

Source: The Himalayan Times

## Optimum use of hydropower potential

Pradeep Gangol

Energy security can be defined as a continuous supply of energy in sufficient quantities at reasonable and affordable prices. It also means limited or no vulnerability to temporary or longer disruptions of imported supplies. The recent serious disruptions in the supply of imported petroleum products, well underscored the importance of energy security in the national economy of Nepal. So far, only 67 per cent of the country's households have access to electricity, comprising 58 per cent from the national grid and nine per cent from the off- grid solutions.

The government made a commitment in June 2012 to support the global initiative called sustainable energy for all ( SE4All). The SE4All initiative aims at ensuring universal access to modern energy services and doubling the share of renewable energy in the global energy mix by 2030. Nepal government should come forward with a concrete plan to replace fossil fuels and gas for transportation, industries and cooking within 25 years. Though bold, it is a feasible plan, provided that there is political commitment to implement it.

Fortunately, Nepal has high potential for hydropower, one of the renewable sources of energy.

Though, the total potential capacity is estimated to be 83,000 MW, some experts are of the opinion that it is grossly underestimated and the potential to generate hydropower is as high as 200,000 Mw of power. Therefore, it is possible to plan for a home grown energy security in Nepal. Energy security can be ensured through locally produced energy — abundant and varied forms of indigenous energy — hydro, solar wind et cetera . The national grid supplied with energy from hydro, solar and wind energy can be used in running electric trains, electric vehicles and cooking. For rural settlements lying in remote areas and not connected to the national grid can be supplied with micro hydro, solar, wind and biogas. Water and Energy Commission Secretariat ( WECS) of Nepal had prepared ' Energy Strategy Plan for Nepal' many years ago. The report should be updated with necessary changes and approved by the Cabinet.

The state, therefore, needs to continue to play a role in ensuring national long- term security of energy by devising proper policies and regulations.

To ensure optimum utilisation of varied forms of energy, hydro, solar and wind et cetera, excess wind and solar energy can be used to pump water uphill into reservoirs that can later produce hydroelectric power, which is called pumped storage. Or alternatively, wind energy and solar energy can be used in the grid during off peak period, thus making possible shut- down of the storage plants to store water in the reservoir for peaking time.

Most of the run of river power plants have no pondage to store water for few hours. Companies need to be incentivised to plan for run of the river projects with pondage, by introducing peak energy tariff, which is generally higher than non- peak energy tariff. Such differential tariffs will not only help generate peak energy during peak time, but also ensure optimum use of hydro power potential.

We need to work out an energy strategy plan to replace carbon emitting vehicles by electric cars, electric buses, cable cars and electric trains. We should resort to electric cooking instead of relying on imported gas cylinders. Though hydropower will form the core of the energy security, energy from other renewable sources of energy like solar and wind energy should also be explored. However, as a medium term measures, strategic oil reserves should also be planned to meet the petroleum requirements of at least three months, so that Nepal will not to have to suffer due to serious supply disruptions as in 2015/ 16.

Planning for home- grown energy security The author is a freelance engineer, with interests in energy, environment and economic development.

He can be contacted through [prdppl@gmail.com](mailto:prdppl@gmail.com). The state, therefore, needs to continue to play a role in ensuring national long-term security of energy by devising proper policies and regulations. Hydro highlight [synchronicityearth.org](http://synchronicityearth.org).

Source: Karobar; 9 May 2016

## **Warning to stop transaction of National**

*BABURAM KHADKA*

The Inland Revenue Office has warned to stop transactions of National Hydropower Company Limited after the previous management did not submit Rs 40 million in tax deducted at source (TDS). The office writing a letter recently has warned the company about consequences if it fails to immediately clear the dues.

