

Source: My Republica Post; 6 Jan 2018

Plan to downsize Tamakoshi-3 causes controversy

Utilizing resources to optimum capacity is the rule of thumb while fixing the installed capacity of any hydropower plant. But fixing such capacity for Tamakoshi-3 Hydropower Project has caused controversy.

The semi-storage project close to ready was abandoned by Norwegian company Statkraft (Previously SN Power) in early 2016. It has a best potential of 650 MW with daily 8 hours peaking even in the driest days when river flows shrink to their lowest, according to a detailed feasibility study by StatKraft.

An optimum capacity Tamakoshi-3 is the best option for the country in at least three ways: the project is at a strategic location viz a viz power consumption centers like Kathmandu and the eastern Tarai, no significant work is needed on transmission lines to evacuate the power, the energy output during dry months is attractive, and only about 120 households to be displaced.

The Ministry of Energy (MoE) awarded the project's license for a capacity of 650 MW to TBI Holdings in October last year. But TBI Holdings, which is owned by President of Non-Resident Nepalis Association Bhawan Bhatta, now wants to lower the capacity to 305 MW.

The ministry had awarded the important project after sitting on proposals sent by the Investment Board Nepal (IBN) for developing the plant through open competitive bidding. TBI Holdings's application for capacity amendment remains undecided as the project award has been challenged at the Supreme Court.

Statkraft had abandoned the project in January 2016 citing lack of viable power off-take options, lower electricity price forecasts, insufficient transmission capacity for power evacuation and other reasons. In January last year, the IBN board chaired by then prime minister Pushpa Kamal Dahal had decided to develop the project together with MoE.

People involved in the Statkraft study strongly objected to the TBI Holdings's proposal, saying reducing capacity damages the potential and the country stands to lose.

"This option (650 MW) of semi storage with 8 hours daily peaking was the best identified amongst the different capacities ranging between 447 MW to 880 MW, considering project cost and risk factors for the plant structure, and lowering the capacity only kills its potential," said Khadga Bahadur Bisht, a Statkraft employee and also former president of Independent Power Producers' Association Nepal. The project of US \$ 1.248 billion as of 2011 can generate 2324 GWh annually and lowering the capacity may obviously decrease the output significantly.

Officials at IBN, the implementing agency for hydropower projects above 500 MW, has written a two-page reservation letter to the ministry over the matter. Talking to Republica, IBN spokesperson Uttam Bhakta Wagle said, "Originally, the project's capacity was of 880 MW and there is no basis for decreasing the capacity to such a lowest capacity now."

"The main issue behind deciding project capacity is the decision maker-- government or private party," said a source at MoE who is not allowed to talk to media. "The government may opt for resource utilization to the full extent while the private party may consider different factors like financial capacity and energy market," added the source.

Ananda Pradhan, consultant of TBI Holdings, claimed that they chose to lower the capacity to make for a better project than that planned by Statkraft. "We want to make it a 6-hour peaking run-of-river plant, considering lack of market- as Statkraft pointed out- as well as to produce minimum 30 percent of total annual energy output in a period of six months-- December 1st to April end-- as prescribed by the government's new law," said Pradhan.

"We are always open to more PPAs for attractive mega projects, but we have not received any proposal from TBI Holdings, and with the new cross-border lines coming into operation the Indian market is also

open," said NEA spokesperson Prabal Adhikari, adding that they need abundant energy for achieving their minimum 7.2 annual economic growth rate.

Source: My Republica Post; 6 Jan 2018

Hydropower for industrialization and income generation: President

President Bidhya Devi Bhandari has said that generating more hydropower is key to increasing income of people and enhancing industrialization in the country.

Inaugurating Himalayan Hydro Expo 2018 on Friday, president Bhandari stressed on need for developing hydroelectric plants to tap the hydropower potential of the country.

“Clean energy can be an important means to do away with more expensive sources of energy like petrol, diesel, coal and gas that may deplete any time in future,” she said. “Our hydropower plants can also ensure energy security for the future generation.”

Bhandari added that the country needed more investment and newer technologies in the sector.

The president also expressed hope that economic and development agendas would be the top priorities for the next government.

