

Source: June 15, 2014

2.5 MW electricity within three years in far-west region

Baglung, June 15: Preparation was underway to generate 2.5 MW electricity from micro hydropower projects within three years in eight districts of the far-western region.

Construction works of projects in Baglung, Parbat, Myagdi, Mustang, Kaski, Syangja, Gulmi and Palpa districts were underway for the same.

The Dhawalagiri Community Resource Development Centre (DCRDC), Baglung, started construction works of the projects with the 50 per cent grant assistance of Alternative Energy Promotion Centre and National rural and Renewal Energy Programme.

DCRDC Chairman Ishwor Lal Rajbhandari said that 2.5 MW electricity would be generated from more than 32 projects at eight districts.

He said that the construction works of the projects were underway with the objective of providing electricity service to more than 16,000 households.

A target has been set to produce the 2.5 MW electricity within the fiscal year 2016/17.

All the works including feasibility study, survey and construction works have been forwarded in an expedited manner to meet the target, added Rajbhandari.

Construction works of the five projects would be completed within the current fiscal year and eight others have reached final phase.

Millions of rupees would be invested to construct all the projects, said Sub-Engineer at DCRDC, Deepak Thapa.

The DCRDC has been providing support in mobilization of technicians and communities to construct the projects. The Energy and Environment Section under the District Development Committee monitors the projects. RSS

Source : Republica, June 16, 2014

PAC seeks clarification from energy minister, energy secy

KATHMANDU, June 15 :The Public Accounts Committee (PAC) of legislature-parliament has asked Minister for Energy Radha Gyawali and Energy Secretary Rajendra Kishore Kshatri to submit clarification, within three days, on why energy was purchased in US dollars from different hydropower projects.

The committee has also asked the duo to attend the PAC meeting on Sunday. It has also summoned Arjun Karki, managing director of Nepal Electricity Authority (NEA), to attend the meeting on Sunday and produce contract documents signed with those projects.

Officials of the energy ministry had told the committee members that exchange rate was signed in US dollar to retain the development in Nepal considering acute energy shortage.

Bikash Lamsal, member of PAC, said officials of the energy minister failed to give satisfactory answers on why such decisions were made. "Instead of giving us the reasons, they only cited some laws and policies," he added.

PAC has also asked the energy ministry to furnish details of projects that are about to sign PPA with NEA.

PAC started discussion on the issue after the developer of Upper Trishuli I Hydropower Project proposed to NEA to sign PPA in US dollar. Many other projects, which are trying to bring foreign investment, also want PPA in US dollar.

NEA has signed PPA on US dollar with six projects including Khimti Hydropower Project and Bhotekoshi Hydropower Project.

Speaking at the meeting, Parliamentarian Mohan Bahadur Basnet said PPA signed with developers of Khimti and Bhotekoshi should be reviewed.

NEA uses around 40 percent of its total revenue to purchase energy generated by these to projects, which generate only around 96 percent, due to depreciation of rupee against US dollar.

The erstwhile also decided to make partial payment of energy purchased from Lower Solu and Kabeli A in US dollar. The arrangement, however, is valid until the payback period of the projects.

Meanwhile, PAC members have suggested to the government to develop projects smaller than 100 MW by mobilizing internal resources. It also asked the government to devise clear policy to bring foreign investment in hydropower sector. The members also said the government should give satisfactory reasons if it has to sign PPA in US dollar.

Source: The Rising Nepal, June 16, 2014

'ppa in dollars against national interest'

Kathmandu, June 15: Members of Parliament have said that the power purchase agreement or PPA in dollars was against the interest of the nation.

Speaking at the meeting today of the Parliament's Public Accounts Committee, majority of the MPs said the PPA in dollars signed for the 36 MW Bhotekoshi and 60 MW Khimti hydropower projects was against national interest.

The two projects account for two-third of the more than one billion rupee loss incurred by Nepal Electricity Authority annually, they said while calling for a review of those agreements. Likewise, they also demanded cancellation of a similar PPA reached recently for the 82 MW lower Solu.

