

Source: Karobar; 22 March, 2014

Load-shedding unlikely to end in 3 years

The government's claim to end load-shedding within three years in its common minimum program does not look justified with the Nepal Electricity Authority (NEA) projecting daily power cuts of eight to 10 hours during the dry season even though there may be surplus energy during the rainy season as all the completed and under-construction projects apart from Kulekhani are run of the river (ROR) types.

The common minimum program revealed by the government on Monday states that load-shedding will be ended within three years by adopting all alternatives for gradual minimization of the problem. But load-shedding does not look likely to be ended even in a decade as the necessary reservoir projects will not be built to meet the demand during the peak load period in dry season. There is also little chance of ending load-shedding by importing electricity from India as 400 KV Dhalkebar-Mujaffarpur and 400 KV Hetauda-Duhabi transmission lines will not be completed in scheduled time. NEA has already projected that there will be shortage of 900 MW in the dry season three years later while around 800 MW will be go in waste during the rainy season from 10 in the night to six in the morning from 2016. Energy Minister Radha Gyawali has also claimed that load-shedding will be ended within three years and has even asked the critics to note it down in a diary. The political parties including Nepali Congress (NC), CPN-UML in their respective manifesto for the recent Constituent Assembly (CA) election had also expressed commitment to free the country of power cuts within three years.

The installed capacity across the country will rise to 1700 MW by 2016 if all the projects that have signed power purchase agreement (PPA) with NEA were to be completed in scheduled time. NEA has projected that demand will rise to 1640 MW (7.60 billion units a year) but the projects will be generating only around 800 MW during the dry season as all the projects are ROR types. There will, therefore, be shortage of over 800 MW in the distribution system. The country is currently facing load-shedding of 12 hours a day when there is shortage of 600 MW in the system.

Mistrikhola (42 MW) and two Sanjen projects (58 MW), scheduled to be completed within three years, look set to be delayed as the transmission lines will not be completed in time. Mistrikhola being constructed by Robust Energy will be delayed as there is no transmission line in the Kali Gandaki corridor while Upper and Lower Sanjen projects will also not be completed in time as the transmission line from Chilime to Trishuli 3 B hub also will not be constructed in time. The 456 MW Upper Tamakoshi looks set to be finished by 2016 with 60 percent of work already completed until

now, according to the project office. Though the project will generate 456 MW during the three months of rainy season, generation will fall significantly during the dry season.

The country is currently importing up to 200 MW from India to limit load-shedding to 12 hours a day. There is no possibility of importing more as the 400 KV Dhalkebar-Mujaffarpur and 400 KV Hetauda-Duhabi transmission lines will not be completed in time due to delay in land acquisition and other problems. There is also problem of transmission line to import 150 MW from the Power Trading Corporation. Load-shedding during the winter can be reduced significantly if 500 MW were to be imported from India including that.

NEA officials claim that load-shedding will not be ended in three years despite the government's common minimum program and minister Gyawali stating otherwise. "We have to agree as it was prioritized in the common minimum program and the energy minister also claimed so, but the reality is not so," an NEA official said. The current installed capacity is 770 MW including the 38 projects constructed by NEA and the private sector and the multi-fuel plants in Hetauda and Duhabi. But the multi-fuel plants have not been operated as the per unit cost of electricity generated by them will be Rs 30. The Energy Ministry has issued license to 86 promoters for generation of 2229 MW until now.

Study to bring coal plant

Energy Minister Gyawali has formed a committee to study feasibility of coal plants to reduce load-shedding immediately after assuming office. The ministry sources revealed that the committee is currently doing study and decision will be taken about it once the committee submits report. Nepal does not have coal reserves and will have to import it from India.

Source: Karobar; 23 March, 2014

Model for powerhouse of Budi Gandaki decided

Decision has been taken about the model for powerhouse of Budi Gandaki Project. The Budi Gandaki Hydropower Project Development Committee has approved the design of constructing powerhouse either inside the dam that does not require digging of a tunnel or outside the dam.

