model and its cost, annual generation and financial aspects will be determined only after completion of the DPR. The construction model and investment structure will also be decided only after that. The NEA has already done feasibility study for the project and estimated its installed capacity to be 87 MW. It is expected to generate 460 million units annually and its estimated cost is Rs 13 billion (US\$ 130 million) at Rs 150 million per MW. Similarly, the NEA and Korea Water Resources Corporation (K Water) are also preparing to select consultant for preparing DPR for Modi A and Upper Modi, with combined installed capacity of 62.5 MW, that they are jointly developing. Feasibility study done by K Water has showed that Modi A can be developed as a 42 MW and project Upper Modi 20.5 MW through the same structure in cascade model.

Source: The Kathmandu Post; 11 Feb 2016

Power import turns uncertain over tariff issue

[SANJEEV](#)

Although the construction of the 400kV Dhalkebar-Muzaffarpur cross-border transmission line is set to complete by Thursday, plans to import 80MW electricity from India from February 16 have turned uncertain after issues related to pricing surfaced.

The tariff issue emerged after India assigned NTPC Vidyut Vyapar Nigam to export power to Nepal. Previously, India's Power Trading Corporation (PTC) was supposed to supply the 80MW electricity. PTC had proposed selling the electricity at Rs5.5 per unit, but NTPS has now demanded Rs8.8 per unit.

"The issue surfaced after a new agency was brought onboard to supply energy to Nepal. We are doing our bit to resolve the issue at the earliest," said NEA Managing Director Mukesh Kafle. After NEA's appeal to Indian agencies concerned to abide by the proposal made earlier failed, it has corresponded to India's Power Ministry through the Ministry of Foreign Affairs over the issue. "We are sure the G2G (government-to-government) negotiation will yield positive results," said Kafle.

NEA said the task of developing the transmission line on the Nepali side would complete by Thursday and a test transmission would begin from Saturday. "This marks the end of infrastructure development of the cross-border transmission line," Kafle said.

Nepal purchases energy from PTC at Rs5.80 per unit on an average. The country is currently importing 200-230MW electricity from India every day. The import of additional energy will help reduce load shedding by around two hours a day.

However, Kafle said NEA could not import the additional energy until the tariff-related issues are resolved. "This is a commercial deal and without clarity on tariff we simply cannot act," he said, adding since the import of the additional energy falls under the government's priority, he was optimistic the issue would be resolved soon.

During a Nepal-India Joint Steering Committee meeting in January, the two countries had discussed Nepal importing up to 200MW energy from the Dhalkebar-Muzaffarpur transmission line within the next winter season and had agreed to make the project functional in full capacity by December 2017.

Once the project is operated in full capacity, Nepal will be able to import around 940MW energy from India.

Source: My Republica; 11 Feb 2016

FinMin seeks India assistance to build two hydropower projects

RUDRA PANGENI

Finance Minister Bishnu Prasad Paudel has sought additional financial assistance for development of two hydropower projects from India.

Paudel sought grant assistance to develop a reservoir project of 250 MW and line of credit to build a project of 500 MW capacity.

Finance Secretary Lok Darshan Regmi said Paudel sought the assistance during the latter's meeting with Minister for External Affairs of India Sushma Swaraj in New Delhi.

Regmi, who was also present in the bilateral meeting, said the assistance is likely to be announced during Prime Minister K P Sharma Oli's upcoming visit of India.

The two projects are likely to cost around Rs 150 billion or US\$ 1.5 billion. Average hydropower development cost is Rs 200 million per MW. India has already announced two major lines of credit worth \$2 billion. One was announced by Indian Prime Minister Narendra Modi during his Nepal visit in August 2014, while the other was announced by Swaraj during International Conference on Nepal's Reconstruction held in Kathmandu in June last year.

Paudel returned to Kathmandu on Wednesday, wrapping up his three-day India visit. His visit was meant to lay ground for Prime Minister Oli's visit which is likely happen on February 19-24.

Officials of Ministry of Finance, Ministry of Foreign Affairs and Ministry of Energy have started groundwork for signing agreement for assistance for two hydropower projects. They are likely to propose specific projects during the visit.

