

Nepal's hydropower potential

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With over 6,000 rivers and rivulets, the landlocked, mountainous country of Nepal has immense hydropower potential. However, at present it only makes use of 1% of it and suffers up to 18 hours of electricity blackouts a day, according to the World Bank.

But foreign investors, and Nepal itself, are keen to harness and develop those resources. Key to that has been reaching consensus on a power trade agreement (PTA) between Nepal and India. In the last few days Indian and Nepali representatives finally reached an initial agreement on the PTA after protracted negotiations.

The agreement had been delayed as Nepal had wanted an agreed rate for electricity and to allow the inclusion of foreign, including Indian, investors in its power sector. Encouragingly, it is understood that the Indian representative agreed to Nepal's terms. The first offer from India had not however been so promising.

India's initial proposal had caused consternation in Nepal for a number of reasons, an analyst in the region told *IJGlobal*. The proposal was seen as allowing the Indians to dominate Nepal's hydropower market as it would bar third party investors from investing in Nepal's hydropower and Nepal would have to seek permission from India to invest in its own resources. Finally, India reportedly would have been able to control the tariffs on energy produced, rather than allow the market to dictate the price.

Even the US trade representative for Southeast Asia, Mara Burr, had concerns over the proposals, saying that there were concerns that the Nepal-India PTA would restrict foreign investment into Nepal's hydropower resources.

The Indian government responded by saying that proposed amendments to the draft would be accepted.

The agreement still needs to be approved by the cabinets of both the countries. But if ratified it will pave the way for Nepal to import and export electricity to India. This will allow it to start to harness its immense hydropower potential.

Only India

The reason that agreeing the PTA with India is crucial to developing Nepal's resources is that the country's only offtaker the Nepal Electricity Authority (NEA) has since April 2014 signed no new power purchase agreements. This is because the NEA feels that Nepal's rainy season will lead to wasted electricity production. Simply put, it said it would not pay all year round, instead choosing to only buy from mid-November to mid-April. So how to develop more hydropower projects to make use of Nepal's potential?

The answer to that is to export the electricity. And the only viable option is India.

Nepal shares borders with Tibet and India. But the geography between Nepal and Tibet makes building transmission lines uneconomical as mountains there rise over 8,000 feet. As well as the cost of constructing the lines, Tibet only has a population of three million people. Demand for energy will not be high enough.

Nepal's borders with energy hungry India are much more promising. Joined with the states of Uttar Pradesh, Bihar, Uttarakhand and West Bengal by mostly flat land, Nepali produced energy could reach a population of 400 million. And India is in need of energy to grow.

So agreeing the PTA with India will be vital if investment is to be made into Nepal's hydropower sector.

Some projects, agreed before the NEA declined to sign more PPAs, such as the Kabeli A Hydroelectric Project in Nepal, are nearing financial close.

And with the PTA saga starting to end, Indian sponsor GMR is nearing a project development agreement for two hydropower sites - Upper Karnali and Upper Marsyangdi projects. Development bank FMO is also said to be mulling investing into Nepali hydropower.

The PTA being signed is a key milestone for export projects like this, and others, to get underway, a source working on the deals told *IJGlobal*.

Additionally, it may also see Nepal firm up the country's investment environment, and not just for hydropower.

PPP law

Nepal has plans to implement a PPP law, but these have been put on ice while the PTA has dragged on.

Not only does Nepal plan to build a number of hydroelectric plants under the new PPP law, it is also considering tendering airports on a PPP basis.

Either the existing Tribhuvan International Airport near Kathmandu will be upgraded, or a new international airport near Kathmandu will be built on a PPP basis, it is understood.

Nepal has no such structure at the moment.. Introducing a PPP structure to the country may help attract more international sponsors to invest in the country's infrastructure, for which there is a vital need.

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