Expressing such opinion were MPs among others Mohan Basnet, Ramhari Khatiwada, Balkrishna Khand, Prem Bahadur Singh, Dor Prasad Upadhyaya, Dipak Khadka, Bhanu Bhakta Dhakal, Mamata Giri, Badshah Kurmi, Dipak Bohara, Haribol Gajurel. They also called for an explanation with full details of the PPAs from the office-bearers concerned.

In response to their demand, seniormost member of the Committee, who chaired the meeting today, Krishna Kumar Rai noted that the Energy Ministry, the Energy Secretary and the NEA Executive Director would be summoned to the Committee's next meeting to be held within three days.

Matters relating to the mass recruitment of staff under the Ministry of Health and Population and the virement or budget transfer by the Finance Minister were also discussed during the meeting.

Source: The Himalayan Times, Perspective, June 15, 2014

Is power really a priority?

SUJATA AWALE

KATHMANDU: Though repeated assurances have been given by the present elected government that the hydropower sector will be prioritized and problems will be addressed, it is inspiring little or no confidence in the sector. The reason being that while words are eloquent, the action is lacking and the commitment unseen.

Budget ceiling constraints

While the finance ministry is busy preparing a new budget policy, the Ministry of Energy (MoE), private sector and concerned stakeholders would like major issues plaguing this sector to be addressed. To start with the announcement from the National Planning Commission (NPC) to place a budget ceiling of Rs 30.68 billion for the hydropower sector has shattered the expectations of stakeholders. According to NPC, of that total budget ceiling, Nepal Electricity Authority (NEA) will get Rs 26.84 billion and the MoE will get Rs 3.84 billion by.

Stakeholders pointed out that the budget ceiling set for the sector is not enough to minimise power cuts within three years. MoE recently submitted its plans and programmes to the Ministry of Finance (MoF). Sanjeev Baral, Deputy Spokesperson of MoE, said, "We recently submitted our programmes for the upcoming budget demanding Rs 55 billion from the finance ministry." Citing that the MoE plans to end the present power crisis within three years, he added, "Without adequate resources the development of the hydropower sector is impossible."

Priority areas

According to Baral, the ministry has prioritised the construction of transmission lines and alternative energy. Besides, it has outlined minimum common programmes that include new hydropower projects, feasibility study, maintaining existing power projects, east west transmission highway, river basin wise programmes, et cetera. While Rs 40 billion is allocated for transmission lines and hydropower section, Rs 15 billion is segregated for alternative energy. As immediate relief from the power crisis MoE plans to produce 100 MW solar energy. Baral informed that to encourage public interest in hydropower, this fiscal they have come up with a public private partnership model 'Janataco vidhyut janata kai laganima' which translates as 'Public energy by public investment'. He said that the programme will help minimise objections from locals and the public will have a sense of ownership in hydro projects.

While the government is preparing to introduce the budget for the upcoming fiscal year 2014-15, the Independent Power Producers' Association Nepal (IPPAN) has also submitted its 11-point demands to be addressed. For uplifting the sector from various problems, they urged the government to increase VAT concession from Rs one million to Rs 10 million per MW, conduct power trade agreements by establishing a special committee, power purchase agreements in dollars and to pace up the construction of internal and cross border transmission lines, among others.

Not connected

As the government has not connected generating projects with transmission lines, power produced by private companies is also wasted. There is no synchronisation between load centre and generation power projects. "To mitigate these problems, there is a need to invest in transmission grids as soon as possible and to use produced energy through grid lines," said Baral, adding that for constructing a transmission highway it requires funds. He further added that it will take more than three years to overcome the present power crisis if funds are lacking.

