# STUDY ON FIXATION OF ELECTRICITY PARCELING COST OF DHAKA PBS 2

**A Thesis submitted in partial fulfillment of the requirements for the Award of Degree of**
**Bachelor of Science in Electrical and Electronic Engineering**

**By**

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# Certification

This is to certify that this thesis entitled "**Study on Determination of Electricity Distribution Cost of Dhaka PBS 2"** is done by the following student under my direct supervision and this work has been carried out by him in the laboratories of the Department of Electrical and Electronic Engineering under the Faculty of Engineering of Daffodil International University in partial fulfillment of the requirements for the degree of Bachelor of Science in Electrical and Electronic Engineering. The presentation of the work were held on.

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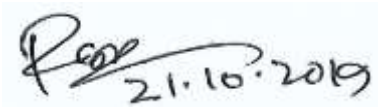


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# DECLARATION

**The thesis entitled "Study on Determination of Electricity Distribution Cost DPBS-2" submitted by Ratul Sarker, ID: 162-33-3373 and Session: Summer 2016 has been accepted as satisfactory in partial fulfillment of the requirements for the degree of Bachelor of Science in Electrical and Electronic Engineering.**

**Dedicated to**

# MY Parents
And
# Teachers

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# List of Abbreviations

| | |
|---|---|
| AGE | Administration & General Expenses |
| BERC | Bangladesh Electricity Regulatory Commission |
| BPDP | Bangladesh Power Development Board |
| BREB | Bangladesh Rural Electrification Board |
| CSE | Consumer Selling Expenses |
| DAE | Depreciation & Amortization Expenses |
| DC | Distribution Cost |
| DESCO | Dhaka Electricity Supply Company |
| EC | Energy Cost |
| EV | Electrified Village |
| GDP | Gross Domestic Product |
| GOB | Government of Bangladesh |
| EH | Electrified Houses |
| HP | Horse Power |
| IE | Import Energy |
| IE | Interest Expenses |
| IPPs | Independent Power Producers |
| KV | Kilovolt |
| KWh | Kilo Watt Hour (Unit) |
| MU | Million Units (Million KWh) |
| MW | Mega Watt |
| NEV | Non Electrified Village |
| OME | Operation & Maintenance Expenses |
| PBS | Palli Bidyut Samity |
| PDB | Power Development Board |
| PF | Power Factor |
| PGCB | Power Grid Company of Bangladesh |
| REP | Rural Electrification Program |
| SL | System Loss |
| TC | Total Supply Cost |
| TX | Tax Expenses |
| Tk | Taka (TK) |
| TR | Total Revenue |
| WC | Wheeling Charge |

# ACKNOWLEDGEMENT

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# EXECUTIVE SUMMARY

Bangladesh is an energy hunger alongside other developing country. Before our liberation in the year 1971, we had little facilities created for the rural people. Virtually, govt. had little opportunities for expansion of the distribution network in a massive scale. In 1972, Rural Electrification Directorate (under Power Development Board) were established to gear up efforts towards formation of a separate body responsible for electrifying rural areas. In 1976 NRECA conducted a feasibility study for reaching electricity to each and every rural home and other rural establishments. As a result Rural Electrification Board were formed to take up efforts at bringing down changes. After the freedom war to get together power emergency were a conspicuously amongst the most imperative difficulties for the government. By degrees the test turns out to be truly harder to harder to get together power emergency, particularly to get together power emergency in the rural region. So government fabricated Rural Electrification Board (REB) from Bangladesh Power Development Board (BPDB) to satisfy the power interest for town individuals. Duty rate of electrical power confide on upon transmission and dispersion cost. On the off chance that power supply expenses are high then electrical tariff rate will high and submitted negative outcome. In this paper, it takes Dhaka PBS-2 as my standard PBS for calculation of the 2015-2018 fiscal year. Here it gathered some important information, for example, Energy Import, Energy Expenses, and Monthly Consumer and so forth. What's more, this paper, it quickly talks about the about of Customer class especially Domestic level, Customer expands Energy, Energy Import point, Social and monetary effect, Power factor Penalty and so on. This Paper as an extra finds that Total Distribution cost, Distribution cost per unit, Supply cost, Supply cost per unit, Total Revenue, Total Revenue Per unit, Energy Purchase cost, System loss, Surplus and so on. This paper will similarly be useful to get learning a steady power dispersion structure to meet the future power crisis of Bangladesh. Power circulation cost is an essential issue in our nation. Since power tax rate and dissemination cost are connected with our monetary development. At last, it additionally demonstrates that Dhaka PBS-2 is productive Palli Bidyut Samity (PBS).

# CHAPTER 1

# INTRODUCTION

## 1.1 Introduction

In Bangladesh, rural electrification is enough turned now to face any challenges. This is a story of how a cost-effective electric energy supply has been developing lifestyle in about 90 percent areas of Bangladesh. After the liberation war, it's a journey from darkness to the light of the rivalry between desire and hope. The Bangladesh govt. is planning to generate 24,000MW by 2021, 40,000MW by 2030, and 60,000MW electricity by 2041. Dhaka already celebrated the success of conducting 20,000MW power by lighting fireworks .Our study is on how electric energy supply more cost- effectively and with less of losses, which can be more safe and affordable to the rural. There are many factors which may have been contributing to such change. Our study is a submissive attempt to find any missing linkage in energy supply that could be more developed the supply.

Rural electrification makes the process of rural development easier and faster since 1977 to 2016.

## 1.2 BREB

After the independence of Bangladesh in 1971, the first major initiative to extend grid electricity in rural areas were taken in 1975 under a scheme called 'Total Electrification Program' This program looked beyond grid connectivity towards the development of the basic distribution facilities for effective delivery of power to rural areas by 1978.At around the same time, establishing an institutional structure were considered, which would develop the technical, economic, financial and social analysis, and organizational requirements for a rural electrification project in Bangladesh. Then at the request of the Bangladesh Government Rural Electrification Project Committee, a decision were taken for the establishment of a new national agency under the Power Ministry to develop and administer a rural electrification program. Accordingly, Rural Electrification Board (REB) were established on 29 October 1977 and started functioning on 1 January 1978 with following basic objectives:

- 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 The Rural

Electrification Board of Bangladesh has been providing service to rural member consumers for over 39 years. Continued support from the Government of Bangladesh, the donor community, consulting partners, and member consumers will help this program continue to expand, providing the gift of electricity to millions more Bangladeshi households, businesses, and industries.

Table 1.1: Bangladesh Rural Electrification Board at a Glance

| Website | www.reb.gov.bd |
|---|---|
| No of Board member | 12 |
| No of Approved Projects | 83 |
| Number of PBSs operating commercially | 78 |
| No PBSs electrified | 78 |
| Number of district Included in RE program | 61 |
| No of Upazilas Included in RE program | 453 |
| No of villagers energized | 68,049 |
| Distribution line constructed(Km) | 3,19,708 Km |
| Total distribution line energized | 3,03,464 Km |
| Number of 33/11 KV Sub-Station Constructed | 765 (589 Constructed by BREB) |
| Average system Loss | 11.99% |
| Installed Capacity of Sub-stations | 8150 |

## 1.3 Electricity sector in Bangladesh

In Bangladesh the utility electricity sector has total installed capacity is 21,419 MW (solar power). Bangladesh's energy sector is growing. Recently Bangladesh started construction of the 2.4 (GW) Rooppur Nuclear Power Plant prospective to go into operation in 2023. According to the Bangladesh Power Development Board in July 2018, 90 percent of the population had access to electricity. However per capital energy in Bangladesh of spending is 464 KW as considered low. Electricity is the major source of power for most of the country's economic actions. Bangladesh's total installed electricity generation capacity (including captive power) were 21,419 MW as of May 2019 where maximum generation were 12,494 MW as of 11 May, 2019.The largest energy consumers in Bangladesh are residential and the industries sector, followed by the commercial and agricultural sectors.

As of 2015, 92% of the urban population and 67% of the rural population had access to electricity. An average of 77.9% of the population had access to electricity in Bangladesh. Bangladesh will need an estimated 34,000 MW of power by 2030 to maintain its economic growth of over 7 percent. Where targeted goal an estimated 24,000 MW of power by 2021 and 40,000 MW of power by 2030, 60,000 MW of power by 2041 respectively.

Problem in Bangladesh's electric power sector include high system losses, delays in completion of new plants, low plant efficiency, erratic power supply, electricity theft, blackouts, and shortages of funds for power plant maintenance. Overall, the country's generation plants have been unable to meet system demand over the past decade. [14]

**Mission Statement:** Provide quality electricity at grass root level in a democratic manner.

**Vision Statement:** Electricity for all by 2021.

## 1.4 Future plans

'Vision 2021' promises to preserve the fundamental principle of the Constitution following Article 16 where it is clearly demonstrated that "The State shall adopt effective measures to bring about a radical transformation in the rural areas through the promotion of an agricultural revolution, the provision of rural electrification, the development of cottage and other industries, and the improvement of education, communications and public heath, in those areas. Within 2021 BREB has a target to achieve 100% (5.20 lakh km. distribution line) electricity in the rural areas of Bangladesh.

Up to June 2019, BREB has constructed 4.77 lakh km. electricity distribution line and in the upcoming years BREB will construct the remaining 0.43 lakh km. distribution line to achieve this goal.

In 2021, 2030 and 2041 the demand of electricity of rural areas in Bangladesh will be respectively 9500 MW, 19000 MW and 36000 MW. To fulfill this upcoming demand BREB are implementing 9 (Nine) projects which are constructing, upgrading, intensifying, and rehabilitant new and old Substations. And also in the upcoming years BREB will construct more new Substations and will upgrade, intensify or rehabilitate the old existing substations to increase the Capacity through the new projects. World Bank has already appointed NRECA for the justification of the BREB's following proposal to implement in the upcoming years through the new projects which may finance by World Bank.

- Construction of 33 KV Line (New) 5040 km.
- Up-gradation of 33 KV Line 1180 km.
- Construction of 33 KV Underground Line 290 km.
- Construction of 33 KV Sub-marine Cable 50 km
- Construction of 11 KV Line (New/Up-gradation) 21000 km.
- Insulated Conductor 160 km.
- Conversion of LT to HT Line 19000 km
- Construction of 11 KV Underground Line 60 km.
- 33/11 KV new (GIS/AIS) Sub-station (850, 1300,
- 1300& 2400 MVA = 5850 MVA) 220 Nos.
- 33/11 KV Sub-station Augmentation(GIS) (450, 700,
- 450, 450 MVA = 2050 MVA) 195 Nos.
- Construction of River Crossing Tower : 44 Nos

Government of Bangladesh has a plan to install pre-payment meter all over the country. Regarding this goal BREB is already implementing a project which installing 10 Lakh smart pre-payment meters. In the upcoming years competing with this agenda, BREB has already proposed a new project which will install 31 Lac smart pre-payment meters. In the upcoming years BREB will install a new type of electricity distribution system named "Underground electricity Distribution System".

At Dhaka PBS-4, the whole overhead distribution line of this PBS will be converted by the Underground system through a new project in next five years. Sub-stations of the BREB, will be updated by SCADA and smart-grid system in the next five years. BREB has already completed some feasibility to take some projects for updating the sub-stations. [15]

Table 1.2: Future Development Plan at a glance.

| SL .No. | Year | Generation Plan |
|---|---|---|
| 1 | 2021 | 24,000 MW |
| 2 | 2030 | 40,000 MW |
| 3 | 2041 | 60,000 MW |

## 1.5 Palli Bidyut Samity (PBS)

PBSs, as customer-owned electricity cooperatives, are formed with the association of customers in their respective franchise areas. PBSs operate as electricity distribution companies, under certificates issued by BREB based on its license. Directors to the board of directors of the PBSs are appointed, for a 3-year term, from among customers of good standing. The REB program lead through locally organized rural electric associations called Palli Bidyut Samity (PBS). The concept of PBS is based on the model of Rural Electric Cooperatives in the USA, which operates with cooperatives and proprietary of consumers. REB doesn't generate any electricity. They purchase electricity from the national grid or from selected IPPs at the 33Kv voltage level. They are responsible for providing electricity to their 78 PBSs members and customer. Palli Bidyut Samity (PBS) is the Bengali name of a Rural Electric Society. It is a consumer owned entity organized on the basic principles of Co-operative for distribution of electric power to its members and other consumers. It is an independent corporate body subject to all applicable laws and prescribed Bye-Laws and is responsible for the efficient and effective management of its affairs including proper and successful construction, operation and maintenance of its electric distribution facilities as well as to take measures for effective use of electricity to foster rural development with special emphasis on increase of use of electric power for economic pursuits, such as development of agriculture and establishment of rural industries and assisting the disadvantaged sections of the community for augmenting their income and standard of living. As per Bye-Laws, the PBS shall at all times be operated on No Loss-No Profit basis for the mutual benefit of all its Members and non-members alike and is expected to repay all indebtedness on schedule.

As per REB ordinance -1977 (LI of 1977) the Rural Electrification Board is the registering authority of a PBS. [12]

**FUNCTIONS OF PBS**

- Consumer complaint handling
- Sub-station & line maintenance.
- Line extension.
- Consumer connection.
- Motivate people for safe use of electricity.
- Purchase & sale of electricity.
- Tariff setting in consultation with BREB.

## 1.6 Dhaka Palli Bidyut Samity-2

Beginning the activities of the DHAKA Rural Electrification Association, DHAKA district has been playing a significant role in the development of agriculture, industry and socio-economic condition .DHAKA District and the whole of Bangladesh, playing a leading role in the development of food, self-sufficiency in the fields of other large and small cottage industries and development of education, health and information technology through modern irrigation system. .Women's employment and women's empowerment has been widespread, with the widespread employment of all the class people. Since its inception in 2000, DHAKA PBS is playing a vital role in agriculture, industrial and socio-economic development of DHAKA district. The Rural Electrification program conducted by Dhaka PBS-2 has acted a leap-forward in the development of socio-economic structure of rural areas in Dhaka district as well as entire Bangladesh.

It has significant and sustained impact on life style, growth of business and commercial activities in rural areas. It is a consumer owned entity organized on basis of principles of co-operative for distribution of electric power to its member and operates on “NO Loss – No Profit” basis for the mutual benefits of all its members .Here some information of DHAKA PBS-2 up to Jun 2016: [16]

Table 1.3: DPBS-2 at a Glance

| WEBSITE | http://pbs2.dhaka.gov.bd |
|---|---|
| DATE OF REGISTRATION | 22-09-16 |
| DATE OF ENERGIZATION | 1/12/2016 |
| AREA | 445 Sq. Km |
| NO. OF UPAZILA | 5 |
| NO. OF UNION | 27 |
| NO. OF ZONAL OFFICE | 1 |
| NO. OF AREA OFFICE | 2 |
| NO. OF COMPLAIN CENTRE | 5 |
| NO. OF CONTROL ROOM | 1 |
| NO. OF VILLAGE | 504 |
| NO. OF VILLAGE ELECTRIFIED | 504 |
| % VILLAGE ELECTRIFIED | 100% |
| LINE CONSTRUCTION REQUIRED FOR TOTAL ELECTRIFICATION | N/A |
| TOTAL LINE CONSTRUCTED | 2606 km |
| TOTAL CONSUMER CONNECTED | 171410 |
| CATEGORY WISE CONNECTIONS | |
| (i) DOMESTIC | 157121 |
| (ii) COMMERCIAL | 9749 |
| (iii) IRRIGATION | 2083 |
| (iv) INDUSTRY | 6 |
| (v) OTHERS | 2451 |
| NO. OF CONSUMERS PER Km. | 66 |
| % REVENUE PER (TK.) FY 16-17 | N/A |
| IMPROVEMENT OF POWER FACTOR | |
| NO. OF SUB-STATION (33/11 KV) Active | 4 |
| MAXIMUM DEMAND | 32MW |
| AVERAGE REVENUE (PER UNIT) | TK. 4.86* |
| AVERAGE COST ( PER UNIT) | Tk. 6.75* |
| OPERATING MARGIN (Jul,15 to Jun 16) | - (TK 75854665.27) |
| NET MARGIN (Jul,15 to Jun, 16) | -(TK.4324497.29) |
| % SYSTEM LOSS (2018-19) | 10.98% |
| COLLECTION | 102.14% |

## 1.7 Objective

The power distribution costs, which are accused to the market participants, are a central issue of the new cosmos of electricity markets. The scope of this study is the exploration of the costs that are associated with the power transfer as well as the earning of new methods and tools regarding the calculation and the allocation of these that is to reach self-sufficiency and profitability by increasing income and reducing expenditure The increased requirement for fair and transparent pricing in the competitive environment as well as the complexity introduced by unbundling the services point out why this issue is of great importance. In contrast to findings from past grid-based electrification programs, this study aims at identifying the most important linkages between electricity supply.

## Focus of this thesis:

- What basic methodology is appropriate to identify the impacts of rural electrification programs?
- What impacts on the rural population have been identified for the case of electricity supply from national grid lines in developing countries?
- What impacts can be observed in rural households of Bangladeshi villages with ongoing SHS dissemination?
- In what way do these impacts promote sustainable development in rural areas? By answering these questions, this thesis shall contribute to the understanding of development processes facilitated by electricity supply with renewable energy sources.
- Cost associated with the power losses.
- Cost caused by system congestion.
- Fixed cost of the power system.
- Universal access to quality electricity in a cost-effective and affordable manner.
- Provide quality and reliable electricity to the people of the country for desired economic, social and human development.
- To deliver quality electricity with service excellence.
- To make electricity available on demand within the geographical area of REB.

The results of this thesis shall provide crucial information for ongoing dissemination programs in Bangladesh as well as methodological guidance for future impact assessments of renewable energy programs.

Electricity and Sustainable Development, Impacts of Solar Home Systems in Rural Bangladesh

The main objective of our study is a decent attempt to find any missing/ leakage in energy supply that could be more developed the supply for rural electrification board.

## 1.8 Methodology

we describe in greater details than might be normal, the concepts, definitions, and difficulties encountered in our access to the study in the expectations that such descriptions will be of use in future studies. We highlight a number of reform options and recommendations for industry and household energy use policies. Accordingly, we were conscious during the course of our study and following discussions with representatives of the power division of the Department of Rural Electrification that there were no established techniques or methodology in this field of socio-economic research. Indeed, in view of the uniqueness of the areas studied and the scarcity of suitable data, it is doubtful if any but a most general methodology could be placed. Losses are important as there is an environmental and economic cost associated with them.

In this research, a methodology or a model based on System dynamic access has been developing to make more energy available at affordable prices to enable all people to use modern energy to meet their basic needs. To slow the overall growth of energy expenses through change and energy efficiency improvement and to make energy sources more environmentally sustainable.

Today BREB have 78 operating rural electric cooperatives called Palli Bidyut Samity (PBS).For research, I choose the **DHAKA PBS-2**. I collected some primary data from Dhaka PBS-2, BREB and BERC.

## 1.9 Outline of the Thesis

The outline of the thesis is as follows:

- Chapter 1: Introduction, BREB, PBS, DPBS-2then the objective of the thesis, outline of the thesis.
- Chapter 2: Literature review.
- Chapter 3: Introduction, Important Terms Energy Import Analysis, Data Analysis, Substation of DPBS-2, System loss
- Chapter 4: Introduction, Description of consumer class, Domestic Consumers, Commercial Consumers, Charitable institute, Irrigation, General power, large power, In case of 33KV, Street Lights, Description of table and its analysis.
- Chapter 5: Electricity Cost, Electricity Purchase Cost, Bulk rate, Wheeling Charge, Distribution Cost, Operation & maintenance expenses (OME), Consumer selling expenses (CSE), Administration and General Expenses (AGE), Depreciation & amortization expenses (DAE), Tax expenses (TE), Interest expenses (IE), System Loss (Tk), Total Revenue (TR), Revenue from Sales Energy, Revenue from others, Other operating revenue, Non-operating Margins- interest, Total supply cost (TC),Surplus, Per Unit Cost Calculation,
  Distribution Cost (Tk/Unit), Revenue (Tk/Unit), System Loss Tk/Unit (SL), Tariff Rate, Bill Explanation.
- Chapter 6: Introduction, Broad and Specific, Impact on Education, Impact on Gender Dimensions, Impact on Irrigation and Agricultural Production, Impact on Mass Media, Summary.
- Chapter 7: Conclusions, Limitations of the Work, Future Outline
- Appendix

# CHAPTER 2

# LITERATURE REVIEWS

## 2.1 Literature review

Improvement of social, industrial progress, economies and human life style are heavily depend on energy in 21st century. Energy are traded globally and the effects of energy use have worldwide consequences. Due to population increase and industrial development in future huge energy will be needed. Bangladesh, as a developing country needs an efficient energy system to minimize the losses and maximum utilization of generated power. Rural energy system is a very comprehensible affair to researchers and planners. This paper provides an acknowledgment to aid in understanding the different factors affecting energy distribution, energy expenses, energy losses and energy cost.

Paul Cook stated that recent interest in rural electrification has emphasized the importance of linking its development with productive uses for energy and poverty reduction. This has been viewed as necessary to increase the pace of rural electrification and reduce its concentration on a relatively small number of developing countries. Despite this emphasis, progress in electrifying remote rural areas has been slow. In part this has been attributed to the emphasis on cost recovery and a reliance on the private sector to deliver electricity widely. This paper reviews the literature on the role and relation of infrastructure, particularly infrastructure in rural areas, to economic growth and development. It reviews the focus on poverty reduction by the major international development agencies and examines the arguments for increasing rural incomes. It critically reviews the economic and social issues underlying the development of rural electrification, drawing on the experience with both grid and off-grid applications in developing countries and assesses the impact of electrification on the ability to generate income in rural areas. Conclusions are drawn in relation to the beneficiaries of rural electrification, the constraints that are faced in stimulating economic activity that will contribute to making rural electrification more feasible and affordable and to the importance of complementary services and appropriate institutions to support rural electrification. **[1]**

Subhes C. Bhattacharyya also stated that India accounts for a third of the world's population without access to electricity and about 40% of those without access to modern energy. Such a situation exists despite several initiatives and policies to support poor households. Alarmed by the gravity of the situation, the government has recently announced an ambitious programmer of rural electrification. This paper looks into the energy access situation of India and argues that rural electrification alone is unlikely to resolve the energy access problem because of low penetration of electricity in the energy mix of the poor. **[2]**

Taryn Dinkelman reported that The Effects of Rural Electrification on South Africa, This paper estimates the impact of electrification on employment growth by analyzing South Africa's mass roll-out of electricity to rural households. Using several new data sources and two different identification strategies (an instrumental variables strategy and a fixed effects approach), I find that electrification significantly raises female employment within five years. This new infrastructure appears to increase hours of work for men and women, while reducing female wages and increasing male earnings. Several pieces of evidence suggest that household electrification raises employment by releasing women from home production and enabling microenterprises. Migration behavior may also be affected. **[3]**

Vladimir Terzija, Gustavo ValVerd and their team narrated that Synchronized Measurement Technology (SMT) is an important element and enabler of Wide-area monitoring, protection, and control (WAMPAC).It is expected that WAMPAC systems will in the future reduce the number of catastrophic blackouts and generally improve the reliability and security of energy production, transmission, and distribution, particularly in power networks with a high level of operational uncertainties. **[4]**

Md. Alam Hossain Mondal, Wulf Boie and Manfred Denichnoted that data on the future electricity demand is an essential requirement for planning the expansion of a power system. In the low to high GDP growth scenarios, the extent of industrial restructuring and technical advancement is gradually increased. The study also compares the projected per capita electricity expenses in Bangladesh with the historical growth in several other developing countries. Such an evaluation can create awareness among the planners of power system expansion in Bangladesh to meet the high future demand. **[5]**

Tania Urmee, David Harries, August Schlapfer report that countries of Asia and Pacific. Renewable energy (RE) systems represent the most environmentally friendly and cost-effective means of providing electricity to those living in rural communities or regions in developing countries, however, this has been relatively slow and in many countries the proportion of the rural population supplied with electricity remains low and the proportion supplied with electricity from renewable energy systems is even lower. To understand the causes of this slow progress, a literatures review on renewable rural electrification programs were undertaken. The review suggested a need for better coordination at the national level between those institutions involved in the development and implementation of these programs. This paper compiles and analyse the issues associated with rural electrification in developing countries in Asia and the Pacific. Two case studies of programs are presented, one in Bangladesh and the other in Fiji. Based on the literature review and these two case studies, comments are provided on the policies and strategies required for renewable energy based rural electrification programs. **[6]**

Douglas F.Barnes, ShahidurR. Khandker and Hussain A. Samad pointed that Energy poverty is a well-established concept among energy and development specialists. They uses a demand-based approach to define the energy poverty line as the threshold point at which energy expenses begins to rise with increases in household income. The findings suggest that some 58 percent of rural households in Bangladesh are energy poor, versus 45 percent that are income poor. The findings also suggest that policies to support rural electrification and greater use of improved biomass stoves might play a significant role in reducing energy poverty. **[7]**

N. Phuangpornpitak and S. Kumar report that PV hybrid systems for rural electrification in Thailand, Photovoltaic (PV) hybrid systems can make a positive contribution to the sustainability of rural communities in developing countries that do not have access to electricity grid. Integration of solar photovoltaic system with diesel generator for remote and rural areas would assist in expanding the electricity access in the tropical region. A survey of PV hybrid system in Thailand during the last decade regarding to status of technology, performance in terms of technical and economic aspects, and their prospects has been presented in this paper. **[8]**

M. T. Carrillo Cobo and their team denoted that irrigation networks usually constrained by the high amounts of energy required for their operation. In this sector, farmers are organized in turns, is one of the most efficient measures to reduce their energy expenses. Irrigation system is designed according to the distance to the pumping station and their elevation. **[9]**

Shahidur R. Khandker, Douglas F. Barnes, Hussain Samad and Nguyen Huu Minh stated that Vietnam is unusual in that once electricity is locally available, both rich and poor households are equally likely to get the connection. The econometric estimations suggest that grid electrification has significant positive impacts on household's cash income, expenditure, and educational outcomes. The benefits, however, reach a saturation point after prolonged exposure to electricity. Finally, this study recommends investigating the long-term benefits of rural electrification - not just for households, but for the rural economy as a whole. **[10]**

This paper presents most of the focus on households demand, but the few studies analysis industrial demand, commercial, and irrigation demand are also reviewed.

# CHAPTER-3

# ENERGY IMPORT OF DHAKA PBS-2

## 3.1 Introduction

.Need of electricity is increasing day by day. The lack of power is one of the major problems in Bangladesh. Electricity is a form of energy that cannot be effectively stored in bulk. It must be generated, distributed, and consumed immediately. Consumers' needs change vastly in different seasons and even at different time of a day. In order to meet the needs during peak periods, a huge array of expensive equipment including generators, transformers, wires, and substations has to be kept on. For economic freedom and in order to meet the consumer demands, the electricity improvement that is produce more electricity, building more transmission and distribution capacity, bringing more area population under electricity coverage and ensuring more effective and efficient management, of these are the indispensable issues. The Government of Bangladesh (GOB) has decided to build power plants in private sectors so that fetterless Power Producers (IPPs) launched their business in Bangladesh. In this chapter brief the history of the DPBS-2 and their energy import scenarios are discussed

## 3.2 Important Terms of Energy Import Analysis

### Grid:

The word grid means combination. Each Areas has its own grid station. In electrical system, a grid is a network of synchronized power providers and consumers that are connected by transmission and distribution lines and scratched by one or more control centers.

### Substation:

Substation is a place where transmission and distribution lines are connected together. Different industries, hospitals, localities have their own substation where they are getting electricity at 11kv. Substation usually contains power transformer which steps down electricity from 132 or 66kv to 11kv. A substation is a part of an electrical generation, transmission, and distribution system. Substations transform voltage from high to low, or the reverse, or perform any of various other important functions.

## Kilowatt-Hour (KWh):

The kilowatt hour (symbol kW h, kW h, or kW h) is a unit of energy equal to 3.6 mega joules. If energy is transmitted or used at a constant rate (power) over a period of time, the total energy in kilowatt hours is equal to the power in kilowatts multiplied by the time in hours. The kilowatt hour is commonly used as a billing unit for energy delivered to consumers by electric utilities.

## Peak Demand:

Peak demand refers to the times of day when our electricity expenses is at its highest. Annual peak demand occurs in summer during prolonged heat waves, usually between 4pm and 8pm when most people arrive home and switch on their air conditioners, TVs, lights and other household appliances. Air conditioner use amounts to nearly one third of the power consumed on the hottest days in January, February and March. The peak demand during winter occurs on very cold weekday evenings when people heat their homes. Winter peak demand is slightly lower than summer peak demand, but has a significant impact in some areas of the network.

## System Loss:

Power generated in power stations pass through large and complex networks like transformers, overhead lines, cables and other equipment and reaches the end users. It is fact that the unit of electric energy generated by Power Station does not match with the units distributed to the consumers. Some percentage of the units is lost in the distribution network. This difference in the generated and distributed units is known as Transmission and Distribution loss. Transmission and Distribution loss are the amounts that are not paid for by users. Calculate system loss KWh in taka. System loss in taka is help to calculate the distribution cost more correctly and showed an economical figure of system loss.

