

Butwal Power Company Ltd.

COMPANY BACKGROUND

The Butwal Power Company Ltd. (BPC) is a leading hydropower company in Nepal involved in generation, transmission, and distribution of electricity. It has a combined operating capacity of 17.1 MW through its two plants in western Nepal. It supplies power to the national grid operated by the Nepal Electricity Authority (NEA) and directly to domestic and industrial customers. In addition, BPC provides engineering and consulting services through its subsidiaries. BPC was incorporated in 1966 as a private company to generate power for the city of Butwal and was converted into a public limited company in 1993. A decade later the Government of Nepal handed over its majority ownership to private investors under a public-private

Country: Nepal

Sector: Utilities

IFC's Investment: \$6.6 million in long-term debt financing

partnership. BPC is listed on the Nepal Stock Exchange. Its main shareholders are Shangri La Energy Limited (69%), the Government of Nepal (8.1%), a Norwegian not-for-profit institution Interkraft (6%), and the general public (10%).

DRIVERS FOR BPC'S INCLUSIVE BUSINESS MODEL

- Significant demand for electricity in hilly, rural areas and lack of supply
- Opportunity to generate hydropower and provide electricity to rural areas surrounding BPC's power plants
- Grant funding from donors and in-kind contributions from User Organizations (UOs) were key enablers in reducing the capital and operational costs of the rural distribution network

The decade-long civil and political conflict in Nepal, which ended in 2006, created a poor investment climate for many years. Investments in power shrank while consumer demand grew at about 10% per annum. As a result, Nepal is now experiencing a severe power shortage with crippling 12-to 15-hour power cuts, particularly during the dry season from November to January. Rural populations are most disadvantaged as about 85% don't have access to electricity. While Nepal has significant potential for hydropower, it generates less than 2% of its potential. According to 2011 estimates, total operational capacity at peak time was only 526 MW while peak demand was 946 MW.

Beyond these business drivers, grant funding from donors and in-kind contributions from UOs have enabled BPC to provide electricity to rural households. To begin with, funding from the Government of Norway was instrumental in establishment of BPC's power plants. These plants were built under hydro-power projects with the Norwegian Agency for Development Cooperation (NORAD), and incorporated rural electrification to benefit local communities. Grants from NORAD and nonprofit institutions partially covered capital costs for the rural distribution network and capacity building of UOs. Finally, UOs provided in-kind contributions, enabling BPC to reduce operational costs.

BPC'S INCLUSIVE BUSINESS MODEL

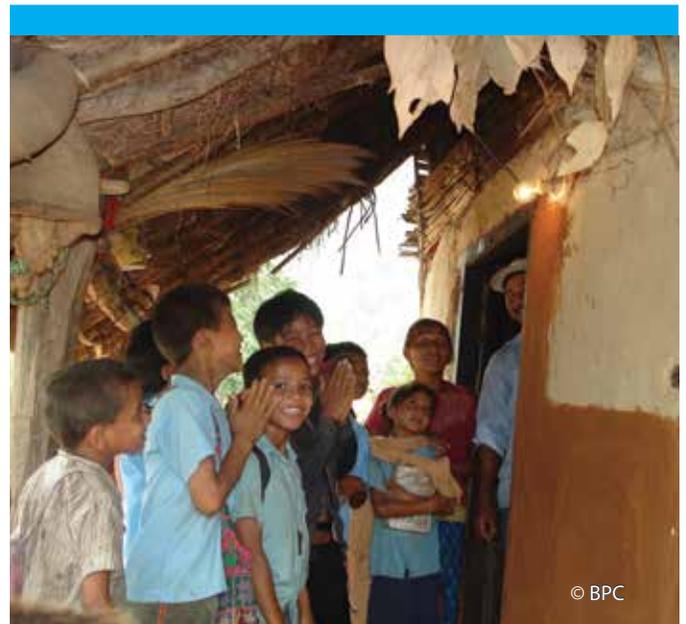
In Nepal around 43.6% of the population has access to electricity as per 2009 estimates. Rural populations are underserved because they are dispersed over remote mountainous regions, making them difficult and expensive to reach through the national grid. The power needs of people in these regions are best met through national grid alternatives like that offered by BPC.

BPC provides power to 38,000 people in four rural districts in mid-western and western Nepal: Palpa, Syangja, Arghakhanchi, and Pyuthan. These districts adjoin BPC's hydropower plants in Jhimruk and Andhikola. People here earn a living through farming and small businesses. More than 80% of electricity users in the district of Palpa, one of the poorest regions in the world, are subsistence farmers. Given the hilly terrain, people have very limited access to basic infrastructure, goods, and services. The company supplies power from its plants to these districts via two sub-stations. Further, BPC leverages a rural distribution network of 112 UOs—local entities comprised of electricity users—to assist with distributing power in these areas. Of BPC's 37,938 rural customers, 30,000 receive in-home connections via UOs while the rest are connected directly through BPC. The company also supplies power to the national grid through the NEA.

