Source: My Republica, April 14, 2019

Civil works of Upper Mailung to begin soon

HIMNATH DEVKOTA

RASUWA, April 14: The construction of civil infrastructure of the Upper Mailung Hydroelectricity Project is set to begin in a month.

Road construction work for the hydropower which is to be established in Uttargata Rural Municipality-1, has reached the final stage. Project engineer Kishor Gautam stated that the road work would finish by May 13 this year. Of the total seven kilometers of the road section to be constructed leading to the construction site, five kilometers have already been built.

For smooth completion of works, supplies are to be transported before the advent of monsoon. Contractors have already been selected for the construction process. A tunnel of 1,855-km length is to be constructed for the hydro-power plant. Civil infrastructure is set to be completed within the Nepali year 2077, and electricity will be generated within a year after that, according to the project plan. The project will have a capacity of 14.3 MW.

After the completion of the project, 79.67 kilowatt-hour electricity will be produced annually. An estimated budget of Rs 2.50 billion has been finalized for the project.

Monaliya Power Limited had initially taken responsibility of the construction. Now, however, Sanima Hydro Group is in-charge of the project. A power purchase agreement was made on September 8, 2010.

The construction company had begun work with a set target for completion on July 17, 2015. However, as construction work did not begin on the planned date, Sanima Hydro Group was handed over the responsibility.

Source: The Kathmandu Post, April 15, 2019

Upper Trishuli-3A, Kulekhani-3 plants nearing finish

- PRAHLAD RIJAL, PRATAP BISTA, Kathmandu

The Upper Trishuli 3A Hydropower Project is on track to come online in a few weeks with workers putting the final touches to the power plant and the Matatirtha substation in Kathmandu. The 60 MW scheme located 95 km north of Kathmandu is expected to produce 30 MW in the initial phase.

“The project is on schedule with work on the power generation facility and transmission lines nearing completion,” said Kulman Ghising, managing director of the Nepal Electricity Authority. “If the transmission lines in the Matatirtha area is completed on time, we will be able to feed additional power to the grid by April 30.”

According to Ghising, more than 95 percent of the work related to transmission lines and equipment has been completed while construction crews are working to finish the remaining two pylons out of the total 140 transmission towers.

The state-owned power utility is building the hydropower project with a concessional loan of $114.7 million from the Export-Import Bank of China.

The foundation stone of the project was laid in November 2011 with the completion deadline set for May 2014. The project sank into uncertainty after the contractor, China Gezhouba Group Company, halted work citing heavy damage to the access road and dam during the 2015 earthquake. Work resumed after a two-year hiatus and the project was expected to come into operation by mid-January.

Apart from evacuating the power produced by the Upper Trishuli-A project, the Nepal Electricity Authority plans to use the facility at Matatirtha to transmit electricity produced by other hydropower schemes in the Trishuli corridor. The Trishuli-Kathmandu 220 kV double-circuit line will evacuate 30 MW from the Upper Trishuli-3A plant by April and another 30 MW starting in June.

Tunnel test of Kulekhani-3 begins The Kulekhani-3 hydropower project has initiated civil component tests with project officials planning to switch on the

power plant by mid-July. Launched in April 2008, the scheme was originally scheduled to be finished by 2012.

According to the project, civil tests were initiated two weeks ago by channeling 115 litres of water per second into the main tunnel of the hydel plant. “We will now run electro mechanical tests next week,” project chief Subhash Kumar Mishra said. “Tests and minor construction tasks will be done simultaneously.”

According to a project official, the construction of two of the three main transmission towers has been completed. Cables will be installed as soon as they are ready.

The project’s completion deadline has been extended six times since construction began. The 14 MW power project missed the completion deadline multiple times due to the slow progress of Jheijian Jialin Company implementing the hydro and mechanical works. In May 2014, the National Planning Commission declared Kulekhani III a troubled project after the project’s cost per megawatt was projected to balloon to Rs310 million from Rs173.6 million. The project, which was estimated to cost Rs2.43 billion when it was launched 11 years ago, is now expected to cost Rs4.63 billion.

“The construction of the powerhouse at Sanutar is in the final phases and electricity will be generated by the end of the current fiscal year,” a senior project official said.

According to the electricity authority, a half-kilometre-long transmission line will be extended from the powerhouse to connect it with the national grid. After Kulekhani-3 goes online, 128 MW will be produced from Makwanpur district alone with the three Kulekhani projects generating 106 MW.

Source: The Kathmandu Post, April 17, 2019

41 MW added to national grid in first nine months

- PRAHLAD RIJAL

The Nepal Electricity Authority commissioned six medium and small hydropower projects and one solar plant in the first nine months of this fiscal year, adding 41 MW to the national grid. All these hydel and solar projects that came into commercial operation were developed by independent power producers, according to the records of the state-owned power utility.