**System Loss (%) = [(Energy Input to feeder (Kwh) – Billed Energy to Consumer (Kwh)) ÷ Energy Input (KWh)] x 100.**

## Load Factor:

The load factor is defined as the average load divided by the peak load in a specified time period. It is a measure of the utilization rate, or efficiency of electrical energy usage; a high load factor indicates that load is using the electric system more efficiently, whereas consumers or generators that underutilize the electric distribution will have a low load factor.

$$\textbf{Load Factor} = \frac{\text{Total Unit KW (Purchase)}}{\text{Total Peak Demand} \times 1000 \times 24 \times 30} \times 10$$

## 3.3 Data Analysis

Table 3.1:-Energy Import DPBS-2 (2015-2016)

| Import point | July'15 | | | August'15 | | |
|---|---|---|---|---|---|---|
| | Unit kWh(Purchase) | Total KWh(sold) | Substation SL % | Unit kWh(Purchase) | Total KWh(sold) | Substation SL % |
| NAWABGONJ | 10,971,120 | 54,751,648 | 15.06 | 10,526,688 | 57,037,917 | 17.41 |
| ZINZIRA Ckt-1 | 7,551,744 | | | 10,128,000 | | |
| ZINZIRA Ckt-2 | 8,479,728 | | | 8,703,216 | | |
| HASNABAD T-3(Has) | 3,990,528 | | | 4,260,864 | | |
| HASNABAD T-4(Has) | 3,369,648 | | | 3,556,752 | | |
| MUNSIGONJ PBS-33 | 2,460 | | | 565,405 | | |
| 11KV (HOGLAGATI) | 0 | | | 0 | | |
| MANIKGONJ PBS-11 | 28,090 | | | 32,595 | | |
| S. CHARIGRAM | 162,445 | | | 171,455 | | |
| 132 KV AUXILARY (PGCB) | 21,143 | | | 20,246 | | |
| 230 KV AUXILARY | 18,307 | | | 16,718 | | |
| LALBAG Ckt-1 (Has) | 0 | | | 0 | | |
| GRID COMPLAIN CENTER | 0 | | | 0 | | |
| HASNABAD (Has-Grid) | 3,052,818 | | | 3,859,704 | | |
| PANGAON(Hasnabad) | 9,102,060 | | | 9,701,244 | | |
| DOHAR (Hasnabad) | 11,205,396 | | | 9,961,560 | | |
| BUS LOSS | 69,881 | | | 87,969 | | |
| AGNAGOR(Hasnabad) | 6,437,525 | | | 7,472,302 | | |
| **Total** | **64,462,893** | | | **69,064,718** | | |

Table 3.2:-Energy Import DPBS-2 (2016-2017)

| Import point | July'16 | | | August'16 | | |
|---|---|---|---|---|---|---|
| | Unit kWh(Purchase) | Total KWh(sold) | Substation SL % | Unit kWh(Purchase) | Total KWh(sold) | Substation SL % |
| NAWABGONJ | 12,836,172 | 63,156,269 | 12.89 | 11,991,468 | 67,872,813 | 12.34 |
| ZINZIRA Ckt-1 | 9,593,280 | | | 10,268,160 | | |
| ZINZIRA Ckt-2 | 9,167,904 | | | 10,141,488 | | |
| HASNABAD T-3 (Has) | 4,685,232 | | | 5,169,888 | | |
| HASNABAD T-4 (Has) | 3,436,704 | | | 4,044,480 | | |
| MUNSIGONJ PBS-33 | 132,307 | | | 239,333 | | |
| 11KV (HOGLAGATI) | 0 | | | 0 | | |
| MANIKGONJ PBS-11 | 31,270 | | | 30,740 | | |
| S. CHARIGRAM | 209,350 | | | 230,020 | | |
| 132 KV AUXILARY (PGCB) | 36,802 | | | 36,076 | | |
| 230 KV AUXILARY | 0 | | | 0 | | |
| LALBAG Ckt-1 (Has) | 0 | | | 6,965,014 | | |
| GRID COMPLAIN CENTER | 0 | | | 0 | | |
| HASNABAD (Has-Grid) | 3,066,840 | | | 3,773,718 | | |
| PANGAON (Hasnabad) | 10,662,840 | | | 9,565,128 | | |
| DOHAR (Hasnabad) | 12,505,512 | | | 14,887,056 | | |
| BUS LOSS | 83,247 | | | 85,023 | | |
| AGNAGOR (Hasnabad) | 6,057,250 | | | 0 | | |
| **Total** | **72,504,710** | | | **77,427,592** | | |

Table 3.3:-Energy Import DPBS-2 (2017-2018)

| Import point | July'17 | | | August'17 | | |
|---|---|---|---|---|---|---|
| | Unit kWh(Purchase) | Total KWh(sold) | Substation SL % | Unit kWh(Purchase) | Total KWh(sold) | Substation SL % |
| NAWABGONJ | 13,614,864 | 19,275,364 | 16.89 | 13,234,835 | 47,043,887 | 9.38 |
| ZINZIRA Ckt-1 | 0 | | | 13,422,040 | | |
| ZINZIRA Ckt-2 | 0 | | | 8,092,109 | | |
| HASNABAD T-3 (Has) | 0 | | | 0 | | |
| HASNABAD T-4 (Has) | 0 | | | 0 | | |
| MUNSIGONJ PBS-33 | 188,205 | | | 186,375 | | |
| 11KV (HOGLAGATI) | 0 | | | 874,089 | | |
| MANIKGONJ PBS-11 | 32,065 | | | 37,100 | | |
| S. CHARIGRAM | 237,970 | | | 262,615 | | |
| 132 KV AUXILARY (PGCB) | 0 | | | 0 | | |
| 230 KV AUXILARY | 0 | | | 0 | | |
| LALBAG Ckt-1 (Has) | 0 | | | 0 | | |
| TOLSHIKHALI POL METER | 0 | | | 6,718,125 | | |
| HASNABAD (Has-Grid) | 0 | | | 0 | | |
| PANGAON (Hasnabad) | 0 | | | 0 | | |
| DOHAR (Hasnabad) | 9,116,918 | | | 9,082,491 | | |
| BUS LOSS | 1,805 | | | 1,000 | | |
| AGNAGOR (Hasnabad) | 0 | | | 0 | | |
| **Total** | **23,191,827** | | | **51,910,779** | | |

In this table I am showing Dhaka PBS-2 energy import data three year (2015-2018) July and August month. I also describe 2015 July and August month, others month of data are in Appendix C.

Dhaka PBS-2 import electricity from both government and private sector to meet their consumer demand, DPBS-2 import electricity from eighteen public sectors (2015-2018) i.e.; Nawabganj, Zinzira (CKT_1&CKT-2), Hasnaba (3&4), Munsigonj pbs-33,Hoglagati-11,Manikgonj pbs-11, S.charigram, 132 kv Auxiliary (PGCB),230 kv Auxilary, Lalbag Ckt -1,
Grid Complain Center, Hasnabad (has grid), Pangaon (hasnabad), Dohar (hasnabad), Bus Loss, Agnagor has provide electricity to the different level of consumers. In this chapter we discuss about Energy Purchase and purchase cost from Public sector. For three years (2015-2018), also explain about different Grid and Substations, Supply, System Losses, KWh Sold of the consumers.
Dhaka PBS-2 import electricity from both government and private sector to meet their consumer demand, DPBS-2 import electricity from eighteen public sectors (2015-2018) ; Nawabganj, Zinzira (CKT_1&CKT-2), Hasnaba (3&4), Munsigonj pbs-33,Hoglagati-11,Manikgonj pbs-11, S.charigram, 132 kv Auxilary (PGCB),230 kv Auxilary, Lalbag Ckt -1,
Grid Complain Center, Hasnabad (has grid), Pangaon (hasnabad), Dohar (hasnabad), Bus Loss, Agnagor to provide electricity to the different level of consumers. In this chapter we discuss about Energy Purchase and purchase cost from Public sector. For three years (2015-2018), also interpret about different Grid and Substations, Supply, System Losses, KWh Sold to the consumers.
In July 2015 calculated total buying KWh is 64,462,893 unit where Nawabgonj buying 10,971120 Unit, Zinzira Ckt-1 buying 7,551,744 Unit, Zinzira Ckt-2 buying 8,479,728 Unit, Hasnabad T-3 buying 3,990,528 Unit, Hasnabad T-4 buying 3,369,648 unit Munsigonj pbs-33 2,460 Unit,

Hoglagati (11kv) Buying 0 unit, Munshigonj pbs-11 Buying 28,090 Unit, S. Charigram buying 162,445 Unit, 132 KV AUXILARY (PGCB) buying 21,143 Unit, 230 KV AUXILARY buying 18,307 Unit, LALBAG Ckt-1 (Has) buying 0 Unit, GRID COMPLAIN CENTER buying 0 Unit, HASNABAD (Has-Grid) bought 3,052,818 Unit, PANGAON (Hasnabad) buying 9,102,060 unit, DOHAR (Hasnabad) 11,205,396 Unit, BUS LOSS buying 69,881 unit, AGNAGOR (Hasnabad) 6,437,525 Unit, Total Sold KWh is 54,751,648 Unit. Total System Loss is 15.06 %.
In August 2015 calculated total bought KWh is 69,064,718 unit where Nawabgonj buying 10,526,688 Unit, Zinzira Ckt-1 buying 10,128,000 Unit, Zinzira Ckt-2 buying 8,703,216 Unit, Hasnabad T-3 buying 4,260,864 Unit, Hasnabad T-4 buying 3,556,752 unit Munsigonj pbs-33 565,405 Unit,
Hoglagati (11kv) Emption 0 unit, Munshigonj pbs-11 Buying 32,595 Unit, S. Charigram buying 171,455 Unit, 132 KV AUXILARY (PGCB) buying 20,246 Unit, 230 KV AUXILARY buying 16,718 Unit, LALBAG Ckt-1 (Has) Emption 0 Unit, GRID COMPLAIN CENTER buying 0 Unit, HASNABAD (Has-Grid) buying 3,859,704 Unit, PANGAON (Hasnabad) buying 9,701,244 unit, DOHAR (Hasnabad) 9,961,560 Unit, BUS LOSS Emption 87,969 unit, AGNAGOR (Hasnabad) 7,472,302 Unit, Total Sold KWh is 57,037,917 Unit. Total System Loss is 17.41 %.

All of the month energy import analysis showed in the Tables. The demand of the electricity varies with different season in Bangladesh, like as winter, summer, and rainy season. We try to show pertinent analysis for winter and summer seasons, which is high import from previous month and system loss is also relatively high and it's an effect of summer season because in summer the energy expense of different consumers is high. On the other hand, the energy import for the month of November, December, January and February are low to compare as other months of the year. It is seasonal effect of winter, when the domestic consumer devour lower amount of electricity and same as some industries are consume lower amount of energy as per demand of production. The energy import demand is high for the month of March, April, May and June.

## 3.4 Graphical Analysis

The graph provides information of above figure, the energy import is relatively high in July, September, October, November, and December every year. As opposed to, energy import is comparatively low in August, September, October, January, February, March, April, May, June. Season to season the energy import and supply to the consumer may disagree. Consequent to graph, behavior of energy import of DPBS-2 is approximately similar. In January, 2015 energy import is 1.41 MU and energy import in June is

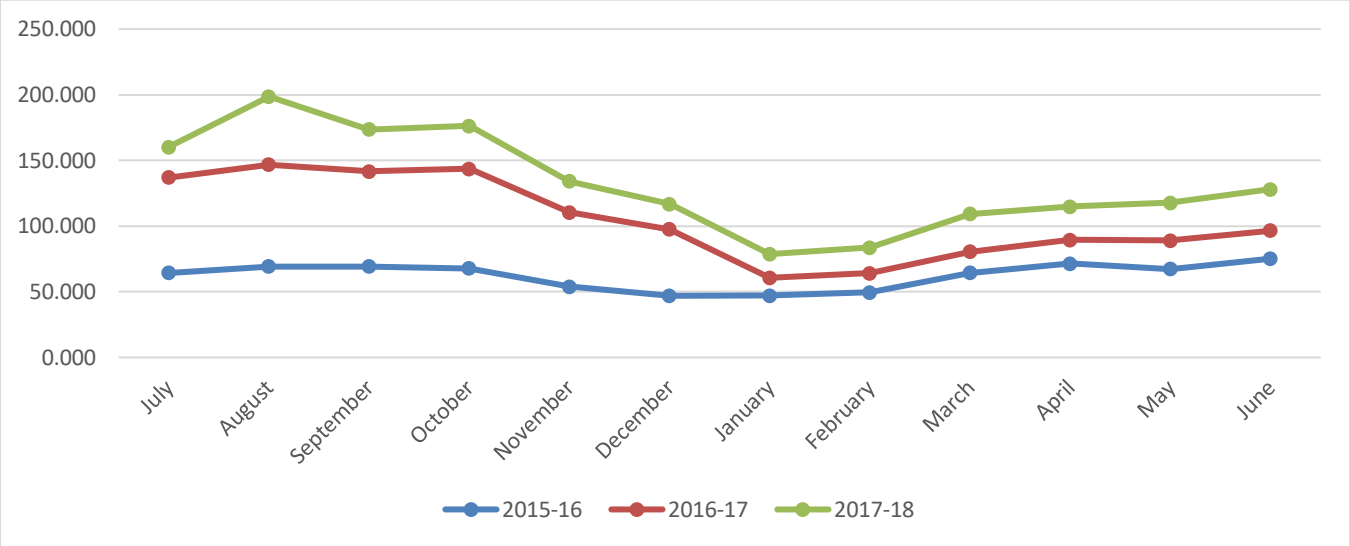



Fig 3.1: Monthly Import Energy (MU) of DPBS-2, 2015-18

It is feasible to control load demand by proper load management, encouraging Independent Power Producers (IPP) and decrease transmission loss. Initiative should be taken to develop skilled manpower required for the power sector considering incorporating IPP and local Government (GOV), central GOV may take the responsibility to increment the power generation and assure its proper use in Bangladesh until January 2001, REB spent about Tk 57.415 billion with a foreign exchange component of Tk 26.895 billion. During the period, REB received $975.91 million of assistance from various development partners including IDA, USAID, JBIC, ADB, KFAED, CIDA, NORAD, SFD, OPEC, IDB, JDRG, Netherlands, Finland, China, Saudi Arabia and France. By March 2011, REB brought 45% rural area under its network. [13]

## 3.5 Substation of DPBS-2

The energy storage and expense different form one substation to another substation based on the location, consumer demand, industrial zone, transmission distance and many factors. There are 5 substations under DPBS-2 which are attached with different grids.

The imported energy may decrease during the transmission process due to system loss. DPBS-2 all substation names listed below and the 33 KV consumers are reported with star sign.

**List: Sub-stations of DPBS-2**

| |
|---|
| Zinzira |
| Hasnabad |
| Dohar |
| Kalatia |
| Shovadda |

## 3.6 System Losses

Table 3.4: System Loss of DPBS-2 in 2015-16

| Month (15-16) | Grid wise Import (MU) | Substation Wise Import (MU) | KWh Sold at Consumer end (MU) | Grid System Loss (MU) | Sub-Station System Loss (MU) | Grid to 33 KV Line Loss (MU) |
|---|---|---|---|---|---|---|
| **July** | 64.46 | 62.47 | 54.74 | 9.72 | 7.73 | 1.99 |
| **August** | 69.04 | 66.58 | 57.03 | 12.01 | 9.55 | 2.46 |
| **September** | 69.28 | 67.41 | 60.45 | 8.83 | 6.96 | 1.87 |
| **October** | 67.83 | 65.65 | 61.55 | 6.28 | 4.1 | 2.18 |
| **November** | 53.85 | 53.66 | 53.23 | 0.62 | 0.43 | 0.19 |
| **December** | 46.96 | 44.71 | 44.02 | 2.94 | 0.69 | 2.25 |
| **January** | 47.06 | 45.91 | 44.12 | 2.94 | 1.79 | 1.15 |
| **February** | 49.64 | 48.14 | 45.08 | 4.56 | 3.06 | 1.5 |
| **March** | 64.42 | 61.35 | 56.3 | 8.12 | 5.05 | 3.07 |
| **April** | 71.55 | 68.75 | 63.67 | 7.88 | 5.08 | 2.8 |
| **May** | 67.41 | 65.02 | 62.51 | 4.9 | 2.51 | 2.39 |
| **June** | 75.2 | 74.6 | 65.86 | 9.34 | 8.74 | 0.6 |

Table 3.5: System Loss of DPBS-2 in 2016-17

| Month (16-17) | Grid wise Import (MU) | Substation Wise Import (MU) | KWh Sold at Consumer end (MU) | Grid System Loss (MU) | Sub-Station System Loss (MU) | Grid to 33 KV Line Loss (MU) |
|---|---|---|---|---|---|---|
| **July** | 72.50 | 70.33 | 63.15 | 9.35 | 7.18 | 2.17 |
| **August** | 77.42 | 75.51 | 67.87 | 9.55 | 7.64 | 1.91 |
| **September** | 72.28 | 70.78 | 64.52 | 7.76 | 6.26 | 1.5 |
| **October** | 75.77 | 74.15 | 67.49 | 8.28 | 6.66 | 1.62 |
| **November** | 56.61 | 56.32 | 55.96 | 0.65 | 0.36 | 0.29 |
| **December** | 50.49 | 48.86 | 47.44 | 3.05 | 1.42 | 1.63 |
| **January** | 13.60 | 13.29 | 12.32 | 1.28 | 0.97 | 0.31 |
| **February** | 14.43 | 14.41 | 13.24 | 1.19 | 1.17 | 0.02 |
| **March** | 16.09 | 14.84 | 13.87 | 2.22 | 0.97 | 1.25 |
| **April** | 17.94 | 16.41 | 16.04 | 1.9 | 0.37 | 1.53 |
| **May** | 21.62 | 20.36 | 18.01 | 3.61 | 2.35 | 1.26 |
| **June** | 21.33 | 20.43 | 18.12 | 3.21 | 2.31 | 0.9 |

Table 3.6: System Loss of DPBS-2 in 2017-18

| Month (17-18) | Grid wise Import (MU) | Substation Wise Import (MU) | KWh Sold at Consumer end (MU) | Grid System Loss (MU) | Sub-Station System Loss (MU) | Grid to 33 KV Line Loss (MU) |
|---|---|---|---|---|---|---|
| **July** | 23.19 | 22.14 | 19.27 | 3.92 | 2.87 | 1.05 |
| **August** | 51.91 | 50.7 | 47.04 | 4.87 | 3.66 | 1.21 |
| **September** | 32.12 | 31.07 | 29.94 | 2.18 | 1.13 | 1.05 |
| **October** | 32.78 | 37.88 | 31.44 | 1.34 | 6.44 | -5.1 |
| **November** | 23.76 | 23.63 | 23.57 | 0.19 | 0.06 | 0.13 |
| **December** | 19.29 | 18.95 | 17.95 | 1.34 | 1 | 0.34 |
| **January** | 18.01 | 17.60 | 16.27 | 1.74 | 1.33 | 0.41 |
| **February** | 19.50 | 19.18 | 18.59 | 0.91 | 0.59 | 0.32 |
| **March** | 28.84 | 28.23 | 24.33 | 4.51 | 3.9 | 0.61 |
| **April** | 25.40 | 24.73 | 24.38 | 1.02 | 0.35 | 0.67 |
| **May** | 28.70 | 27.89 | 24.42 | 4.28 | 3.47 | 0.81 |
| **June** | 31.46 | 30.46 | 26.93 | 4.53 | 3.53 | 1 |

In Table 3.2: Grid system loss= Grid wise import energy to KWh sold energy at Consumer end Sub-station system loss= Substation Wise Import energy to KWh sold energy at Consumer end Grid to Sub - station loss= Grid wise import energy to Substation Wise Import energy.

Heat rise the line resistance and resistance makes the amount of loss higher. As we found from the table, Total loss of energy in summer is higher than winter. 33 KV Line losses are altogether similar but sub-station system losses differentiate hugely. Where form October, 2015 to January, 2016; during the winter season,

System losses were below than 2 MU. In July, 2015 and June, 2016; both of this in summer, we found the total system loss about 3 times higher than winter. PBS says illicit use of electricity is also liable. Illicit use of electricity rise in summer very badly. That's why; the loss is very much in summer. PBS try to stop the illicit use of electricity but public awareness can stop this "Thief Loss". PBS also has some loss for storms during summer and Rainy season. Voltage shall be in accordance with the Grid Code of Bangladesh and Bangladesh frequency of power supply 50 Hertz.

## 3.7 Graphical Representation

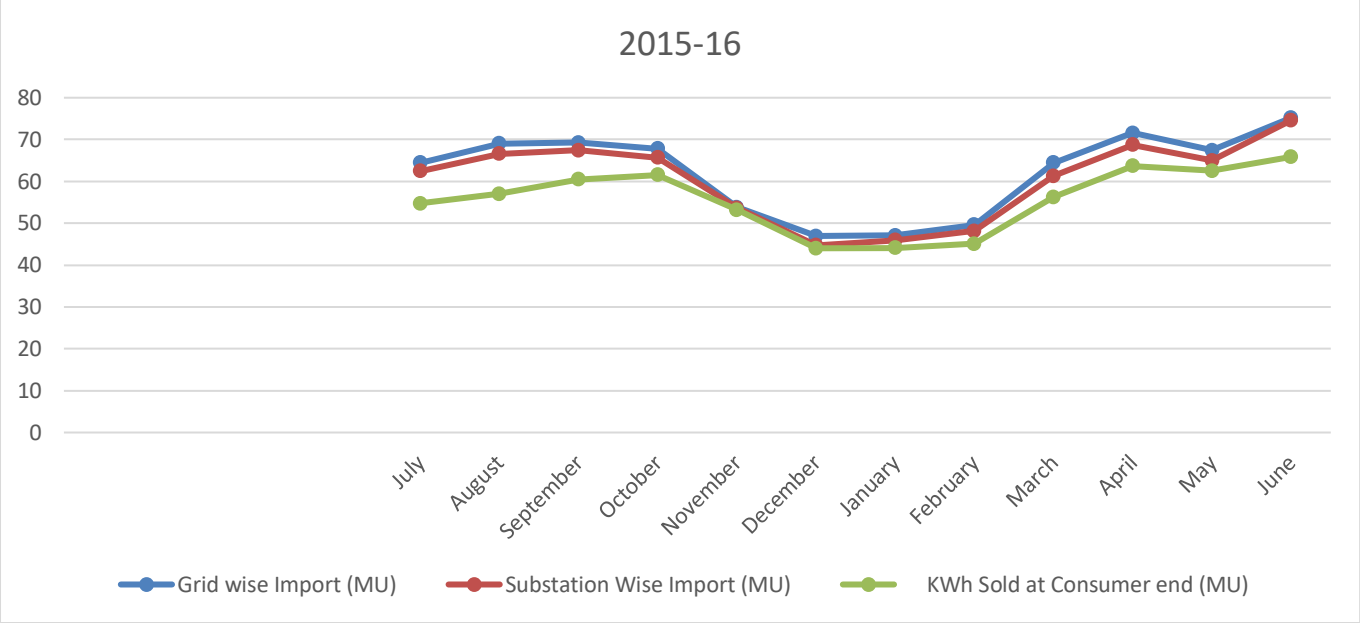



Fig 3.2: Grid and Sub-station wise import with Unit sold at consumer end 2015-16.

In this graph we can see that, the month of July, August, September, and October the Grid wise import (MU), Substation wise import (MU) and KWh sold at consumer end (MU) Comparably high. And the month of November, December, January, February month are low and also we can see that again the line are high in The month of March, April, May, June.

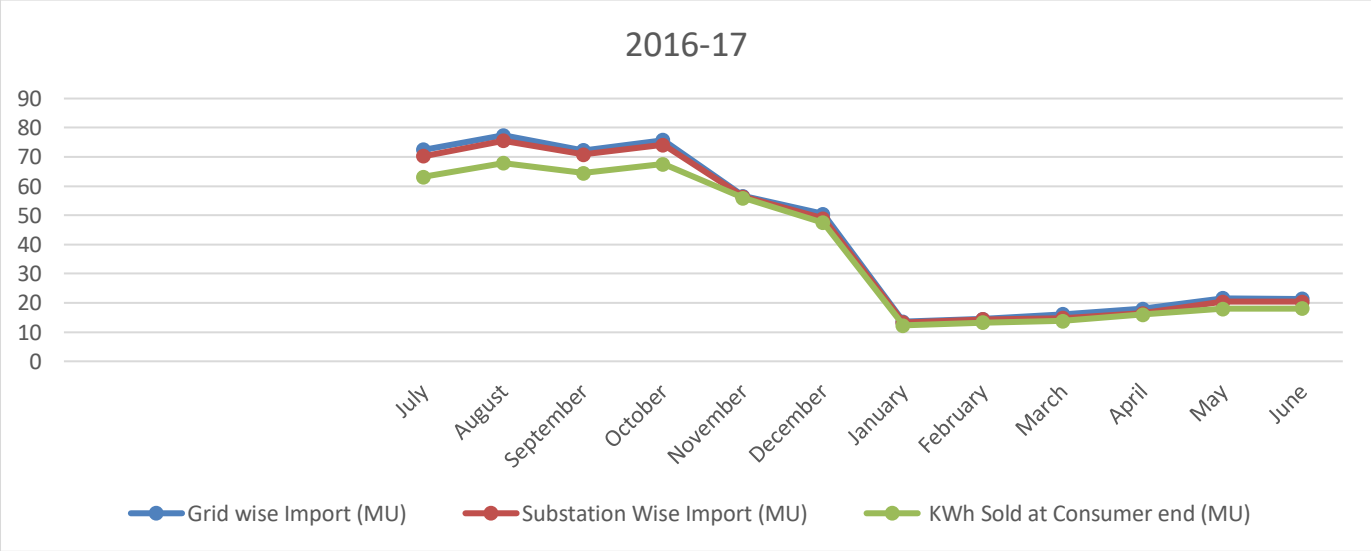



Fig 3.3: Grid and Sub-station wise import with Unit sold at consumer end 2016-17.

And now if we see the graph, the month of July, August, September, October, November, December and January the Grid wise import (MU), Substation wise import (MU) and KWh sold at consumer end (MU) Comparably high because of Summer Season And when came the month of January, February, March, April, May, June month are low and line are almost same because of winter season.

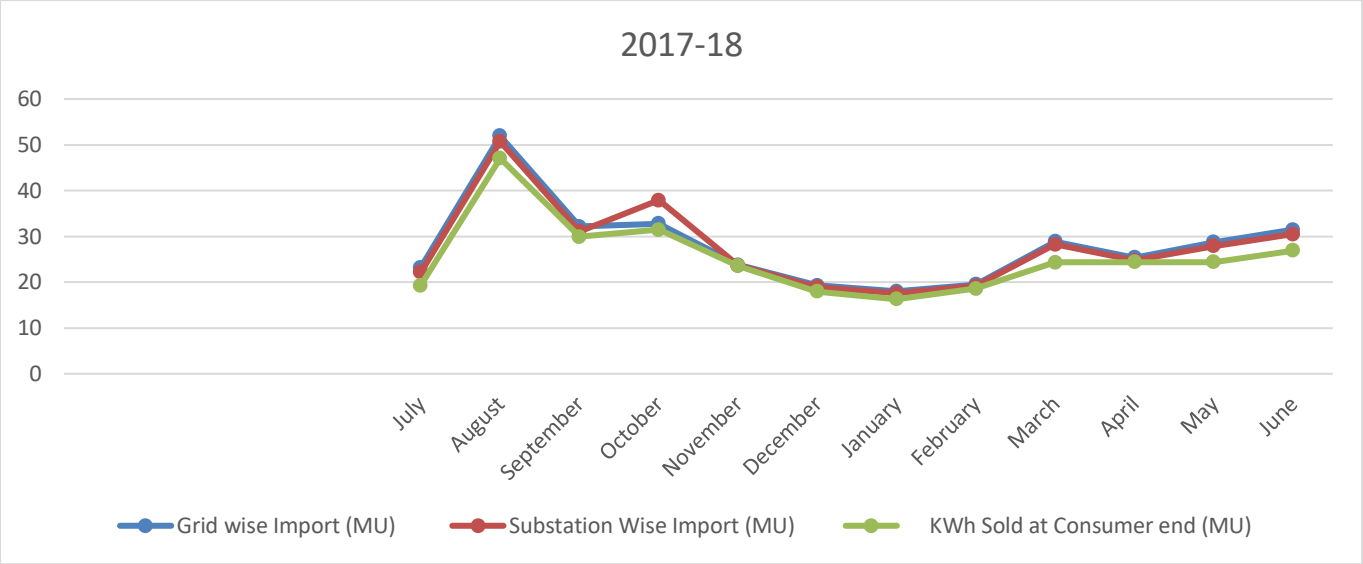



Fig 3.4: Grid and Sub-station wise import with Unit sold at consumer end 2017-18.

Now if we see the graph , the month of July, September, October, November, December, January, February The Grid wise import (MU), Substation wise import (MU) and KWh sold at consumer end (MU) Comparably high to Low because of Summer Season to winter season. But the August month is so high if we compare to other month because in the year of 2017 the month of august had lot of hot weather .And when came the Month of March, April, May, June month are low and line are almost same because of winter season

## 3.8 Load Factor

Load factor is defined as the ratio of the average load over a given period of time to the maximum demand (peak load) occurring in that period. In other words, the load factor is the ratio of energy consumed in a given period of the times in hours to the peak load which has occurred during that particular period**.** A load factor is simply the energy load on a system compared to its maximum potential or peak load for a period of time.