Amrit Man Nakarmi, Professor and Coordinator of Energy Systems Planning and Analysis Unit at the Institute of Engineering, said, "Development of the nation is only possible through developing and investing in the hydropower sector. The government should allocate around 15 per cent of the total budget for this." He stated that the usual allocation of budget for the hydropower sector is nominal and hardly five per cent. Stating that the major focus should be on transmission lines, Nakarmi said, "Produced 24 MW electricity is wasted due to the lack of grid line connection and it seems the number will increase in the coming fiscal as many projects are on the verge of completion."

According to him, there should be Rs 85 to 100 billion budget allocation if the government is serious about mitigating load shedding problems as well as promoting industrial and overall growth in GDP.

Nakarmi also recommended updating the tariff system and introducing an Integrated Power Policy. Stating that 60 per cent of imported diesel is consumed for power generation in Kathmandu valley alone, he said, "The nation spends billions of rupees on diesel plants every year. Diesel power plants are not suitable for the nation as it produces expensive energy costing from Rs 31 to Rs 58 per unit." According to him, import of petroleum products has increased by 131 per cent in 2013. Citing that the plan to invest in solar is a good option for some time, he stressed, "However, in the long run there is no option other than hydropower for overall development."

Tall talk

Gyanendra Lal Pradhan, Chairman of the Energy Committee at the Federation of Nepalese Chambers and Commerce Industry, pointed out that the government has no will to uplift the country from the present power crisis. "The budget ceiling in the present situation is just another updated version of the previous plans and programmes where no new mechanism was implemented," he said, adding that the nation does not seem to be aware of the importance of hydropower. Accusing the government of lacking political will to develop the country, he said, "It is our bad luck that our government could not get electricity at Rs 5.4 per unit but now talks big about investing in Rs 15 per unit solar energy."

Citing that the country annually acquires losses, Pradhan added, "Nepal annually spends Rs 37 billion importing diesel which produces electricity at Rs 24 per unit while the whole hydro sector only gets Rs 30 billion from the budget."

Lacking progress

There are 27 hydropower companies which are sick due to exceeding construction cost and lower rates of PPA. Pradhan said, "The government should introduce plans and policies to uplift developers and make a favourable environment to encourage foreign direct investments." He accused the government of not approving the proposed Electricity Act 2007 till date. "All these delays and such attitude shows the government is not serious or willing to develop the hydro sector. If the same pace persists load shedding won't end in another 30 years also," he asserted.

"If the government widens the VAT concession for under construction projects, it will lower total construction cost by two to five per cent," said Khadga Bahadur Bisht, President of IPPAN. However, he is not optimistic about the budget and any relief it will offer the sector. He said, "The budget is the ultimate indicator of the government's priority. The government said that it will prioritise the hydro sector but with the ceiling it definitely shows the contrast between what it says and what it does." According to him, of the total 1,200 MW under construction projects, almost 60 per cent work has completed. "We are hopeful that adequate budget on transmission line will come," he opined.

Bisht said that solar power costs Rs 16 to Rs 32 per unit, which becomes expensive when compared to hydropower.

Ray of hope?

Baikuntha Aryal, Joint Secretary at MoF, claimed that the government has prioritised the hydropower sector. Clarifying that MoF does not decide resource allocation, he said, "The ministry allocates budget seeing the significance and immediate plans and programmes proposed by the concerned ministry." According to him, the budget for the hydro was finalised with the NPC ceiling.

But it has now been reopened to discussion among stakeholders with the recently presented programmes by the energy ministry. "However, we still have to work on proposed programmes as we also have limited resources," he added.

Source: Republica, June 17, 2014

Govt promotes NEA officer ensnared in controversy

RUDRA PANGENI

KATHMANDU, June 16 :Monday's cabinet decision has called back Managing Director of Nepal Electricity Authority Arjun Karki amid controversy over signing of Power Purchase Agreement (PPA) in foreign currency.

Multiple sources confirmed that Minister for Energy Radha Gyawali had insisted on the removal of Karki from the post of MD at the cabinet meeting, but Finance Minister Ram Sharan Mahat was against such move saying that Karki was playing an important role in promoting foreign investment in the hydropower sector.