The committee has written to the consultant Tractebel Engineering of France to prepare detailed project report (DPR) accordingly. The committee has prepared a schedule of starting generation from March, 2021. Tractebel, submitting the concept design report three weeks ago, had provided three alternatives for powerhouse and urged it to select any one of them. "We have advised to prepare DPR as per the first option out of three alternatives proposed by Tractebel. It will prepare DPR incorporating the project design on the same basis, and environmental and social impact," executive chairman of the committee Laxmi Prasad Devkota said.

He stated that the first alternative looked appropriate from the perspective of time and energy. He revealed that the decision was taken following comprehensive discussions with expert groups. The second alternative was constructing an under-ground power house in Ghyalchowk by digging a 1.50-kilomtere from a little above the dam while the third alternative was constructing the dam at Dabung by building a 10-kilometer tunnel and constructing the power house in between by taking water to Fishling through the tunnel. The committee has sought suggestions from the Energy Ministry and the Nepal Electricity Authority (NEA) to determine installed capacity of the reservoir based project on the basis of the country's electricity demand after 2020. He stated that the decision about whether to develop it as a 630 MW project or 945 MW project will be taken after receiving suggestions from the ministry. Study has showed that the project will generate 2.50 billion units of electricity a year with either capacity.

He said cost will be determined after determination of installed capacity. "It will cost Rs 200 billion if designed for 630 MW and Rs 225 billion for 945 MW," he revealed. The project can be operated at full capacity for 9-12 hours a day if designed for 630 MW and 6-8 hours if designed for 945 MW, according to the concept design provided by the consultant. The concept design report submitted by Tractebel has stated that the project is financially and technically viable, and its generation cost will be Rs 6.33 per unit. This rate is cheap as it is a reservoir based project. Generation of electricity will be cheaper if the US dollar were to weaken a bit.

Construction will be completed in five years after finishing feasibility study, resettlement and rehabilitation, financial management and awarding contract in two years. The committee plans to bring foreign investment for the project and

also manage investment through the Employees Provident Fund (EPF), different banks and financial institutions and commoners. The country is expected to be free of load-shedding once this project of national pride is completed. The consultant has been handed responsibility of completing DPR and preparing bid documents to take the project to the stage of construction.

The committee stated that the dam will be around 225 meters high. The project will be among 36 projects with big and high dams in the world and will affect 23 village development committees (VDC) of Gorkha and Dhading districts.

A lake will be created up to 50 kilometers upstream.

Source: The Kathmandu Post; 25 March, 2014

Nepal at loss over use of likely power surplus

Nepal is likely to have an energy surplus during the rainy season after 2017 with the completion of a number of major power projects, but it has no plans about what to do with all the extra [electricity](#) .

The Nepal Electricity Authority (NEA) has said that after the 456 MW Upper Tamakoshi, Upper Trishuli 3A, 14 MW Kulekhani III, 30 MW Chamelia and a few private sector power projects are finished, energy production during the rainy season will exceed demand.

Currently, peak hour demand for [electricity](#) in the country stands at 1,150 MW, which is expected to swell to 1,640 MW by mid-July 2017, said the NEA. The Upper Tamakoshi is expected to be completed at about the same time. Chamelia, Kulekhani III and Upper Tamakoshi are all expected to be completed before that date. NEA officials said that at that time, while the available power could be adequate during the evening peak hour, much of the energy output in the daytime would be wasted as there is no proper mechanism to use it. Against this backdrop, NEA Managing Director Arjun Karki said on Monday that the country's having no plan for such an eventuality was pathetic.

Signing a power trading agreement with India is expected to help in this regard as it would allow the trading of power like other commodities. However, bilateral talks on the matter have not advanced at all.

Seeing the possibility of a power surplus in a few years' time, the NEA has been reluctant to sign new power purchase agreements (PPA) with private sector developers.

