

Source: My Republica; 2 October 2015

Plan to export hydropower hinges on import cost of coal in India: Report

Nepal's plan to export hydropower to India depends on price of coal that the southern neighbor imports from Indonesia and Australia, an analysis of Indian energy market commissioned by Investment Board Nepal (IBN) shows.

The analysis report shared to media persons on Friday is based on the fact that about 65 percent of total electricity generated by India comes from coal-fired plants.

India meets 36 percent of its total coal demand through imports. Imported coal will continue to dominate the Indian power market with 15 MW of coal capacity being added annually between 2022 and 2031, according to the report.

The market analysis conducted ICF International has also projected that Nepal can tap northern power market of India like Uttar Pradesh and Bihar which are far from coal-fired plants established along the coastal areas. Power generated by these plants will be expensive for northern states like Uttar Pradesh and Bihar. Also it is unfeasible given the weaker inter-state connectivity, Bishal Thapa, an advisor to IBN on power market, said.

It is also said that India has a national low carbon growth strategy to cut coal plants as imported energy from Nepal can add share of renewable energy in energy mix. Currently, renewable energy comprises only 10 percent of total energy mix and the share of renewable will increase to 30 percent by 2030, according to the report.

The analysis report states that Nepal can sell energy at the rate of NRs 5.15 (IRs 3.32) per unit after 2022 as northern region will have the highest annual all-hour firm power prices.

Three mega hydropower projects with installed capacity of 2400 MW are being developed in Nepal by Indian investors, targeting the Indian market.

ICF also has assumptions that price of imported coal India will climb to around US\$ 65 per ton and this implies wholesale power price at about NRs 9.9 per unit of the energy between 2022 and 2031.

Thapa stressed for interconnectivity between Nepal and India for starting power trading.

Experts say Nepal can sell surplus energy of the wet season to India and import energy for dry months from the southern neighbor.

Source: The Kathmandu Post; 6 October 2015

Blockade, energy shortages goad country into looking for solutions

The fuel crisis created by the unofficial blockade of Nepal by India has launched a discourse on the country's energy security. As Nepal is completely dependent on India for petroleum products, a halt in fuel shipments has led to an acute shortage, forcing the government to ration gasoline, implement an odd-even system for vehicular movement and stop providing fuel to private automobiles altogether.

In this context, stakeholders have stressed the need to reduce the dependence on a single supplier and single source of energy. They said that efforts should be made to import fuel from multiple countries, maintain ample stocks and work on boosting self-reliance in energy by promoting hydropower and exploring for oil in the country. They also emphasized the need to learn from history as Nepal has faced frequent blockades by the southern neighbour for one or the other reason.

In 1989, India, which surrounds Nepal on the east, west and south, had imposed an embargo against Nepal that lasted one and a half years. Being a landlocked country, Nepal's options are limited with regard to its fuel needs and has a hard time when its sole supplier turns off the supply.

"There have been two blockades by India in the past 25 years. And both the times, tightening the supply of energy has been used as a way of intensifying the impact of the blockade," said Khadga Bahadur Bisht, president of the Independent Power Producers Association Nepal (Ippan). "The oil shortage has crippled life across the country. This has imparted a lesson that we should increase our capacity and diversify our sources of energy supply."

Ippan has also proposed that Nepal decrease its dependency on India for petroleum products to 60 percent, establish a trading relationship with China in the proportion of 20 percent and bring 10 percent of the petroleum requirement from each of the two neighbouring countries.

According to Bisht, energy is the main input of a modern economy, and energy security is a key component of national, economic and environmental security. There is a need to diversify energy resources, diversify energy procurement, maintain an appropriate strategic petroleum reserve and try to substitute imported petroleum by hydroelectricity, he added.

As per Ippan's data, 87 percent of the Nepali people are dependent on traditional energy resources like biogas and firewood, among others, 9 percent of the energy requirement is fulfilled by petroleum, coal accounts for around 3 percent and alternative energy resources account for 1 percent. One of the major strengths of the country -- hydroelectricity -- meets just 2 percent of its energy needs.

As of now, Nepal has petroleum storage points at 10 places, and they have a capacity to store 70,000 kilolitres of petrol, diesel, kerosene and aviation fuel. Stakeholders say this amount can address the country's demand for fuel for 17 days only. According to Ippan, Israel maintains fuel reserves enough for 270 days, South Korea 240 days, United States 137 days and Switzerland 137 days.

"We should do the needful. We should prepare the country in such a way that we can store

petroleum for at least three months,” Bisht said. “Also, we should make sure that we do not forget this crisis even after it comes to an end and work hard.”

