Proposed Framework for setting up Bhutan Power Planning Component with respect to Load Forecast

By

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Training Workshop
“Identification, Comparison and Scenario Based Application of Power Demand/Load Forecasting Tools”
Thimphu, Bhutan
24-25 August 2017
Activities Required for Load Forecast

➢ Bhutan requires a self sufficient Load Forecasting Department Under Power Planning Entity

➢ Following Activities are required to be carried out

  • Load Survey:
    • Collect Data from field formations of Bhutan Electricity Authority:
      • Historical loads recorded at substations for the last 10 years
      • Pending applications of customers
    • Gather all data/information from Developmental Organizations such as
      • Municipalities and Town Committees for new housing schemes and developmental details
      • Organizations/Departments dealing with Industry, Agriculture and Forestry to know future expansion plans
Activities Required for Load Forecast

• Data Collection & Processing:
  • Collect, compile and process all the data received from Load Survey
  • Collect information about growth at country level e.g. GDP, GNP, Population growth and other statistical data from Governmental Departments/Ministries

• Load Forecast Analysis
  • Perform Regression Analysis to develop Global/Temporal Forecast (To be used for Generation Planning)
  • Perform Time-Series analysis to develop Spatial Forecast (To be used for Transmission/Distribution Planning)
Institutional Structure

Load Forecast Department

- Load Survey Division
  (One Division Head + Field Sub Divisions with Surveyors)

- Data Collection & Processing Division
  (One Division Head + Two Assistants) Engineers

- Load Forecast Analysis Division
  (One Division Head + Two Assistants) sEngineers
There are different approaches and software available for proper load forecasting.

Main aspects of load forecast are

- Global or Temporal Forecast (country level)
- Spatial Forecast (specific to local areas i.e. provinces, cities, main load centers etc.)

There are software using econometric models, regression techniques and end-use approach.

Eviews is one such software.
A dedicated team of experts should be there in BEA, handling the Planning activities to perform the task of load forecasting on regular basis.

Their capacity building has to be planned through workshops and hands-on-trainings.

They should be placed under the proposed structure in this presentation.
Thank You
For Your Attention