Gyawali felt the need to remove Karki a day after legislature-parliament's Public Accounts Committee summoned the minister, the energy secretary and the NEA's MD to clarify why NEA was signing PPA in US dollar along with all such contract papers.

Gyawali was dissatisfied with Karki over a number of issues including the signing of PPA in foreign currency in case of projects with foreign investment. Sources said Karki was preparing to table the agenda of signing the PPA for Upper Trishuli I project in US dollar at the NEA's board.

However, both Minister Gyawali and MD Karki denied that the PPA issue was behind latter's removal from the NEA top post.

Meanwhile, Karki, who was forced to step down as NEA's MD, has been promoted to the acting secretary level and appointed as Regional Administration Chief of the western region. Asked why Karki was promoted, Minister Gyawali refused to elaborate, saying that the cabinet decided differently than she had expected.

Karki, who was serving at the Water and Energy Commission, was deputed to the NEA's top post in September last year.

Within hours after the cabinet decision, Minister Radha Gyawali told the media that she would not sign any PPA decisions in foreign currency during her tenure. Speaking at the Reporters Club, she also revealed that she was trying to review the PPA rates in US dollar that the NEA signed with Bhotekoshi and Khimti hydropower projects about two decades back saying that the decisions have incurred irreparable losses to the state power monopoly.

The NEA pays about 40 percent of its income to both projects annually for only 96 MW project.

Talking to Republica over telephone, Arjun Karki said that his removal from NEA top post was not linked to the PPA issue but because of his differences with the minister over her proposal on solar and coal projects.

He also revealed that Minister Gyawali had already hinted that she would remove him from the post just a few days after she assumed charge of the power ministry.

Asked his opinion on signing PPA in foreign currency, Karki said hydropower development is impossible in the country without foreign investment and signing PPA in dollars.

He also stressed that foreign currency exchange risks can be divided between the developer and NEA.

It is said that a consortium of Korean developer of Upper Trishuli I hydropower project has been lobbying for signing the PPA with NEA in US dollar since last year. The developer has demanded 6.9

cents per unit electricity. The project with the installed capacity of 216 MW is located in Rasuwa and is closer to the load center for the Kathamandu Valley.

Source: The Rising Nepal, June 18, 2014

Licenses of various hydel projects canceled

Kathmandu, June 17: The government has canceled applications for 12 hydel projects which were waiting for production licenses.

According to the Department of Electricity Development, those canceled are Dapcha Roshi 5 mw, Hadi Khola 2 mw, Tallo Sunkoshi Third 10 mw, and Syasim Khola 30 mw.

Others are Upper Trishuli 1, 216 mw, Kaligandaki Gorge 164 mw, Baku Khola 6 mw, Upper Mai-1 two mw, Karuwa Seti 36 mw, Tallo Pame Khola 2 mw, Hewakhola B 2 mw and Middle Supper Daraudi 4 mw.

The projects had a target of generating a total of 480 mw of power.

The survey license of some 127 hydel projects have also been canceled, which had a capacity of 2,542 mw.

Production license of six hydels and applications for survey of 1,420 projects have also been canceled.

Department's Information Officer Gokarna Raj Pantha said license was canceled of projects which did not start works by taking license. NEA has also canceled agreements of nine hydel projects which had power purchase agreement.

NEA Trade Section Chief Hitendradev Shakya said those projects are 10 mw Langtang to be developed by Kantipur Hydel Power, 14 mw Upper Modi by Gtech Nepal, and 700 kW Ladku Khola by Universal Power.

Others are 4.5 mw Lower Nyadi by Bavarian Hydro, Seti Khola by Mansarobar Powers, 3.5 mw Mid Gaddigad by Triyog Energy and Development and Upper Jumdi by Rhishikesh Hydro. They had a capacity of 40 mw.