PPAs for a number of projects having a combined capacity of around 4,000 MW are yet to be signed.

Meanwhile, the NEA has not been able to construct transmission lines because of problems like land acquisition and obstructions by locals and government authorities such as the Ministry of Forest due to environmental and wildlife conservation concerns.

“Despite an adequate budget for erecting transmission lines, they have been unable to construct them due to numerous problems including land acquisition,” said Karki at a programme entitled National Dialogue in Power Sector Reform in Nepal. The government has allocated a budget of Rs 14 billion

this fiscal year for transmission lines. The NEA chief said that the NEA was in the process of upgrading transmission lines on different corridors from eastern to western Nepal.

While institutions like the World Bank have put a condition that the NEA should be unbundled before they will invest their money, Karki said that the power utility would unbundle itself within a few years as it has been engaged in so many tasks.

Stressing the need to unbundle the NEA, Chief Secretary Lilamani Poudel said that there should be separate company to construct transmission lines.

“Lack of transmission lines has been a major stumbling block for the development of hydropower by both the NEA and independent power producers,” he said.

Meanwhile, Khadga Bisht, president of the Independent Power Producers' Association Nepal (IPPAN), said the power sector had a distorted market price situation due to the existence of a single buyer and multiple sellers.

Currently, there is only the NEA that distributes [electricity](#) by producing it and purchasing it from the private sector. He also stressed the need for an early introduction of the Electricity Act which is pending at Parliament. Energy Minister Radha Kumari Gyawali said that she would make efforts to introduce the Electricity Act soon.

Source: karobar; 26 March, 2014

Civil construction of Trishuli 3B from next March

Baburam Khadka

Civil construction of 42 MW Upper Trishuli 3B Hydropower Project, to be built with joint investment of Nepal Electricity Authority (NEA) and Nepal Telecom (NT), will start from the next year.

Civil construction will be started from next March after completing financial closure, power purchase agreement (PPA) with NEA, selection of contractors and all other pre-construction works, according to the schedule prepared by the promoter Trishuli Hydropower Company Limited. It has prepared to complete the project within four years of starting work. The detailed project report (DPR) of the project has put the project cost at Rs 7.74 billion. There will be self investment of 30 percent and loan investment of 70 percent in the project. The company is taking a loan of Rs 5.42 billion to construct the project. NEA and NT will have 30 percent shares each as per the investment structure. "We have already started the process of appointing consultant. Global tenders will be opened for civil, electromechanical and hydromechanical works after appointment of consultant," Managing Director of the company Damodar Bhakta Shrestha said.

He revealed that discussion was being held with NEA for PPA and claimed that there will not be problems in signing PPA as NEA also has stake in the project. The company has proposed PPA at Rs 5 per unit. He stated that the company is also holding discussions with Employees Provident Fund (EPF), NT and banks to make arrangements for investment. "NT has proposed loan investment at an interest rate of 12 percent. We are looking for investment at a lower interest rate," he said. He added that discussions are also being held with the Hydroelectricity Investment and Development Company Limited (HIDCL), Citizens, Nabil and Prime banks. He claimed that there will not be any problem in arranging investment as the project is financially lucrative. A study has put the rate of return of the project at 15.6 percent. The company aims to complete loan repayment within eight years of coming into operation.

The project, with a 95-meter head and three-kilometer tunnel, will generate 337.88 million units of electricity every year. This project will be constructed in BQ55 design though the majority of projects are made in Q40 design. The company is preparing to take the water from tailrace of Trishuli 3A directly through the tunnel, so Trishuli 3A has to be completed in time to do that. The project cost will be cheaper as dam and descender basin to sift sand should not be constructed for the project, but it will be affected if Trishuli 3A is not constructed.

General public will have 15 percent shares, locals from Nuwakot and Rasuwa affected by the project 10 percent, local bodies five, other institutions of the districts five, and NEA and NT staffers five in the project. The project will be constructed in Laharepouwa and Manakamana village development committees (VDC).