The electricity authority expects to launch another nine projects this fiscal year ending mid-July and add 160 MW to the grid. This will bring the number of independent power producer-owned projects in operation to 82 from 75 last year, accounting for a combined installed capacity of 554 MW.

“The projects under construction are making substantial progress, and we believe that we will be able to meet 75 percent of our power commissioning target by the end of the fiscal year,” said Prabal Adhikari, spokesperson for the power utility. “Our projections are optimistic as we maintain a strong construction vigilance over hydel projects, and our progress review of the yet to be commissioned projects suggest that we are very likely to meet our power distribution targets.”

According to Adhikari, the projects that are nearing completion are currently working to clear minor plant equipment through customs and finish transmission lines. “We are on track to feed an additional 1,000 MW into the national grid in the next fiscal year. We have overcome major hurdles in power generation in the past five years,” he said.

The electricity authority plans to issue commercial operation dates to 43 hydropower projects including Upper Tamakoshi (456 MW), Rasuwagadhi (111 MW), Lower Solu (82 MW) and others in the next fiscal year.

The largest among the seven projects commissioned this fiscal year, Bagmati Khola-Small Hydropower Project with an installed capacity of 22 MW—began commercial operations on April 10. The project, a joint venture of Mandu Hydropower and Sichuan Hechuan, China, was built at a cost of Rs4.25 billion funded by a consortium of 11 banks led by Prime Commercial Bank.

The project began construction in 2015 and was expected to generate power from mid-November, but was delayed due to issues with the installation of the penstock pipe. As per the power purchase agreement signed between Mandu Hydropower and the authority, the project will sell electricity at Rs4.40 per unit during the rainy season and Rs8.40 per unit during the winter or the dry season.

In the fiscal year 2017-18, the state-owned power utility commissioned a total of 15 projects developed by independent producers with a combined installed capacity of 71.643 MW.

The electricity authority was able to rid the country of load-shedding for both industrial and domestic consumers last May, ending years of distress for the people. The projects that are currently in operation are not able to fully meet the country's power requirement.

GENERATING POWER

Commissioned Projects	Location	Installed Capacity (MW)
Rudi Khola A	Lamjung/Kaski	8.80
Bagmati Khola Small	Makwanpur/Lalitpur	22
Super Mai	Ilam	7.8
Sobuwa Khola-2	Taplejung	0.09
Bishnu Priya-Solar Farm	Nawalparasi	0.96
Theule Khola	Baglung	1.5
Leguwa Khola	Dhankuta	0.04

Source: Nepal Electricity Authority

Source: My Republica, April 17, 2019

Bheri-Babai tunnel drilling completed with TBM

Nagendra Upadhyaya

SURKHET, April 17: The drilling of a tunnel with the use of a Tunnel Boring Machine (TBM) has been completed in Nepal for the first time. With the help of the TBM, the 12.2 kilometer tunnel for the Bheri-Babai Diversion Multipurpose Project, a national pride project, has been completed about a year ahead of schedule.

Prime Minister KP Oli, on Tuesday, oversaw the breakthrough in the tunnel drilling, pressing a remote button in Bheriganga Municipality-11, Chiple.

The China Overseas Engineering Group Limited (Covec) started to drill the tunnel through the Chure hills in November 2017, from Hattikhal of Babai to Chiple in Bheri. Under the agreement signed by the contractor company with the Department of Water Resources and Irrigation (DoWRI), the deadline for completing the tunnel is March 28, 2020. However, the company has completed the drilling a year before deadline.

“This is the first time a TBM has been used in Nepal,” Director General of DoWRI Sarita Dawadi said. “With this success we have started the preparation for the construction of similar tunnels across the nation.”

US-based construction company Robins dug the tunnel with the use of the TBM, which is driverless. “If we had used the conventional method of drilling and blasting, it would have taken another five years,” Dawadi said. “The department was able to make the drilling breakthrough using the risky TBM method for the first time in Nepal.”

Bheri-Babai Diversion Multipurpose Project is also a first in Nepal for diverting the water of one river to another.

At the inauguration function, Prime Minister Oli lauded the project and called the use of the TBM for tunnel drilling the beginning of new technology in this country. “It is not just that new technology has entered Nepal, it is a matter of great gain,” he said, “The government has plans to execute various other multipurpose projects also such as the Sunkoshi-Marin Diversion Project.”

Bheri-Babai Diversion Multipurpose has the aim of irrigating 51,000 hectares in Bardiya and Banke and generating 48.8 Megawatt power through diversion of water from the Bheri at the rate of 40 cubic meters per second to the Babai.

Although the tunnel has been completed on time, the remaining work including construction of the Chiple dam and the powerhouse at Babai is yet to start. Chief of the project Sanjeev Baral informed Republica that a 114 meter-high dam is going to be built at Chiple while a 168 meter descending basin and a tunnel entry portal are also to be constructed.