Table: 3.7 Load Factor 2015-16

| Month (15-16) | Load Factor |
|---|---|
| July | 64.62 |
| August | 66.96 |
| September | 68.23 |
| October | 69.52 |
| November | 67.14 |
| December | 55.24 |
| January | 56.97 |
| February | 58.59 |
| March | 66.07 |
| April | 66.32 |
| May | 63.61 |
| June | 72..98 |

Load Factor 2016-17

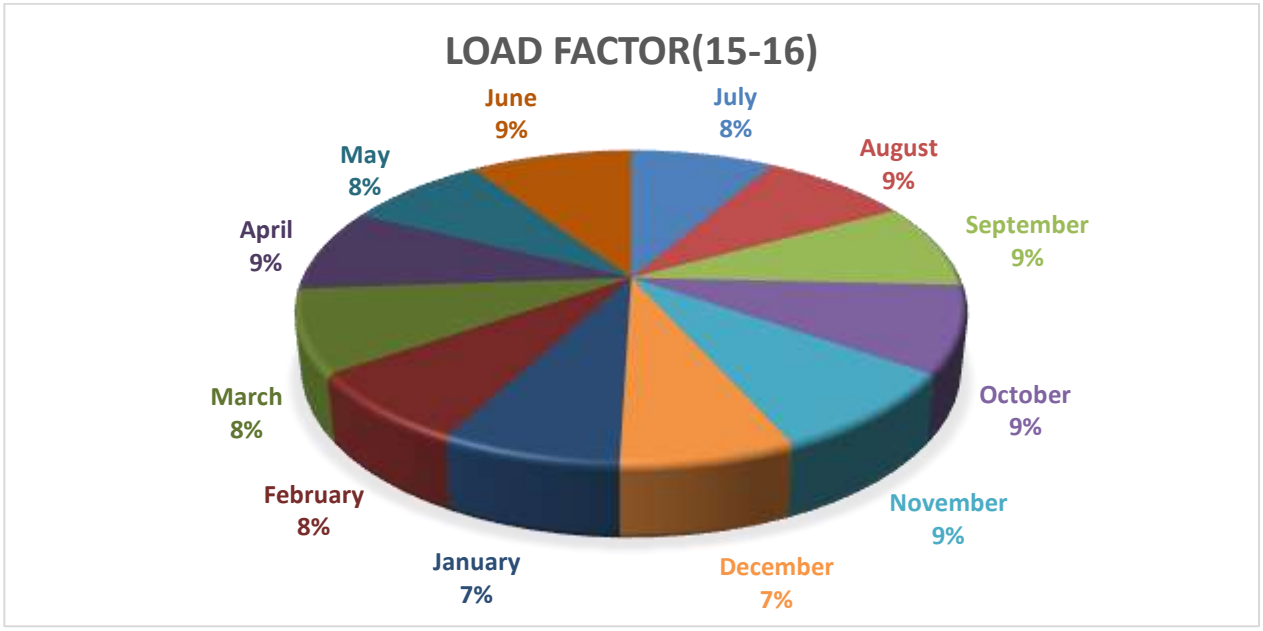
| Month (16-17) | Load Factor |
|---|---|
| July | 69.37 |
| August | 74.45 |
| September | 69.78 |
| October | 73.73 |
| November | 57.06 |
| December | 59.24 |
| January | 63.22 |
| February | 68.53 |
| March | 57.26 |
| April | 78.04 |
| May | 60.18 |
| June | 59.12 |

Load Factor 2017-18

| Month (17-18) | Load Factor |
|---|---|
| July | 66.07 |
| August | 154.59 |
| September | 92.74 |
| October | 95.15 |
| November | 96.54 |
| December | 90.79 |
| January | 87.33 |
| February | 80.73 |
| March | 93.39 |
| April | 77.20 |
| May | 81.56 |
| June | 84.63 |

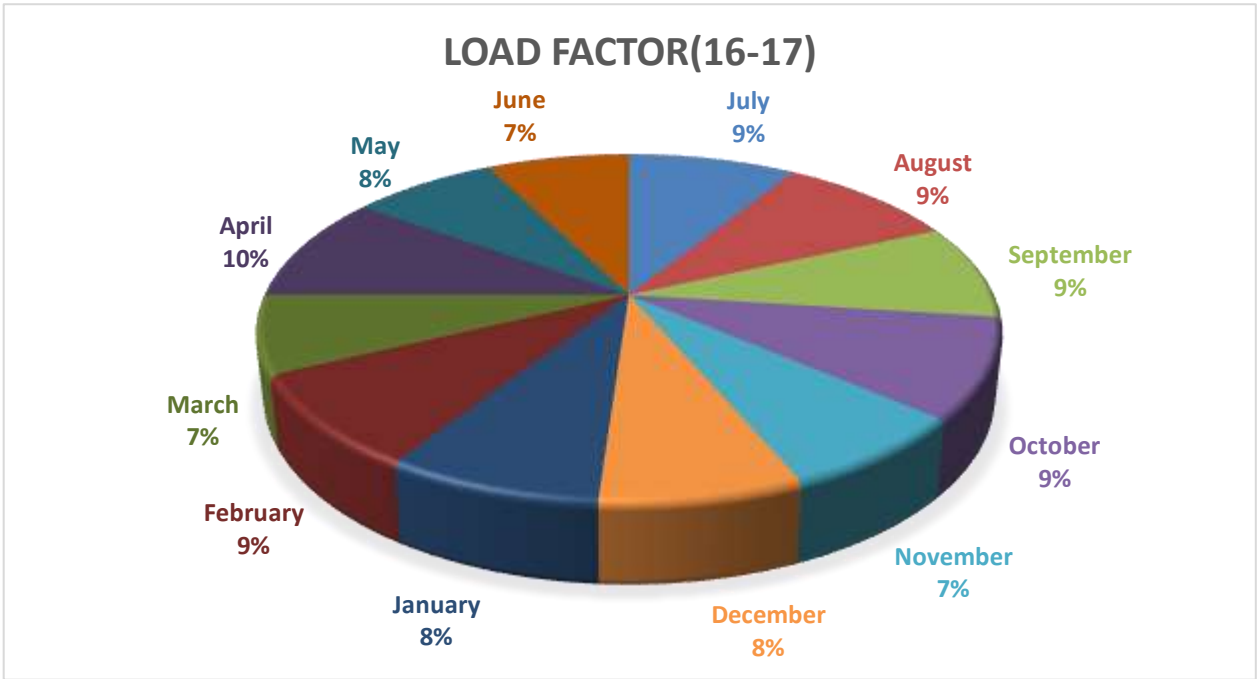
## Graphical Analysis:

Fig 3.5.: Load factor of DPBS-2 in 2015-2016



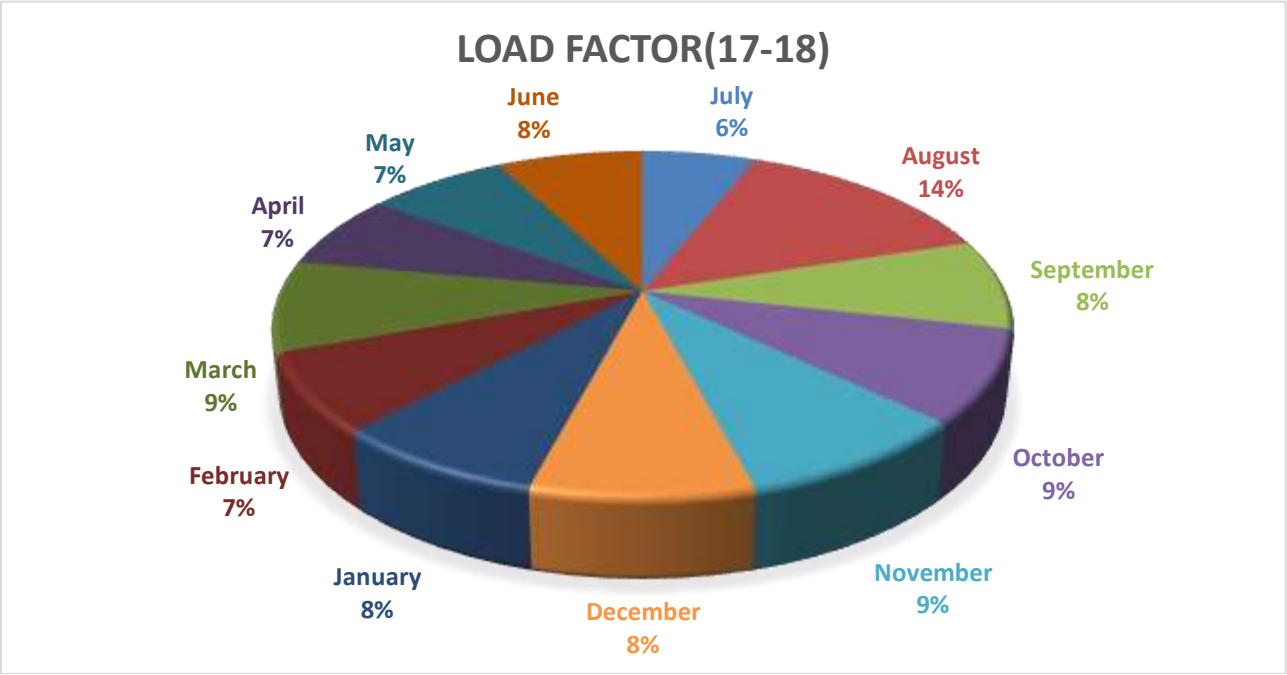

In this pie graph we can see that, Load Factor percentage are 7% to 9%.All month are near to this percentage.

Fig 3.6: Load factor of DPBS-2 in 2016-2017




And also in this pie graph we can see that, Load Factor percentage are 7% to 10%.All month are near to this percentage.

Fig 3.7: Load factor of DPBS-2 in 2017-2018




Again if we concentrate on this pie graph, then we can see all month are also near and all month percentage is 7% to 14%.

Here, DPBS-2 maintain a constant range of load factor of 1 to 10% from 2015 to 2018 in average. But some month has higher percentage like 14% value than the average. As figure shown, August 2018 have higher percentage only. DPBS-2 need to maintain this percentage. It is highly recommended that, load factor should be high and confirm accurate distribution of electricity.

## Base Load Generation:

The Bangladesh Rural Electrification Board (BREB) is charged with the responsibility to provide financial support, technical oversight and long term direction to the Rural Electrification program in Bangladesh. Throughout its 38 years history, BREB has performed exceedingly well and has risen to the challenges that have faced the establishment and continued development of this program. BREB has sponsored the foundation of 78 PBSs connecting nearly 10.50 million electric services, representing slightly over 72% of the rural population of Bangladesh. The power supply crisis it now faces © represents a serious challenge to the rural electric program and correspondingly BREB is taking steps to prepare itself to provide technical leadership to overcome the obstacles this crisis has placed before to program.

In the aim of alleviating the power shortage problem of the country the Ministry of Power decided to go for small scale power generation on BOO basis under the auspices of BREB and accordingly gave directives to BREB in 1998 for the construction of 11MW Power stations in financially viable PBSs. [18]

## 3.9 Summary

It is feasible to control load demand by accurate load management, incentive, fetterless Power Producers (IPP) and decreasing transmission loss. The Initiative should be taken to reveal efficient manpower necessary for the power sector envisage incorporating IPP and local Government (GOV), central GOV, private sector may take the duty to increase the power generation and assure its accurate use in Bangladesh. The procedure of energy import and distribution of DPBS-2is better from other PBS.

# CHAPTER 4
# CONSUMERS AND REVENUE OF DHAKA PBS-2

## 4.1 Introduction

Power transmission distribution network in Bangladesh were confined within the urban areas even just twenty five years ago. At present, the rural people are under coverage of electrification, which created new job opportunities and access to electronic media. This contributed to improvement of the standard of their living. Electricity is now (2011) available to operate 2,40,542 irrigation pumps, 1,32,963 small and cottage industry units, 8,09,941 commercial setups and 13,942 other establishments in the rural areas. These figures were 86,766, 62,875, 37, 3,119 and 8,733 respectively in 2000. The rural electrification programmer in Bangladesh achieved higher operational standards compared to other utilities in this part of the world. The overall system loss of the PBS is about 16.62% while some of the co-operatives could confine their system loss within 10%. During 1999-2000, average collection of the societies were 97% of billed amount. The power industry is one of the key industries in each country because today the production of all well and the expenses of many are improbable without electric power. Utilizing many services like lighting, conditioning, freezing and many other services depends on electricity. This chapter centralize on various types of consumers of rural area and their energy expense behavior from season to season for representing related aspects of energy expenses and losses. The residential sector is the largest energy consumer in the Dhaka PBS-2 Consumes about 75% of the total energy. Also a major portion of the energy consumed by the Commercial and industrial sector is in the form of electricity [13]

## 4.2 Description of Consumer Class

In consumer class there are eight types of consumer in every PBS under BREB based on their demand and category of energy use. Those classes are bellows here,

### 4.2.1 Domestic Consumers

Domestic consumers are those consumed electrical energy in their habitant by household equipment. These consumers are serial based on an amount of their consumed unit (kWh) energy. These consumers use single phase line. Most households without grid-electricity cite affordability as a key barrier. While households are economically disadvantaged, concerns about affordability are a manifestation of the gaps in electricity meter coverage and billing efficiency, because of which customers have to bear inflated electricity bills.

Domestic consumers are classified into eight slabs. These are

- Minimum KWh
- 0-50 KWh
- 0-75 KWh
- 76-200 KWh
- 201-300 KWh
- 301-400 KWh
- 401-600 KWh
- Above 600 KWh

### 4.2.2 Commercial Consumers

Commercial consumers are mainly connected to business or commercial functions .Commercial consumers are use the electricity a lot of. Commercial consumers have higher electric demand than Domestic consumers. But they use single phase line as Domestic consumers.
Various Types of consumer under this category will be as follows,

Such as Farm house, Hat- bazaar, Shop (including tailoring shop), Commercial Enterprise, Government and also Semi- Government Office, Private Clinic, Practicing chamber, Community Center or as like Hall, Rest House, Cinema Hall, Mobile Tower, Petrol/CNG Pump Station.

### 4.2.3 Charitable Institute

Charitable institutes are figure on the charity of the Government or any private sector. Charitable institutes may like any educational, religious or social development institutions.
Various Types of consumer under this category will be as follows,

Masjid, Temple, Church, Pagoda, School, College, Madrasha, Club, Orphanage, Charitable institution (Not complex), Charitable dispensary, Crippled rehabilitation center, Coaching center etc.

### 4.2.4 Irrigation

Mainly this class is use for rural area like all kinds of water pumps are used to irrigate in agriculture fields. They may be uses single or three phase in connection. Subject to established rules and regulations of the Palli Bidyut Samity, applicable for single phase and three phases 50 cycles connections of all kinds of irrigation pump consumers. PBS calculate power factor penalty for all pumps greater than 5 HP.

### 4.2.5 General power

The established rules and law of the Palli Bidyut Samity, applicable for reduced load up to
50KW with single phase or three phases, 50 cycle connection of all types of usage. Ordinarily Palli Bidyut Samity will performance secondary metering (L.T. metering) for such types of consumer.

Supply voltage will be 230/400 voltage. Types of consumer under this category will be as follows:

- All types of industries and industrial complex.
- Government office complex.
- Government and charitable hospital complex.
- Charitable, religious and education complex.
- Small Industries related to production or fabrication.
- Cantonment, Union Paribar Kalian Kendra.
- Police station, Camp, Outpost and BGB Camp, BOP Installation etc.

### 4.2.6 Large power

The established rules and regulations of the Palli Bidyut Samity, applicable for reduced loads up to 50KW with three phases, 50 cycles conjunction of all types of usage. Generally Palli Bidyut Samity will implement primary metering (H.T metering) connection for such type of consumer. Supply voltage will be 6350/11000 voltage. The tariff and other charges will be applicable as per LP consumer. The type of consumers under this category will be as follows:

- All types of industries and industrial complex.
- Govt. office complex.
- Govt. and charitable hospital complex.
- Charitable, religious and education complex.
- Small Industries related to production.
- Cantonment, Air, installation etc.

### 4.2.7 33KV

33KV consumers maximum are industries. Normally they have an individual sub-station for reducing energy. DPBS-2 have no consumer in this type.

### 4.2.8 Street Lights

Eroded electric power by street lights is in this class. Street light is a raised source of light on the border of a road in the rural area. These aid to reveal facilities of a village.

## 4.3 Statement of Table and its exploration

The making of revenue sheet, we use Electricity rate, used electricity in KWh, Consumer class, and revenue in monthly and finally we calculate it in yearly. In analysis part, we want to show that rate changing of electricity, Number of consumers and its increase or decrease in monthly, used electricity in KWh and its monthly status and revenue increase or decrease in monthly.

From this analysis we will see that at present condition of the revenue of BREB.

Table 4.1: Monthly Revenue Data of DPBS-2, 2015-16.

| Customer Class | Tariff Rate | July'15 | | | | | |
|---|---|---|---|---|---|---|---|
| | | Unit | % | Consumers | % | Revenue | % |
| **Domestic** | | | | | | | |
| **Minimum Kwh** | | 11614 | 0.18 | | 0.00 | 160,380 | 0.44 |
| **0-50** | 2.99 | 209496 | 3.22 | 7448 | 18.55 | 813,684 | 2.26 |
| **0-75** | 3.48 | 313261 | 4.81 | 4814 | 11.99 | 1,212,505 | 3.36 |
| **76-200** | 4.58 | 2710500 | 41.64 | 20708 | 51.58 | 12,937,581 | 35.89 |
| **201-300** | 4.59 | 1197937 | 18.40 | 4893 | 12.19 | 5,622,635 | 15.60 |
| **301-400** | 4.79 | 526697 | 8.09 | 1520 | 3.79 | 2,565,282 | 7.12 |
| **401-600** | 5.43 | 309830 | 4.76 | 656 | 1.63 | 1,701,708 | 4.72 |
| **600++** | 7.36 | 100521 | 1.54 | 109 | 0.27 | 742,717 | 2.06 |
| **Total** | | **5379856** | **82.65** | **40148** | **100%** | **25,756,492** | **71.45** |
| **Commercial** | 3277.32 | 860320 | 13.22 | 3733 | | 8,466,216 | 23.49 |
| **Charitable (school/mosque/mandir)** | 5.45 | 0 | 0.00 | 0 | | 0 | 0.00 |
| **Charitable (club)** | 5.06 | 97891 | 1.50 | 611 | | 519,018 | 1.44 |
| **Irrigation (season)** | 3.85 | 21030 | 0.32 | 399 | | 91,167 | 0.25 |
| **Irrigation (off-season)** | 3.24 | 0 | 0.00 | 0 | | 0 | 0.00 |
| **General Power** | 0.00 | 102777 | 1.58 | 214 | | 827,945 | 2.30 |
| **Large Power** | 0.00 | 47000 | 0.72 | 3 | | 384,795 | 1.07 |
| **33 KV** | 0.00 | 0 | 0.00 | 0 | | 0 | 0.00 |
| **Street Light** | 6.96 | 420 | 0.01 | 1 | | 2,926 | 0.01 |
| **Grand Total** | | **6,509,294** | **100%** | **45,109** | | **36,048,559** | **100%** |

Table 4.2: Monthly Revenue Data of DPBS-2, 2016-17.

| Customer Class | Tariff Rate | July'16 | | | | | |
|---|---|---|---|---|---|---|---|
| | | Unit | % | Consumers | % | Revenue | % |
| **Domestic** | | | | | | | |
| **Minimum Kwh** | | 11519 | 0.15 | | 0.00 | 186,390 | 0.45 |
| **0-50** | 2.96 | 235879 | 3.16 | 8489 | 18.03 | 910,518 | 2.18 |
| **0-75** | 3.41 | 361351 | 4.85 | 5557 | 11.80 | 1,373,134 | 3.29 |
| **76-200** | 4.57 | 3351417 | 44.94 | 25454 | 54.07 | 15,958,410 | 38.21 |
| **201-300** | 4.66 | 1334746 | 17.90 | 5493 | 11.67 | 6,360,902 | 15.23 |
| **301-400** | 4.90 | 517513 | 6.94 | 1506 | 3.20 | 2,574,069 | 6.16 |
| **401-600** | 5.55 | 247231 | 3.31 | 526 | 1.12 | 1,386,530 | 3.32 |
| **600++** | 6.75 | 42986 | 0.58 | 54 | 0.11 | 291,633 | 0.70 |
| **Total** | | **6102642** | **81.83** | **47079** | **100%** | **29,041,586** | **69.54** |
| **Commercial** | 3995.47 | 1079676 | 14.48 | 4480 | | 10,839,341 | 25.95 |
| **Charitable (school/mosque/mandir)** | 5.46 | 0 | 0.00 | 0 | | 0 | 0.00 |
| **Charitable (club)** | 5.30 | 123036 | 1.65 | 689 | | 675,610 | 1.62 |
| **Irrigation (season)** | 4.77 | 28601 | 0.38 | 443 | | 141,058 | 0.34 |
| **Irrigation (off-season)** | 2.42 | 0 | 0.00 | 0 | | 0 | 0.00 |
| **General Power** | 0.00 | 102644 | 1.38 | 228 | | 856,611 | 2.05 |
| **Large Power** | 511.18 | 21506 | 0.29 | 4 | | 211,068 | 0.51 |
| **33 KV** | 0.00 | 0 | 0.00 | 0 | | 0 | 0.00 |
| **Street Light** | 0.00 | 0 | 0.00 | 0 | | 0 | 0.00 |
| **Grand Total** | | **7,458,105** | **100%** | **52,923** | | **41,765,274** | **100%** |

Table 4.3: Monthly Revenue Data of DPBS-2, 2017-18

| Customer Class | Tariff Rate | July'17 | | | | | |
|---|---|---|---|---|---|---|---|
| | | Unit | % | Consumers | % | Revenue | % |
| **Domestic** | | | | | | | |
| **Minimum Kwh** | | 18742 | 0.24 | | 0.00 | 335,700 | 0.77 |
| **0-50** | 2.89 | 267192 | 3.44 | 11126 | 21.41 | 1,050,566 | 2.41 |
| **0-75** | 3.41 | 414245 | 5.33 | 6344 | 12.21 | 1,573,896 | 3.61 |
| **76-200** | 4.55 | 3511517 | 45.19 | 26982 | 51.93 | 16,670,580 | 38.27 |
| **201-300** | 4.66 | 1323884 | 17.04 | 5409 | 10.41 | 6,314,892 | 14.50 |
| **301-400** | 4.90 | 482512 | 6.21 | 1389 | 2.67 | 2,402,786 | 5.52 |
| **401-600** | 5.53 | 281594 | 3.62 | 603 | 1.16 | 1,573,173 | 3.61 |
| **600++** | 6.89 | 85175 | 1.10 | 110 | 0.21 | 590,188 | 1.35 |
| **Total** | | **6384861** | **82.16** | **51963** | **100%** | **30,511,781** | **70.05** |
| **Commercial** | 2804.31 | 1094274 | 14.08 | 4996 | | 11,072,557 | 25.42 |
| **Charitable (school/mosque/mandir)** | 5.48 | 0 | 0.00 | 0 | | 0 | 0.00 |
| **Charitable (club)** | 5.33 | 128409 | 1.65 | 739 | | 712,360 | 1.64 |
| **Irrigation (season)** | 4.54 | 27566 | 0.35 | 518 | | 147,798 | 0.34 |
| **Irrigation (off-season)** | 13.52 | 0 | 0.00 | 0 | | 0 | 0.00 |
| **General Power** | 0.00 | 127181 | 1.64 | 256 | | 1,020,849 | 2.34 |
| **Large Power** | 0.00 | 8808 | 0.11 | 2 | | 91,821 | 0.21 |
| **33 KV** | 0.00 | 0 | 0.00 | 0 | | 0 | 0.00 |
| **Street Light** | 0.00 | 0 | 0.00 | 0 | | 0 | 0.00 |
| **Grand Total** | | **7,771,099** | **100%** | **58,474** | | **43,557,166** | **100%** |

Here I insert three year monthly revenue data such as July of 2015, July of 2016 and July of 2017. And I also describe July of 2015 monthly revenue data .others month of revenue data are included in Appendix C.

Now, if we look at july-2015-16, At July 15 Domestic consumer consumed total 6384861 units, Number of total consumer 51963 and total revenue 30511781 TK where minimum slab were 18742 units, Number of consumer 0 and revenue 335700 In 1-50 were 267192 units, Number of consumer 11126 and revenue 1050566 TK.

In 1-75 were 414245 units, the number of consumer 6344.And revenue 1573896. In 76-200 were 3511517 units, Number of consumer 26982 and revenue 16670580 TK. In 201-300 were 1323884 units, Number of consumer 5409 and revenue 6314892 TK. In 301-400 were 482512 units, Number of consumer 1389, and revenue 2402786 TK. In 401-600 were 281594 units, Number of consumer 603, and revenue 1573173TK and Above 600 were 85175 units, Number of consumer 110 and revenue 590188 TK.

Now, In Commercial consumer consumed total 1094274 units, Number of consumer 51963 and revenue 30511781TK. In Charitable institute consumer consumed total 128409, units Number of consumer 139 and revenue 712360TK. In Irrigation, consumer consumed total 27566units, Number of consumer 518 and revenue 147798TK. In General power, consumer consumed total 127181units, Number of consumer 256 and revenue 1020849 TK. In Large power, consumer consumed total 8808 units, Number of consumer 2 and revenue 91821 TK. In 33KVconsumer consumed total 0 units, Number of consumer 0 and revenue 0 TK. In street light, totally consumed energy is 0units, Number of consumer 0 and revenue 0TK.

At August-2015, Domestic consumer consumed total 6374981 units, Number of total consumer 52492 and total revenue 30211460 Tk. Where, minimum slab were 15846 units, Number of consumer 0 and revenue 273150 Tk. In 1-50 were 264264 units, Number of consumer 10179 and revenue 1030861 Tk. In 1-75 were 433245 units, Number of consumer 6617 and revenue 1646331. In 76-200 were 3722358 units, Number of consumer 28802 and revenue 17639854 TK. In 201-300 were 1250131 units, Number of consumer 5141 and revenue 5958320 TK. In 301-400 were 431748 units, Number of consumer 1247 and revenue 2148554 TK. In 401-600 were 209252 units, Number of consumer 443 and revenue 1173932 TK and Above 600 were

48137 units, Number of consumer 63 and revenue 340458 TK.
Again, In July-August, 2015 Domestic consumers total increment by 100%where in minimum kWh consumers increase by 0%. In 1-50 kWh consumers were increased by 21.41%. In 1-75 kWh consumers were increased 12.21%. In 76-200 were increase 51.93 %. In 201-300 were
Rise to 10.41%, 301-400 were increased2.67%. In 401-600 slab were increase 1.16%, and above 600 were increase 0.21 %.
In Commercial consumer consumed total 860320 units, Number of consumer 3733 and revenue 8466216 TK. In this month, total consumed energy increases 13.22% and a number of consumer increase 2.63%. In Charitable institute, consumer consumed total 97891 units,
The Number of consumer 611 and revenue 519018 TK. In this month consumed energy increase 1.50% and a number of consumer increase 0.43 %.
In Irrigation, consumer consumed total 21030 units, Number of consumer 399 and revenue 91167TK. In this month consumed energy increase0.32% and a number of consumer increase 0.28%.
In General power, consumer consumed total 102777 units, Number of consumer 214and revenue 827945 TK. In this month consumed energy increases 1.58% and number of consumer increases 0.15%
In Large power consumer consumed total 47000 units, a Number of consumer 3 and revenue 384795TK. In this month consumed energy increases 0.72% and a number of the consumers increase 0.00
In street light, totally consumed energy 420 units, Number of consumer 1 and revenue 2926Tk. In this month consumed energy increase 0.01% and a number of the consumers 0.00.