Source: Republica, June 18, 2014

Sindhuli leaders agree to not obstruct transmission line project

KATHMANDU, June 17 :The decision of political leaders in Sindhuli to not obstruct construction of high-tension towers has paved the way for completion of Khimti-Dhalkebar Transmission Line at the earliest.

Some locals in Sindhuli district headquarters had been obstructing the construction of towers, demanding full price for land falling on Right of Way (RoW). They had also lodged a complaint at the World Bank - the development partner of the 220 KV transmission line project.

The transmission line is a key infrastructure to evacuate power from Sunkoshi river basin. It will also help to remove rerouting problem of the energy from west to eastern part of the country thus helping reduce technical loss in energy transmission.

Local leaders of all political parties -- Nepali Congress, CPN-UML, UCPN (Maoist) and CPN-Maoist - have jointly signed a document that states they would not support in timely conclusion of the project. They have also appealed to all concerned to not obstruct construction works. District chairpersons of all the parties have signed the document.

The project was halted for around 18 months due to protest by the locals.

Speaking at a press meet on Monday, Minister for Energy Radha Gyawali said problems in the transmission line project have finally been sorted out. "Remaining works will be completed soon," she added.

As the works to erect some towers will not take more than a week, the transmission line is expected to come into operation soon.

Sagar Gyawali, personal assistance of the energy minister, said the minister has demanded Rs 15 million from the finance ministry to pay compensation to some landowners on the RoW.

Source: The Himalayan Times, June 20, 2014

Power in current times: Local, sustainable and clean energy

PETER WERTH

The Himalayan mountains tower over some of the most rugged terrain and harshest climate conditions. Melting snows from Mt Everest, K2, and hundreds of other snow-capped peaks carve out over 6,000 rivers in Nepal, China, Bhutan, India and Pakistan. The majority of people living along these remote rivers and valleys survive in under-developed living conditions in geographically isolated and difficult-to-access areas. The people of the Himalayas exist off the grid.

The homes and schools do not have electricity and only a few homes have small solar panels to provide enough power for one or two fluorescent or LED lights. Basic services — heat and electricity — are scarce and inconsistent. Heat and cooking is from small stoves using animal dung or scarce and dwindling wood resources for fuel. The cost of connecting these small villages to existing power grids and centralised power or using diesel generators is prohibitive.

“Life isn’t easy in a tiny Himalayan community that doesn’t have reliable power,” explains Lynn Tessier, Engineering Advisor with Advantage Products Inc. “Small rural schools are limited in their ability to educate students because of the lack of consistent electricity. The schools in these remote villages only provide education up to Class VII and beyond that the children must go to city like Kathmandu. And, as is often the case, once the children experience the world at these schools, they don’t return to the village to help improve living conditions.”

Project background

To combat this challenge, different organisations have teamed up to develop a local, sustainable, clean energy system that can provide Himalayan villages with continuous power. As a humanitarian project, Advantage Products Inc is donating the EnCurrent power generation system. New Energy Corp is providing project support to design the flume and weir system. US Synthetic is donating an environment friendly, grease-free Polycrystalline Diamond (PCD) bearing. Werth Family Foundation is funding to transport and install the equipment. WWF is providing project coordination with local government and communities permit applications for the project, and travel coordination. Local community members are also helping out with the project — gathering rock and constructing wire mesh gabions to form the flume and weir in the river, and installing the EnCurrent generator.

The project relies on an in-stream hydrokinetic power generation system that’s submerged in a flume in a local river. The New Energy 5kW EnCurrent power generation system converts kinetic energy in the river’s water current into electrical power. The pollution-free electricity is then transmitted to the nearby village.

“It’s exciting to imagine the life-changing possibilities of this clean energy project,” explains Tim Sexton, General Manager, US Synthetic Bearings. “It’s fun to think our technology might literally keep the lights on in a classroom and help a child learn something new online.”