Expediting development of hydropower projects and solar power, replacing the use of LPG and reinitiating petroleum exploration are some of the things the country needs to do.

Former water resource secretary Surya Nath Upadhyay stressed the need to translate plans, policies and strategies into action. “We have a tendency of doing much on paper, not on the ground,” Upadhyay said.

“When China offered support to open roadways on the Tatopani border, Nepal said it would do it itself. However, the border region hasn’t been opened even five months after the earthquake. And finally, when there were no other alternatives, I hear the road has been cleared now, and that too in just five days. This is how we tend to do things. We have to change it,” Upadhyay said. He urged the government to sort out policy-level hurdles, change the licensing regime in the hydropower sector and increase coordination among government agencies to ensure energy security in the days to come.

According to Energy Secretary Rajendra Kishore Kshatri, rectifying the institutional mechanism is a must for developing the capabilities required to increase the strength of the government in terms of energy security. Kshatri also stressed the need to emphasize each and every energy project in an equal manner and address policy hurdles.

“We have to wait for the Ministry of Forest to give us permission to chop some trees to develop infrastructure for hydropower projects. This is just an example. There are many other similar hurdles.

Hence, the government should have a proper vision, and the political leadership should be able to give impetus to the bureaucracy to carry out the agenda,” Kshatri said.

Kshatri added that the government should focus on all the possible means of energy generation and increase coordination between inter-governmental agencies to get results.

“When we talk about energy-related national pride projects, the Energy Ministry has almost no stake in them. The Nepal Electricity Authority (NEA) is not a department under the ministry but an authority in itself,” Kshatri said, exemplifying the issue that has made it difficult for the ministry to take concrete steps.

Energy Secretary Kshatri also opined that political interference should be reduced for the sake of the national interest.

Govt told to develop energy strategy

The Agriculture and Water Resources Committee (AWRC) of the Legislature-Parliament on Sunday directed the Ministry of Energy to develop a National Energy Security Strategy by incorporating stakeholders like the Water and Energy Commission, Nepal Electricity Authority, Nepal Oil Corporation and Alternative Energy Promotion Centre, among others.

“The unofficial blockade imposed by India has exposed our vulnerability. The absence of alternatives, abundant storage capacity and inefficient management has taught us a lesson. Hence, the committee has concluded that preparing a National Energy Security Policy envisioning a long-term policy is a must, and we need to do it at the earliest possible,” said AWRC Chairman Gagan Thapa.

Likewise, the committee has directed the government to focus on long-term energy security and treat it as a national priority subject.

During the meeting, AWRC parliamentarians had slammed the government for its

lack of preparedness, and said that it should immediately find an alternative petroleum trading partner besides maintaining alternative plans to make sure that such a situation does not arise in the future.

Expert suggestion

- Nepal should decrease its dependency on India for petroleum products to 60 percent
- One of the major strengths of the country -- hydroelectricity -- meets just 2 percent of its energy needs. Need to expedite development of hydropower projects
- Need to diversify energy resources, diversify energy procurement, maintain an appropriate strategic petroleum reserve
- Need to expedite development of hydropower projects and solar power, replacing the use of LPG
- Reinitiating petroleum exploration process

Source: The Rising Nepal; 6 October 2015

Hydropower development marred by political interference

Secretary at the Ministry of Energy, Rajendra Kishor Chhetri has said development in Nepal's hydropower sector could not take place as expected due to 'unnecessary political interference' in the sector.

Responding to the queries raised by the members of parliament (MP) in a meeting organised by the Agriculture and Water Resources Committee of the Legislature-parliament today, Chhetri said that political interference ranging from the changing of programmes and policies right after the change of concerned minister and appointment of minister's loyal people in various projects, have made the matter worse.

Chhetri said that failure of concerned minister to seek primary solutions to improve energy sector of Nepal is another matter of concern.

On the occasion, the participant MPs urged concerned authorities to work ahead for the development and expansion of energy sector even by imposing energy a state of emergency.

They said such a move for sustainable development of energy sector should be taken through a decision to this effect at the political level.

The MPs including Laxmi Prasad Pokharel, Dilli Prasad Kafle, Nawaraj Sharma, Kashinath Adhikari stressed the need to focus on the matter and to pay heed on coming with the hydropower sector as an alternative to meet increasing demands of petroleum products in Nepal.