The company cross-subsidizes its entire rural electricity distribution business through income it earns from the bulk sale of electricity to the NEA. Also, capital expenses for rural electrification are partly covered by donor funds from NORAD and grants from not-for-profit institutions. Operational costs for rural electricity distribution are partly covered by in-kind contributions from UOs. Between 2007 and 2011, capacity building programs for UOs were cost-shared by NORAD and BPC (72%-28%), while they were previously 100% funded by BPC.

BPC uses a tiered tariff structure to make electricity more affordable for low-income customers. It divides customers into two categories: Household customers who are subdivided into cut-out and metered, and industrial customers

that are small and medium enterprises (SMEs). Metered customers have an energy usage-based tariff under which they pay as per their consumption recorded in kWh meters installed in their homes. On the other hand, cut-out customers are supplied 25W up to 400W of electricity through current-limiting devices and have a demand-based fixed tariff. Cut-out connections enable the company to serve the poorest customers who have minimal energy needs. BPC's cut-out connections range between NPR 19 for a 25W monthly subscription to NPR 179 for a 400W subscription. This fixed tariff system also reduces costs by eliminating meter reading. Cut-out customers have the option to upgrade to metered electricity if their energy demand increases, in which case they pay between NPR 89 for 500W to NPR 178 for 1000W.



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The company introduced UOs, which it contracts to manage rural electricity distribution, in 1991 in cooperation with NORAD. Established with the assistance of rural government bodies known as Village Development Committees, UOs provide in-kind support in the form of local labor for the construction, operation, and basic maintenance of electricity distribution systems in rural areas. Each UO comprises 7-9 people such as a chairperson, treasurer, and serviceman who is a semi-skilled electrician. During construction, UOs contribute labor from the community to put up the poles and lay the line from the sub-station to the village. Thereafter, UOs manage operations by collecting new customer applications, installing connections, reading meters, billing, and collecting payments. UOs also maintain distribution systems by performing minor repairs.

Involving UOs in electricity distribution has enabled rural communities to build a sense of ownership in their local power distribution system, thus strengthening BPC's license to operate in difficult environments



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UOs keep 10% of the electricity payments they collect from customers to cover their overhead costs; the remainder is remitted to BPC. Depending on the number of customers served, the 10% may cover all overhead costs. BPC trains UOs on topics such as operation and maintenance (for servicemen), institutional strengthening and operational procedures, safety, and productive end use of electricity.

Involving UOs in electricity distribution has enabled rural communities to build a sense of ownership in their local power distribution system, thus strengthening BPC's license to operate in difficult environments. UOs have also reduced the cost of the distribution system. Given their proximity to and relationships with customers, UOs have increased BPC's bill payment rates (99.5% in 2011) and reduced electricity pilferage. They have also helped achieve greater customer satisfaction by reducing service disruptions.

RESULTS OF BPC'S INCLUSIVE BUSINESS MODEL

- Turnover of NPR 573.9 million (\$6.9 million) in 2011
- In 2011, 19% growth in EBITDA over previous year
- 37,948 customers served in 2011

In 2011, BPC's electricity generation output increased by 5% over the previous year. Its turnover without its engineering business was NPR 573.9million (\$6.9 million). Its EBITDA was NPR 320 million (\$3.8 million), representing a growth of 19% from 2010. The company's revenues from electricity distribution amounted to NPR 74.8 million (\$0.9 million), an increase of 14% over the previous year. Metered customers contributed 88% of revenues, whereas cut-out and SME customers respectively contributed 11% and 1% of revenues.

BPC's distribution business has grown from a small pilot project for 191 customers to 37,948 domestic and SME customers in four rural districts in 2011. Of these customers, 80% were metered customers, 15% were SME customers, and 5% were cut-out customers.

User organizations continue to play a vital role in distributing power to rural areas. In 2011, 21 new UOs were formed and an additional 7 are planned for 2012, taking the total number to 119. The company plans to continue investing in rural electrification with the involvement of local communities and international donors. In the next five years, BPC will provide power to an additional 6,500 to 7,000 new customers in 28 villages, of which 2,593 will be added in 2012.

IFC'S ROLE AND VALUE-ADD

IFC's Investment: \$6.6 million in long-term debt financing

Investment Year: 2010 to 2013

- Provide long-term debt to expand hydropower generation in the face of a dearth of private investment since 1997 due to the civil and political turmoil in Nepal, as well as the limited financing capacity of local banks.
- Have a positive impact on the hydropower sector as a whole through the signaling effect of IFC's investments in the Andhikhola Hydropower Project.
- Help attract other investors and lenders to BPC in the future. In particular, IFC's rigorous due-diligence provides a vital 'stamp of approval' for BPC's environmental, social, and governance standards, as well as its operations.

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For more information, visit ifc.org/inclusivebusiness and bpc.com.np