## 4.4 Graphical Exploration (Domestic)

In these procedure we calculate all the month of the year in 2015-2018 where we separated every year in three season for our capitalize which are,

- Summer season (March-June)
- Rainy season (July-October)
- Winter season (November-February)

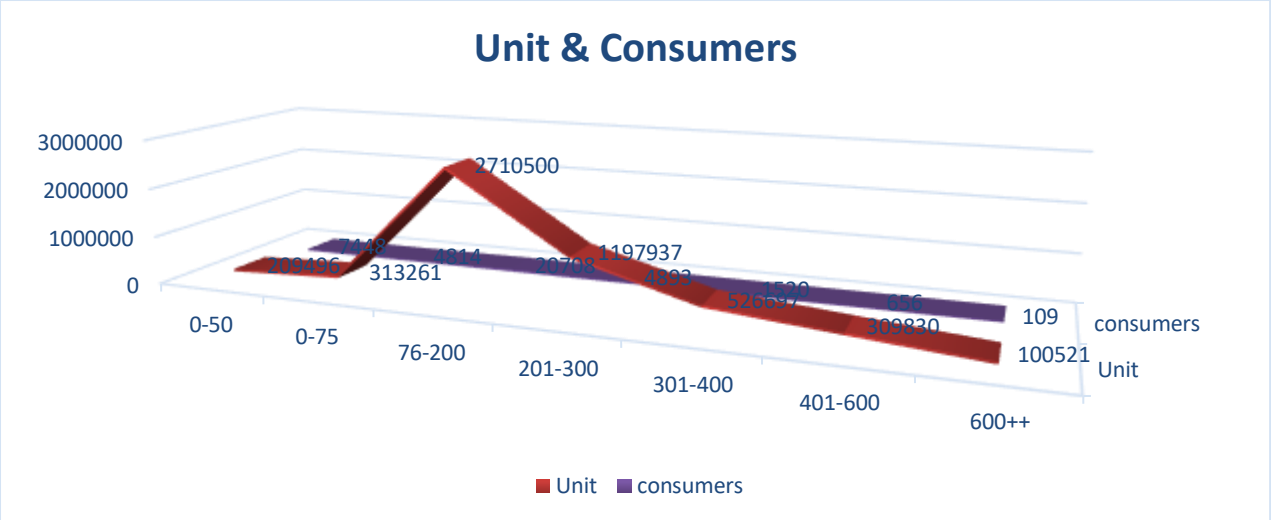



Fig 4.1: Unit Expenses and Consumer (Domestic) in July, 2015

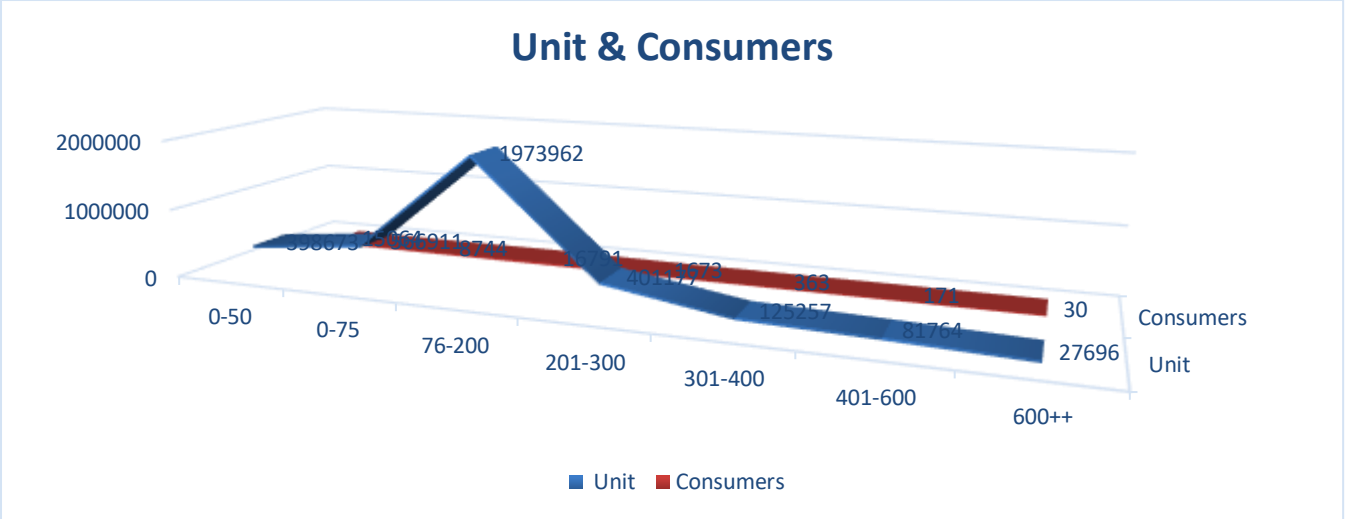



Fig 4.1: Unit Expenses and Consumer (Domestic) in December, 2015

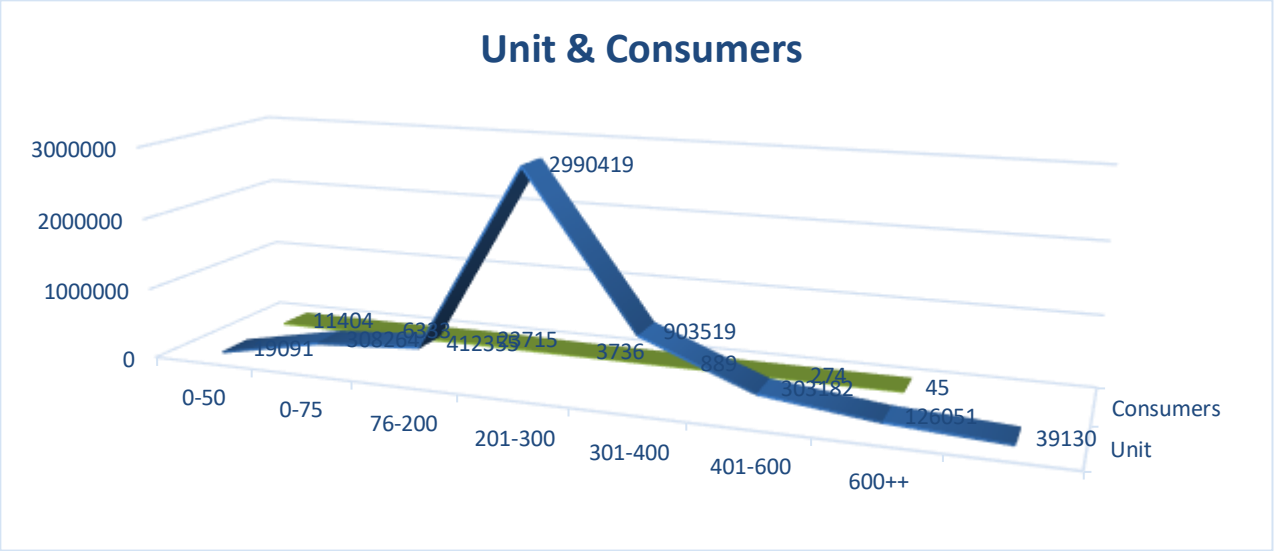



Fig 4.1: Unit Expenses and Consumer (Domestic) in May, 2016

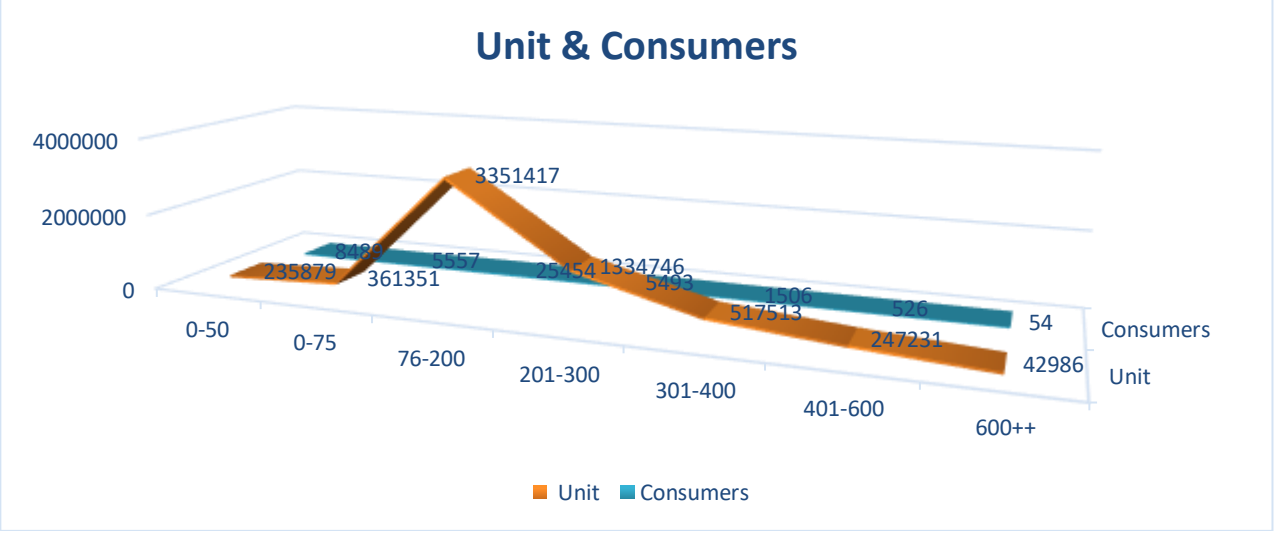



Fig 4.1: Unit Expenses and Consumer (Domestic) in July, 2016

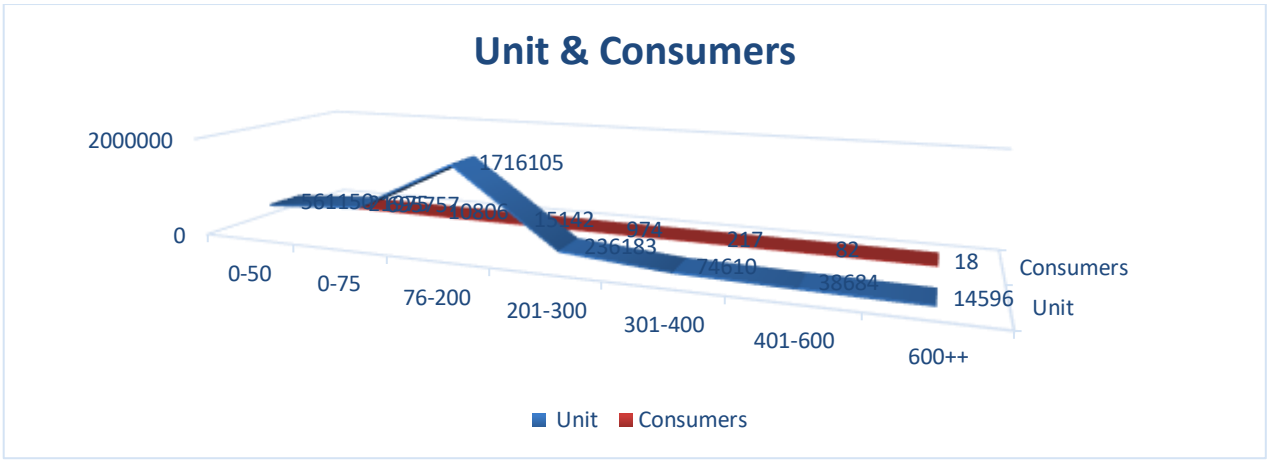



Fig 4.1: Unit Expenses and Consumer (Domestic) in December, 2016

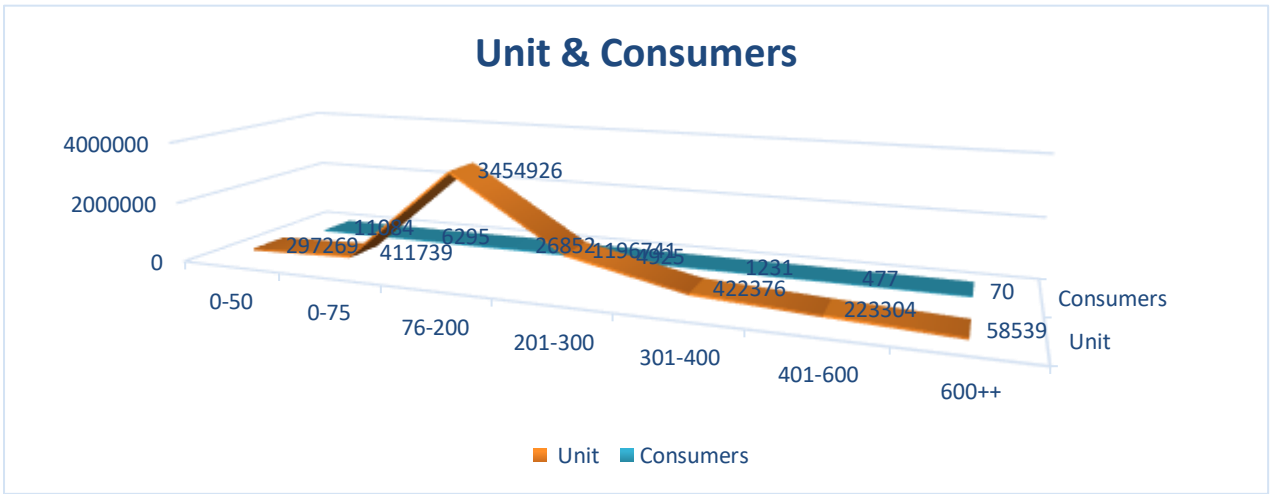



Fig 4.2: Unit Expenses and Consumer (Domestic) in May, 2017

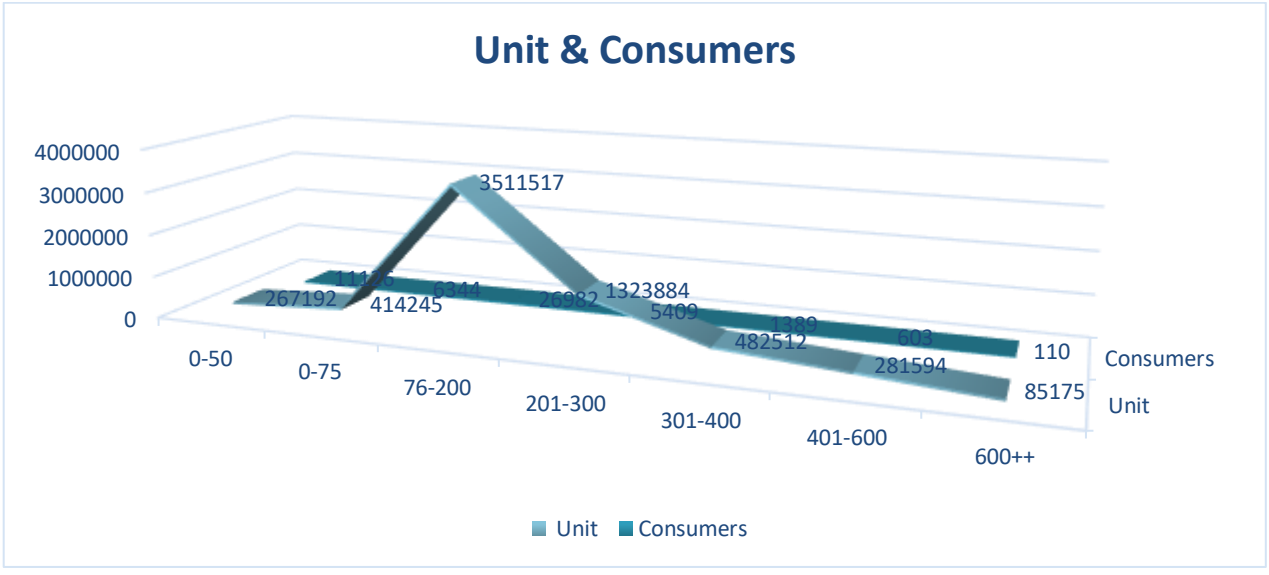



Fig 4.2: Unit Expenses and Consumer (Domestic) in July, 2017

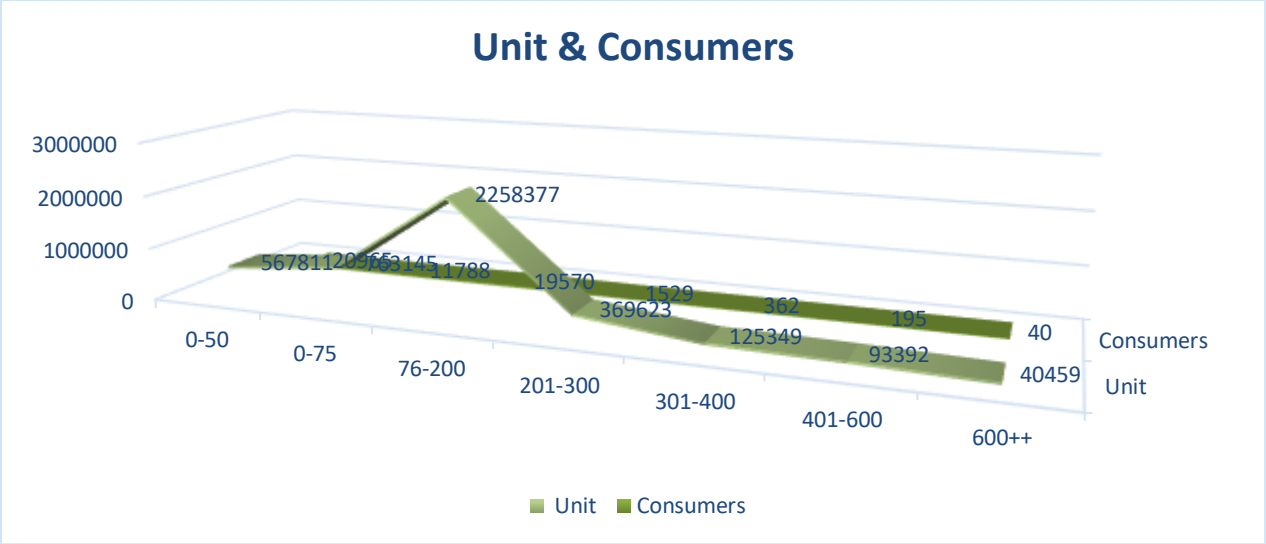



Fig 4.2: Unit Expenses and Consumer (Domestic) in December, 2017

If we look at the graph in July 2015, the number of the consumer is 3.39% for 1-75KWh and the number of units is 4.81% for 1-75 KWh is highest percentage of the graph, 1-50 KWh the number of consumers is 5.24% and the number of units is 3.22%, 76-200 KWh the number of consumers is 14.57% and the number of units is 41.64%, the minimum consumer is 9.39%the minimum unit is 33.54% and 301- 400 KWh the consumer is 1 % and the unit is 8% and 600++ consumer and unit is about to 0.08 %.

In summer season number of consumer increase in 76-200 KWh slab due to more use of the electrical apparatus.

Again if we look at the December 2015, then the number of the consumer is 5.39% and the number of units is 11.71% for 76-200 KWh which is the highest percentage of the consumer of the graph, 1-50 KWh consumer is 9.28% and the unit is 8.24%, the minimum consumer is .0.00% and the unit is 0.08% and 600++ consumer and unit about to 0.02 %. In winter season number of consumer increase in 1- 75 slab due to less use of electrical apparatus like AC, fan, refrigerator, tv, microvan etc.

And in May 2016, the number of the consumer is 12.79% and the number of units is 45.99% for 76-200 KWh which is the highest percentage of the consumer of the graph, 1-50 KWh consumer is 6.15% and the unit is 4.74%, the minimum consumer is 0.00 % and unit is 0.29% and 600++ consumer and unit is about 0.02 %.

# 4.5 Compare of Total, Domestic, Lifeline and Minimum Consumer

In the on table analysis shown that the compare between a total slabs of the consumer to the Domestic slab and we know Total slab of consumer composition of the Domestic slab, Commercial slab:

4.4: Compare Domestic with Total Domestic and Lifeline (0-50), Minimum and 1-75 (2015)

| | Total | | | Domestic compare with Total | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Month(15-16) | Unit | Revenue | Consumer | Unit | % of total Unit | Revenue | % of total Revenue | Consumer | % of total Consumer |
| July | 6509294 | 36048559 | 45109 | 5379856 | 82.65 | 25756492 | 71.45 | 40148 | 28.26 |
| August | 5987674 | 32990600 | 45406 | 4904613 | 81.91 | 23139347 | 70.14 | 40470 | 27.82 |
| September | 7011772 | 38981006 | 45717 | 5766686 | 82.24 | 27669993 | 70.98 | 40770 | 27.32 |
| October | 7515183 | 42803735 | 46852 | 6189303 | 82.36 | 30383105 | 70.98 | 41758 | 26.79 |
| November | 6003107 | 34378687 | 47439 | 4669137 | 77.78 | 22104899 | 64.30 | 42258 | 26.65 |
| December | 4839983 | 28145565 | 48196 | 3608301 | 74.55 | 16794680 | 59.67 | 42836 | 26.38 |
| January | 5433180 | 30307811 | 49226 | 3447515 | 63.45 | 16023109 | 52.87 | 43320 | 25.87 |
| February | 5606256 | 30947263 | 50225 | 3602571 | 64.26 | 16766743 | 54.18 | 44179 | 25.80 |
| March | 6324835 | 34902051 | 51067 | 4156794 | 65.72 | 19432074 | 55.68 | 44594 | 25.39 |
| April | 7357295 | 40904493 | 52037 | 5259148 | 71.48 | 24921517 | 60.93 | 45701 | 25.36 |
| May | 6502104 | 36584447 | 52711 | 5102011 | 78.47 | 24020593 | 65.66 | 46396 | 25.03 |

Slabs with Domestic

| Month(15-16) | Domestic compare with Total | | | | | | Lifeline compare with Domestic | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Unit | % of total Unit | Revenue | % of total Revenue | Consumer | % of total Consumer | Unit | % of total Unit | Revenue | % of total Revenue | Consumer | % of total Consumer |
| July | 5379856 | 82.65 | 25756492 | 71.45 | 40148 | 28.26 | 209496 | 3.22 | 813684 | 2.26 | 7448 | 5.24 |
| August | 4904613 | 81.91 | 23139347 | 70.14 | 40470 | 27.82 | 245837 | 4.11 | 945049 | 2.86 | 8342 | 5.74 |
| September | 5766686 | 82.24 | 27669993 | 70.98 | 40770 | 27.32 | 186731 | 2.66 | 716056 | 1.84 | 6386 | 4.28 |
| October | 6189303 | 82.36 | 30383105 | 70.98 | 41758 | 26.79 | 182851 | 2.43 | 707082 | 1.65 | 6364 | 4.08 |
| November | 4669137 | 77.78 | 22104899 | 64.30 | 42258 | 26.65 | 293660 | 4.89 | 1153937 | 3.36 | 10814 | 6.82 |
| December | 3608301 | 74.55 | 16794680 | 59.67 | 42836 | 26.38 | 398673 | 8.24 | 1587003 | 5.64 | 15064 | 9.28 |
| January | 3447515 | 63.45 | 16023109 | 52.87 | 43320 | 25.87 | 442393 | 8.14 | 1755681 | 5.79 | 16436 | 9.81 |
| February | 3602571 | 64.26 | 16766743 | 54.18 | 44179 | 25.80 | 431889 | 7.70 | 1715634 | 5.54 | 16244 | 9.49 |
| March | 4156794 | 65.72 | 19432074 | 55.68 | 44594 | 25.39 | 359693 | 5.69 | 1435468 | 4.11 | 13928 | 7.93 |
| April | 5259148 | 71.48 | 24921517 | 60.93 | 45701 | 25.36 | 292764 | 3.98 | 1151936 | 2.82 | 11162 | 6.19 |
| May | 5102011 | 78.47 | 24020593 | 65.66 | 46396 | 25.03 | 308264 | 4.74 | 1204812 | 3.29 | 11404 | 6.15 |
| June | 4991117 | 78.42 | 23310620 | 64.65 | 46697 | 24.83 | 309687 | 4.87 | 1204948 | 3.34 | 11384 | 6.05 |

| Month(15-16) | Slab 1-75 compare with domestic | | | | | |
|---|---|---|---|---|---|---|
| | Unit | % of total Unit | Revenue | % of total Revenue | Consumer | % of total Consumer |
| July | 313261 | 4.81 | 1212505 | 3.36 | 4814 | 3.39 |
| August | 359998 | 6.01 | 1393394 | 4.22 | 5521 | 3.80 |
| September | 306066 | 4.37 | 1179525 | 3.03 | 4706 | 3.15 |
| October | 285707 | 3.80 | 1085585 | 2.54 | 4389 | 2.82 |
| November | 413907 | 6.89 | 1572845 | 4.58 | 6350 | 4.00 |
| December | 566911 | 11.71 | 2154265 | 7.65 | 8744 | 5.39 |
| January | 599887 | 11.04 | 2279562 | 7.52 | 9273 | 5.54 |
| February | 596091 | 10.63 | 2265147 | 7.32 | 9204 | 5.37 |
| March | 511922 | 8.09 | 1945281 | 5.57 | 7850 | 4.47 |
| April | 379715 | 5.16 | 1442916 | 3.53 | 5837 | 3.24 |
| May | 412355 | 6.34 | 1566949 | 4.28 | 6333 | 3.42 |
| June | 438891 | 6.90 | 1667785 | 4.63 | 6727 | 3.58 |

First, we compare the number of Consumer, energy expenses and revenue with Total and Domestic according to Total. The percentage of energy expenses shown in Domestic, as usually low during the winter season. It's also clear that domestics consume above 53.30% of total energy in DPBS-2. Where Revenue shows 60.59% and Number of consumer above 87.30% in average of their total.

## 4.6 Graphical Deputation

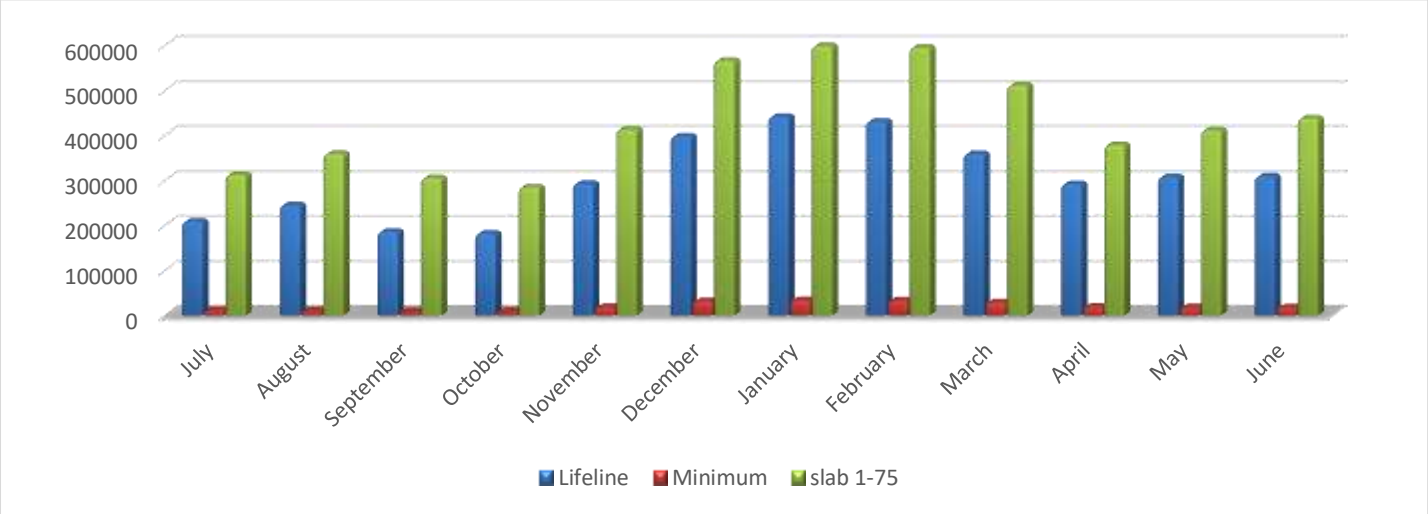



Fig 4.3: Monthly Unit Expenses of Lifeline, Minimum and 1-75 Slab 2015-16

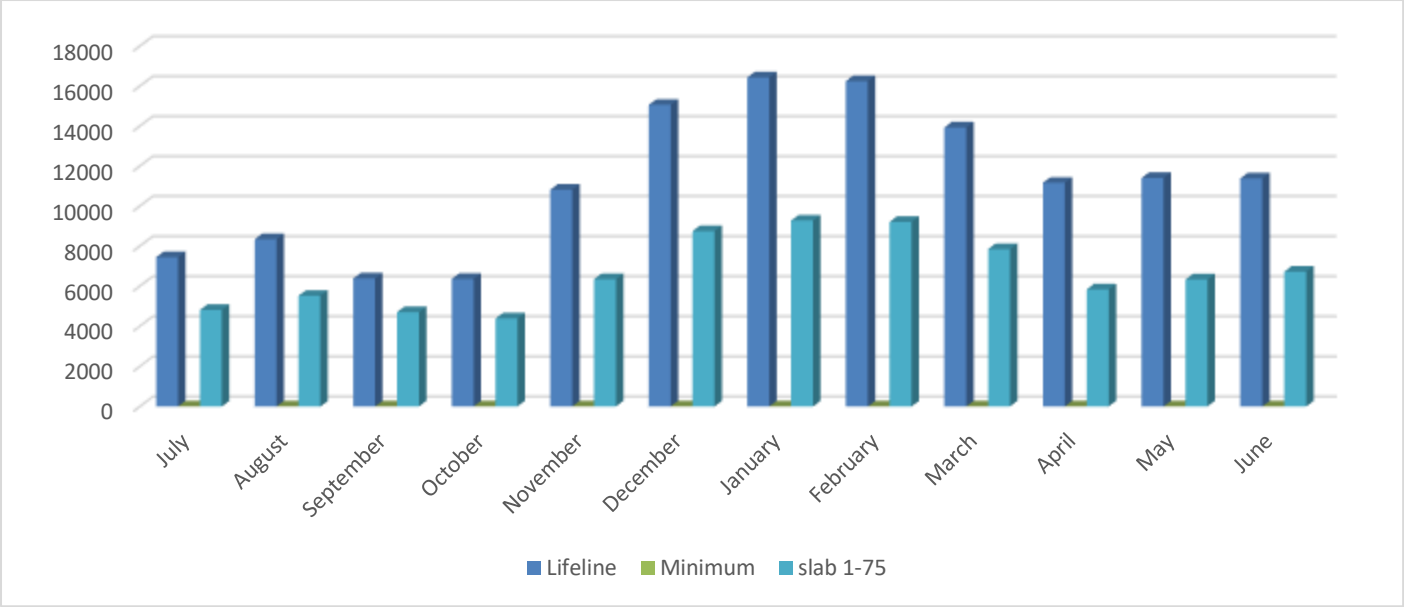



Fig 4.4: Month wise Consumers of Lifeline, Minimum and 1-75 Slabs 2015-16

Comparison with Fig 5.4 and 5.5 Minimum consumer consume very little amount of energy but sometime their number were highest

## 4.7 Comparison of Total, Commercial, Charitable Institution and Irrigation, General Power, Large Power, 33 KV, Street Light Consumer

At first we compare between the number of consumer, energy cost and revenue with Total and Commercial consequent to Total. The percentage of energy cost show in Commercial, are high during winter season. It's also clear that Commercial consume above 3.60% of total energy in DPBS-2.