Source: The Kathmandu Post, 6 Oct, 2015

NEA uncooperative toward West Seti

BABURAM KHADKA

The Investment Board, Nepal (IBN) has sought help of the Agriculture and Water Resource Committee of the parliament saying the Nepal Electricity Authority (NEA) has not cooperated in moving the West Seti Project forward.

Chief Executive Officer of the IBN Radhesh Pant said the NEA has not cooperated in signing of joint development agreement (JDA) and formation of a joint Special Purpose Vehicle Company (SPVC). Stating that promoter China Three Gorges Corporation (CTGC) is facing problems in bringing foreign investment due to lack of cooperation by the NEA, he urged the parliamentary committee to help in the matter.

CTGC can bring investment and import equipment only after formation of the SPVC. The government has already given permission to CTGC to bring foreign investment of US\$ 1.70 billion (around Rs 170 billion) for the project. “The IBN had sent a proposal eight months ago. But the NEA management has not responded despite us making repeated written and oral requests to sign the JDA and form SPVC. There is problem in moving the project forward due to that,” he told the parliamentary committee on Monday. He revealed that the IBN had planned to complete JDA and formation of SPVC in April.

CTGC has not been able to conduct further study and import essential equipment including that for drilling in lack of a local company. The locals will be provided up to 10 percent shares in the project that will have 65 percent shares of CTGC and 25 percent of Nepal government, according to the Memorandum of Understanding (MOU). The IBN has moved the process for JDA and SPVC as per the investment structure. He rued that there has been delay from the Nepali side even though the Chinese are ready to invest. He revealed that pre-construction work including climate and geological study will be completed by April, 2016. Making investment arrangements and project construction will start after that. He stated that the NEA board must give approval for that. Informing about progress of the projects under the IBN, he revealed that construction of a camp at the project site and access road has been started by the Chinese company in May. He added that 30 more technicians will arrive in Nepal from China in a few days.

The NEA management is negative toward the project from the start. The Energy Ministry is also not positive toward the project. The parliamentary committee has directed the NEA management to respond within a week about non-cooperation toward the IBN. The MOU signed between the IBN and CTGC mentions about formation of a joint company with participation of the NEA. Estimated project cost is expected to reach Rs 250 billion.

The project will be developed in build-own-operate-transfer (BOOT) model. CTGC has already submitted financial and technical reports to the IBN and both the reports have showed the project to be financially attractive. The estimated financial analysis of CTGC states that the rate of PPA should be 5.40 cents during the rainy season and 9.50 cents during the dry season for the project

to be financially lucrative. CTGC has concluded that the annual inflation should be three percent until 10 years, and loan period 18 years out of which six years have to be grace period for the project to be financially viable.

The feasibility study of the project has showed that 3.33 billion units of electricity can be generated annually. The project will be constructed in Doti, Dadeldhura and Bajhang districts of the far west region.

5.5% shares for locals affected by Upper Karnali

The IBN has proposed 5.5 percent shares for locals of Surkhet, Dailekh, and Achham districts to be affected by the Upper Karnali Hydropower Project. The IBN has prepared share structure and sent it to the cabinet for approval. CEO Pant said shares worth Rs 1.60 billion have been allocated for locals from the three districts. Stating that the government will receive free equity worth Rs 7 billion for the project, he said the amount has been allocated out of that. Lawmakers from the affected districts, however, are adamant that the districts must be allocated 10 percent shares.

Promoter GMR Energy Limited of India has signed project development agreement (PDA) to provide 27 percent free equity and 12 percent free energy to the government. The NEA will have 21.5 percent stake after approval of the share structure. The NEA and GMR have already formed a joint company named Upper Karnali Hydropower Limited for the 900 MW project.

Similarly, Arun III has also signed PDA promising to provide 5.5 percent of shares worth Rs 1.60 billion for the locals. Pant claimed that both Arun III and Upper Karnali will be completed by 2022. He said study has already been completed and report prepared about impact in lower riparian area. The Department of Irrigation and GMR are currently holding discussions about that.

Source: The Himalayan Times, 6 Oct 2015

Lack of forex risk protection could dissuade hydro investors

Rupak D Sharma

Foreign investors, who pour money into country's hydroelectric sector without assurance of foreign exchange (forex) risk protection, stand to incur losses to the tune of 26 per cent of project's capital cost, says a latest report prepared by Deloitte, one of big four consulting firms in world.

This implies adequate foreign investment may not flow into the hydro sector unless there is guarantee that the dollars that investors bring in are fully protected against currency variation risk.