Harnessing constant flow of energy

The clean energy project utilises flow of the river to keep the hydrokinetic turbine rotors constantly spinning—supplying power 24-hours a day, seven days a week. The generator’s simple design provides

clean and continuous power in small environmental footprint. The industries' first above water direct drive generator coupled with the water lubricated long-lasting PCD bearing technology used in the underwater turbine rotor eliminates environmental contaminants like grease or oil.

The rivers in the Himalaya Mountains in Nepal offer one of the largest untapped green energy power potential in the world. The New Energy EnCurrent generator is ideally suited to capture this potential.

This first generator will be installed at the remote mountain village of Ringmo, located on the shores of Lake Phoksumdo in the Shey Phoksumdo National Park in the Dolpa region. During a visit to the village in April, the villagers were enthusiastic about the possibility of having electricity for their village.

"They were so excited that as soon as they were shown the sketches of the gabion and weir design, they wanted to go down to the river and begin construction immediately" says Tessier.

Overcoming challenges

"The problem is the remoteness of these locations. This first location where we are planning to do the installation is a three-day walk from the nearest airstrip and a six-day walk from the nearest road. Getting equipment in and out is difficult. Doing it by helicopter is incredibly expensive," explains Bear.

"Because we will have to haul the equipment in by porter or and pony caravans, we recognised the need to make our system as simple and light weight as possible. So, we scrapped the gearbox and focused on a simple above water direct drive hydrokinetic generator using a submerged water lubricated PCD bearing for the turbine rotor. This design breaks down into small enough components that can be carried by porters and assembled on site with only hand tools."

The biggest challenge facing the hydrokinetic system is the underwater corrosion and wear of the turbine's rotator. As water moves downstream, it picks up more debris and sediment — turning the water brown from all of the mud, gravel and sand churning up from the river bottom. The water that melts from the Himalayan glaciers is laden with abrasive sediment that would quickly destroy the sealed bearings and wear components on traditional turbine rotors. However, New Energy designed the project's underwater turbine rotor to work with PCD bearings from US Synthetic.

US Synthetic diamond bearings are the perfect match for the harshest, most demanding conditions and environments. "In our initial testing, we threw sand and gravel into the diamond bearing to see how it would perform. It seemed to like it —just ground up the particles with no problem. In some ways, it actually worked better," Bear quipped.

Once completed, the project will generate 24-hour power close to the remote Himalayan villagers, easily handling fluctuating energy loads without losing a lot of energy in the transmission process. The PCD bearing technology used in the underwater turbine will make the generator virtually maintenance free. The small, environment friendly hydrokinetic system will provide power for needed light and satellite connection to the outside world to an isolated, ecologically sensitive area of the world.

This first installation builds on the concept of localised power and eliminates environmentally destructive energy replacements. It utilises clean energy technology and resources without contaminating the environment in the process.

(The author is the main person behind the project)

Source: Republica, June 20, 2014

Hydropower needs foreign investment

RUDRA PANGENI

KATHMANDU, June 19: Harnessing hydropower is a national priority. There's no two ways about it. But on the subject of how to finance hydropower projects, the opinion is divided. Should we bring foreign investment or can our own banks and financial institutions (BFIs) finance the projects?

Financing hydropower is a matter of concern not just for the developers and their financing partners but also of every electricity consumers as paying the amount based on the Power Purchase Agreements (PPA) in foreign currency to foreign investors ultimately affects the tariff rates that Nepal Electricity Authority (NEA) charges electricity consumers. NEA is at a disadvantage from PPAs in foreign currency, which has appreciated many times vis-à-vis the Nepali rupee.

The parliamentary Public Accounts Committee (PAC) has sought clarification from the Minister for Energy Radha Gyanwali and other officials for signing PPAs in foreign currency thereby putting the power utility in a position to face huge annual losses.

The clarification was sought 21 years after NEA started signing such PPAs, with the Upper Bhotekoshi Hydropower project, and which has so far signed similar deals with other four projects.

A deal with Lower Solu signed in November was one such PPA, but it was done in a risk-sharing model.

