

Source: The Rising Nepal, July 15, 2019

## Kulekhani reservoir's door not to be opened

Makawanpur, July 15: The doors (outlet) of Kulekhani reservoir will not be opened even though preparation for opening the doors was made to ward off the danger caused by rising water level due to incessant rainfall.

According to CDO Asman Tamang, the authorities decided to generate more power using the turbine rather opening the doors to release the excess water. As a result, the power imported from India would be cut off for few days with more power to be generated from reservoir.

Source: My Republica, July 15, 2019

## Preparation under way to open Kulekhani dam sluices, locals alerted

RSS

HETAUDA, July 15: Preparation is being made to open sluices of the Kulekhani reservoir in view of the alarming water current and level following incessant rain.

People living in and around Bhimphedi, Indrasarobar, Bagmati rural municipality, Nunthar, Chandrapur, Canteen of Rautahat, different areas of Sarlahi and Hariharpurgadhi of Sindhuli have been urged to keep high alerts during and aftermath of the release of water from human-made Kulekhani dam (Indra Sarobar).

Asman Tamang, Chief District Officer of Makawanpur, informed that the people residing in the settlements nearby dam have been asked to remain alert as the water of Kulekhani reservoir flows through local Kulekhani rivulet and Bagmati rivulet. Preparation is being made to release water from the reservoir of the 92-MW Kulekhani hydropower project so as to reduce potential risks.

CDO Tamang further shared that a meeting of the District Security Committee Makawanpur decided to give water outlet from filled-up Indrasarobar reservoir keeping in mind the potential risks due to incessant rainfall. The release of water from Kulekhani dam will pose risks to the people residing in the areas around rivers in different four districts so people have been made cautious about potential consequences and necessary safety nets, the CDO added.

The Kulekhani has a total capacity of 1,530 cubic meters. Till 6.00 am today, the reservoir saw the replenishment of 1,525.4 cubic meters. The dam was constructed 37 years ago.

Source: The Kathmandu Post, July 16, 2019

# Three days of nonstop torrential rain tops up Kulekhani reservoir

- *Nepal Electricity Authority cuts down power imports from India to 150 MW from 400 MW.*

- Prahlad Rijal, Kathmandu

The torrential rain that fell nonstop for three days last week topped up the Kulekhani reservoir in mid-July for the first time in living memory. Formed by Kulekhani dam, the lake located 20 km southwest of Kathmandu supplies water to the Kulekhani I and II hydropower projects.

With the reservoir filled to the brim, and the two plants churning out electricity feverishly, the Nepal Electricity Authority has been able to cut down power imports from India to 150 MW from 400 MW.

Officials said the water level in the Kulekhani reservoir rose by 20 metres in just four days. Usually, the water in the lake would reach this level only in October with snowmelt flowing down from the Himalaya.

“The monsoon has just started; and the reservoir, which would fill up only in October after the snow started melting, has hit peak storage three months in advance this year,” said Ghising, managing director of the Nepal Electricity Authority. “Earlier, the plants used to remain shut during the monsoon to conserve water, but we have operated the plants at full capacity and cut back on imports from India.”

According to Ghising, both hydel plants fed through the reservoir are producing their maximum output of 92 MW as they have been running at full throttle since Monday to prevent overflowing and possible dam burst. The water level recedes at a rate of 2 cm per hour even when the plants are run at full capacity.

The Nepal Electricity Authority has requested communities downstream to remain alert as the utility will have to open the dam's flood gates in case the water rises any higher. “If the spillway

and reservoir cannot hold the flow of water even with the turbines running at full capacity, we will have to open the dam which will result in floods in the Bagmati River,” said Ghising.

The state-owned power utility is now importing only 150 MW from the Dhalkebar-Muzaffarpur cross-border transmission line and 45 MW from other transmission points against the normal import of around 400 MW.

According to the Nepal Electricity Authority, the 60 and 32 MW Kulekhani plants are only operated to fulfill power demand during the dry season when the country witnesses a drop in generation from run-of-the-river schemes. The turbines are also switched on for voltage improvement and system stability.

With the monsoon raging and floods wreaking havoc across the southern plains, the country’s total power off-take has dipped to 600 MW from the normal demand of 1,250 MW as demand from the farming sector has gone down along with a decline in cooling requirements from domestic consumers.