Forex variation risk is high in the country, as Nepali rupee has been depreciating by 3.35 per cent per year for the last one decade. This means foreign investors are losing money every passing year while converting rupee-denominated earnings into dollar — the currency with which they originally invested. And investors, who are generally risk averse, do not like losing money.

“To promote foreign investment in power generation, the government will need to ensure that forex risk is covered while structuring (electricity) tariffs,” says the report prepared for the United States Agency for International Development. The report has now been handed over to the Ministry of Energy.

In the 1990s, state-owned Nepal Electricity Authority (NEA), the country's sole buyer of electricity, was covering forex variation risk. This led to signing of dollar-denominated power purchase agreements with 60MW Khimti I and 45MW Upper Bhotekoshi hydroelectric projects.

But later NEA faced wrath for signing these agreements, as losses started mounting due to depreciation in the value of Nepali rupee. This bitter experience has prompted NEA to say ‘no’ to dollar-denominated power purchase agreements.

While dollar-denominated power purchase deals are being frowned upon, the country has not been able to mobilise enough financial resources of its own to build power plants. As a result, dependency on fossil fuel is increasing every day.

To generate 350 megawatts of electricity, the country needs to import 518 million litres of diesel a year.

“This translates to an annual outflow of \$162 million in foreign currency and can result in foreign exchange variation impact of Rs 45.53 billion over 25 years,” says the report, adding, “Providing foreign exchange protection in electricity tariff is substantially beneficial, as foreign exchange variation impact for 350MW hydro project stands at Rs 15.24 billion over 25-year concessional period.”

In this regard, the report has suggested that the government look into two options to provide forex variation risk.

First is providing forex risk cover, or signing dollar-denominated power purchase deal, until long-term debt is fully repaid. Once the outstanding loans are paid off, tariff can be fixed in domestic currency and escalated every year by a certain per cent till the end of the concession period, says the report.

Second is providing forex risk cover for foreign currency loans and equity investment over the life of the project.

Under this option, NEA can sign power purchase deal with foreign-funded hydro projects using a higher reference rate so that it covers forex risk throughout the concession period. This means if NEA is currently purchasing electricity from power producers at, say, Rs 6.50 per unit, power purchase agreement could be signed at an escalated rate of, say, Rs 7.71 per unit.

But this is an ineffective means of structuring tariffs, as actual foreign exchange fluctuations may be different from year to year, says the report. So, this could be a risky proposition for NEA as well as the investor.

Another way of covering forex risk over the life of the project is to sign the power purchase deal without escalating the tariff, adds the report.

This means NEA can purchase electricity at existing market rate of, say, Rs 6.50 per unit and compensate losses emanating from forex variation by extending cash to investors during each billing cycle. The cash extended by NEA should fully offset lost equity earnings and extra debt servicing cost.

“In this regard, NEA should be allowed to pass through the currency risks to the final consumers by adjusting tariff every quarter,” says the report, adding, a facility, similar to petroleum products price stabilisation fund, should also be set up to contain risks emanating from catastrophic devaluation in currency.

Deloitte had laid these suggestions based on practices adopted by other South Asian countries where systems have been devised to provide protection against forex variation.

In Sri Lanka, for instance, Ceylon Electricity Board provides full coverage against forex variation risk if a portion of debt or equity is in foreign currency. In Bangladesh, the Power Development Board allows developers to quote power tariff in US dollars, meaning it bears foreign currency risk for both equity and debt. Pakistan also provides similar facilities to cover forex variation risks.

Source: The Kathmandu Post, 6 Oct, 2015

Minister Gyawali's sacking: SC issues show-cause notice to CIAA

The Supreme Court (SC) has issued a show-cause notice to the Commission for the Investigation of Abuse of Authority (CIAA) for recommending action against the Energy Minister Radha Gyawali who was removed from office on Sunday over a corruption scandal.

A single bench of SC justice Jagadish Sharma Poudel has summoned CIAA and Minister Gyawali to be present at the apex court on October 11 to discuss whether it is appropriate or not to issue interim order to take or not to take action against the deposed Minister.

The court directive came in response to a writ filed by Manoj Kumar Mishra on behalf of Minister Gyawali on September 30 arguing CIAA's recommendation for her expulsion from Minister's post as illegal.

Prime Minister Sushil Koirala sacked Energy Minister Gyawali from the ministerial berth on October 1 following the recommendation of the anti graft body for the same. It may be noted that Prime Minister Koirala expelled Energy Minister Gyawali after she defied his directive to put in paper.