Bhawani Rana, president of Federation of Nepalese Chambers of Commerce and Industry, said that energy consumption was a chief indicator of a country’s development status, adding that energy consumption has remained very low in South Asian countries.

Nepal’s per capita electricity consumption is a little over 100 kilowatt hour, which is one of the lowest in South Asia. Nepal was the first South Asian country to install a hydropower plant of 500 KW at Pharping 107 years ago. However, seriously lagged behind on hydropower development, the country has less than 1,000 MW of installed capacity at the moment. The mismatch of demand and supply during dry months widens to significant levels.

Rana said that it was unfortunate for the country to be generating too little energy despite the huge potential. She thanked the government for improving power supply since mid 2016.

“With the improved power supply the suppressed manufacturing sector has already witnessed a growth of about 10 percent in the last year,” Rana said.

President of Confederation of Nepalese Industries Hari Bhakta Sharma said that hydropower projects were good means of job creation. With the growth of industrialization after increased power supply, further jobs will be created, Sharma added.

Sharma stressed on bringing in different forms of investments like private equity funds, bonds in local currency, and climate change fund to finance Nepal’s hydropower.

“Outdated laws that are older than me still exist, and we have to work under those laws. It is making things difficult for the investment sector including hydropower,” Sharma said, appealing the government to foster investment climate.

Himalayan Hydro expo begins

KATHMANDU, Jan 6: Himalayan Hydro Expo 2018 has kicked off on Friday. Different domestic and foreign companies have showcased their services and products that are useful for hydropower sector. Electric cars are also on display in the three-day expo. “The event is bringing people and companies involved in this sector together. We aim to bring new technology faster in the country,” said Shailendra Guragain, president of Independent Power Producers’ Association Nepal, the lead organizer of the event. About 100 stalls have been set up in the expo, including those of hydropower producers, suppliers, hydropower plant designers, consultants, insurance companies, investors, banks, and other financial institutions.

The multinational companies showcasing their services and products are CMC-Italy, VOITH-Germany, CRYSTAL-India and FLOVEL-India, VAPTECH-Bulgaria, MAVEL-Czech Republic, BFL-India, Powerchina-China, CSEC-China. There are also thematic seminars-hydro tunnelling, banking and insurance, and hydropower-- on the sidelines of the expo. Guragain said that the expo has been organized with an aim to contribute toward the bigger objective of generating 10,000 MW of electricity from the current 1,000 MW by 2026 -- a target that the government has planned to achieve.

Source: My Republica Post; 7 Jan 2018

Hydropower projects gear up works in Ilam

Bhim Chapagain

Hydropower projects in Ilam have geared up construction works in recent years, whereas the existing ones have been continuously adding up electricity to the national power grid.

The construction works of Super Mai Hydropower, from Mai Khola river, are going on in full fledge at Ilam Municipality Ward 5 Barbote and Ward 2 Sumbek. The Rs 1.5 billion project is expected to add 7.8 megawatts of electricity to the national power grid by mid-June 2018.

The powerhouse and penstock pipelines are being constructed for the projects, according to concerned officials. After completion, the plant shall produce 47.39 GWh of electricity each year. The project construction site is situated nine kilometers from the district headquarters, the reservoir for silt deposit lies on Ward 2, and the powerhouse is situated at Ward 5.

A total 3,235 meters of pipeline with a diameter of 2.3 meters will be used to supply water to the powerhouse from the Maikhola River to be poured into a surge tank with dimensions of 7 meters diameter and 24 meters height.

The plant will be using a Francis Turbine with two horizontal axes of 3.9 MW capacities.

Likewise, the 9.1 MW Sagarmatha Hydropower plant, 4 MW Puwakhola-2, and 9.2 MW Maibeni projects are also preparing to start construction works.

Currently, six hydropower plants in the district are producing electricity, which include Sanima Mai, Panchakanya, Himal Dolakha, Puwakhola, Puwakhola-1, and Jogmai hydropower projects. Besides these, cascade projects of Sanima and Panchakanya hydropower are also running. However, the project officials have said that only a third of the installed capacity is being produced during the dry season of winter.