Source: The Kathmandu Post, April 18, 2019

828 MW Uttar Ganga hydro project revived after 7 years

- PRAHLAD RIJAL, Kathmandu

The Uttar Ganga Power Company, a subsidiary of Nepal Electricity Authority, has invited expression of interest for consulting services to prepare detailed engineering design and bidding documents for the 828 megawatt Uttar Ganga Storage Hydroelectric Project in Baglung.

The Rs130 billion project has been revived after seven years. It had been bogged down by conflict of interest by political leaders.

The project had failed to progress because of heated disputes on inter-basin diversion of water from the reservoir-type hydropower plant to be constructed by collecting water from the Uttar Ganga stream of Dhorpatan and other surrounding streams.

A reliable source close to the project said that conflict of interests between former Energy Minister Janardan Sharma, then leader of Maoist (Centre) and former Finance Minister and CPN-UML leader Bishnu Poudel had halted the project. While Sharma wanted diversion of water to the Bheri River, Poudel wanted diversion to the Gandaki basin. “Demands by these powerful party leaders put the project in a state of uncertainty,” the source said.

“Following multiple meetings between now unified Nepal Communist Party leaders, including co-chairs KP Sharma Oli and Pushpa Kamal Dahal and Gokarna Bista, the issue seems to be resolved now,” the source said. “A consensus has been reached to divert water to Gandaki basin that was proposed by Nepal Electricity Authority, which was also proposed by Poudel.”

Diverting water to the Gandaki basin is technically and financially feasible when it comes to generating optimum energy from the project, the source said. According to project officials, they are in the final stages of preparing the feasibility study and have initiated the process to hire consultants after getting financial guarantee from the government.

The objective of the consulting service is to review the feasibility study, including the detailed engineering design to prepare the documents before inviting the bids. “We have planned to appoint the consultant within six to nine months,” said Ambikesh Kumar Jha, chief of the project. During the announcement of Electricity Development Decade 2016-2026, the government had included Uttar Ganga Hydroelectric among the 11 storage hydroelectricity projects. The government plans to generate 5,000 MW within a decade.

According to Jha, the consultants are expected to finish preparing the detailed design, tender drawing, construction planning and also draw up bidding documents including civil, hydro-mechanical, electro-mechanical and transmission lines within 18 months of their appointment.

“The estimated cost of the project stands at Rs130 billion. The estimate, however, can be revised after the consultants prepare the detailed engineering design of the project,” Jha said. The final deadline for submission of expression of interest has been set for May 12 and the consulting firm is expected to be appointed by October.

As per a preliminary study, the hydroelectricity plant situated at Baglung will be able to generate power five hours a day in the dry season that normally begins from November and lasts until April. For water storage and evacuation, the project is expected to build a 200 metre high dam and a 1.1 km long diversion tunnel.

Source: My Republica, April 18, 2019

Two ‘sick’ NEA projects starting generation by mid-July

KATHMANDU, April 18: Two 'sick' hydropower projects being developed by Nepal Electricity Authority (NEA) are on the last leg of construction. Nepal Electricity Authority (NEA) has said that Kulekhani III and Upper Trishuli 3A will start power generation by mid-July.

Kulekhani III (14 MW) is a cascade project at the tail of Kulekhani II hydropower project, while Upper Trishuli 3A has installed capacity of 60 MW.

According to NEA officials, project officials have completed testing 4.2-kilometer tunnel of Kulekhani III, while testing of 5-kilometer tunnel of Upper Trishuli 3A began from Wednesday. An official of NEA told Republica that Kulekhani III will start generation from mid-July, while the first unit of Upper Trishuli 3A will begin power generation from first unit by April-end and from second unit by mid-July.

"Both the projects were delayed due to various reasons. But we have succeeded in bringing things into order. They will start generation very soon," said Kulman Ghising, the managing director of the NEA. "We have filed the tunnel with water. Likewise, testing of turbines, generator and electro-mechanical works are underway."

NEA had started Kulekhani III project in 2008, setting completion deadline of 2012. It has seen numerous deadline extensions. The project was termed 'sick' because of non-performance by the Chinese contractor for electromechanical works – Jheijian Jialin. NEA later hired another Chinese contractor SinoHydro for the work.

However, SinoHydro terminated the contract unilaterally pushing the project into uncertainty. Lengthy delays have escalated the project cost to Rs 4.63 billion nearly double than the initial estimated cost of Rs 2.33 billion.

Kulekhani I reservoir project produces 60 MW, while its cascade project Kulekhani II has installed capacity of 32 MW.

According to Ghising, testing of dam, dam gates and settling basin, among others, of Upper Trishuli 3A has already been completed. "The first unit of 30 MW will start generation from April-end, while the second start will be ready for generation by mid-July," said Ghising.

