

Hydro Solutions

A one-stop shop for all hydropower developers

While the country is going through the third and longest (so far) phase of power shortage, a group of hydropower experts have established a company that has set itself the ambitious objective of finding the solutions to all the problems in the hydropower sector.

Gyanendra Pradhan is the Patron and Chief Strategist of Hydro Solutions Ltd. (HSL), a company that was inaugurated in July 2007 by Andre Boulanger, President of the biggest hydropower company – Hydro Quebec Distribution (40,000 MW). When Pradhan lists down the plans and strategies of HSL, it may sound as if he is recounting a fairy tale. But he says that it's not fairy tale. His company is really into something that is totally revolutionary!

“Our policy makers in the hydro sector, thus far, have repeatedly made the same mistake, hence the mounting serious problems of power shortage in each successive phase,” he says, noting that when the first phase of power shortage was faced, the duration of load shedding was just one or two hours per day. That was solved with the construction of the Kulekhani project. Then there was another phase of bigger power shortage when the load shedding used to be 10 hours per day. That too was solved with the construction of Kali Gandaki A. Now, in the third phase of power shortage, the period of load shedding has reached almost 11 hours. “This is because our policy makers were not proactive enough to think about constructing new projects until power shortage problems emerged. We have to develop a number of projects simultaneously so that if one gets delayed for some reason or the other, there will be another ready to mitigate the problem. Ideally, if all of them get ready as planned, demand for the surplus capacity can easily be created, thus replacing the other sources of energy,” he says.

To solve the problems related to the hydropower sector, Pradhan and his friends have set up Hydro Solutions and the plans of the company are simply unbelievable, to say the least. Though the company is just six months old, the response it has received so far is quite exciting and overwhelming, says Pradhan. According to him, it already has about eight projects in hand in which its involvement ranges from equity stake to just advisory and consultancy roles.

These projects include the Upper Mai (10 MW), which is estimated to cost Rs. 1,500 million. Promoted by two big business houses – the Panchakanya Group and Tri-Shakti Group - the project is planned to complete within the coming two years. The construction of the approach road to the project site is already underway. Another project, the Lower Modi, is being developed with other big business houses – the Dugar Group, Murarka Group and the Nandan Group and it is expected to complete within three years. Then there is another 10 MW project, Nagarjun Madi, which is being promoted by academicians and construction entrepreneurs. Work on all these is planned to commence within the current fiscal year with the aim of completing them within two to three years.

A couple of big projects have also been slated for the future. One of them is the Kali Gandaki, which is to have its power house located below the tail race of Kali Gandaki A. Though the power production capacity of this project is presently estimated to be 93 MW only, Pradhan says that there is a possibility of the capacity going up to 200 MW. Next is the Kali Gandaki Gorge, which is likely to produce 225 MW and, according to Pradhan, it may come up earlier than Tamakoshi that Nepal Electricity Authority is planning to construct on its own. “We are presently looking for investors for the Kali Gandaki Gorge project as it requires a huge investment. Investors from Canada, the UK, Turkey and India have shown interest, and we hope it will be decided in the coming three months. We have already received a commitment of Rs. 4,000 million from local investors and we will try to ensure that the local stake is the maximum so that the local retention of profits from such projects will be the highest,” he informs.

Concept of the company

Hydro Solutions is a different type of company also because the shareholding pattern and management differs from other ordinary companies. All the experts associated with the company are made shareholders. When any shareholder(s) stops from being actively involved in the company's work, he/she has to surrender the shares. Still, the company is small as all its work is carried out through subsidiaries or contractors that are specialized in their respective fields. A shareholder of HSL will head

the subsidiary or its specific unit in which he/she has the expertise and the major share(s) of the subsidiary will be in his/her name(s). As the experts are shareholders, the company does not need to pay them any salary. They are partners and earn by working to make the company earn profit.

PTC, India's state-owned power brokering firm, too, is setting up a company in line with the concept of Hydro Solutions, according to Pradhan. HSL plans to work together with PTC.