The 10 hydropower projects in the Kabeli corridor along Ilam-Panchthar-Taplaung have seen a decline in production, dropping from total installed capacity of 86.97 MW to 31.30 MW during winter. Sanima Mai, with the biggest capacity of 29 MW, is producing only 9.98 MW during winter. Likewise, production at Himal Dolakha project, capable of producing 4.5 MW, has been limited to 1.2 MW. Similarly, at Panchakanya Mai project that could harness 9.98 MW, only 3.7 MW is being produced. Similar fall in production has been seen in other power stations, according to officials.

Source: The Kathmandu Post; 7 Jan 2018

WECS to conduct study on energy consumption

The Water and Energy Commission Secretariat (WECS) is gearing up to conduct study on energy consumption patterns of industrial, commercial and domestic sectors in a bid to lay recommendations to enhance efficiency in power consumption.

The study is being conducted as per the announcement made by the government through the budget of this fiscal year. The secretariat will prepare energy audit guidelines for all three sectors before conducting the study.

The WECS is planning to conduct studies at plants that manufacture cement, steel, bricks, sugar, dairy products, noodles, pulp, paper and beverage to derive baseline figures on energy consumption of the industrial sector.

“The study will find out energy consumption pattern of these production units, which will help us to figure out the quantum of energy consumed by different equipments of these factories,” said Kiran Gautam, a senior divisional engineer at the WECS. Similar studies will also be carried out at commercial banks, five-star hotels and commercial high-rise buildings to obtain baseline figures on energy consumption of the industrial sector. Also, studies on electricity consumed by different domestic appliances, like air conditioners, refrigerators, lighting fixtures, washing machines, ovens, rice cookers, water heater and induction heaters, will be conducted to get baseline figures on domestic power consumption.

“Till date, no such study has been conducted. Once the study is over, we will come to know about efficiency of electricity usage,” said Gautam. “The study will also let us know about areas where energy can be saved.”

Upon completion of the study, the WECS will make recommendations on efficient use of electricity to various sectors. “We will then make suggestions to industrialists and managers on ways to save energy,” she said.

The secretariat, on Wednesday, published a notice seeking expression of interest (EOI) from consultants interested in preparing the guidelines and conducting the audit. “We will shortlist six firms based on their experience and qualification and invite them to submit technical and financial proposals,” said Gautam.

The proposal, according to the secretariat, will be evaluated as per quality- and cost-based selection process, where 80 percent weightage will be given to technical proposals and 20 percent weightage will be given to financial proposals. It will take around one and a half years to complete the study.

Source: The Kathmandu Post; 10 Jan 2018

Chinese JV gets NEA nod for 220kV substation in Barhabise

The Nepal Electricity Authority (NEA) has selected a Chinese contractor to build a 220 kV substation in Barhabise. The planned facility is one of six the state-owned power utility is building to improve power distribution in the Kathmandu Valley and adjoining districts.

The contract, worth \$8.79 million and Rs315.38 million, was awarded to a joint venture of Guangxi Transmission and Substation Construction Co and Shenzhen Clou Electronics last December.

According to the project office, the contractor is required to complete construction within two years of the contract between the NEA and the joint venture becomes effective.

“The contract between us will become effective once the joint venture receives an advance payment from the NEA,” said Durga Nanda Badiyar, NEA appointed chief of the substation project. “It will take around one month to complete the process and make the advance payment.”

Once the substation becomes operational, electricity produced by hydropower projects in Sindhupalchok district and nearby areas will be fed into it.

The NEA has already chosen two contractors for the construction of five substations at various locations in the Kathmandu Valley. Pinggao Group Co has been chosen to build 132 kV substations at Mulpani, Phutung and Chapagaon. Likewise, Sinosteel Company has been picked to erect 220 kV substations at Lapsipedi and Changu Narayan.

The six substations are being constructed as part of the Power Transmission and Distribution Efficiency Enhancement Project being executed by the Nepal government in association with the Asian Development Bank (ADB).

The new substations, according to the NEA, will significantly increase the load capacity of the electricity distribution system in the Valley and nearby districts.

Apart from building half a dozen new substations, the \$180 million project expects to meet the growing energy demand of the Valley and increase the capacity and reliability of distribution networks by undergrounding and automating the networks and using insulated cables for overhead lines.