The contract of Upper Trishuli 3A was awarded to Chinese contractor China Gezhouba Group Company Limited in Engineering, Procurement and Construction (EPC) modality in 2010. The project is being developed with a soft loan of US$ 125.8 million from Exim Bank of China.

The project suffered because of the 2015 earthquakes which affected its civil structure. Quake-triggered landslide also damaged access road to the project site.

Source: The Kathmandu Post, April 19, 2019

Tamakoshi transmission line project delayed due to change of contractor

- PRAHLAD RIJAL,

The construction of a section of the 400 kV Tamakoshi-Kathmandu Transmission Line has been delayed by a year due to a change of contractor, project officials said.

The Nepal Electricity Authority had originally awarded the contract to build the 44-km stretch from New Khimti to Barhabise to a Chinese firm, but ended the agreement last December for slow progress. On Monday, the state-owned power utility gave the contract to install the overhead power line to an Indian company, KEC International. It has told KEC International to sign the contract and submit the performance guarantee within 28 days.

Highly placed sources at the Nepal Electricity Authority say that although the power line project has been delayed, the electricity produced by the 456 MW Upper Tamakoshi Hydropower Project, which is expected to commence generation in November, will not go to waste as it can still be evacuated to eastern and western Nepal through the existing 132 kV and 220 kV transmission lines.

According to project chief Navaraj Ojha, the project costs have increased slightly owing to the delay. “The contract winning company KEC has bid to carry out the construction work for around Rs710 million, slightly more than the Rs610 million quoted by the previous contractor,” Ojha said.

“Out of the six main towers, we have the designs ready for four; and the new contractor will be asked to design, supply, install and commission the remaining two towers in the Mude area. We plan to complete the entire procurement process and mobilise the new contractor by May 15,” Ojha said.

Six international firms--five Indian and one Chinese--had submitted technical proposals in March to execute the strategically important project designed to place high capacity overhead power lines to evacuate power generated by hydel plants on the Tamakoshi and Khimti rivers to the Kathmandu Valley where power demand is the highest.

The Nepal Electricity Authority approved the technical bids of the five Indian firms; and after studying their financial bids, it awarded the contract to the lowest bidder KEC. The transmission

line project is funded by the government, Asian Development Bank and government of Norway under their Electricity Transmission Expansion and Supply Improvement Project.

As per the contract signed with the original contractor, a joint venture of Guangxi Transmission and Substation Construction Company and Shenzhen Clou Electronics, the project was expected to be up and running by May 2019.

The project office terminated the pact with the Chinese joint venture for working slow. Nepal Electricity Authority Managing Director Kulman Ghising had visited the project site on multiple occasions to direct the contractor to expedite work, but to no avail. The state-owned power utility then moved to end the contract with the joint venture, and seized its Rs123.2 million performance and bank guarantee.

Source: The Himalayan Times, April 17, 2019

Upper Trishuli III A, Kulekhani III hydels to commission power next month

Nepal Electricity Authority (NEA) has said that construction works of the 60-megawatt Upper Trishuli III A hydropower project and 14MW Kulekhani III project are in the final stages and the electricity generated by the two projects will be connected to the national grid by May.

As per NEA, the Upper Trishuli III A project will be able to commission the first unit — 30 megawatts — of electricity by April and the second unit by June 30. The project has started filling the five-kilometre-long main tunnel with water for test purposes.

Similarly, 4.2-km-long tunnel of the Kulekhani III project is also being filled with water for test purposes. The Kulekhani III project has missed completion deadline, which was revised multiple times due to slow progress of Chinese contractor firm, Jheijian Jialin Company, hired for hydromechanical and electromechanical works. The project's completion deadline has been extended seven times since construction began in April 2008.

According to Kul Man Ghising, managing director of NEA, completion of both the projects will be an achievement for NEA as both had faced numerous hurdles during the construction phase. Installation of turbines, generators and electromechanical and hydromechanical equipment of both the projects has been completed, he said.

Earlier, a meeting between Ghising, concerned project officials, consultant firms, project contractors and transmission line contractors in March, had decided to commission the generated electricity from May.

"We faced many hassles during the construction of both the projects including delays caused by the earthquakes and blockade in the southern border in 2015. However, we have been able to meet the extended deadline to commission the electricity," said Ghising.

He further said that some works related to the transmission line of the Kulekhani III project are remaining and will be completed before the generation deadline. The project is a cascade project of 60MW Kulekhani I and 32MW Kulekhani II projects. As per Ghising, power generated by the project will help manage the demand and supply situation of Kathmandu Valley.

The Upper Trishuli III A project located in Nuwakot was earlier surrounded in uncertainty after the contractor, China Gezhouba Group Company, halted all works citing heavy damage to the access road and dam during the 2015 earthquake. The Chinese firm resumed works after the government had the access road repaired by the Nepali Army.