The CIAA recommended PM Koirala to sack Energy Minister Gyawali for committing irregularities in signing contract for the construction of the Solu Corridor Transmission Line and also to take action against Nepal Electricity Authority (NEA) Executive Director Mukesh Raj Kafle and Board of Directors members.

Source: The Kathmandu Post, 6 Oct, 2015

Hydropower projects knocked out by earthquake still offline

- [SANJEEV GIRI](#)

Privately-built hydropower projects that were knocked out by the April 25 earthquake have not been able to resume operations even though more than six months have

passed since the disaster, leading to an energy shortfall of 93 MW in the integrated national grid.

According to the Nepal Electricity Authority (NEA), it has been operating all of its hydropower plants across the country at full capacity, but the projects run by the private sector have not yet started feeding power into the system, and the impact may be felt in the coming winter.

As per the Post-Disaster Needs Assessment (PDNA) prepared by the National Planning Commission, several hydropower facilities with a combined capacity 115 MW out of the total installed capacity of 787 MW (on-grid and off-grid) were severely damaged by the killer quake, while facilities with a combined capacity of 60 MW have been partially damaged. The 19 hydropower projects constructed by private developers produce a combined 109 MW of power. Likewise, under-construction hydropower projects with a combined capacity of about 1,000 MW owned by independent power producers and the NEA have been partially damaged, which means the project completion deadline will be extended.

As per the PDNA, Nepal's energy sector sustained losses worth Rs18.75 billion due to the earthquake and aftershocks. The PDNA report shows that the projects built by private sector developers suffered greater physical damage compared to those erected by the public sector.

"We are not aware about the status of the projects developed by the private sector since we only have a commercial relationship with them. Our role is to buy energy from them and sell it by integrating it into the national grid," said Mukesh Raj Kafle, managing director of the NEA. "The power shortfall of 93 MW, however, is a huge one, and needs to be taken care of at the earliest possible."

While 93 MW of energy is still offline, the state-owned power utility, however, has succeeded in connecting 22 MW generated by the Mai Khola Hydropower Project to the system. The Ilam-based project has helped to manage electricity issues in the Eastern Development Region. "This project will help us manage the load in the country's eastern part," Kafle said.

According to Khadga Bahadur Bisht, a number of issues like obstructions on the access road, slow progress of the insurance claims made by project developers, and unavailability of manpower, among others, have posed a big problem for project developers.

"In particular, projects situated in Sindhupalchok district have encountered problems regarding access roads," Bisht said. "Most of the projects have suffered damage that will take three to six months to be repaired."

The reconstruction initiatives were also affected by the ongoing political turmoil which has resulted in shortages of petroleum and other products. The upcoming Dashain festival too will slow things down as people will be taking a break from work for around a month.

Bisht added that most of the projects had already completed tasks like field visit, survey, report preparation and submission for insurance claims, but the insurance companies had been proceeding slowly making it difficult for them to move ahead.

Projects like the Upper Bhote Koshi, Indrawati III, Sunkoshi, Baramchi, Upper Hadi Khola, Shiuri Khola, Sipring Khola, Middle Chaku, Lower Chaku, Chaku Khola, Charnawati and Aankhu Khola I, among others, were badly damaged by the April 25 earthquake. The 45 MW Bhote Koshi Hydropower Project has suffered the most, according to the Independent Power Producers' Association, Nepal (Ippan). "It might take at least 15-16 months for the Bhote Koshi project to resume operations from the date maintenance work is started," Bisht said.

Bisht said the immobile National Reconstruction Authority was another reason that has made life difficult for developers. As the PDNA was prepared by the National Planning

Commission and its recommendations will be addressed by the authority, the Ministry of Energy has shown little interest in helping developers to restore the projects. "Some of the developers have been suffering from a cash crunch too," Bisht said.

Source: The Rising Nepal; 8 October 2015

98 per cent works of Uppermai Hydro complete

Almost 98 per cent works of Ammarmai Hydro being constructed by My Valley Hydropower Pvt Ltd at Mawu and Maimajhuwa VDCs of Ilam district have been completed.

The Hydropower Company has noted that it has set the target to complete the construction works and start generating electricity in between Dashain and Tihar festivals.

The construction of the 10-MW capacity hydropower project that started around six years ago has almost come to the completion.

Shanker Mani Pradhan of the project shared that the task of putting up wires has been intensified after completing important works of fixing head box, tunnel and powerhouse.

He further informed that the construction of 55 towers from power house to sub-station of Godak is gaining momentum.

Panchakanya Group and Nabil Bank including four other banks are investing for the project which is estimated to be accomplished at total cost of Rs 1.9 billion. RSS