Table 4.5: Compare Domestic with Total Domestic and Commercial (2015-2016)

| | Total | | | Commercial compare with Total | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Month(15-16) | Unit | Revenue | Consumer | Unit | % of total Unit | Revenue | % of total Revenue | Consumer | % of total Consumer |
| July | 6509294 | 36048559 | 45109 | 860320 | 13.22 | 8466216 | 23.49 | 3733 | 2.63 |
| August | 5987674 | 32990600 | 45406 | 805506 | 13.45 | 7938986 | 24.06 | 3744 | 2.57 |
| September | 7011772 | 38981006 | 45717 | 919560 | 13.11 | 9103057 | 23.35 | 3757 | 2.52 |
| October | 7515183 | 42803735 | 46852 | 1007278 | 13.40 | 10249684 | 23.95 | 3896 | 2.50 |
| November | 6003107 | 34378687 | 47439 | 986743 | 16.44 | 9879562 | 28.74 | 3977 | 2.51 |
| December | 4839983 | 28145565 | 48196 | 899441 | 18.58 | 9044514 | 32.13 | 4021 | 2.48 |
| January | 5433180 | 30307811 | 49226 | 897509 | 16.52 | 9036165 | 29.81 | 4055 | 2.42 |
| February | 5606256 | 30947263 | 50225 | 877080 | 15.64 | 8847454 | 28.59 | 4096 | 2.39 |
| March | 6324835 | 34902051 | 51067 | 974572 | 15.41 | 9803056 | 28.09 | 4269 | 2.43 |
| April | 7357295 | 40904493 | 52037 | 1110397 | 15.09 | 11133059 | 27.22 | 4348 | 2.41 |
| May | 6502104 | 36584447 | 52711 | 969929 | 14.92 | 9761624 | 26.68 | 4417 | 2.38 |
| June | 6364760 | 36055979 | 52614 | 986739 | 15.50 | 9927285 | 27.53 | 4435 | 2.36 |

| Month(15-16) | Charitable Institution compare with Total | | | | | | Irrigation compare with Total | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Unit | % of total Unit | Revenue | % of total Revenue | Consumer | % of total Consumer | Unit | % of total Unit | Revenue | % of total Revenue | Consumer | % of total Consumer |
| July | 97891 | 1.5 | 519018 | 1.44 | 611 | 0.43 | 21030 | 0.32 | 91167 | 0.25 | 399 | 0.28 |
| August | 95240 | 1.59 | 502509 | 1.52 | 616 | 0.42 | 14333 | 0.24 | 62510 | 0.19 | 359 | 0.25 |
| September | 130471 | 1.86 | 692576 | 1.78 | 619 | 0.41 | 23121 | 0.33 | 99101 | 0 | 352 | 0.24 |
| October | 125439.6 | 1.67 | 702523 | 1.64 | 629 | 0.4 | 34348 | 0.46 | 141501 | 0.33 | 347 | 0.22 |
| November | 101958 | 1.7 | 561495 | 1.63 | 635 | 0.4 | 40399 | 0.67 | 165251 | 0.48 | 347 | 0.22 |
| December | 74305 | 1.54 | 419842 | 1.49 | 637 | 0.39 | 52638 | 1.09 | 215803 | 0.77 | 476 | 0.29 |
| January | 62616 | 1.15 | 361244 | 1.19 | 643 | 0.38 | 810162 | 14.91 | 3127683 | 10.32 | 979 | 0.58 |
| February | 67710 | 1.21 | 386897 | 1.25 | 650 | 0.38 | 860471 | 15.35 | 3327138 | 10.75 | 1073 | 0.63 |
| March | 96537 | 1.53 | 534609 | 1.53 | 658 | 0.37 | 886755 | 14.02 | 31419381 | 9.8 | 1094 | 0.62 |
| April | 115142 | 1.57 | 631526 | 1.54 | 667 | 0.37 | 686130 | 9.33 | 2683691 | 6.56 | 1090 | 0.6 |
| May | 104885 | 1.61 | 579627 | 1.58 | 680 | 0.37 | 132857 | 2.04 | 638921 | 1.75 | 986 | 0.53 |
| June | 100932 | 1.59 | 560305 | 1.55 | 683 | 0.36 | 24167 | 0.38 | 126842 | 0.35 | 568 | 0.3 |

| Month(15-16) | General Power compare with Total | | | | | | Large Power compare with Total | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Unit | % of total Unit | Revenue | % of total Revenue | Consumer | % of total Consumer | Unit | % of total Unit | Revenue | % of total Revenue | Consumer | % of total Consumer |
| July | 102777 | 1.58 | 827945 | 2.30 | 214 | 0.15 | 47000 | 0.72 | 384795 | 1.07 | 3 | 0.00 |
| August | 110862 | 1.85 | 888523 | 2.69 | 213 | 0.15 | 56700 | 0.95 | 455799 | 1.38 | 3 | 0.00 |
| September | 112809 | 1.61 | 928200 | 2.38 | 215 | 0.14 | 58705 | 0.84 | 485153 | 1.24 | 3 | 0.00 |
| October | 111594 | 1.48 | 921322 | 2.15 | 218 | 0.14 | 46800 | 0.62 | 403706 | 0.94 | 3 | 0.00 |
| November | 118375 | 1.97 | 973243 | 2.83 | 218 | 0.14 | 86075 | 1.43 | 692343 | 2.01 | 3 | 0.00 |
| December | 107273 | 2.22 | 889206 | 3.16 | 222 | 0.14 | 97605 | 2.02 | 779626 | 2.77 | 3 | 0.00 |
| January | 117383 | 2.16 | 976519 | 3.22 | 225 | 0.13 | 97575 | 1.80 | 781197 | 2.58 | 3 | 0.00 |
| February | 110884 | 1.98 | 915598 | 2.96 | 224 | 0.13 | 87540 | 1.56 | 703434 | 2.27 | 3 | 0.00 |
| March | 123167 | 1.95 | 1011710 | 2.90 | 449 | 0.26 | 87010 | 1.38 | 701221 | 2.01 | 3 | 0.00 |
| April | 117873 | 1.60 | 972315 | 2.38 | 227 | 0.13 | 68605 | 0.93 | 562385 | 1.37 | 4 | 0.00 |
| May | 117187 | 1.80 | 967098 | 2.64 | 228 | 0.12 | 75235 | 1.16 | 616584 | 1.69 | 4 | 0.00 |
| June | 110285 | 1.73 | 940876 | 2.61 | 227 | 0.12 | 151520 | 2.38 | 1190051 | 3.3 | 4 | 0.00 |

| Month(15-16) | Total | | | Street Lights compare with Total | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Unit | Revenue | Consumer | Unit | % of total Unit | Revenue | % of total Revenue | Consumer | % of total Consumer |
| July | 6509294 | 36048559 | 45109 | 420 | 0.01 | 2926 | 0.01 | 1 | 0.00 |
| August | 5987674 | 32990600 | 45406 | 420 | 0.01 | 2926 | 0.01 | 1 | 0.00 |
| September | 7011772 | 38981006 | 45717 | 420 | 0.01 | 2926 | 0.01 | 1 | 0.00 |
| October | 7515183 | 42803735 | 46852 | 420 | 0.01 | 1894 | 0.00 | 1 | 0.00 |
| November | 6003107 | 34378687 | 47439 | 420 | 0.01 | 1894 | 0.01 | 1 | 0.00 |
| December | 4839983 | 28145565 | 48196 | 420 | 0.01 | 1894 | 0.01 | 1 | 0.00 |
| January | 5433180 | 30307811 | 49226 | 420 | 0.01 | 1894 | 0.01 | 1 | 0.00 |
| February | 5606256 | 30947263 | 50225 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| March | 6324835 | 34902051 | 51067 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| April | 7357295 | 40904493 | 52037 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| May | 6502104 | 36584447 | 52711 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| June | 6364760 | 36055979 | 52614 | 0 | 0.00 | 0 | 0 | 0 | 0.00 |

# Comparison of Total, Domestic, Lifeline and Minimum Consumer

Table 4.6: Compare Domestic with Total Domestic and Commercial (2016-2017)

| Month(16-17) | Total | | | Domestic compare with Total | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Unit | Revenue | Consumer | Unit | % of total Unit | Revenue | % of total Revenue | Consumer | % of total Consumer |
| July | 7458105 | 41765274 | 52923 | 6102642 | 81.83 | 29041586 | 69.54 | 47079 | 33.13 |
| August | 7515091 | 42391367 | 53510 | 6038786 | 80.36 | 28655532 | 67.60 | 47653 | 32.76 |
| September | 8292450 | 46848401 | 53908 | 6740186 | 81.28 | 32392092 | 69.14 | 47995 | 32.16 |
| October | 7715773 | 43642957 | 54447 | 6199622 | 80.35 | 29533890 | 67.67 | 48489 | 31.11 |
| November | 6509495 | 37059256 | 54966 | 5153127 | 79.16 | 24216891 | 65.35 | 48903 | 30.84 |
| December | 4698866 | 27967408 | 55340 | 3388375 | 72.11 | 15681034 | 56.07 | 49214 | 30.31 |
| January | 5379439 | 30659126 | 56354 | 3512704 | 65.30 | 16300367 | 53.17 | 49601 | 29.62 |
| February | 5994127 | 33601252 | 56836 | 3701546 | 61.75 | 17201337 | 51.19 | 49924 | 29.15 |
| March | 5260748 | 29635440 | 57171 | 3496142 | 66.46 | 16178893 | 54.59 | 50221 | 28.59 |
| April | 6764433 | 38288193 | 57547 | 4685777 | 69.27 | 22301985 | 58.25 | 50587 | 28.07 |
| May | 7729756 | 44028540 | 57870 | 6082268 | 78.69 | 28878606 | 65.59 | 50934 | 27.48 |
| June | 7738749 | 43907092 | 57916 | 6207455 | 80.21 | 29441718 | 67.05 | 51082 | 27.17 |

| Month(16-17) | Domestic compare with Total | | | | | | Lifeline compare with Domestic | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Unit | % of total Unit | Revenue | % of total Revenue | Consumer | % of total Consumer | Unit | % of total Unit | Revenue | % of total Revenue | Consumer | % of total Consumer |
| July | 6102642 | 81.83 | 29041586 | 69.54 | 47079 | 33.13 | 235879 | 3.16 | 910518 | 2.18 | 8489 | 5.97 |
| August | 6038786 | 80.36 | 28655532 | 67.60 | 47653 | 32.76 | 241114 | 3.21 | 931790 | 2.20 | 8639 | 5.94 |
| September | 6740186 | 81.28 | 32392092 | 69.14 | 47995 | 32.16 | 204146 | 2.46 | 789384 | 1.68 | 7386 | 4.95 |
| October | 6199622 | 80.35 | 29533890 | 67.67 | 48489 | 31.11 | 248111 | 3.22 | 946578 | 2.17 | 8999 | 5.77 |
| November | 5153127 | 79.16 | 24216891 | 65.35 | 48903 | 30.84 | 338995 | 5.21 | 1308728 | 3.53 | 12878 | 8.12 |
| December | 3388375 | 72.11 | 15681034 | 56.07 | 49214 | 30.31 | 561150 | 11.94 | 2254359 | 8.06 | 21975 | 13.53 |
| January | 3512704 | 65.30 | 16300367 | 53.17 | 49601 | 29.62 | 550748 | 10.24 | 2206556 | 7.20 | 21391 | 12.77 |
| February | 3701546 | 61.75 | 17201337 | 51.19 | 49924 | 29.15 | 513889 | 8.57 | 2066910 | 6.15 | 20269 | 11.84 |
| March | 3496142 | 66.46 | 16178893 | 54.59 | 50221 | 28.59 | 536091 | 10.19 | 2175528 | 7.34 | 21850 | 12.44 |
| April | 4685777 | 69.27 | 22301985 | 58.25 | 50587 | 28.07 | 400198 | 5.92 | 1599640 | 4.18 | 15946 | 8.85 |
| May | 6082268 | 78.69 | 28878606 | 65.59 | 50934 | 27.48 | 297269 | 3.85 | 1157476 | 2.63 | 11084 | 5.98 |
| June | 6207455 | 80.21 | 29441718 | 67.05 | 51082 | 27.17 | 294542 | 3.81 | 1151311 | 2.62 | 10745 | 5.71 |

| Month(16-17) | Slab 1-75 compare with domestic | | | | | |
|---|---|---|---|---|---|---|
| | Unit | % of total Unit | Revenue | % of total Revenue | Consumer | % of total Consumer |
| July | 361351 | 4.85 | 1373134 | 3.29 | 5557 | 3.91 |
| August | 382623 | 5.09 | 1453967 | 3.43 | 5846 | 4.02 |
| September | 346558 | 4.18 | 1316920 | 2.81 | 5316 | 3.56 |
| October | 382497 | 4.96 | 1453488 | 3.33 | 5879 | 3.77 |
| November | 488139 | 7.50 | 1854944 | 5.01 | 7481 | 4.72 |
| December | 695757 | 14.81 | 2643761 | 9.45 | 10806 | 6.66 |
| January | 717477 | 13.34 | 2726413 | 8.89 | 11142 | 6.65 |
| February | 716135 | 11.95 | 2721327 | 8.10 | 11104 | 6.48 |
| March | 709639 | 13.49 | 2696628 | 9.10 | 10981 | 6.25 |
| April | 582066 | 8.60 | 2211915 | 5.78 | 8929 | 4.96 |
| May | 411739 | 5.33 | 1564608 | 3.55 | 6295 | 3.40 |
| June | 402102 | 5.20 | 1527919 | 3.48 | 6147 | 3.27 |

# Comparison of Total, Commercial, Charitable Institution and Irrigation, General Power, Large Power, 33 KV, Street Light Consumer

Table 4.7: Compare Total Commercial, Charitable, Irrigation, General power, large power, (2016-2017)

| Month(16-17) | Total | | | Domestic compare with Total | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Unit | Revenue | Consumer | Unit | % of total Unit | Revenue | % of total Revenue | Consumer | % of total Consumer |
| July | 7458105 | 41765274 | 52923 | 6102642 | 81.83 | 29041586 | 69.54 | 47079 | 33.13 |
| August | 7515091 | 42391367 | 53510 | 6038786 | 80.36 | 28655532 | 67.60 | 47653 | 32.76 |
| September | 8292450 | 46848401 | 53908 | 6740186 | 81.28 | 32392092 | 69.14 | 47995 | 32.16 |
| October | 7715773 | 43642957 | 54447 | 6199622 | 80.35 | 29533890 | 67.67 | 48489 | 31.11 |
| November | 6509495 | 37059256 | 54966 | 5153127 | 79.16 | 24216891 | 65.35 | 48903 | 30.84 |
| December | 4698866 | 27967408 | 55340 | 3388375 | 72.11 | 15681034 | 56.07 | 49214 | 30.31 |
| January | 5379439 | 30659126 | 56354 | 3512704 | 65.30 | 16300367 | 53.17 | 49601 | 29.62 |
| February | 5994127 | 33601252 | 56836 | 3701546 | 61.75 | 17201337 | 51.19 | 49924 | 29.15 |
| March | 5260748 | 29635440 | 57171 | 3496142 | 66.46 | 16178893 | 54.59 | 50221 | 28.59 |
| April | 6764433 | 38288193 | 57547 | 4685777 | 69.27 | 22301985 | 58.25 | 50587 | 28.07 |
| May | 7729756 | 44028540 | 57870 | 6082268 | 78.69 | 28878606 | 65.59 | 50934 | 27.48 |
| June | 7738749 | 43907092 | 57916 | 6207455 | 80.21 | 29441718 | 67.05 | 51082 | 27.17 |

| Month(16-17) | Total | | | Commercial compare with Total | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Unit | Revenue | Consumer | Unit | % of total Unit | Revenue | % of total Revenue | Consumer | % of total Consumer |
| July | 7458105 | 41765274 | 52923 | 1079676 | 14.48 | 10839341 | 25.95 | 4480 | 3.15 |
| August | 7515091 | 42391367 | 53510 | 1127328 | 15.00 | 11307124 | 26.67 | 4540 | 3.12 |
| September | 8292450 | 46848401 | 53908 | 1207134 | 14.56 | 12083469 | 25.79 | 4606 | 3.09 |
| October | 7715773 | 43642957 | 54447 | 1163025 | 15.07 | 11639151 | 26.67 | 4644 | 2.98 |
| November | 6509495 | 37059256 | 54966 | 1091515 | 16.77 | 10970706 | 29.60 | 4740 | 2.99 |
| December | 4698866 | 27967408 | 55340 | 960109 | 20.43 | 9707388 | 34.71 | 4797 | 2.95 |
| January | 5379439 | 30659126 | 56354 | 976945 | 18.16 | 9879481 | 32.22 | 4839 | 2.89 |
| February | 5994127 | 33601252 | 56836 | 1032158 | 17.22 | 10438069 | 31.06 | 4900 | 2.86 |
| March | 5260748 | 29635440 | 57171 | 918101 | 17.45 | 9310025 | 31.42 | 4928 | 2.81 |
| April | 6764433 | 38288193 | 57547 | 1095782 | 16.20 | 11066062 | 28.9 | 4933 | 2.74 |
| May | 7729756 | 44028540 | 57870 | 1224681 | 15.84 | 12292061 | 27.92 | 4942 | 2.67 |
| June | 7738749 | 43907092 | 57916 | 1222106 | 15.79 | 12267761 | 27.94 | 4932 | 2.62 |

| Month(16-17) | Charitable Institution compare with Total | | | | | | Irrigation compare with Total | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Unit | % of total Unit | Revenue | % of total Revenue | Consumer | % of total Consumer | Unit | % of total Unit | Revenue | % of total Revenue | Consumer | % of total Consumer |
| July | 123036 | 1.65 | 675610 | 1.62 | 689 | 0.48 | 28601 | 0.38 | 141058 | 0.34 | 443 | 0.31 |
| August | 135686 | 1.81 | 739897 | 1.75 | 691 | 0.48 | 20355 | 0.27 | 93062 | 0.22 | 392 | 0.27 |
| September | 132350 | 1.60 | 722303 | 1.54 | 692 | 0.46 | 24348 | 0.29 | 105628 | 0.23 | 379 | 0.25 |
| October | 128132 | 1.66 | 700284 | 1.60 | 700 | 0.45 | 17428 | 0.23 | 79152 | 0.18 | 376 | 0.24 |
| November | 99491 | 1.53 | 551903 | 1.49 | 702 | 0.44 | 17296 | 0.27 | 81808 | 0.22 | 383 | 0.24 |
| December | 60971 | 1.30 | 356872 | 1.28 | 709 | 0.44 | 27021 | 0.58 | 116058 | 0.41 | 376 | 0.23 |
| January | 62548 | 1.16 | 365876 | 1.19 | 715 | 0.43 | 622589 | 11.57 | 2432651 | 7.93 | 955 | 0.57 |
| February | 70650 | 1.18 | 408235 | 1.21 | 718 | 0.42 | 972207 | 16.22 | 3778232 | 11.24 | 1040 | 0.61 |
| March | 72129 | 1.37 | 415252 | 1.40 | 722 | 0.41 | 617174 | 11.73 | 2408309 | 8.13 | 1042 | 0.59 |
| April | 104998 | 1.55 | 583722 | 1.52 | 724 | 0.40 | 667913 | 9.87 | 2631563 | 6.87 | 1042 | 0.58 |
| May | 126439 | 1.64 | 694147 | 1.58 | 730 | 0.39 | 79586 | 1.03 | 383101 | 0.87 | 1002 | 0.54 |
| June | 124635 | 1.61 | 685629 | 1.56 | 733 | 0.39 | 13522 | 0.17 | 99577 | 0.23 | 659 | 0.35 |

| Month(16-17) | General Power compare with Total | | | | | | Large Power compare with Total | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Unit | % of total Unit | Revenue | % of total Revenue | Consumer | % of total Consumer | Unit | % of total Unit | Revenue | % of total Revenue | Consumer | % of total Consumer |
| July | 102644 | 1.38 | 856611 | 2.05 | 228 | 0.16 | 21506 | 0.29 | 211068 | 0.51 | 4 | 0.00 |
| August | 135086 | 1.80 | 1104518 | 2.61 | 230 | 0.16 | 135086 | 1.80 | 1104518 | 2.61 | 4 | 0.00 |
| September | 118158 | 1.42 | 974790 | 2.08 | 233 | 0.16 | 70274 | 0.85 | 570119 | 1.22 | 3 | 0.00 |
| October | 115099 | 1.49 | 952361 | 2.18 | 235 | 0.15 | 92467 | 1.20 | 738120 | 1.69 | 3 | 0.00 |
| November | 101782 | 1.56 | 849434 | 2.29 | 235 | 0.15 | 46284 | 0.71 | 388515 | 1.05 | 3 | 0.00 |
| December | 113316 | 2.41 | 939420 | 3.36 | 241 | 0.15 | 149074 | 3.17 | 1166636 | 4.17 | 3 | 0.00 |
| January | 109838 | 2.04 | 924856 | 3.02 | 241 | 0.14 | 94815 | 1.76 | 755895 | 2.47 | 3 | 0.00 |
| February | 112162 | 1.87 | 939326 | 2.80 | 251 | 0.15 | 105404 | 1.76 | 836053 | 2.49 | 3 | 0.00 |
| March | 96184 | 1.83 | 822910 | 2.78 | 255 | 0.15 | 61018 | 1.16 | 500051 | 1.69 | 3 | 0.00 |
| April | 134004 | 1.98 | 1104706 | 2.89 | 259 | 0.14 | 75959 | 1.12 | 600155 | 1.57 | 2 | 0.00 |
| May | 144324 | 1.87 | 1193703 | 2.71 | 259 | 0.14 | 72458 | 0.94 | 586922 | 1.33 | 3 | 0.00 |
| June | 110257 | 1.42 | 927203 | 2.11 | 508 | 0.27 | 60774 | 0.79 | 485204 | 1.11 | 2 | 0.00 |

| Month(16-17) | Total | | | Street Lights compare with Total | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Unit | Revenue | Consumer | Unit | % of total Unit | Revenue | % of total Revenue | Consumer | % of total Consumer |
| July | 7458105 | 41765274 | 52923 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| August | 7515091 | 42391367 | 53510 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| September | 8292450 | 46848401 | 53908 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| October | 7715773 | 43642957 | 54447 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| November | 6509495 | 37059256 | 54966 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| December | 4698866 | 27967408 | 55340 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| January | 5379439 | 30659126 | 56354 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| February | 5994127 | 33601252 | 56836 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| March | 5260748 | 29635440 | 57171 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| April | 6764433 | 38288193 | 57547 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| May | 7729756 | 44028540 | 57870 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| June | 7738749 | 43907092 | 57916 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |

# Comparison of Total, Domestic, Lifeline and Minimum Consumer

Table 4.8: Compare Domestic with Total Domestic, Lifeline, Minimum (2017-2018)

| | Total | | | Domestic compare with Total | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Month(17-18) | Unit | Revenue | Consumer | Unit | % of total Unit | Revenue | % of total Revenue | Consumer | % of total Consumer |
| July | 7771099 | 43557166 | 58474 | 6384861 | 82.16 | 30511781 | 70.05 | 51963 | 36.57 |
| August | 7855302 | 44087774 | 58928 | 6374981 | 81.16 | 30211460 | 68.53 | 52492 | 36.09 |
| September | 9054625 | 51167339 | 59560 | 7406019 | 81.79 | 35628731 | 69.63 | 53043 | 35.54 |
| October | 8032058 | 45008764 | 60071 | 6549118 | 81.54 | 31000871 | 68.88 | 53513 | 34.33 |
| November | 6495775 | 37272889 | 60572 | 5044124 | 77.65 | 23536792 | 63.15 | 53966 | 34.03 |
| December | 5616332 | 34566355 | 61137 | 4218156 | 75.11 | 20492742 | 59.29 | 54449 | 33.54 |
| January | 5378202 | 32457682 | 62016 | 3604911 | 67.03 | 17372491 | 53.52 | 54688 | 32.65 |
| February | 5821987 | 34218330 | 62520 | 3735358 | 64.16 | 18105104 | 52.91 | 55019 | 32.13 |
| March | 6832495 | 39325879 | 62771 | 4521110 | 66.17 | 21950881 | 55.82 | 55242 | 31.45 |
| April | 6917909 | 40401821 | 63144 | 4962747 | 71.74 | 24273027 | 60.08 | 55576 | 30.84 |
| May | 6724070 | 39712042 | 63456 | 5253311 | 78.13 | 25634283 | 64.55 | 55995 | 30.21 |
| June | 7802012 | 45834830 | 63335 | 6345718 | 81.33 | 31489815 | 68.7 | 56253 | 29.92 |

| Month(17-18) | Domestic compare with Total | | | | | | Lifeline compare with Domestic | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Unit | % of total Unit | Revenue | % of total Revenue | Consumer | % of total Consumer | Unit | % of total Unit | Revenue | % of total Revenue | Consumer | % of total Consumer |
| July | 6384861 | 82.16 | 30511781 | 70.05 | 51963 | 36.57 | 267192 | 3.44 | 1050566 | 2.41 | 11126 | 7.83 |
| August | 6374981 | 81.16 | 30211460 | 68.53 | 52492 | 36.09 | 264264 | 3.36 | 1030861 | 2.34 | 10179 | 7.00 |
| September | 7406019 | 81.79 | 35628731 | 69.63 | 53043 | 35.54 | 218640 | 2.41 | 850377 | 1.66 | 8366 | 5.61 |
| October | 6549118 | 81.54 | 31000871 | 68.88 | 53513 | 34.33 | 260229 | 3.24 | 1013479 | 2.25 | 9814 | 6.30 |
| November | 5044124 | 77.65 | 23536792 | 63.15 | 53966 | 34.03 | 408116 | 6.28 | 1629235 | 4.37 | 16188 | 10.21 |
| December | 4218156 | 75.11 | 20492742 | 59.29 | 54449 | 33.54 | 567811 | 10.11 | 2089707 | 6.05 | 20965 | 12.91 |
| January | 3604911 | 67.03 | 17372491 | 53.52 | 54688 | 32.65 | 735135 | 13.67 | 2705256 | 8.33 | 26399 | 15.76 |
| February | 3735358 | 64.16 | 18105104 | 52.91 | 55019 | 32.13 | 703788 | 12.09 | 2590439 | 7.57 | 25553 | 14.92 |
| March | 4521110 | 66.17 | 21950881 | 55.82 | 55242 | 31.45 | 530365 | 7.76 | 1951907 | 4.96 | 19676 | 11.20 |
| April | 4962747 | 71.74 | 24273027 | 60.08 | 55576 | 30.84 | 485336 | 7.02 | 1785991 | 4.42 | 18273 | 10.14 |
| May | 5253311 | 78.13 | 25634283 | 64.55 | 55995 | 30.21 | 446852 | 6.65 | 1642806 | 4.14 | 16697 | 9.01 |
| June | 6345718 | 81.33 | 31489815 | 68.7 | 56253 | 29.92 | 346056 | 4.44 | 1273702 | 2.78 | 12538 | 6.67 |

| | Slab 1-75 compare with domestic | | | | | |
|---|---|---|---|---|---|---|
| Month(17-18) | Unit | % of total Unit | Revenue | % of total Revenue | Consumer | % of total Consumer |
| July | 414245 | 5.33 | 1573896 | 3.61 | 6344 | 4.46 |
| August | 433245 | 5.52 | 1646331 | 3.73 | 6617 | 4.55 |
| September | 355160 | 3.92 | 1349633 | 2.64 | 5441 | 3.65 |
| October | 444490 | 5.53 | 1688984 | 3.75 | 6787 | 4.35 |
| November | 629070 | 9.68 | 2390438 | 6.41 | 9627 | 6.07 |
| December | 763145 | 13.59 | 3052580 | 8.83 | 11788 | 7.26 |
| January | 770445 | 14.33 | 3081789 | 9.49 | 12013 | 7.17 |
| February | 791228 | 13.59 | 3164921 | 9.25 | 12307 | 7.19 |
| March | 720967 | 10.55 | 2884047 | 7.33 | 11121 | 6.33 |
| April | 635988 | 9.19 | 2543826 | 6.30 | 9768 | 5.42 |
| May | 609503 | 9.06 | 2438338 | 6.14 | 9344 | 5.04 |
| June | 488016 | 6.26 | 1952064 | 4.26 | 7465 | 3.97 |

# Comparison of Total, Commercial, Charitable Institution and Irrigation, General Power, Large Power, 33 KV, Street Light Consumer