The concept of such a company emerged when the Canadians started showing interest in Nepal's hydropower sector after they gathered some knowledge about Nepal's potential and found that the experts required for hydropower development in the country were scattered. It may be noted that hydropower development is a multidisciplinary field that requires joint expertise from such fields as hydrology, geology, electromechanics, electronics, finance, insurance and the like. There was no 'one-stop shop' to find all these experts in Nepal. The Canadians thus suggested having a company that would bring all these experts under one roof. "The idea is to bring together all the Nepali experts in these fields, whether they are working abroad or in Nepal, and consequently reduce the dependence on foreign expertise. Anyone who wants to undertake the development of a hydropower project in Nepal will now be able to get hold of all the experts from one single 'shop'", says Pradhan. "After HSL was set up, Nepali experts in the diverse fields of hydropower development, who were working abroad, are beginning to return to Nepal," he adds.

In another development, the company has conducted a number of workshops with NRNs at different places with the aim of encouraging them to invest in Nepal's hydropower sector. "The result has been that NRNs in Canada have shown great interest in investing in this sector and there are a couple of projects being considered to be developed with their investment," informs Pradhan. "Now we have received invitations from the USA, Korea and Malaysia to go there and explain why the NRNs there should invest in Nepal's hydropower. Our plan is to make them invest in 3 or 4 projects by 2009", he adds.

According to Pradhan, the company has already received commitment from Canadian NRNs to invest US \$ 20 million for one project and another US \$ 50 million for another. Now the company is in the process of searching for suitable projects for these investments.

Apart from power generation, the company is also interested in developing transmission lines and other infrastructure. In this connection, the company has already applied for license for setting up a private transmission line (132 KV) connecting Madi valley with Pokhara. Madi valley was selected because some 10 power generation projects have been planned in the Madi valley, and if each of them has to set up separate transmission lines, it will have an adverse impact on the environment. Moreover, the additional cost of stretching separate lines will reduce the viability of these power generation projects. The idea again is to make each of these power projects shareholders in the transmission line company.

Financing solution

Many hydropower projects in Nepal are not being implemented, and there is a big complaint against the license holders for just sitting on the license. In Pradhan's reckoning, the delay in implementation is due to lack of funds. "Hydro Solutions will help them to arrange the funds," he says. The problem, according to him, is because the banks are not too confident about investing in hydropower. Therefore, Hydro Solutions has presently tied up with three banks and will be providing them with the necessary advice on how to go about financing the hydro projects. "With our help, one bank has already completed a financial closure on one big project and two more projects are on the verge of completing the financial closure very soon," says Pradhan, claiming that Hydro Solutions has already started a chain effect in the economy. "Soon the banks will have no excess liquidity, which will drive up the interest rate on deposits, reduce capital flowing out of the country and increase consumer lending," he points out.

No boss no subordinate

Hydro Solutions has a construction wing called HSL Construction. But that is a separate company. If all the people are in the same company, it would be unmanageable because of the size. "We wanted to make it a smart company, and anyone with the expertise in the construction business will have equity in the construction company," says Pradhan.

Promoting power company

One major distinguishing feature of Hydro Solutions is its media wing. The objective of this wing is not only to promote the business of the company but also to educate the general public and politicians and develop a positive attitude among them about hydropower projects. This will help in exerting positive pressure on the politicians to go by economic rather than political logic in terms of hydropower development, Pradhan says.

The company also has a plan to encourage media persons to invest in hydropower projects. This will enhance their understanding of the hydropower sector compared to what they understand it today. "You tend to understand a business better when you have your own personal stake in it," he opines. A similar idea is being floated to make the members of the Management Association Nepal (MAN) to invest in a small hydropower project so that MAN will be able to generate more resources to carry out its core operations from the profits earned from the project. Also planned is a small project in which only small investors will be involved so that such shareholders will benefit from the project and, at the same time, develop an interest and positive attitude towards hydropower development.

In connection with its objective of contributing to national policy, the company has already approached the National Planning Commission and the Ministry of Water Resources with its offer to share expertise for framing appropriate policies for the development of hydropower.

HSL has just now (in January 2008) engaged popular comedy artistes, Madan Krishna Shrestha and Hari Bansha Acharya, as the "ambassadors of hydropower" to advocate the importance of developing the hydropower sector.