**CHAPTER 9 ELECTRICITY**

Bhutan has an estimated hydropower potential of 36,900 MW with the potential of generating 154,000 gigawatt hours (GWh) of energy. At present, a total of six major hydropower plants are in operation. Four other hydropower plants are in various stages of construction and upon commissioning of these hydropower plants, an additional 2,938 MW of installed capacity would be achieved.

More than 99.97 percent of households have access to electricity and over 95 percent of households in the country use electricity as the main source of energy for lighting and cooking (BLSS, 2017). Bhutan’s total installed capacity is approximately 2.3 gigawatts (GW) out of which 99 percent of the country’s installed capacity comes from hydropower plants and it accounts for 2,334 MW of the total installed capacity of 2,343 MW as of 2021.

Bhutan exports its surplus electricity to India and this has led to the high economic growth rates in the recent years. The economy of the country is largely driven by hydropower generation. Hydropower plants contribute significantly to the Gross Domestic Product (GDP), both during construction and operation phases. In 2021, the sector has contributed 15.64% to the GDP.

This chapter contains information on hydropower plant’s installed capacity, electricity generation, plant capacity factor, details of transmission lines, category wise domestic consumption and royalty & subsidy.