Table 4.9: Compare Total Commercial, Charitable, Irrigation, General power, large power

| Month(17-18) | Total | | | Commercial compare with Total | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Unit | Revenue | Consumer | Unit | % of total Unit | Revenue | % of total Revenue | Consumer | % of total Consumer |
| July | 7771099 | 43557166 | 58474 | 1094274 | 14.08 | 11072557 | 25.42 | 4996 | 3.52 |
| August | 7855302 | 44087774 | 58928 | 1140532 | 14.52 | 11482552 | 26.04 | 5008 | 3.44 |
| September | 9054625 | 51167339 | 59560 | 1322070 | 14.60 | 13257021 | 25.91 | 5103 | 3.42 |
| October | 8032058 | 45008764 | 60071 | 1175164 | 14.63 | 11884610 | 26.41 | 5148 | 3.30 |
| November | 6495775 | 37272889 | 60572 | 1147961 | 17.67 | 11566693 | 31.03 | 5187 | 3.27 |
| December | 5616332 | 34566355 | 61137 | 1138379 | 20.27 | 12068975 | 34.92 | 5260 | 3.24 |
| January | 5378202 | 32457682 | 62016 | 1054478 | 19.61 | 11170787 | 34.42 | 5305 | 3.17 |
| February | 5821987 | 34218330 | 62520 | 1007498 | 17.31 | 10683243 | 31.22 | 5379 | 3.14 |
| March | 6832495 | 39325879 | 62771 | 1055127 | 15.44 | 11083108 | 28.18 | 5397 | 3.07 |
| April | 6917909 | 40401821 | 63144 | 1094293 | 15.82 | 11563033 | 28.62 | 5431 | 3.01 |
| May | 6724070 | 39712042 | 63456 | 1079162 | 16.05 | 11423944 | 28.77 | 5451 | 2.94 |
| June | 7802012 | 45834830 | 63335 | 1138310 | 14.59 | 12028515 | 26.24 | 5433 | 2.89 |

\

| Month(17-18) | Charitable Institution compare with Total | | | | | | Irrigation compare with Total | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Unit | % of total Unit | Revenue | % of total Revenue | Consumer | % of total Consumer | Unit | % of total Unit | Revenue | % of total Revenue | Consumer | % of total Consumer |
| July | 128409 | 1.65 | 712360 | 1.64 | 739 | 0.52 | 27566 | 0.35 | 147798 | 0.34 | 518 | 0.36 |
| August | 137440 | 1.75 | 754480 | 1.71 | 751 | 0.52 | 9892 | 0.13 | 53811 | 0.12 | 417 | 0.29 |
| September | 138435 | 1.53 | 758838 | 1.48 | 759 | 0.51 | 12919 | 0.14 | 66644 | 0.13 | 398 | 0.27 |
| October | 133405 | 1.66 | 732969 | 1.63 | 763 | 0.49 | 19139 | 0.24 | 88999 | 0.20 | 391 | 0.25 |
| November | 97144 | 1.50 | 544934 | 1.46 | 766 | 0.48 | 21654 | 0.33 | 96699 | 0.26 | 390 | 0.25 |
| December | 74166 | 1.32 | 455493 | 1.32 | 771 | 0.47 | 16993 | 0.30 | 74122 | 0.21 | 390 | 0.24 |
| January | 85597 | 1.59 | 527990 | 1.63 | 792 | 0.47 | 471834 | 8.77 | 1985991 | 6.12 | 967 | 0.58 |
| February | 82129 | 1.41 | 507811 | 1.48 | 796 | 0.46 | 815255 | 14.00 | 3359791 | 9.82 | 1070 | 0.62 |
| March | 132187 | 1.93 | 797642 | 2.03 | 798 | 0.45 | 925528 | 13.55 | 3793916 | 9.65 | 1078 | 0.61 |
| April | 142688 | 2.06 | 858540 | 2.13 | 800 | 0.44 | 557282 | 8.06 | 2310708 | 5.72 | 1081 | 0.60 |
| May | 134538 | 2.00 | 809745 | 2.04 | 807 | 0.44 | 92182 | 1.37 | 448846 | 1.13 | 948 | 0.51 |
| June | 169685 | 2.17 | 1015374 | 2.22 | 809 | 0.43 | 9402 | 0.12 | 78423 | 0.17 | 587 | 0.31 |

| Month(17-18) | General Power compare with Total | | | | | | Large Power compare with Total | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Unit | % of total Unit | Revenue | % of total Revenue | Consumer | % of total Consumer | Unit | % of total Unit | Revenue | % of total Revenue | Consumer | % of total Consumer |
| July | 127181 | 1.64 | 1020849 | 2.34 | 256 | 0.18 | 8808 | 0.11 | 91821 | 0.21 | 2 | 0.00 |
| August | 140697 | 1.79 | 1163693 | 2.64 | 257 | 0.18 | 51760 | 0.66 | 421778 | 0.96 | 3 | 0.00 |
| September | 125324 | 1.38 | 1048724 | 2.05 | 254 | 0.17 | 49858 | 0.55 | 407381 | 0.80 | 3 | 0.00 |
| October | 116457 | 1.45 | 976109 | 2.17 | 253 | 0.16 | 38775 | 0.48 | 325206 | 0.72 | 3 | 0.00 |
| November | 136398 | 2.10 | 1130042 | 3.03 | 260 | 0.16 | 48494 | 0.75 | 397729 | 1.07 | 3 | 0.00 |
| December | 121833 | 2.17 | 1061012 | 3.07 | 264 | 0.16 | 46805 | 0.83 | 414011 | 1.20 | 3 | 0.00 |
| January | 105974 | 1.97 | 911498 | 2.81 | 260 | 0.16 | 55408 | 1.03 | 488925 | 1.51 | 4 | 0.00 |
| February | 102466 | 1.76 | 878640 | 2.57 | 252 | 0.15 | 79281 | 1.36 | 683741 | 2.00 | 4 | 0.00 |
| March | 124486 | 1.82 | 1059118 | 2.69 | 252 | 0.14 | 74057 | 1.08 | 641214 | 1.63 | 4 | 0.00 |
| April | 98230 | 1.42 | 851960 | 2.11 | 253 | 0.14 | 62669.15 | 0.91 | 544553 | 1.35 | 3 | 0.00 |
| May | 122035 | 1.81 | 1049827 | 2.64 | 253 | 0.14 | 42842 | 0.64 | 345397 | 0.87 | 2 | 0.00 |
| June | 115473 | 1.48 | 842058 | 1.84 | 250 | 0.13 | 23424 | 0.30 | 380645 | 0.83 | 3 | 0.00 |

| Month(17-18) | Total | | | Street Lights compare with Total | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Unit | Revenue | Consumer | Unit | % of total Unit | Revenue | % of total Revenue | Consumer | % of total Consumer |
| July | 7771099 | 43557166 | 58474 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| August | 7855302 | 44087774 | 58928 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| September | 9054625 | 51167339 | 59560 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| October | 8032058 | 45008764 | 60071 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| November | 6495775 | 37272889 | 60572 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| December | 5616332 | 34566355 | 61137 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| January | 5378202 | 32457682 | 62016 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| February | 5821987 | 34218330 | 62520 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| March | 6832495 | 39325879 | 62771 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| April | 6917909 | 40401821 | 63144 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| May | 6724070 | 39712042 | 63456 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| June | 7802012 | 45834830 | 63335 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |

## 4.8 Graphical Representation

If we look In Fig 5.6, monthly energy cost of the slabs without Domestic are described. Nothing is unusual in there. Irrigation slab consume more energy February to April than the other months. Expenses of Charitable Institutions and General Power are regular. Cost of Commercial and Large Power are raised. DPBS-2 has no 33KV consumer so that it shown in the Figure.

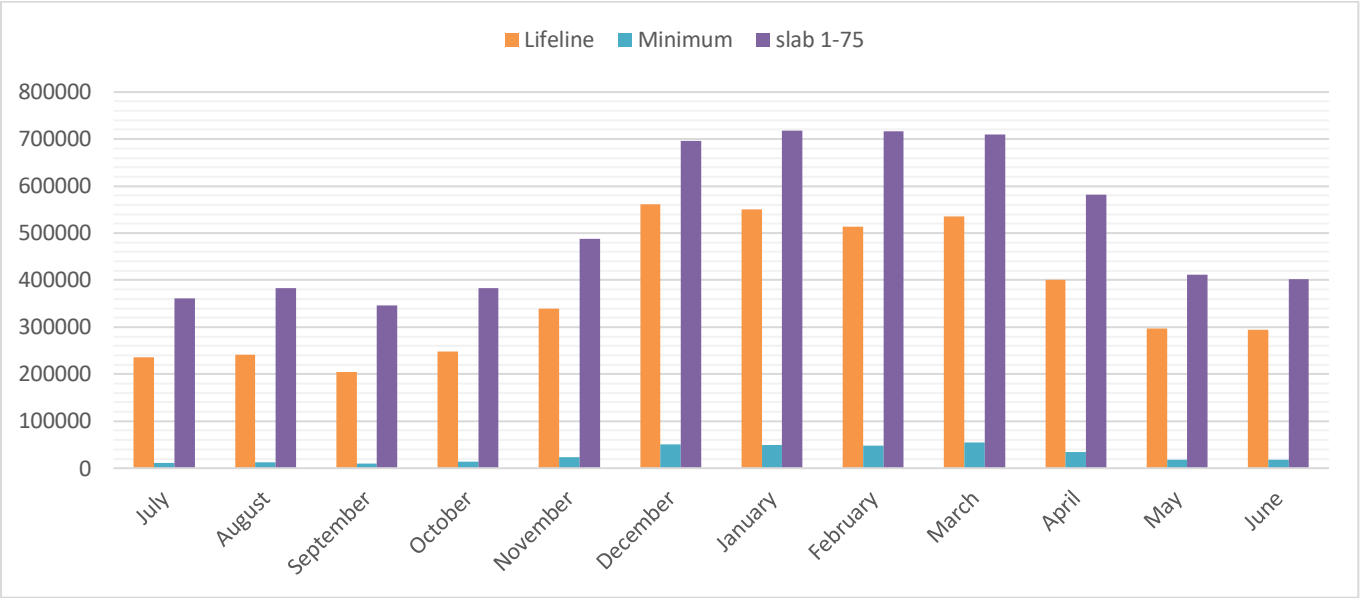



Fig 4.5 Monthly unit expenses of Lifeline, Minimum, slabs 1-75 DPBS-2 (2016-2017)

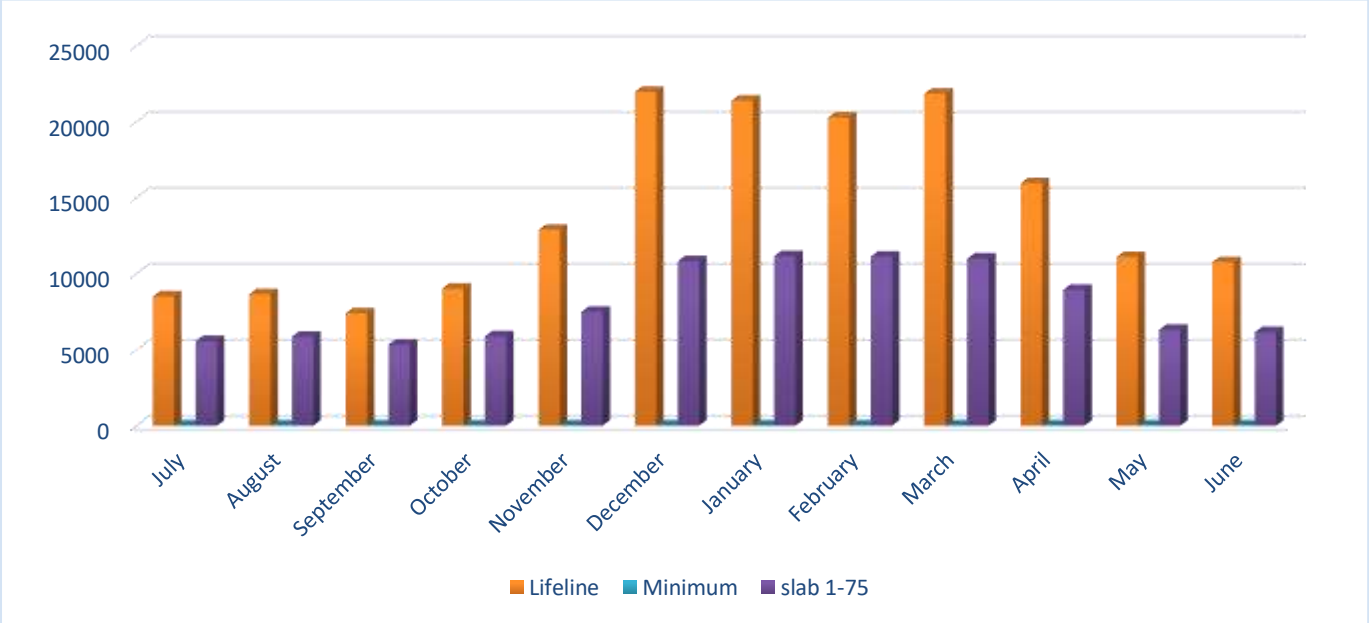



Fig 4.6 Month wise consumers expenses of Lifeline, Minimum, slabs 1-75 DPBS-2 (2016-2017)

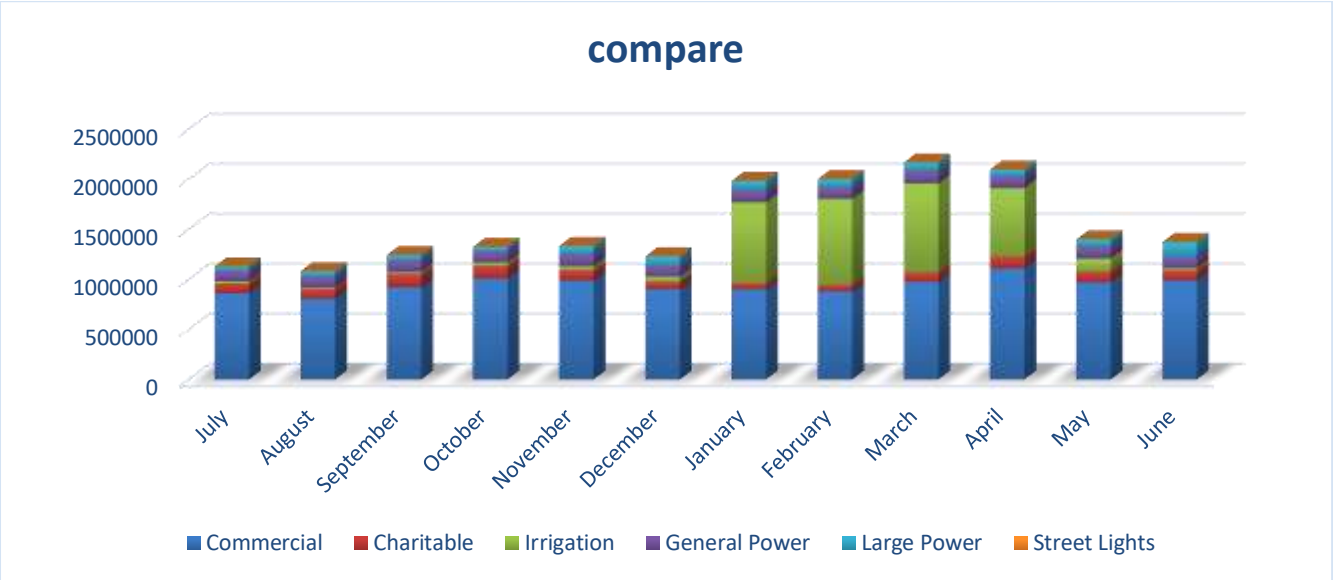



Fig: 4.7 Monthly unit expenses of Commercial, Charitable, Irrigation, and Large power DPBS-2 (2016-17)

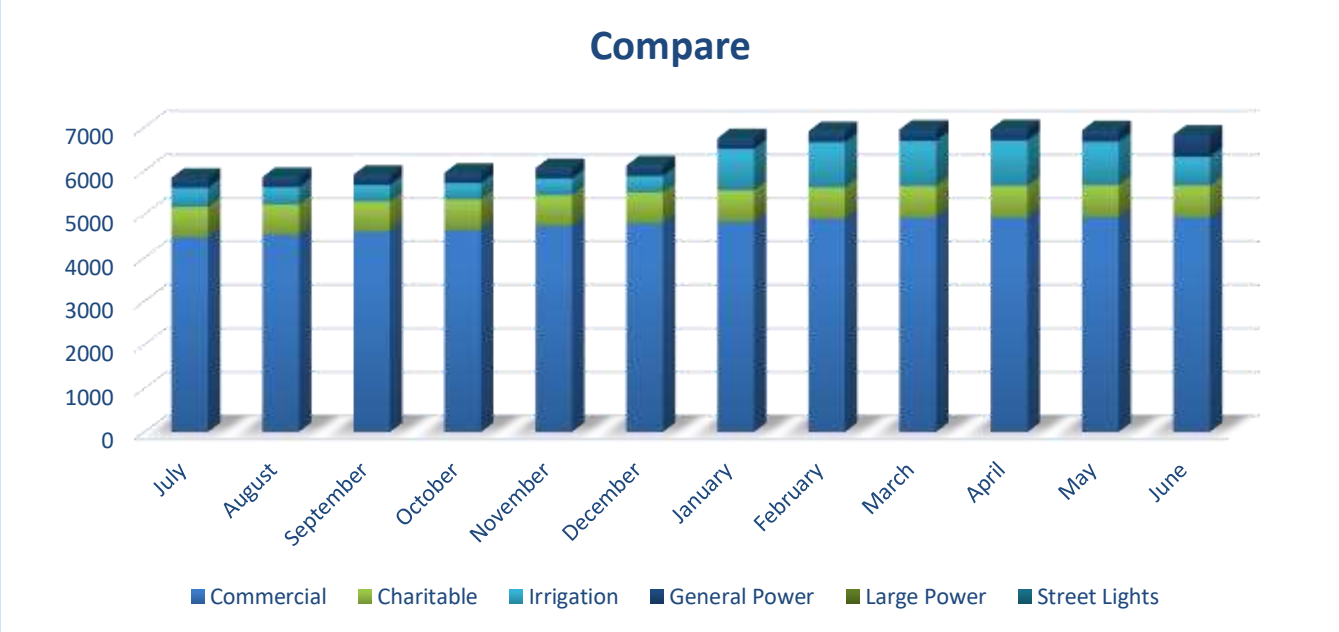



Fig: 4.8 Month wise consumers' expenses of Commercial, Charitable, Irrigation, and Large power DPBS-2 (2016-17)

## Graphical Representation

If again we look In Fig 5.7 monthly energy cost of the slabs except Domestic are described. Nothing is unusual in there. Irrigation slab devour more energy February to April than the other months. Cost of Charitable Institutions and General Power are regular. Expenses of Commercial and Large Power are increased. DPBS-2 has no 33KV consumer so that it shown in the Figure.

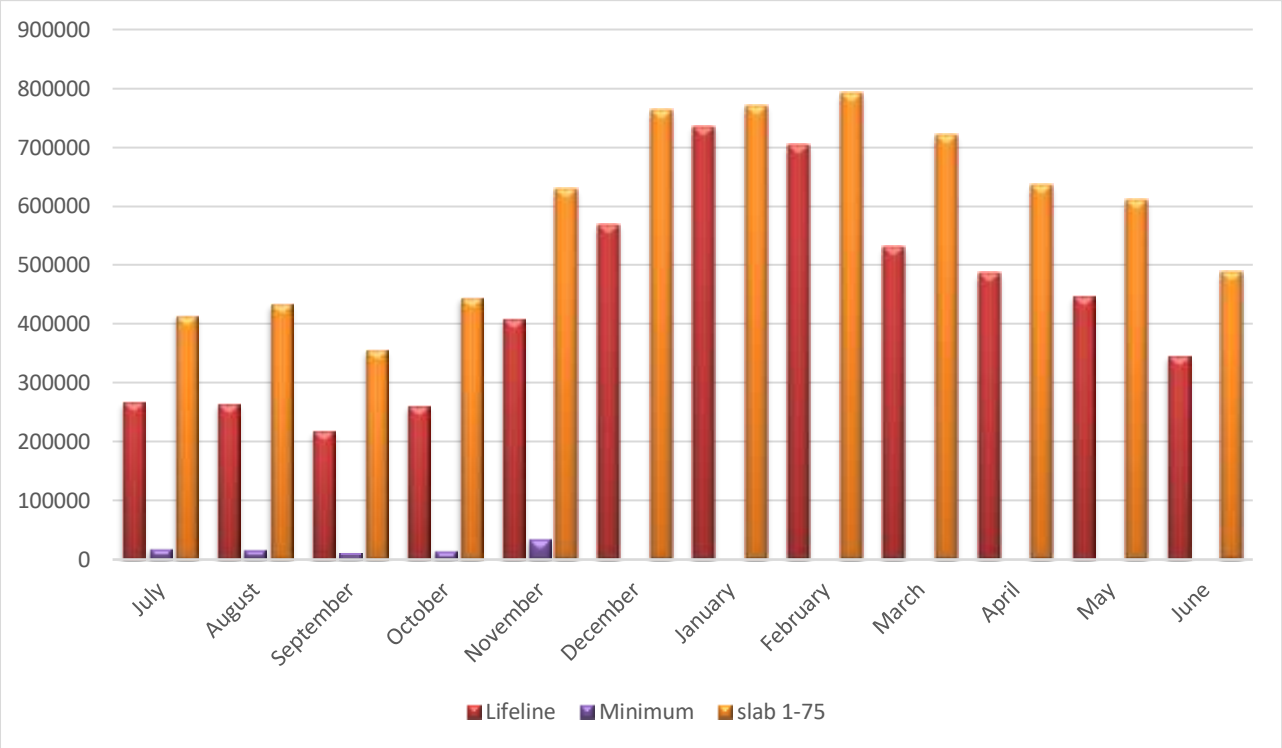



Fig 4.9 Monthly unit expenses of Lifeline, Minimum, slabs 1-75 DPBS-2 (2017-2018)

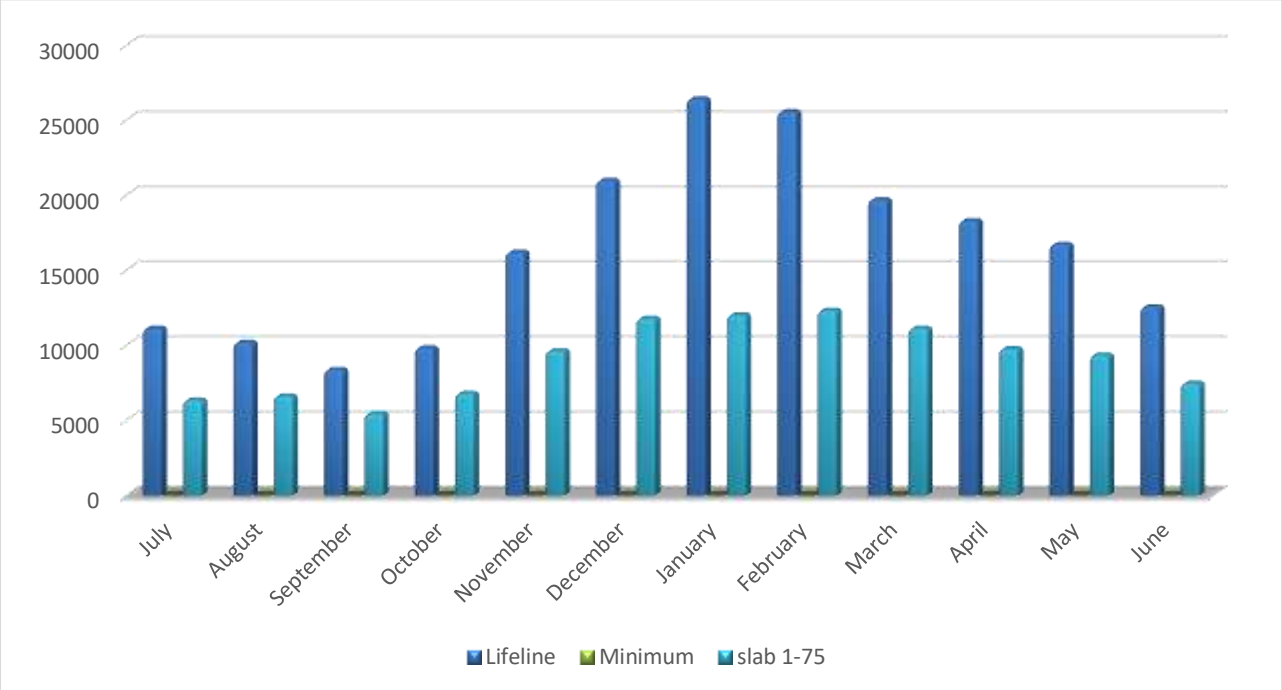



Fig 4.9.1 Monthly wise consumers' expenses of Lifeline, Minimum, slabs 1-75 DPBS-2 (2017-2018)

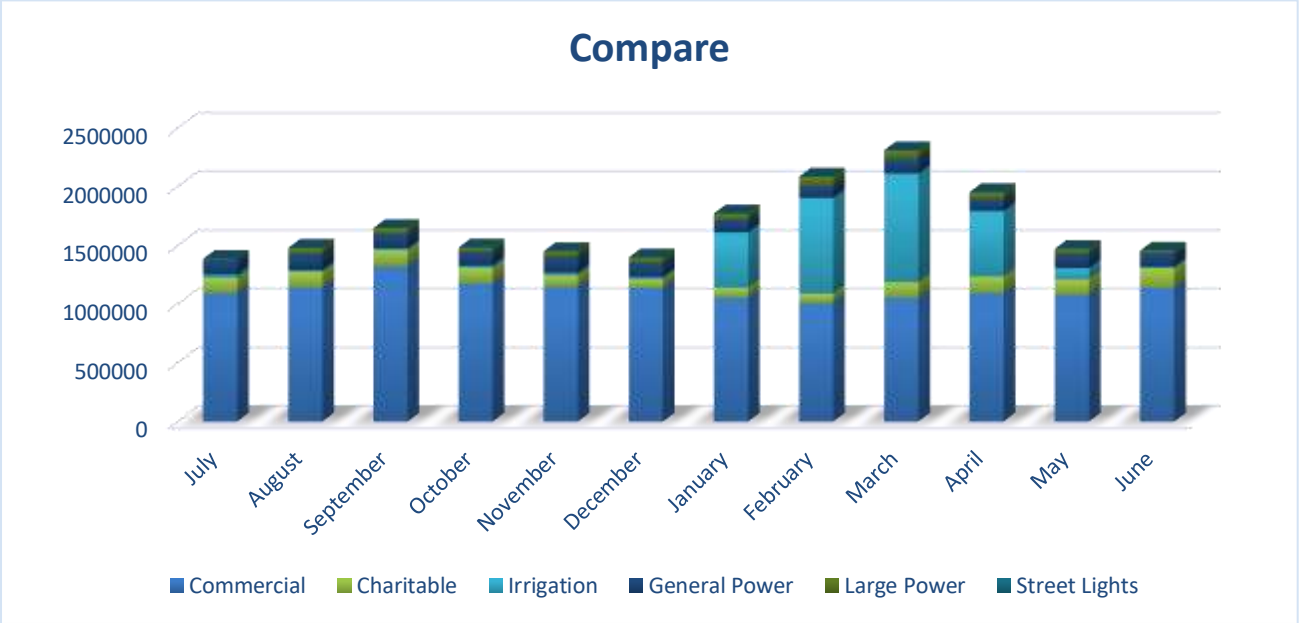



Fig 4.9.2 Monthly unit expenses of Commercial, Charitable, Irrigation, and Large power DPBS-2 (2017-2018)

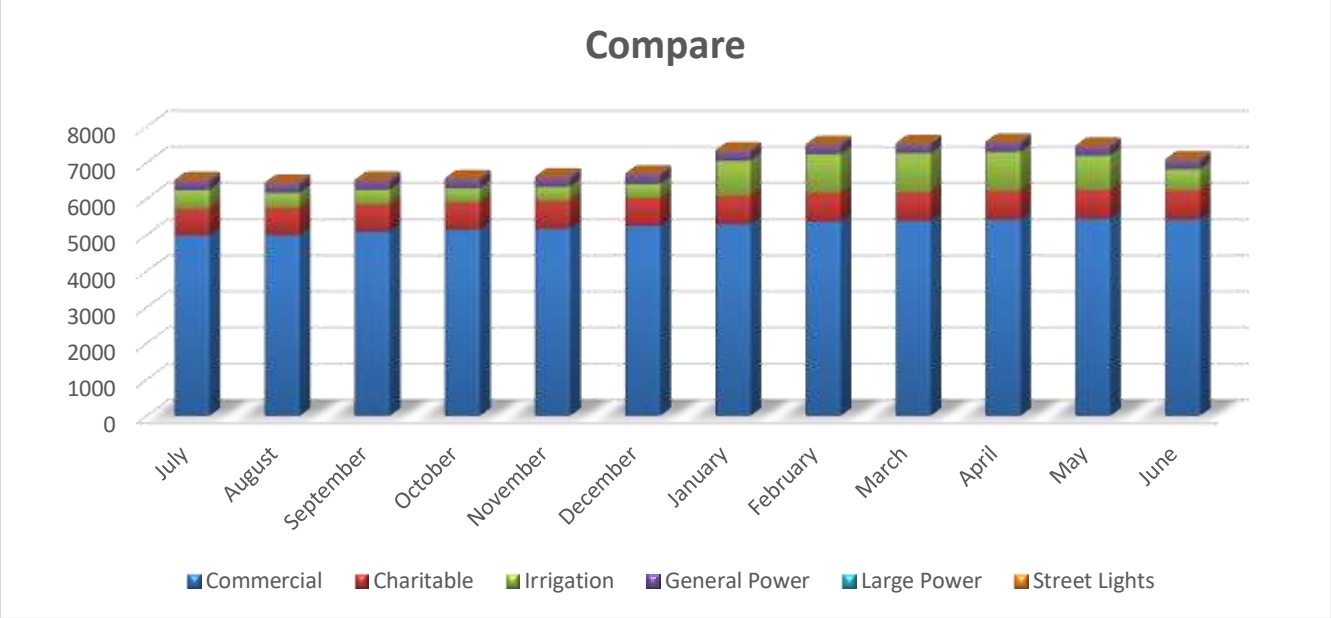



Fig 4.9.3 Month wise consumer expenses of Commercial, Charitable, Irrigation, and Large power DPBS-2 (2017-2018)

## 4.9 Summary

If we look revenue data of DPBS-2. It is not enough to meet the profit. Wrongly included data in Domestic slabs are increasing in the financial loss. The demand of all Domestic slabs is same. If demands vary in higher swallowing slabs then revenue would have been increased a small and demand charge would be more effective for PBSs. Overall energy cost, consumer and revenue are increasing

# CHAPTER 5

# ELECTRICITY COST AND RATE

## 5.0 Introduction

Supply of electricity is the major input for socio-economic development of a country. As a measurement of persevering Government efforts many high-quality initiatives are being implemented in power sector. Although customer service improved significantly over the last few years still further improvement is required to fulfil customer expectations, especially about minimum load shedding, quick service reinstatement, easy bill payment, complaint beaver and arrangement and other service facilitation.

