About BREB

HISTORY OF RURAL ELECTRIFICATION IN BANGLADESH

Development plans of Bangladesh has identified rural electrification as one of the major components of overall infrastructure, implementation of which, it is held, can accelerate the pace of economic growth, employment generation, alleviation of poverty and improve living standard. A well planned and organizational rural electrification program was however, not existed till 1970s. The electrification program as carried out by the Bangladesh Power Development Board (BPDB) was mainly limited to urban centers and at best to their peripheries. At that time, the Government of Bangladesh engaged two consulting firms of USA to carry out a comprehensive feasibility study on rural electrification in Bangladesh. The firms studied all related issues in depth and put forward recommendation towards a sustainable and viable rural electrification program. In addition to the new institutional framework, the study emphasized for Area Coverage and Co-operative concept. It is against this backdrop, Rural Electrification (REB) was created by the Government of Bangladesh (GOB) in late 1970's through REB ordinance LI of 1977. The Board is a statutory Government organization primarily responsible for implementing countrywide rural electrification.

Since inception, BREB sets forth the following major objectives in implementing the rural electrification program.

- Ensure peoples participation in policy formulation in a democratic way.
- Provide reliable and sustainable electricity to the rural people at affordable price.
- Improve economic condition of the rural people by using electricity in agriculture, cottage and agro based industry.
- Improve living condition of rural peoples.
- Bring about entire rural Bangladesh under RE program or an area coverage basis.

To achieve the objectives of rural electrification program at the implementation level, the Board established Palli Bidyut Samities (PBS) [which means Rural Electric Societies in English Language] based on the model of Rural Electric Co-operatives in USA under the universal principle of co-operative, democratic decentralization and ownership of consumers. A PBS, which owns, operates and manages a rural distribution system within its area of jurisdiction is an autonomous organization registered with REB. The member consumers participate in policy making of PBS through elected representative to the PBS governing body known as Board of Directors.

Right from the establishment of a PBS, REB assists the PBSs with

- Initial organizational activities.
- Training of manpower.
- Operational and management activities.
- Procurement of funds.
- Providing liaison between Bangladesh Power Development Board, Dhaka Electric Supply Authority (Bulk power supplies) and other concerned Government and Non-Government agencies.
- Conducting election of PBS.

Central to the PBS system, the area coverage concept generally comprises 5-10 thanas having a geographical area ranging between 1500-2000 sq. km. For each PBS load forecast is made for the next 20 years based on detailed study and accordingly load centers are set up in order to identify the location of the distribution Sub-Stations. The cost of the distribution system is

given on a thirty three years term loan to the PBSs with first eight years as grace period with an interest rate of 3% per year. To maximize consumer welfare, the PBSs operate on the financial principle of "No-loss & No-profit" basis.

Rural electrification in a developing country like Bangladesh is a huge capital intensive program. In order to ensure the mobilization of fund and steady growth of the electrification program REB had taken a pragmatic plan to implement the gigantic task by phases. REB started functioning in early 1978 with the first project under the 1st phase undertaken for establishment of 13 PBSs in different parts of the country. Over the last twenty six years, more PBSs were organized in various phases which brings the current total at 70. The fifth phase of the Rural Electrification program is now under implementation. REB plans to cover all the village of Bangladesh by the year 2020 A.D.

Rural electrification in Bangladesh is often viewed as one of the most successful program and has also been credited both in the country as well as in international arena. Relatively low System loss in the range of 15% and high rate of bill collection nearly 100% is the achievement widely appreciated by the Development partners and International agencies. This has been possible due to the unstinted and unflinching support that the Government of Bangladesh and our development partners have placed in the operation and philosophy of Rural Electrification. But given the huge task that lies ahead involving the total electrification of the country, there is no room for complacency as yet.

ROLE OF RE PROGRAM IN AGRICULTURE

The greatest result of Rural Electrification program has been achieved in the agricultural sector. The use of electric pumps for irrigation in the dry seasons (January-April) brought revolution in the food production culture. Boro paddy produced in this dry period fully depends on irrigation from surface or underground water. Hand driven tube wells proved to be inadequate for large fields and diesel pumps are too expensive source of water. Diesel pumps need regular maintenance, skilled operators and mechanics are not readily available. This method of irrigation lost popularity in course of time and farmers showed reluctance to use diesel pumps. Comparatively cheap irrigation of land is provided by electric pumps which need negligible maintenance.

As a result, popularity of electric irrigation pumps among farmers of Bangladesh has grown up in past years. With less than 2000 electric pumps in 1981-82 Fiscal Year, the number of pumps come under electrification has increased tremendously exceeding 2,38,281 up to January, 2017. The role of Rural Electrification Board and GOB in popularizing electric pumps in agricultural sector was very important. Although tariff of all other categories of consumers has gone up over a period of time, tariff for irrigation consumption remains almost same for last five years. It enables the farmers to keep cost of production low and price of products competitive in the market.

The followings are the main features of rural electrification in Bangladesh as on January, 2017.

Number of PBSs organized	78
Number of PBSs operating commercially	78
Number of district under the program	61
Number of Up-Zillas under the program	453
Number of villages electrified	65,579

Total distribution line constructed	3,30,728 Km
Total distribution line energized	3,07,408 Km
Total 33/11 KV sub-stations constructed and commissioned	767 (591 Constructed by BREB, 87 Constructed by Private, 89 taken over from PDB/DPDC/OTHERS)
Installed Capacity of Sub-stations	8402 MVA
Total number of consumers	1,73,92,712
Total number of irrigation pumps connected	2,38,281
System Loss	11.74% (cumulative),9.59% (Jan'2017)

FUTURE PLANS

According to the 1991 census, number of villages in Bangladesh is 86038, out of which about 75000 villages have been planned to be brought under RE programme. Remaining villages constitute the areas presently covered by BPDB/DESA and the Chittagong Hill Tract Districts where RE programme has not yet been considered for implementation.

It is the ultimate goal to bring all the villages of Bangladesh under electrification by the year 2020. Under the RE programme, which started in 1980, about 45% villages have already been brought under electrification by 2005. The mid-term plan is to cover further 20% villages by 2005 and remaining villages to be covered by 2020 under the long term-plan.

The number of approved PBSs up to December, 2006 is 70 which covers more than 90% of effective area for rural electrification. This number is expected to rise up to 72 during the mid-term plan period and up to 75 during the long-term plan period by re-organizing/re-structuring the existing PBSs and by inclusion of new areas taken over from BPDB/DESA.