With the Kulekhani reservoir at peak storage, power imports in the upcoming months and the festival season when demand spikes are expected to be less than in previous years. As of Monday, state-owned power plants were churning out 457 MW and independent schemes were producing 469 MW. Electricity imports stand at 150 MW, according to the Nepal Electricity Authority.

All 23 state-owned power plants except one unit at the Kali Gandaki powerhouse are fully operational and producing 457 MW. Three private plants--25 MW Upper Modi, 22 MW Bagmati and 6 MW Chaku Khola--are out of commission due to structural damage caused by rain and floods.

Source: The Kathmandu Post, July 17, 2019

## Developer of Upper Trishuli 1 sees funding oversubscription by \$178 million, near financial closure

The developer plans to construct the powerhouse area and finish electromechanical works by the third quarter of 2022

**Prahlad Rijal**

The Nepal Water and Energy Development Company (NWEDC) is all geared up to perform the financial closure of the 216 megawatt Upper Trishuli 1 Hydroelectric Project in Rasuwa District.

According to the company, it has seen a funding oversubscription with nine multinational lenders offering a loan of \$631 million against the \$453 million required in debt finance. This comes days after the cabinet decided to give it a tax holiday extension. It will cost \$647.4 million to build the hydel plant.

“The financing for the project was delayed because of hedge fund issue, we are close to signing the agreement and the lenders are happy that the project has got a tax holiday extension from the government,” said Bo Seuk Yi, chief executive officer of the company.

Recently, the Cabinet decided to extend the tax holiday to the company a few weeks after the anti-dollar alliance -- [Asian Infrastructure Investment Bank -- approved its first \\$90 million loan](#) to the project, raising eyebrows over the government’s decision to give tax holiday for the company which has a dollar-denominated power purchase agreement with the power utility.

As per the provisions, the company will be exempted from 100 percent of income tax for the first 10 years of commercial operation and 50 percent exemption for an additional five years.

“It is not tax privilege as some have said but an extension of the earlier agreement with the government as the financing was delayed by multiple reasons including hedge fund issue,” said Yi. “We are satisfied with the government support and are now planning to kick-off the project by November, 2019.”

Also, Deputy Spokesperson at the Energy Ministry Gokarna Raj Panta said that the government decision to give tax holiday to the company should not be of any issue as all hydel plants with commercial operation date within 2021-22 also enjoy the incentive, not only Upper Trishuli.

“In the case of Upper Trishuli 1, the tax holiday provision has been extended because of government delay in fixing terms of hedging” an anonymous official at the Nepal Electricity Authority said. “Even export-oriented Upper Karnali and Arun 3 have been given tax holidays as mentioned in their project development agreement.”

The project, being developed under a 35-year build-own-operate-transfer model is financed with a mix of debt and equity funding. The total debt of the project is entirely financed by foreign capital with funds from sponsors including International Finance Corporation, Asian Development Bank, Export-Import Bank of Korea and others.

The project will be developed and commissioned in line with two modalities—engineering, procurement and construction by a joint venture of Daelim and Kyeryong, and operation and maintenance by South Korea’s state-owned Korea South-East Power. It’s generation portfolio is over 10,000 MW and has completed 10 overseas projects since 2008. The company received ‘AA’ credit rating by Fitch ratings in 2018.

According to the company, it plans to construct the powerhouse area and finish electromechanical works by the third quarter of 2022 and install all three units -- each churning out 72 MW of electricity -- by the second quarter of 2024.

The developer and the Energy Ministry signed a project development agreement in December 2016. As per the terms of the agreement, the sponsors—a Korean consortium, local promoter and International Finance Corporation—will be responsible for the design, engineering, financing, construction, completion, commissioning, ownership, operation and maintenance and transfer of the project.

The electricity generated by the plant will be sold to the Nepal Electricity Authority. The parties signed a 30-year power purchase agreement in January 2018 and the state-owned power utility has agreed to buy the energy under a take-or-pay arrangement.

Earlier, the project had sunk into uncertainty after the [developer threatened to pull out from Nepal](#) over a foreign exchange hedge row with the government after it asked the developer to contribute a hefty sum to a hedge fund which would be used as a cushion against exchange rate risk.

When the Nepal Electricity Authority signed a power purchase agreement with Nepal Water and Energy Development Company a year ago to purchase the electricity generated by the project, the state-owned power utility agreed to pay in US dollars for a period of 10 years or until the portion of the investment made with foreign loans is recovered by the developer, whichever comes first.