## 5.1 Electricity Expenses

Expenses is a significant term in any business, where profit or loss is a perturbation. Supplying electricity is a business also. The expenses of electricity is how much one spent or pays to generate, distribute or consume electricity. Electricity is the major power source in all over the world. That's why the cost of electricity is important to improve economic and social benefits.

## 5.2 Electricity Purchase Expenses

Electricity purchase expenses is buying expenses of electricity and consist with bulk price and wheeling charge. Bulk price is paid to the Generation Company and wheeling charge is paid to the Transmission Company by the Distribution Company. As a distribution w fin, DPBS-2-1 pays BPDB or their IPPs bulk price to buying electric energy and wheeling charge to PGCB for wheeling.

### 5.2.1 Bulk rate

BPDB sales their generating electricity to distribution companies with the bulk rate. BERC fixed this rate as per the circumstances. Distribution companies also buy electricity from some private generation companies. But the rate is much lower than bulk rate.

### 5.2.2 Wheeling Charge

The distribution companies wheeling charge paid by PGCB. The company has taken infrastructure development projects for the more development of its operation. In order to finance new investment, confirm proper maintenance of its existing assets, PGCB requires being paid at better rates than what it is now getting from the distribution companies. At the bulk supply level, it is evident that the expenses of buy from hire power plants is the major contributor to losses. The exact quantification of losses will require a more detailed study of supply and losses at different voltage level and to the

different bulk purchasers. A more immediate need is to address the generation plan in the short term so that lower expenses of power is obtainable in the grid. In the medium to long term, given the role of private and public sector in the generation, to extend competitiveness, it is recommended that a concerted effort to establish a competitive dispatch regime for electricity generation through a cooperative pool. At the retail level, cross – subsidies ascend between the different categories of customers

## 5.3 Distribution Cost

The Expense for distributing the electric energy to consumers is said to be distribution cost. Operation and maintenance cost, Consumer selling expenses, Administration and general expenses, Depreciation and amortization expenses, Tax expenses and interest expenses are included in distribution cost.

**Distribution cost = Operation & maintenance + Consumer selling expenses + Administration & general Expenses + Depreciation & amortization + Tax Expenses + Interest Expenses**

### 5.3.1 Operation & maintenance expenses (OME)

All types of expenses for operational and maintenance is included as OME. Operation supervision and Engineering, substation expenses, overhead line expenses, meter expenses, consumer installation expenses are in operation and maintenance expense.

### 5.3.2 Consumer selling expenses (CSE)

Consumer selling expenses are consumer related expenses. Field supervision, meter reading expenses, consumer records/collection expenses, consumer assist/demonstration/selling expenses and sales to freedom fighter are including in CSE

Table 5.1: Distribution and Total Supply Cost (2015-2016)

| Month (15-16) | EC | Distribution Cost | | | | | | Total Distribution cost | Total Supply Cost | SL (10^7Tk) |
|---|---|---|---|---|---|---|---|---|---|---|
| | | OME | CSE | AGE | DAE | TE | IE | | | |
| July | 274.719 | 2.159 | 9.841 | 0.595 | 1.351 | 0.136 | 0.600 | 14.681 | 289.400 | 0.777 |
| August | 294.364 | 1.501 | 8.000 | 0.561 | 1.364 | 0.179 | 0.600 | 12.205 | 306.570 | 1.186 |
| September | 312.433 | 1.682 | 1.004 | 0.738 | 1.375 | 0.248 | 0.600 | 5.647 | 318.080 | 0.581 |
| October | 305.882 | 9.316 | 0.957 | 0.703 | 1.485 | 0.161 | 0.600 | 13.222 | 319.104 | 0.288 |
| November | 242.364 | 1.200 | 0.931 | 0.650 | 1.468 | 0.172 | 0.600 | 5.020 | 247.385 | 0.003 |
| December | 212.961 | 1.206 | 1.014 | 0.609 | 1.473 | 0.302 | 0.600 | 5.204 | 218.165 | 0.089 |
| January | 212.236 | 1.850 | 2.187 | 1.166 | 1.481 | 0.129 | 0.600 | 7.414 | 219.650 | 0.088 |
| February | 224.219 | 1.174 | 0.956 | 0.573 | 1.509 | 1.117 | 0.690 | 6.019 | 230.238 | 0.208 |
| March | 305.067 | 1.131 | 0.990 | 0.846 | 2.087 | 0.232 | 0.600 | 5.886 | 310.953 | 0.529 |
| April | 327.923 | 1.334 | 0.809 | 0.725 | 2.284 | 1.476 | 0.600 | 7.227 | 335.150 | 0.440 |
| May | 322.929 | 1.026 | 0.937 | 0.901 | 2.305 | 0.180 | 0.600 | 5.949 | 328.878 | 0.173 |
| June | 291.965 | 3.159 | 2.040 | 7.791 | 2.347 | 0.212 | 1.123 | 16.672 | 308.637 | 0.597 |
| **Grand total** | **3327.063** | **26.738** | **29.666** | **15.858** | **20.528** | **4.542** | **7.813** | **105.146** | **3432.209** | **4.958** |

Table 5.1: Distribution and Total Supply Cost (2016-2017)

| Month (16-17) | EC | Distribution Cost | | | | | | Total Distribution cost | Total Supply Cost | SL (10^7Tk) |
|---|---|---|---|---|---|---|---|---|---|---|
| | | OME | CSE | AGE | DAE | TE | IE | | | |
| July | 326.957 | 1.445 | 1.293 | 0.804 | 2.491 | 0.140 | 0.700 | 6.872 | 333.829 | 0.624 |
| August | 339.481 | 1.955 | 1.908 | 1.185 | 2.568 | 0.192 | 0.700 | 8.508 | 347.989 | 0.607 |
| September | 318.084 | 1.574 | 1.339 | 1.274 | 2.626 | 0.282 | 0.700 | 7.794 | 325.878 | 0.421 |
| October | 333.357 | 1.323 | 1.178 | 0.942 | 2.736 | 0.204 | 0.700 | 7.082 | 340.439 | 0.457 |
| November | 250.712 | 1.209 | 1.121 | 1.004 | 2.712 | 0.172 | 0.700 | 6.917 | 257.630 | 0.003 |
| December | 223.307 | 1.420 | 1.297 | 1.762 | 2.758 | 0.273 | 0.700 | 8.210 | 231.516 | 0.088 |
| January | 56.962 | 0.539 | 0.424 | 0.492 | 1.271 | 0.048 | 0.032 | 2.807 | 59.769 | 0.060 |
| February | 260.774 | 1.020 | 1.424 | 1.454 | 2.523 | 0.255 | 0.700 | 7.376 | 268.150 | 3.050 |
| March | 67.358 | 1.100 | 1.010 | 0.739 | 1.197 | 0.043 | 0.320 | 4.410 | 71.767 | 0.160 |
| April | 77.063 | 1.089 | 0.469 | 0.600 | 1.198 | 0.126 | 0.320 | 3.802 | 80.866 | 0.102 |
| May | 92.438 | 0.509 | 0.635 | 0.400 | 1.231 | 0.058 | 0.320 | 3.154 | 95.592 | 0.327 |
| June | 85.309 | 0.758 | 0.105 | 3.640 | 1.236 | 0.076 | 1.452 | 7.266 | 92.576 | 0.256 |
| **Grand total** | **2431.802** | **13.942** | **12.202** | **14.295** | **24.546** | **1.869** | **7.344** | **74.198** | **2506.000** | **6.155** |

Table 5.1: Distribution and Total Supply Cost (2017-2018)

| Month (17-18) | EC | Distribution Cost | | | | | | Total Distribution cost | Total Supply Cost | SL (10^7Tk) |
|---|---|---|---|---|---|---|---|---|---|---|
| | | OME | CSE | AGE | DAE | TE | IE | | | |
| July | 98.509 | 0.511 | 0.425 | 0.656 | 1.194 | 0.064 | 0.300 | 3.150 | 101.658 | 0.359 |
| August | 219.932 | 0.727 | 0.624 | 0.610 | 1.198 | 0.148 | 0.300 | 3.606 | 223.538 | 0.227 |
| September | 137.989 | 0.591 | 0.436 | 0.470 | 1.201 | 0.063 | 0.300 | 3.060 | 141.049 | 0.071 |
| October | 139.377 | 0.532 | 0.412 | 0.512 | 1.219 | 0.090 | 0.300 | 3.065 | 142.442 | 0.025 |
| November | 101.218 | 0.703 | 0.379 | 0.399 | 1.393 | 0.069 | 0.300 | 3.243 | 104.461 | 0.001 |
| December | 79.219 | 0.578 | 0.497 | 0.436 | 1.336 | 0.032 | 0.171 | 3.051 | 82.270 | 0.045 |
| January | 74.633 | 0.767 | 0.877 | 0.714 | 1.370 | 0.120 | 0.300 | 4.148 | 78.781 | 0.084 |
| February | 83.188 | 0.395 | 0.484 | 0.418 | 1.393 | 0.043 | 0.300 | 3.033 | 86.221 | 0.020 |
| March | 115.248 | 0.579 | 0.566 | 0.554 | 1.406 | 0.050 | 0.300 | 3.456 | 118.704 | 0.377 |
| April | 104.193 | 0.427 | 0.456 | 0.383 | 1.418 | 0.060 | 0.300 | 3.044 | 107.236 | 0.019 |
| May | 48.413 | 0.535 | 0.767 | 0.671 | 1.421 | 0.066 | 2.089 | 5.549 | 53.962 | 0.338 |
| June | 112.979 | 0.890 | 0.450 | 3.040 | 1.416 | 0.122 | 0.000 | 5.919 | 118.898 | 0.343 |
| **Grand total** | **1314.897** | **7.234** | **6.373** | **8.862** | **15.966** | **0.927** | **4.961** | **44.323** | **1359.220** | **1.911** |

## Graphically Representation

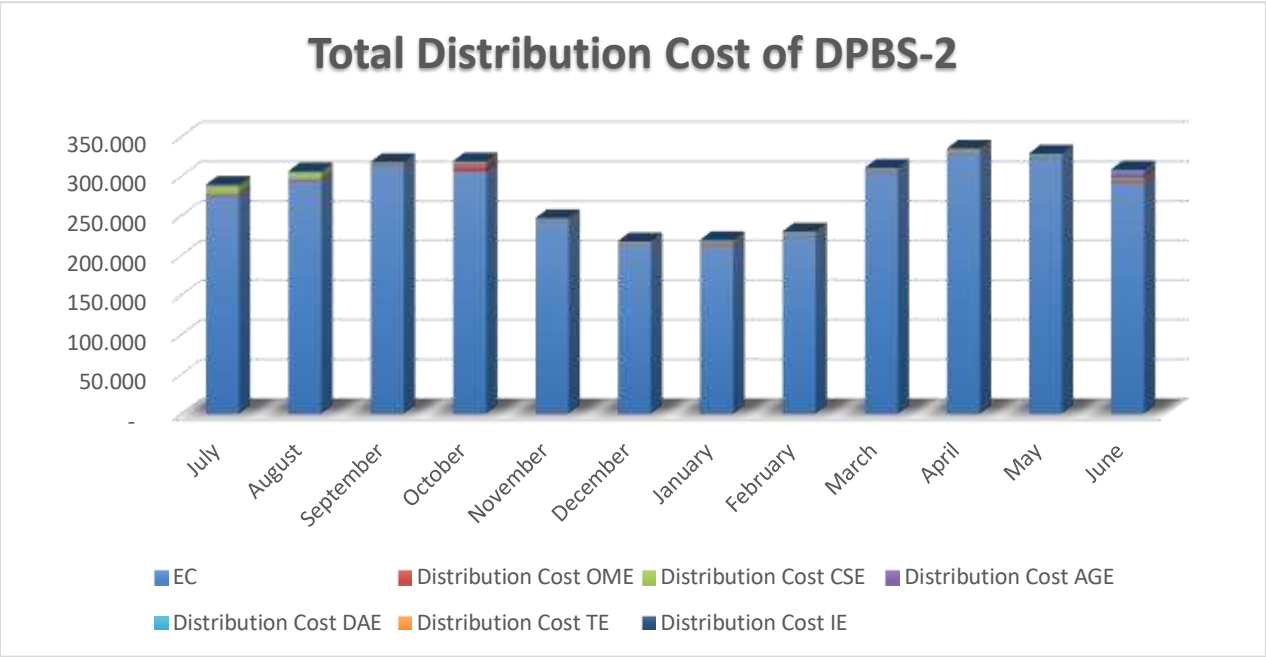



Fig 5.1: Distribution Cost of DPBS-2 in 2015-16

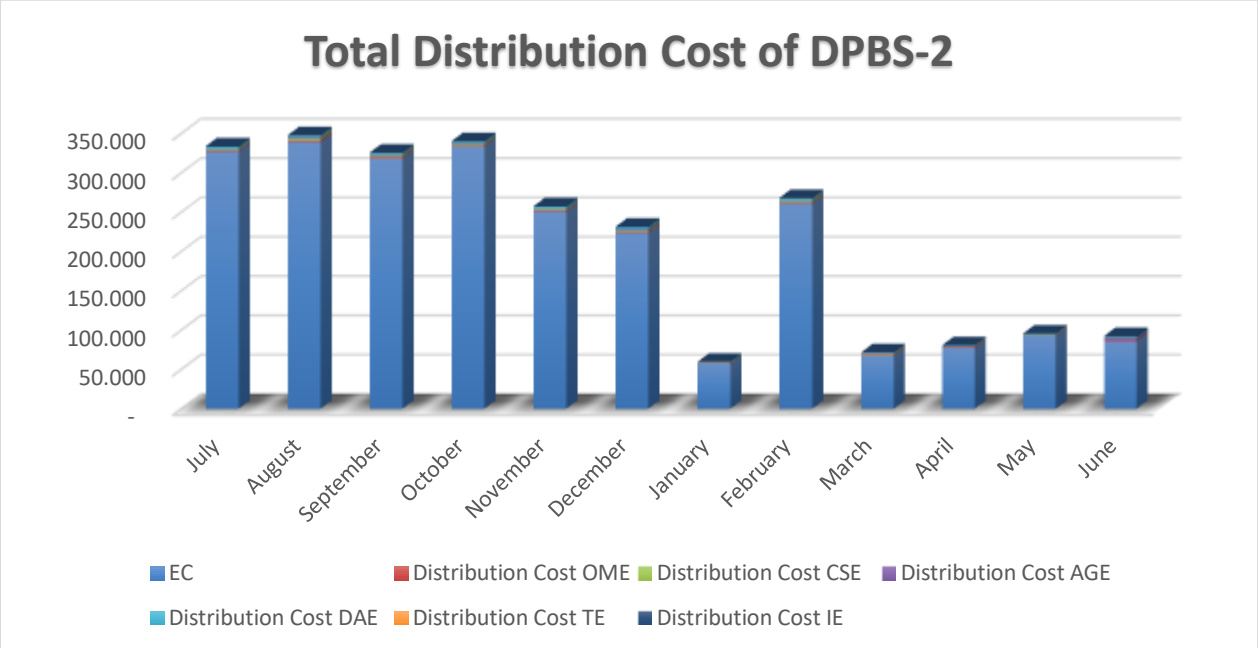



Fig 5.2: Distribution Cost of DPBS-2 in 2016-17

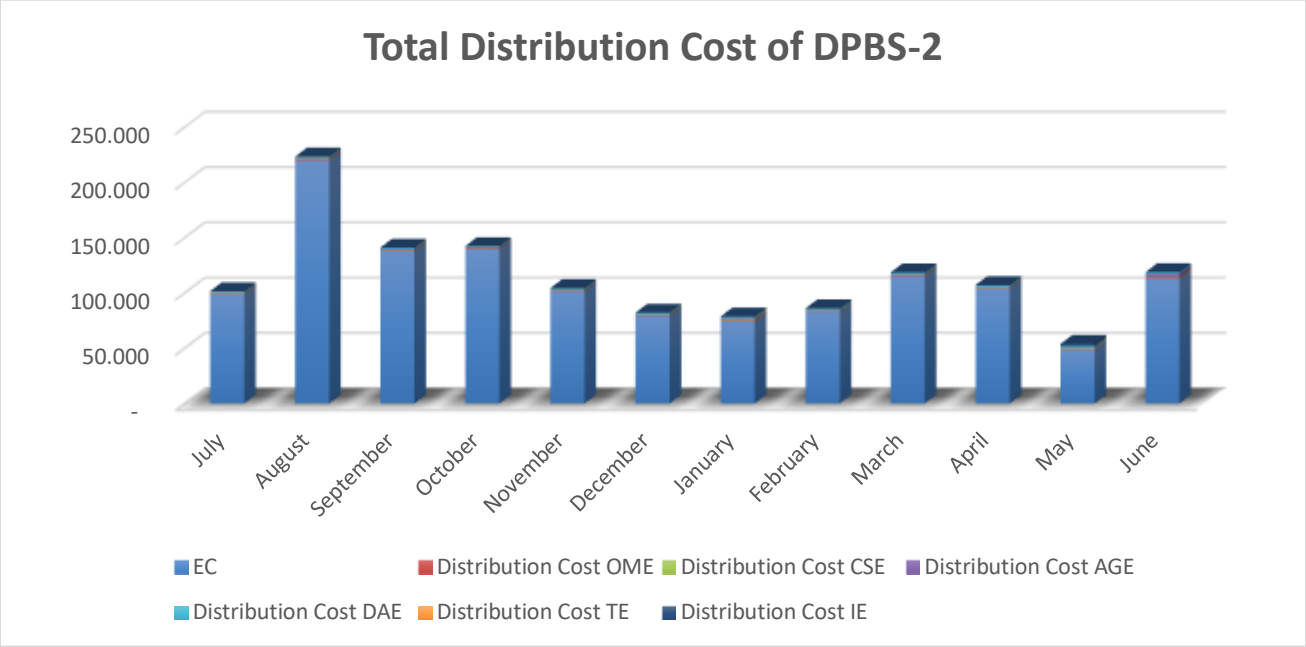



Fig 5.3: Distribution Cost of DPBS-2 in 2017-18

Now if we look at this table shown that in July, 2015-16 the energy Cost is 274.719 core, total Distribution expense is 14.681 Core, system loss expense is 0.777 core, and so total supply cost Is 289.400 Core. These table shown that in December, 2015 the Energy expenses is 212.236 Core, total distribution Expense is 5.204 core, system loss cost is 0.089 core, and so total Supply cost is 218.165 core. In these table Shown that in June, 2016 the Energy Cost is 291.965 Core, total distribution expenses is 16.672 core, System loss expense is 0.597 core, so total Supply cost is 308.637 core. The rest of the month Distribution and total supply cost analysis Showed in the Table no 6.1.In March-16, April-16, May-16, June-16 the energy expense is high, System loss is high so total supply Cost also high than previous months.

Again in this table shown that in July, 2016-17 the Energy Cost is 326.957 core, total distribution cost is 6.872 Core, system loss expense is 0.624 core, so total supply cost is 333.829 core. These table shown that in December, 2016 the Energy cost is 223.907 core, total distribution cost is 8.210 core, system loss expense is 0.088 core, so total supply cost is 231.516 core. These table shown that in June, 2017 the Energy expense is 85.309 core, total distribution cost is 7.266 core, system loss cost is 0.256 core, so total supply expense is 92.576 core.

The rest of the month distribution and total supply expense analysis showed in the Table no 6.2. In March-16, April-16, May-16, June-16 the energy expense is high, system loss is high so total supply expense also high than previous months.

This table shown that in July, 2017-18 the Energy expense is 98.509 core, total distribution expense is 3.150 Core, system loss cost is 0.359 core, so total supply expense is 101.658 core. These table shown that in December, 2017 the Energy expense is 79.219 core, total distribution expense is 3.051 core, system loss cost is 0.045 core, so total supply cost is 82.270 core. These table shown that in June, 2018 the Energy expense is 112.979 core, total distribution cost is 5.919 core, system loss expense is 0.343 core, so total supply expense is 118.898 core. The rest of the month distribution and total supply expense analysis showed in the Table no 6.3.In March-16, April-16, May-16, June-16 the energy expense is high, system loss is high so total supply expense also high than previous months.

### 5.3.3 Administration and General Expenses (AGE)

Administrative and General Expenses are broken into operation and maintenance expenses, with the bulk of the cost being operation based. Operation expenses include administrative and general salaries, office supplies and expenses, administrative cost transferred, outside services, property insurance, injuries and damages, rented service and rents. Maintenance expenses include only maintenance of general plant.

### 5.3.4 Depreciation & Amortization Expenses (DAE)

The depreciation expenses included as a cost is the monthly depreciation for all used and useful property. DPBS-2 calculates 3 % depreciation of its property.

### 5.3.5 Tax expenses (TE)

All class of tax is included in tax expenses such as cost for revenue stamp, municipal tax, land and development tax etc.

### 5.3.6 Interest expenses (IE)

Expenses of payable interest on loans from bank, BREB or from any other loans are included as IE. DPBS-2

### 5.3.7 System Loss (Tk)

Calculate system loss KWh in taka. System loss in taka is the assistance to calculate the distribution expense more correctly and showed an economical figure of system loss. DPBS-2 had a system loss in taka 2.11 in (2015-16), 0.997 (2016-17), 3.660 (2017-18)
System Loss (Tk) = Import Energy x System loss (Tk/Unit)

## 5.4 Revenue

The revenue is the amount of income that a PBS should have opportunity to earn in order to maintain operations and attract capital for investment, but still maintains least cost for consumers.

**Table 5.2: Import energy, Purchase cost, Expenditure, Sell energy, Revenue, Distribution cost of energy according to the Thesis Calculation (2015-2016)**

| Month (15-16) | Energy Import (MU) | Energy Purchase Cost (10^7Tk) | Energy Sell (MU) | Distribution cost (10^7Tk) | Total Supply Cost (10^7Tk) | Revenue from Sale Energy (10^7Tk) | Revenue from other sources (10^7Tk) | Total Revenue (10^7Tk) | System Loss% | Surplus (+/-) (10^7Tk) | System Loss (10^7Tk) | System Loss (Tk/Unit) | Distribution Cost (Tk/Unit) | Total Revenue (Tk/Unit) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| July | 64.463 | 29.067 | 54.752 | 14.681 | 44.525 | 31.844 | 0.314 | 32.158 | 15.065 | -12.366 | 0.777 | 0.800 | 2.823 | 4.989 |
| August | 69.284 | 31.241 | 57.038 | 12.205 | 44.631 | 33.599 | 0.421 | 34.020 | 17.675 | -10.611 | 1.186 | 0.968 | 2.348 | 4.910 |
| September | 69.284 | 31.241 | 60.459 | 5.647 | 37.469 | 35.706 | 0.388 | 36.095 | 12.737 | -1.374 | 0.581 | 0.658 | 1.030 | 5.210 |
| October | 67.831 | 30.586 | 61.560 | 13.222 | 44.096 | 37.092 | 0.504 | 37.596 | 9.246 | -6.500 | 0.288 | 0.459 | 2.195 | 5.543 |
| November | 53.854 | 24.283 | 53.235 | 5.020 | 29.307 | 32.133 | 0.633 | 32.766 | 1.149 | 3.459 | 0.003 | 0.052 | 0.944 | 6.084 |
| December | 46.968 | 21.178 | 44.028 | 5.204 | 26.471 | 26.789 | 0.565 | 27.353 | 6.260 | 0.882 | 0.089 | 0.301 | 1.202 | 5.824 |
| January | 47.064 | 21.222 | 44.127 | 7.414 | 28.724 | 26.784 | 0.512 | 27.296 | 6.241 | -1.428 | 0.088 | 0.300 | 1.700 | 5.800 |
| February | 49.640 | 22.383 | 45.081 | 6.019 | 28.610 | 27.776 | 0.534 | 28.310 | 9.184 | -0.300 | 0.208 | 0.456 | 1.381 | 5.703 |
| March | 64.426 | 29.050 | 56.302 | 5.886 | 35.465 | 34.101 | 0.529 | 34.631 | 12.610 | -0.834 | 0.529 | 0.651 | 1.139 | 5.375 |
| April | 71.556 | 32.265 | 63.676 | 7.227 | 39.932 | 38.244 | 0.502 | 38.746 | 11.012 | -1.186 | 0.440 | 0.558 | 1.204 | 5.415 |
| May | 67.414 | 30.398 | 62.512 | 5.949 | 36.520 | 37.698 | 0.865 | 38.563 | 7.272 | 2.043 | 0.173 | 0.354 | 0.979 | 5.720 |
| June | 75.207 | 33.911 | 65.865 | 16.672 | 51.181 | 40.087 | 1.429 | 41.516 | 12.421 | -9.664 | 0.597 | 0.639 | 2.622 | 5.520 |
| **Grand total** | **746.991** | **336.826** | **668.635** | **105.146** | **446.930** | **401.854** | **7.197** | **409.051** | **120.87** | **-37.88** | **4.958** | **6.197** | **19.567** | **66.093** |

**Table 5.2: Import energy, Purchase cost, Expenditure, Sell energy, Revenue, Distribution cost of energy according to the Thesis Calculation (2016-2017)**

| Month (16-17) | Energy Import (MU) | Energy Purchase Cost (10^7Tk) | Energy Sell (MU) | Distribution cost (10^7Tk) | Total Supply Cost (10^7Tk) | Revenue from Sale Energy (10^7Tk) | Revenue from other sources (10^7Tk) | Total Revenue (10^7Tk) | System Loss% | Surplus (+/-) (10^7Tk) | System Loss (10^7Tk) | System Loss (Tk/Unit) | Distribution Cost (Tk/Unit) | Total Revenue (Tk/Unit) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| July | 72.505 | 32.693 | 63.156 | 6.872 | 40.189 | 37.209 | 0.353 | 37.562 | 12.894 | -2.627 | 0.624 | 0.667 | 1.187 | 5.181 |
| August | 77.428 | 34.913 | 67.873 | 8.508 | 44.027 | 41.006 | 0.504 | 41.510 | 12.340 | -2.518 | 0.607 | 0.635 | 1.343 | 5.361 |
| September | 72.288 | 32.595 | 64.530 | 7.794 | 40.810 | 38.253 | 0.469 | 38.722 | 10.732 | -2.088 | 0.421 | 0.542 | 1.273 | 5.357 |
| October | 75.775 | 34.168 | 67.500 | 7.082 | 41.707 | 40.500 | 0.597 | 41.097 | 10.921 | -0.610 | 0.457 | 0.553 | 1.117 | 5.424 |
| November | 56.612 | 25.527 | 55.962 | 6.917 | 32.447 | 35.094 | 0.520 | 35.614 | 1.149 | 3.167 | 0.003 | 0.052 | 1.237 | 6.291 |
| December | 50.492 | 22.767 | 47.449 | 8.210 | 31.065 | 29.761 | 0.617 | 30.379 | 6.028 | -0.687 | 0.088 | 0.289 | 1.749 | 6.017 |
| January | 13.601 | 6.133 | 12.325 | 2.807 | 8.999 | 7.008 | 0.169 | 7.177 | 9.377 | -1.822 | 0.060 | 0.467 | 2.326 | 5.277 |
| February | 296.012 | 133.475 | 254.520 | 30.324 | 166.849 | 58.435 | 1.038 | 59.473 | 14.017 | -107.376 | 3.050 | 0.735 | 1.311 | 2.009 |
| March | 16.093 | 7.257 | 13.876 | 4.410 | 11.826 | 7.888 | 0.166 | 8.053 | 13.778 | -3.773 | 0.160 | 0.721 | 3.293 | 5.004 |
| April | 17.948 | 8.093 | 16.043 | 3.802 | 11.997 | 9.026 | 0.150 | 9.176 | 10.616 | -2.821 | 0.102 | 0.536 | 2.433 | 5.113 |
| May | 21.629 | 9.753 | 18.013 | 3.154 | 13.234 | 10.152 | 0.192 | 10.343 | 16.717 | -2.891 | 0.327 | 0.905 | 1.933 | 4.782 |
| June | 21.336 | 9.621 | 18.126 | 7.266 | 17.143 | 10.235 | 0.267 | 10.501 | 15.048 | -6.642 | 0.256 | 0.799 | 4.150 | 4.922 |
| **Grand total** | **791.719** | **356.994** | **699.371** | **97.146** | **460.295** | **324.567** | **5.041** | **329.608** | **133.62** | **-130.69** | **6.155** | **6.900** | **23.352** | **60.736** |