DO WE NEED FOREIGN INVESTMENT IN HYDROPOWER?

"We need an additional 8 million units (400 MW supply of electricity around round-the-clock) to clear the current load-shedding during 'dry months' but we need a total installed-capacity of 2,000 MW run-of-river projects for 24-hour supply and that demands an investment of Rs 400 billion," Sher Singh Bhat, the spokesperson of NEA, says.

The sector needs huge additional investment to meet energy demands, which is increasing by over 100 MW per year, for future needs. "Such huge investment is not possible without bringing in foreign investors," Bhat says.

The 22 MW Sanima Mai Hydropower project, which will start generation in a few months, will be the largest hydropower developed by the Nepali private sector without foreign investment.

Subarna Das Shrestha, a former president of the Independent Power Producers' Association, says Nepal needs foreign investment to generate enough energy to improve the economy as Nepali banks can not funnel their resources into hydropower, as they have to manage their investment portfolio and are also not confident enough about investing in hydropower as it takes time to receive returns.

"And foreign investors do not come when a minimum level of returns is not assured," Shrestha, who is also one of the promoter of Sanima Mai Hydropower Project, says.

Statistics from Nepal Rastra Bank (NRB) say that Nepali BFIs invested only Rs 17 billion on the hydropower sector in Fiscal Year 2012/13. And even for a 10 MW project, they invested through a consortium of banks.

Former energy secretary Surya Nath Upadhyaya says that we need foreign investment for the large-scale projects and in the long run should collect Nepali money from institutions like Hydro Electricity Investment Development Company Ltd also for such big projects.

However, economist Bishwambher Pyakuryal has a differing view. He says that we foreign investment for the volume of energy required but we should start mobilizing the local small-savers and diverting the governments' unspent budget for small hydropower.

Experts say that a plan of International Finance Corporation (IFC), the private sector lending arm of the World Bank, for Rs 50 billion in local-currency bonds will be of great help.

SHARING RISK

Former energy secretary Upadhyaya says that NEA should not be as liberal as it was with the developers Khimti and Bhotekoshi in the 1990s and can negotiate well with new foreign investors to settle for model allows sharing of risk equitably.

"It could pay in foreign currency for the loan payment period and only in Nepali currency during the profit-making period," Upadhyaya suggests.

Gagan Thapa, a member the parliamentary Energy and Agriculture Committee, echoing Upadhyaya's suggestion, stresses on skillful negotiating while signing of PPAs. "Foreign investment should not be accepted, as if we were a beggar, without ensuring our interests too." "We should employ several models for sharing the exchange risk or have third-party insurance for the risk," he says, adding that paying in foreign currency during the pay-back period can be chosen as an alternative for the discussion.

However, Thapa thinks the government should play other key roles to promote foreign investment, like completing all the groundwork -- survey, Detailed Project Report, Environment Impact Assessment, and land acquisition -- and hand over the project, ready for construction.

Foreign investors often complain of bureaucratic hurdles, sluggish service, and poor 'doing business' environment making projects overrun their costs.

That wants the parliament to approve the much-awaited Electricity Regulatory Commission (ERC) bill at the earliest and pave the way for instituting a regulating authority to determine the PPA rates and electricity tariff.

All PPAs in foreign currency were as carry-over of Khimti Hydropower Project, Rajendra Kishore Kshatri, the secretary at the Ministry of Energy, says. "We are preparing to form a taskforce, that will also include energy experts, to suggest measures to take before decisions on PPAs with foreign investors," Kshatri adds.

Bhisma Raj Dhungana, director at the foreign exchange department at NRB, says PPAs in US dollars will have an in-built increment system as the Nepali Rupee is getting weaker every year. He also suggests defining of why such PPAs are needed.

It is high time for the parliament to sort out the energy pricing mechanism by endorsing the related bills like the ERC Bill, Electricity Bill, and Land Acquisition Bill, plus the other bills related to investment for reform in hydropower sector.