Chairman of the company Kumar Pandey said the office has corresponded after finding that the previous management deducted TDS from the fiscal year 2065/66 till 2067/68 but did not submit the amount. "1.5 percent has been deducted in TDS. But there is no account of where the money has gone," Pandey added. The company must pay TDS irrespective of what was done with the deducted money. He revealed that the office is putting pressure to make immediate payment even as the company has requested for an extension citing lack of adequate cash balance. He added that the company has also demanded reevaluation of tax.

The company has yet to repay the loan of Rs 200 million taken from Nabil Bank to construct 4.5 MW Lower Indrawati Hydropower Project. "Agreement has been signed with the bank to repay the loan within five years," he stated. The company has been earning Rs 180 million a year by selling electricity generated by 7.5 MW Upper Indrawati.

Pingjing Industries Group Company Limited of China had recently won a case in the court after claiming that it had yet to receive payment of Rs 6 million for the work done in Indrawati. Four court cases about financial transactions of National are still sub judice. The company has 13.80 million units of shares. There are no promoter shares.

Investment of Rs 650 million by National has been lost after the government revoked generation license for Lower Indrawati. The Energy Ministry, on instruction of the Commission for Investigation of Abuse of Authority (CIAA), had revoked the license in the name of Sunkoshi Hydropower Company, a subsidiary of National, in January, 2015 after it failed to complete the project even in a decade.

Nepal Bank and Rastriya Baniya Bank led by Nabil have made loan investment of Rs 300 million and National Rs 350 million in equity in the project. National has applied the ministry to revive the license.

Source: The Rising Nepal; 10 May 2016

## **Proposed 215 hydel projects in limbo**

At a time when the government has put forward an ambitious plan to generate 10,000 megawatts of electricity in next 10 years, the total 215 hydropower projects to be constructed with its own investment are in limbo for failure to take a decision on the matter.

The projects that are commissioned by the Department of Electricity Development under the Ministry of Energy under the 'Basket Fund' will generate the 10,243 megawatts upon their completion.

The failure of including the projects in recently presented government's policies and programmes has further complicated the matter.

Moreover, there is not a clear modality defined to move forward the projects in the basket fund of the Energy Crisis Alleviation Action Plan, 2072 announced on February 18.

Likewise, the government is yet to decide on the ways to move forward the projects that have stalled for the past 15 years due to various reasons, based on a competition basis.

Meanwhile, the private sector, individuals and authoritative bodies have demanded that the projects under government ownership be forwarded on basis of competition. Meanwhile, the Energy Ministry and Electricity Development Department have not come up with any decision to that effect.

According to the Department, the government owns big hydro power projects including Sunkoshi Second (1,110 megawatt), Sunkoshi Third (536 megawatt), Tamakoshi First (100), Fulkot Karnali (210), Nalasingaad reservoir (400), Nalam Karnali (303), Mugu Karnali (194), Madi Seti (83), Upper Arun (400), Karnali Seventh (330), Kaligandaki Gorge (164), Jagadulla Khola (75), Humla Karnali Cascade (916), Humla Karnali One (274), Chainpur Seti (454), Budhi Gandaki (254), Bheri One (440) and Bheri Two (243).

Source: Karobar; 10 May 2016

## **Warning to stop transaction of National**

*BABURAM KHADKA*

The Inland Revenue Office has warned to stop transactions of National Hydropower Company Limited after the previous management did not submit Rs 40 million in tax deducted at source (TDS). The office writing a letter recently has warned the company about consequences if it fails to immediately clear the dues.

Chairman of the company Kumar Pandey said the office has corresponded after finding that the previous management deducted TDS from the fiscal year 2065/66 till 2067/68 but did not submit the amount. "1.5 percent has been deducted in TDS. But there is no account of where the money has gone," Pandey added. The company must pay TDS irrespective of what was done with the deducted money. He revealed that the office is putting pressure to make immediate payment even as the company has requested for an extension citing lack of adequate cash balance. He added that the company has also demanded reevaluation of tax.