After the row over hedge fund, the developer agreed to provide 17 percent of the energy to the power utility free after 14 years and the government and electricity authority agreed to contribute two-thirds of amount to the hedge fund.

The plant will evacuate the electricity to the Upper Trishuli 3B hub over a 10-km 220kV transmission line connected to the national grid. The project has the capacity to churn out 106 megawatt even in the dry season.

Source: My Republica, July 17, 2019

## Flood damages in hydro sector yet to be estimated

KATHMANDU, July 17: Kaveli Corridor Transmission line and other transmission lines in Province 1 have been affected by the monsoon floods. However, electricity interrupted in the areas due to floods will be resumed from tomorrow.

Energy Minister Barsha Man Pun said that no estimate has been made of the damages yet. "It will take time to analyze the losses and repair the damages," said Pun.

Protection work on towers in the 132KV transmission line along Lowandra River, Ghurmi, Dhansar River and Kabeli corridor has been going on.

He said that the level of Kulekhani reservoir is at 1,526.66 meters now, which will be maintained if necessary.

Addressing a press conference in Kathmandu, Pun said that the Ministry of Energy has been active in disseminating information in the flood-hit areas through bulletin and SMS alerts. "We have already sent 500,00 texts through the Nepal Telecom and Ncell networks, and informed the people through bulletins from July 8. Though our target is to ensure that all the people in the flood-hit areas become safe, it seems that we are still lacking in terms of communicating the information about the SMS system to the people," said Pun.

The minister also said that Nepal has been supplying 200 MW of electricity to India even during the monsoon.

He also updated about the Rani Jamara Irrigation Project and powerhouse of 4.7MW being constructed by using canal fall. Three gates (head regulator) out of

eight have been opened and hoisted. "The project now reaches 14,300 hectare of surrounding land and has plans to extending to 38,000 hectare land," he said. Similarly, canal lining work of Sikta Irrigation Project has been completed in 25 meters of length, which was destroyed in July last year.

Source: The Kathmandu Post, July 19, 2019

## 34 developers receive generation licences to build hydro schemes

The planned projects have a combined installed capacity of 1,842 MW.

**Prahlad Rijal**

The Department of Electricity Development awarded generation licences to 33 independent power producers and one state-backed company in the last fiscal to develop hydropower projects with a combined installed capacity of 1,842 MW.

According to Director General Madhu Prasad Bhetwal, the department issued [the generation licences](#) in line with the government's power generation target for the period 2018-28.

“We are in the second year of the Energy Development Decade, and we have expedited the process of awarding licences to allow developers to build their planned projects,” said Bhetwal. “We will now help them to obtain foreign exchange and explosives, and assist them with further studies.”

As per the department's statistics, the largest generation licences awarded in 2018-19 are for the 300 MW Tila 1 and 297 MW Tila 2 hydropower projects in Kalikot district in Karnali province.

Tila 1 was originally envisaged to generate 440 MW and Tila 2 was expected to produce 420 MW. But a [Geographic Information System survey](#) carried out in 2017-18 slashed their projected outputs to 300 MW and 297 MW respectively.

[As per reports](#), US investment bank InvestBank Corp holds a 70 percent stake in the two projects which are estimated to cost a combined \$1.2 billion. InvestBank Corp is working with SC Power Company to develop the two projects.

The two schemes will produce electricity for domestic consumption and export. The developer SC Power Company is yet to sign a power purchase agreement with the state-owned Nepal Electricity Authority, the sole off taker of power in the country.

According to an official close to the situation, negotiations between the electricity authority and the developer have stalled as the Energy and Finance ministries are [locked in a dispute over the terms of the hedging mechanism](#) of the dollar-denominated power purchase agreement.

“A memorandum of understanding has been signed by the power utility and the developer,” the official said. “The energy minister is against the Finance Ministry’s proposal to set up a two-party hedge fund with contributions from the power utility and the developer to absorb dollar risks without direct government backing. Until the issue is resolved, the power utility cannot sign a power purchase agreement.”

Apart from the two Tila schemes, the department has also awarded a generation licence to state-backed Butwal Power Company to develop the 140 MW Lower Manang Marshyangdi hydropower project in Manang district.