Likewise, agreements on mobilizing funds announced for reconstruction by India will also be inked during Oli's visit, according to a press statement issued by Ministry of Finance.

India has expressed commitments to take bilateral relations to a new height and leave no stone unturned to make Oli's visit a success, the statement added.

Swaraj, who came to Nepal to pay final tribute to late PM Sushil Koirala on Tuesday, has said that India was eager to welcome Oli.

The recent developments suggest that relation between the two countries is improving after

unofficial Indian blockade for nearly 20 weeks affected daily life of people and rattled the country's economy. The energy crisis that resulted from the blockade was the worst that the country has faced in its history.

The implementation of Indian grants and assistance, however, is not satisfactory. Nepal received a line of credit \$31 million from Exim Bank of India in 2010 for Rahughat Hydropower Project (40 MW). But the contract has been terminated and the project officials are preparing for fresh bidding.

Similarly, Hulaki Rajmarga (Postal Highway), which is being implemented under Indian assistance, is also in soup with contracts of five out of six packages terminated. The project is in the process of selecting new contracts for the five packages. The finance ministry statement said that the road will now be redesigned into a double-lane road with the aim to complete in five years. The statement also said that three undergoing cross-border transmission lines will be completed soon.

Nepal has also sought Indian assistance to develop Bir Hospital into a modern and well-equipped hospital, establish eight polytechnic institutes and an Ayurveda university, among others.

Fourteen small and large roads as well as two irrigation projects worth \$530 million are being built utilizing the \$1 billion line of credit announced during Modi's visit. The government is yet to select projects to utilize the remaining amount.

Source: Karobar; 11 Feb 2016

India proposes higher rate for 80 MW

The new Indian nodal agency for trade of electricity with Nepal, NTPC Vidyut Vyapar Nigam Limited (NVTN), has proposed a higher rate for the additional 80 MW delaying agreement with the Nepal Electricity Authority (NEA).

The NVTN has proposed Rs 8.64 (IRs 5.40) per unit as commercial rate. This does not include leakage and wheeling charge for use of the transmission line, and the actual cost can rise up to Rs 10 including that. Leakage in electricity is 25 percent in Nepal. The NEA earlier was procuring from the Power Trading Corporation (PTC) Limited at Rs 5.50 (IRs 3.44) and is asking for the same rate. The NEA will import additional electricity through Mujaffarpur-Dhalkebar Transmission Line from February 16.

Managing Director of NEA Mukesh Raj Kafle believes the rate should be determined by the two governments. "It seems there will not be any agreement through discussions between the NEA and NVTN. Government officials from the two countries must now determine it through negotiation," he added. He revealed that Finance Minister Bishnu Prasad Poudel during his India visit also held discussions about procurement of electricity. He hoped that the rate will soon be determined as talks are being held at the government level, and claimed that it will be determined before Prime Minister KP Oli goes for India visit.

He clarified that electricity cannot be procured from the PTC as India has fixed NVTN as the new nodal agency. He insisted that import of electricity will start from scheduled time as construction of 40-kilometer section of the transmission line from Bhitthamode to Dhalkebar on the Nepali side is almost complete. "The PTC has already procured up to 35 MW from Tanakpur at Rs 5 and we, therefore, are insisting that the same rate should be levied now. But the NVTN does not agree," chief of the Power Trade Department at the NEA Prabal Adhikari said.

The NEA is currently importing around 200 MW from Bihar and Uttar Pradesh as per the electricity exchange agreement between the two countries. The additional 80 MW is coming through special arrangements by the Indian government for its states and neighboring country, the Government of India Allocation Pool. The NEA is preparing to buy additional 80 MW only for six months.

India has already declared to give 940 MW to Nepal for a few years to resolve energy crisis in Nepal by December, 2017. Nepal has not been able to import electricity even when India is willing to give due to delay in expansion of transmission lines.

- See more at: <http://www.karobardaily.com/2016/02/11545/#sthash.P4kFPUEi.dpuf>