The company has yet to repay the loan of Rs 200 million taken from Nabil Bank to construct 4.5 MW Lower Indrawati Hydropower Project. "Agreement has been signed with the bank to repay the loan within five years," he stated. The company has been earning Rs 180 million a year by selling electricity generated by 7.5 MW Upper Indrawati.

Pingjing Industries Group Company Limited of China had recently won a case in the court after claiming that it had yet to receive payment of Rs 6 million for the work done in Indrawati. Four court cases about financial transactions of National are still sub judice. The company has 13.80 million units of shares. There are no promoter shares.

Investment of Rs 650 million by National has been lost after the government revoked generation license for Lower Indrawati. The Energy Ministry, on instruction of the Commission for Investigation of Abuse of Authority (CIAA), had revoked the license in the name of Sunkoshi Hydropower Company, a subsidiary of National, in January, 2015 after it failed to complete the project even in a decade.

Nepal Bank and Rastriya Baniya Bank led by Nabil have made loan investment of Rs 300 million and National Rs 350 million in equity in the project. National has applied the ministry to revive the license.

Source: The Kathmandu Post; 10 May 2016

## **Developer GMR India requests for more time**

*BIBEK SUBEDI*

GMR India, the developer of the Upper Karnali Hydropower Project, has asked for one more year to conclude the financial closure.

The developer wrote to Investment Board Nepal (IBN) last month requesting an extension of the deadline which runs out in five months. GMR India asked for the extension immediately after more than half a dozen prospective lenders visited Kathmandu to make an appraisal of the 900 MW project. GMR said it needed more time as supplies were disrupted by the Tarai unrest and the subsequent April earthquake which seriously affected the project's work schedule. "They have mentioned in the letter that the last eight to nine months were unfavourable to conduct regular work at the project," said Radhes Pant, CEO of IBN. "They have said that fuel shortages and supply disruptions of essential commodities had affected work."

IBN is currently studying whether the earthquake and supply disruptions had made it difficult for GMR to mobilise funding for the project.

"Currently, we are assessing their concerns and carrying out discussions with our lawyers to decide whether we should extend the time limit or not," said Pant.

The government and GMR signed a project development agreement (PDA) in September 2014 for the construction of the project. As per the pact, GMR needs to complete the financial closure by September 2016. However, the company had to call off a meeting with the project's potential bank rollers scheduled for May 2015 due to the earthquake in April.

Last month, a tri-party meeting was held in Kathmandu between IBN, GMR and a project appraisal team of the Asian Development Bank (ADB), International Finance Corporation (IFC), International Bank for Reconstruction and Development (IBRD), Commonwealth Development Corporation (CDC), DEG a subsidiary of German Development Bank, Japan International Cooperation Agency (JICA) and OPEC Fund for International Development (OFID).

A green signal from these multilateral lenders is crucial for GMR to complete the financial closure. Although multiple sources have confirmed that they have given expressions of interest (EOI) to pledge a loan of more than \$1 billion to finance the project, the actual decision to release the funds may take some time.

Another IBN source said that the board would grant a deadline extension to GMR if it can sign a 'term-sheet' with the lenders. The term-sheet in commercial lending is a non-binding document where a lender commits to provide a loan under certain conditions.

Similarly, the developer needs to complete the land acquisition before the financial closure. According to IBN, a resettlement agreement has been reached with the locals who will be displaced by the hydro project and the land acquisition process is almost over.

The Upper Karnali Hydropower Project, spread over Surkhet, Dailekh and Achham districts in western Nepal, will be the largest hydroelectric power station in the country when complete.

The developer will give 27 percent of the shares to the government and the country will also receive 12 percent (108 MW) of the total energy produced for free.

Similarly, the project is expected to provide 2,000 jobs and the government is projected to earn Rs300 billion in financial benefits. The project will be acquiring 48.85 hectares of private land and 207.75 hectares of government-owned land. It will affect an estimated 239 households.