The NEA has called for tenders for the installation of underground power cables in the northern and central parts of Kathmandu served by its Maharajgunj and Ratna Park distribution centres. The power utility has evaluated the technical proposals of the bidders and forwarded them to the ADB for approval. The major reason behind removing the existing overhead lines and installing an underground system is to increase the reliability of the distribution system besides increasing the capacity, according to the NEA.

The power utility’s existing distribution system is very weak, which results in sudden power cuts even when there is adequate supply.

The Valley’s existing distribution network can’t support a load of more than 400 MW. The NEA is planning to upgrade it to be able to support up to 2,000 MW.

Source: The Kathmandu Post; 11 Jan 2018

Power imports up 20pc as winter takes its toll

BIBEK SUBEDI

Electricity imports from India have surged around 20 percent in the last two weeks following a sharp drop in domestic production due to shrinking water levels in the snow-fed rivers where most hydropower projects are located. According to the Nepal Electricity Authority (NEA), energy imports from the southern neighbour have swelled to 477 MW from 400 MW in December.

Imports rose after domestic electricity generation plunged more than 39 percent below the total installed capacity. The country's hydropower plants are producing a combined 581 MW compared to their total capacity of 956 MW.

Hydropower projects owned by the NEA, the state-owned power utility, are generating 354 MW compared to their installed capacity of 428 MW. Likewise, privately owned plants, which have the same installed capacity, are putting out a combined 227 MW only.

As a majority of hydroelectric stations in the country are run-of-the-river types, output drops sharply during the dry season when the water flow in the rivers goes down. The only power plants with reservoirs are Kulekhani I and II. These projects generate a combined 92 MW.

Due to a sharp drop in the temperature, the water level has gone down in snow-fed rivers like the Kali Gandaki and the Marshyangdi where major hydropower projects are situated. Hydroelectricity generation at the NEA-owned 144 MW Kali Gandaki Hydropower Project, the country's largest plant, has gone down more than 50 percent to 70 MW.

Similarly, the Marshyangdi Hydropower Project is generating only 34 MW compared to its installed capacity of 69 MW, according to Bishnu Shrestha, chief of the load dispatch centre at the state-owned power utility.

Power generation at the 70 MW Middle Marshyangdi Hydropower Project has also dropped sharply to 36 MW.

As the dry season will last another couple of months, the NEA will have a hard time keeping the country free from power cuts. Peak electricity demand currently hovers around 1,300 MW, and the NEA has expected it to increase to 1,380 MW in the next few weeks.

The NEA has said that domestic consumers will not suffer power cuts although power cuts to industrial customers might be increased. "We still have a cushion of around 20 MW that we can import from India. Also, domestic generation is not likely to go down further," said Adhikari.

"In a worst case scenario, we might have to increase power cuts to industrial customers by a couple of hours." Currently, factories are facing a 3-hour daily power outage.

Source: My Republica Post; 12 Jan 2018

'Nepal Power Investment Summit 2018' from Jan 27

Kushal Basnet

Energy Development Council (EDC) is organizing Nepal Power Investment Summit 2018 in Kathmandu on January 27-29. The event is being organized with the slogans '40,000 MW in 10 years' and 'Assemble Electric in Nepal'.

Two conferences are being organized on the sidelines of the event.

The summit will see the participation of multinational investment companies, world's famous speakers, government officials, officials of the EDC, and other stakeholders, the organizers said in a press meet in Kathmandu on Thursday. There will also be a training session to discuss tactics of investment.

Speaking at the press meet, Sujit Acharya, chairperson of EDC, promised to bring loan investments worth US\$ 80 billion in Nepal through the summit. "If we fail to meet the target, I will resign from the post," Acharya said, adding: "The summit will tell stakeholders why Nepal is a favored for foreign investments."

Acharya further stressed the possibility of generating electricity in Nepal not only from water current but also from waste, wind and solar radiations.

Similarly, Susheel Pokhrel, executive member of EDC, said that the summit would be developed as an energy mart in this edition. "It will contribute to create an environment conducive for power development in Nepal," he added.

Human Construction Engineering Group of China, Andritz of Austria, and Dragon Capital of Vietnam are the sponsors of the summit. The first Nepal Power Investment Summit was organized in 2016.