Also, HydroChina Corporation, a subsidiary of Chinese state-owned Power Construction Corporation of China, has received a generation licence for the 102 MW Upper Trishuli 2 Hydropower Project in Rasuwa district.

### **Largest Generation Licences Issued in 2018-19**

Projects	Installed Capacity (MW)
Tila	1,300
Tila	2,297
Manang Marshyangdi	282
Lower Manang Marshyangdi	140
Kali Gandaki Gorge	164

Source: The Himalayan Times, July 17, 2019

### NERC approval must before inking PPA

Power developers are now required to seek final approval of Nepal Electricity Regulatory Commission (NERC) before inking any power purchase agreement (PPA) with Nepal Electricity Authority (NEA).

The commission issued a draft directive of the jurisdiction of the commission late Monday, which includes a provision that the power developers would have to get a go-ahead from NERC before signing PPA with NEA. Earlier, the power utility could independently negotiate and determine the power purchase rates with the developers.

According to Dilli Bahadur Singh, chairman of NERC, the commission has instructed NEA not to ink any more PPAs before the directive is fully implemented. He further said they have asked concerned stakeholders to submit recommendations and feedback within 15 days.

Thereafter, commission will make necessary changes to the guideline, if any, and give it a final shape.

He further said any PPA signed after formation of the commission or after May 7 will be invalid and power developers will have to take approval from the commission before signing the agreement again with NEA.

For the final approval of PPA from the commission, the developer will need to submit technical and financial aspects of their power project and tentative rates. Before submitting the documents, they will have to hold discussions with NEA for the tentative rates. After the commission approves the final power purchase rate, the developer and NEA will sign the final PPA.

As per Singh, the commission will determine some of the provisions for approving the rates, like tentative investment, ratio of equity and loan, source of the loans and interests, clearance of loans and interests, returns on investment, recurrent expenditure, operational expenditure, maintenance costs, revenue and tax and other service charges, additional capital that will be required, among others.

If the developer provides all the documents related to aforementioned criteria as per the requirement of the commission, NERC will provide final approval for the PPA. If the PPA signing is stalled for any reason, the commission will notify the power purchaser and seller.

Moreover, if two or more developers are competing for the same project, NERC will gauge the best depending on their preparations and the processes they adopted prior to seeking the PPA approval.

Singh further said new PPAs will be based on old tariff till the NERC comes up with a new tariff rate.

Source: The Himalayan Times, July 17, 2019

## Electricity import drops

With the monsoon and floods affecting the consumption of electricity in the Tarai region and most of the industrial corridors, Nepal Electricity Authority (NEA) has said that import of electricity from India has fallen to 150 megawatts.

As per NEA, the demand for electricity had dropped to nearly 600 megawatts till Sunday and has gradually been rising now with the demand at present standing at 1,000 megawatts.

Electricity consumption in normal times is usually 1,200 MW to 1,300 MW.

According to Prabal Adhikari, spokesperson for NEA, till today, the power utility had been importing only 150 MW of electricity from India through the Dhalkebar-Muzaffarpur cross-border transmission line against the normal figure of around 400 MW.

Moreover, with incessant rain across the country, the country's only reservoir dam in Kulekhani at present has ample supply of water. As the reservoir is nearly filled to the brim and since water could flow out of the facility, NEA is operating the project in a fullfledged manner and producing 92 megawatts of energy from the Kulekhani I hydropower project and its cascade project Kulekhani II to prevent overflow and possible dam fracture.

Adhikari further said that the level of water massively increased in the Kulekhani reservoir by 20.13 metres in between Thursday night and Sunday. In the past years, the generation plants used to remain closed in the monsoon season so as to allow the reservoir to replenish, but this year the water level is at the maximum point from the very beginning of the monsoon, so it needs to be operated earlier, he added.

As per NEA's records, the water level at the reservoir has increased by six centimetres per day from Monday till today and even after operating the power plants in full swing for 24 hours, the water level has dropped by only three centimetres.

As of Monday night, the water level at the Kulekhani reservoir stood at 1,526.05 metres. As the reservoir's threshold capacity stands at 1,530 metres, the government has alerted people residing in Bhimpheedi, Indrasarovar and Bagmati rural municipalities of Makawanpur, Hariharpurgadhi of Sindhuli and Bagmati Rural Municipality of Lalitpur, along with those living near water bodies in Sarlahi and Rautahat districts to remain safe.