**Table 5.2: Import energy, Purchase cost, Expenditure, Sell energy, Revenue, Distribution cost of energy according to the Thesis Calculation (2017-2018)**

| Month (17-18) | Energy Import (MU) | Energy Purchase Cost (10^7Tk) | Energy Sell (MU) | Distribution cost (10^7Tk) | Total Supply Cost (10^7Tk) | Revenue from Sale Energy (10^7Tk) | Revenue from other sources (10^7Tk) | Total Revenue (10^7Tk) | System Loss% | Surplus (+/-) (10^7Tk) | System Loss (10^7Tk) | System Loss (Tk/Unit) | Distribution Cost (Tk/Unit) | Total Revenue (Tk/Unit) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| July | 23.192 | 10.457 | 19.275 | 3.150 | 13.966 | 10.822 | 0.124 | 10.946 | 16.887 | -3.020 | 0.359 | 0.916 | 1.820 | 4.720 |
| August | 51.911 | 23.407 | 47.044 | 3.060 | 26.694 | 22.475 | 0.144 | 22.619 | 9.375 | -4.075 | 0.227 | 0.466 | 0.699 | 4.357 |
| September | 32.123 | 14.485 | 29.945 | 3.060 | 17.616 | 15.635 | 0.128 | 15.762 | 6.782 | -1.854 | 0.071 | 0.328 | 1.046 | 4.907 |
| October | 32.782 | 14.782 | 31.450 | 3.065 | 17.872 | 16.310 | 0.168 | 16.478 | 4.065 | -1.395 | 0.025 | 0.191 | 0.983 | 5.026 |
| November | 23.764 | 10.716 | 23.576 | 3.243 | 13.959 | 12.550 | 0.169 | 12.719 | 0.793 | -1.240 | 0.001 | 0.036 | 1.376 | 5.352 |
| December | 19.297 | 8.701 | 17.960 | 3.051 | 11.797 | 9.701 | 0.435 | 10.136 | 6.931 | -1.661 | 0.045 | 0.336 | 1.724 | 5.252 |
| January | 18.018 | 8.124 | 16.272 | 4.148 | 12.357 | 8.918 | 0.231 | 9.149 | 9.691 | -3.207 | 0.084 | 0.484 | 2.601 | 5.078 |
| February | 19.510 | 8.797 | 18.596 | 3.033 | 11.850 | 10.005 | 0.173 | 10.178 | 4.686 | -1.672 | 0.020 | 0.222 | 1.642 | 5.217 |
| March | 28.847 | 13.007 | 24.338 | 3.456 | 16.840 | 12.706 | 0.233 | 12.938 | 15.632 | -3.902 | 0.377 | 0.835 | 1.575 | 4.485 |
| April | 25.405 | 11.455 | 24.380 | 3.044 | 14.519 | 12.829 | 0.188 | 13.017 | 4.033 | -1.502 | 0.019 | 0.189 | 1.257 | 5.124 |
| May | 28.704 | 12.943 | 24.424 | 5.549 | 18.830 | 12.960 | 0.871 | 13.831 | 14.911 | -4.999 | 0.338 | 0.790 | 2.410 | 4.818 |
| June | 31.460 | 14.186 | 26.933 | 5.919 | 20.448 | 14.424 | 3.593 | 18.018 | 14.389 | -2.430 | 0.343 | 0.758 | 2.325 | 5.727 |
| **Grand total** | **335.013** | **151.061** | **304.191** | **43.778** | **196.749** | **159.335** | **6.457** | **165.791** | **108.18** | **-30.96** | **1.911** | **5.552** | **19.457** | **60.065** |

Here this table shown that only in June-2016 the Dhaka PBS-2is in -9.664 surplus that means in profit position due to increased system loss heavily (9.067). But the other months of the year is in negatives surplus that means in profit position. In Octobor-15 and May-15 the PBS is in mostly profit position.

In this table shown that only in June-2017 the Dhaka PBS-2 is in – 6.642 surplus that means in loss position due to increased system loss heavily (6.386). But the other months of the year is in negative surplus that means in profit position. In Octobor-15 and December-15 the PBS is in mostly loss position.

Again if I look to this table shown that only in June-2018 the Dhaka PBS-2 is in – 2.430 surplus that means in loss position due to increased system loss heavily (2.087). But the other months of the year is in negative surplus that means in profit position. In Octobor-15 and December-15 the PBS is in mostly loss position.

### 5.4.1 Total Revenue (TR)

Total revenue is the total earning money of a PBS. A PBS earns its revenue from two sources. One is from sales of energy to the consumers and the other is revenue from other operating sources.

**Total revenue = Revenue from sales of energy + Revenue from others.**

Fig 5.4: Monthly Revenue of 2015-16 (in% of Total)

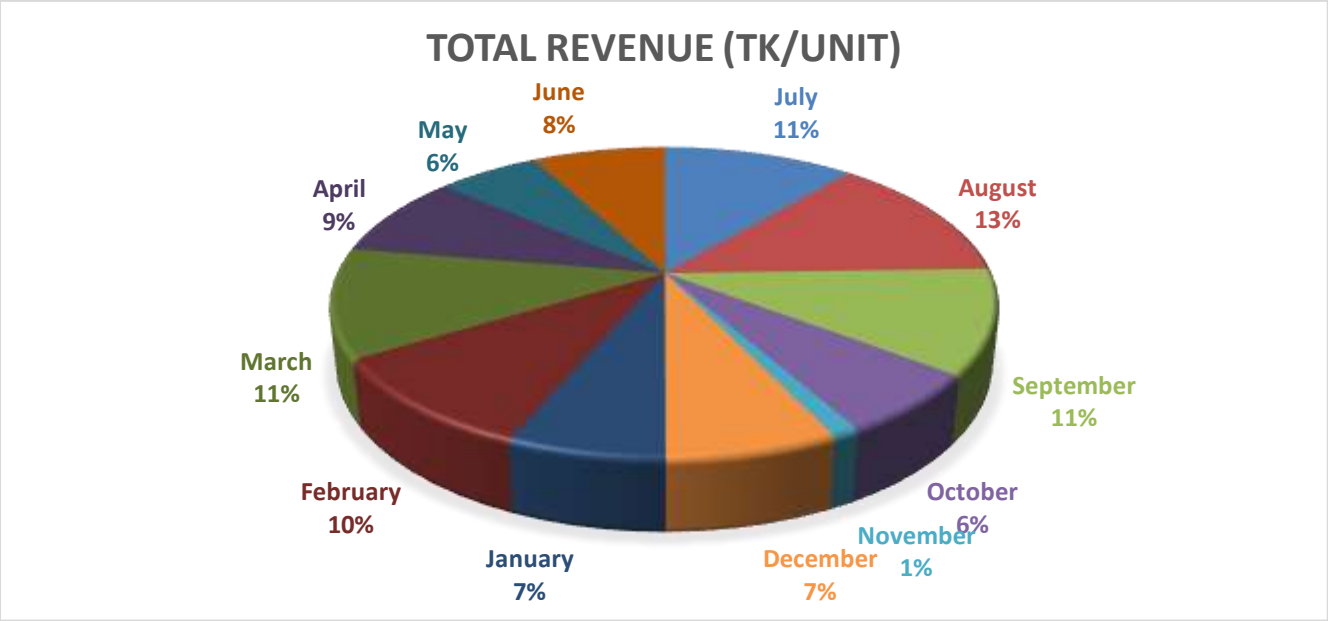



Fig 5.5: Monthly Revenue& Revenue from Other of 2015-16 (Total)

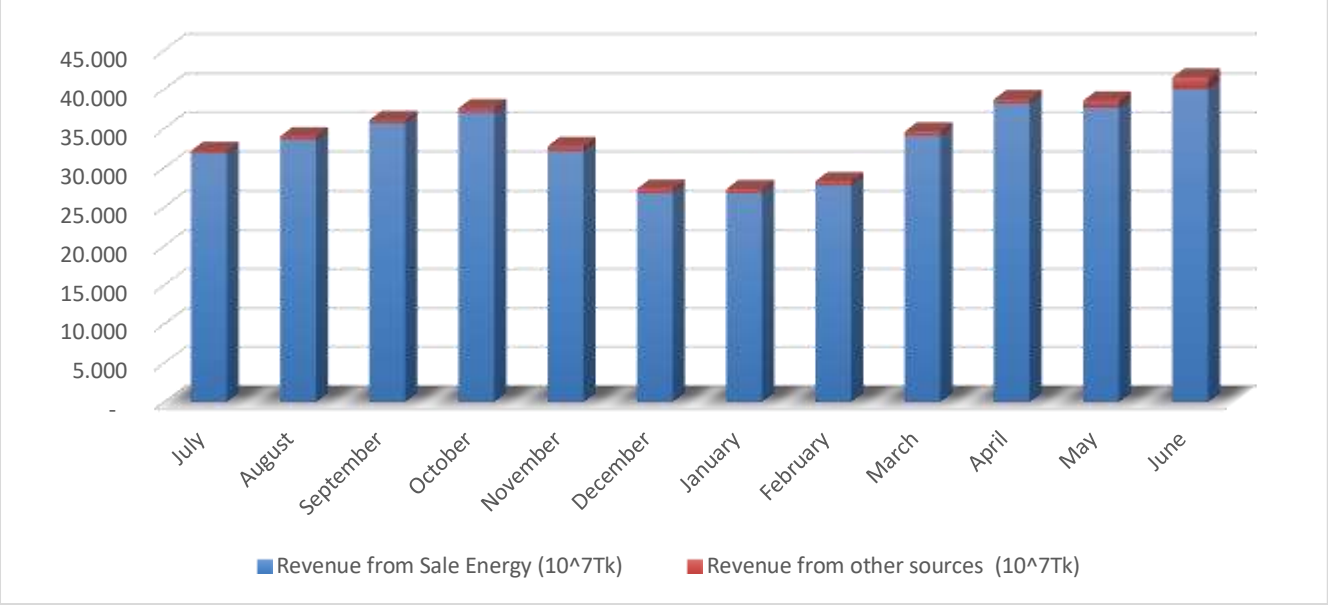
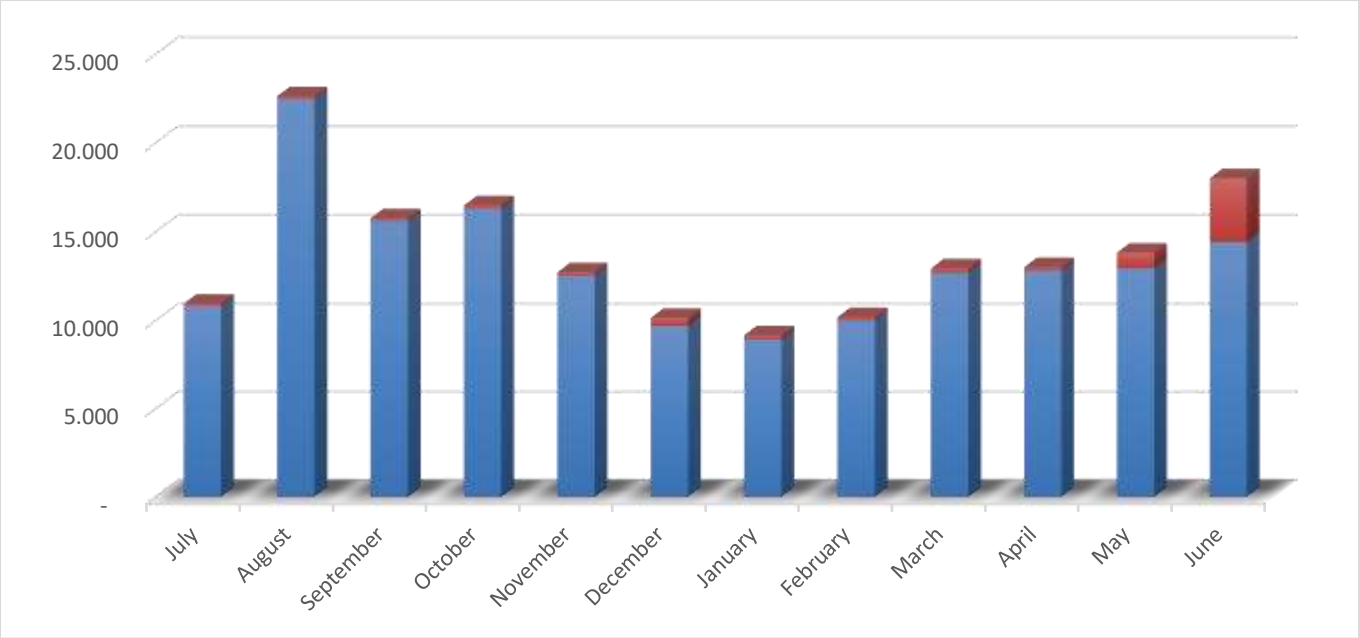


Fig 5.6: Monthly Revenue& Revenue from other of 2017-18(Total)




If we look at this Graph the revenue is 13% (high) in August-16 and May-16, also revenue is 6% in and October-15, revenue is 8% in August-15 and September-15 and revenue is 11% in other months of 2015-2016 years.

### 5.4.1.1 Revenue from Sales Energy

Revenue from only selling energy to the consumers are in this class. These amounts are collecting through the electricity bills from the consumers. Demand charge, corresponding energy rate and some other charges are included in this revenue.

### 5.4.1.2 Revenue from others

Revenue from others is actually the summation of operating revenue from other sources, non- operating margins- interest and non-operating margins-Others.

Revenue from others = other operating revenue + Non-operating Margins- Interest + Non- operating Margins-Others

#### 5.4.1.3 Other operating revenue

Late payment charge, various service revenue, rent for electric property and other electric revenue are calculated as other operating revenue.

#### 5.4.1.4 Non-operating Margins- interest

Interest from bank deposit, interest from employee loans (Home loan) related with this part. PBS calculates this as revenue and employee have to pay about 10% interest on their home loan.

## 5.5 Total supply cost (TC)

From purchase to supply electric energy to the consumers, the total cost is said to be the Total Supply Cost. This is the total operational cost of a PBS. In 2015-18 fiscal year DPBS-2 showed about 448.169, 307.377, 196.75 core taka as their total supply cost, where energy purchase expense were

**Total supply cost (TC) = Energy Purchase Cost+ System Loss (in Tk.) + Distribution cost (DC)**

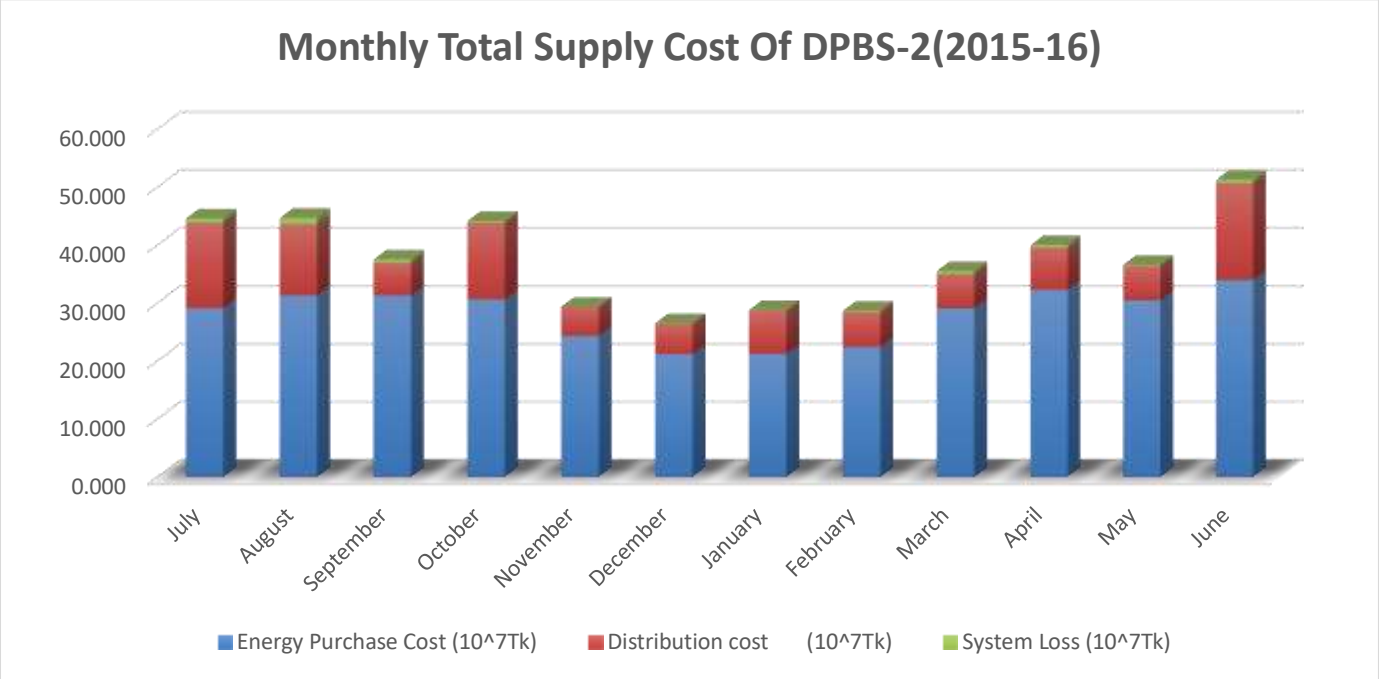



Fig 5.7: Monthly Total Supply Cost of DPBS-2-2015-2016(10^7 Tk.)

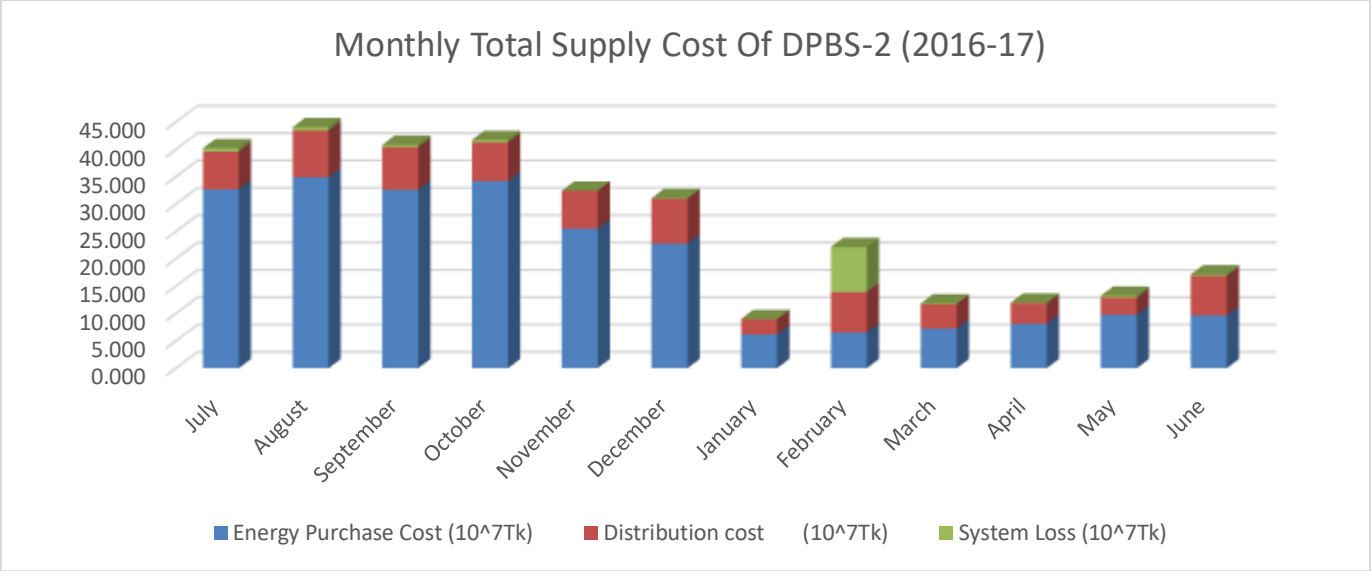



Fig 5.8: Monthly Total Supply Cost of DPBS-2-2016-2017 (10^7 Tk.)

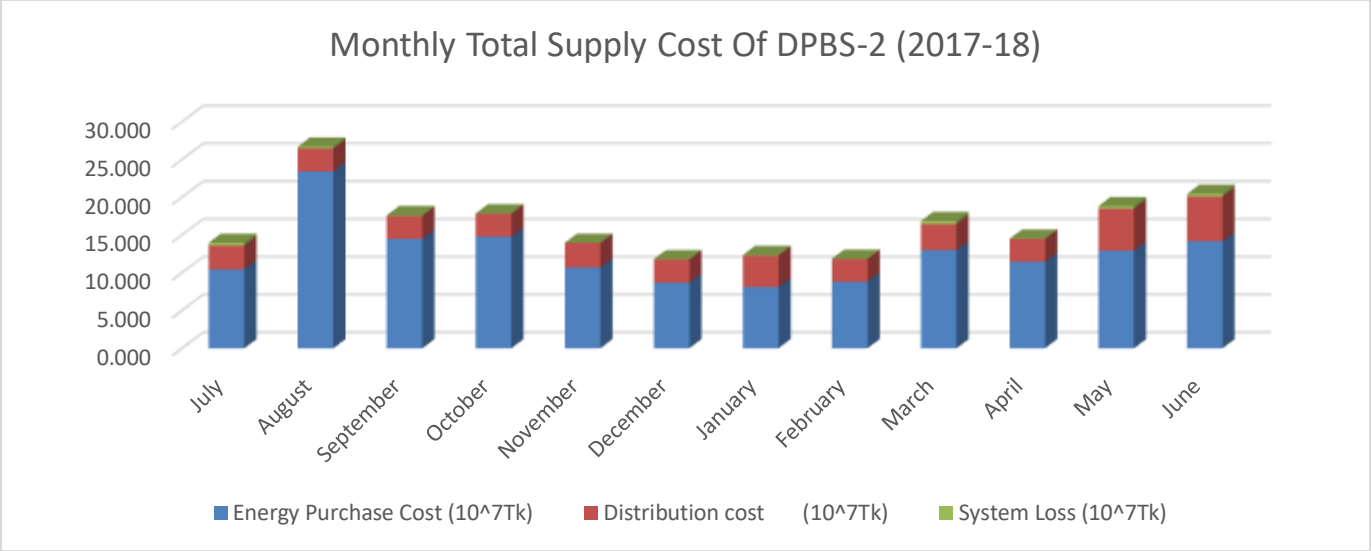



Fig 5.9: Monthly Total Supply Cost of DPBS-2-2017-2018 (10^7 Tk.)

In this Graph the total supply cost is 166.849 Cores (highest) in February-16, Monthly total supply cost is high in- to February-16 without these months total supply cost is low in other months of 2015-2016 year.
In this Graph the total revenue is 26.694 Cores (highest) in August-17. Monthly total revenue is low in Nov-15 to February-16 without these months total revenue is higher in other months of 2016-2017 year.

In this Graph the total revenue is 51.181 Cores (highest) in June-17. Monthly total revenue is low in Nov-15 to February-16 without these months total revenue is higher in other months of 2017-2018 year.

## 5.6 Surplus

Surplus defines the profit or loss of a PBS. It's also known as operating margin.

**Surplus = Total Revenue - Total Supply Cost**

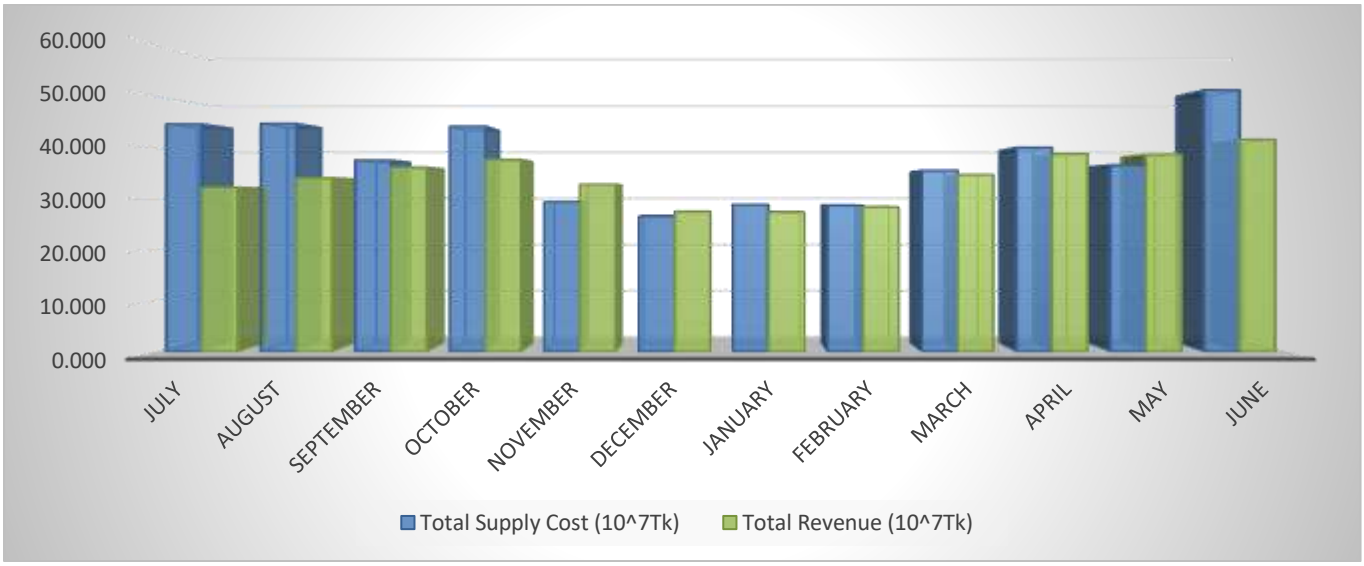



Fig 5.10: Revenue with Supply cost of DPBS-2 (2015-16)

If we see in this surplus graph of DHAKA PBS-2 is position of total supply cost and total revenue is high low then again high. Total supply cost is high and total revenue are low from total supply cost. Some month are almost same like February. And that month have little system loss is low.

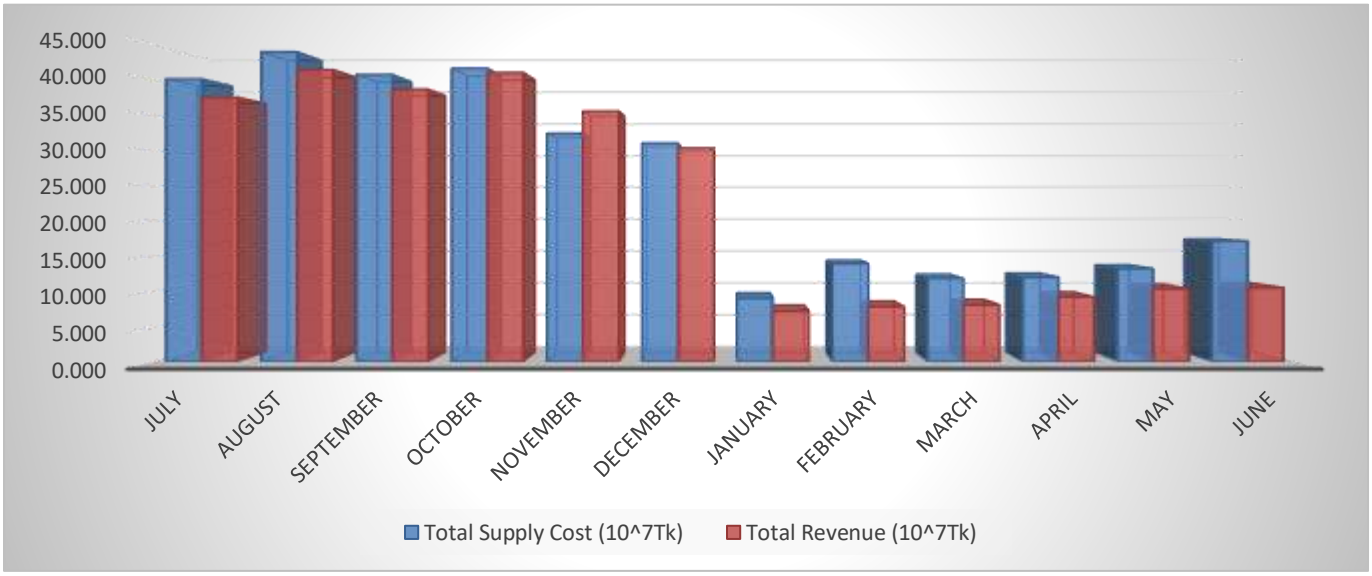



Fig 5.11: Revenue with Supply cost of DPBS-2 (2016-17)

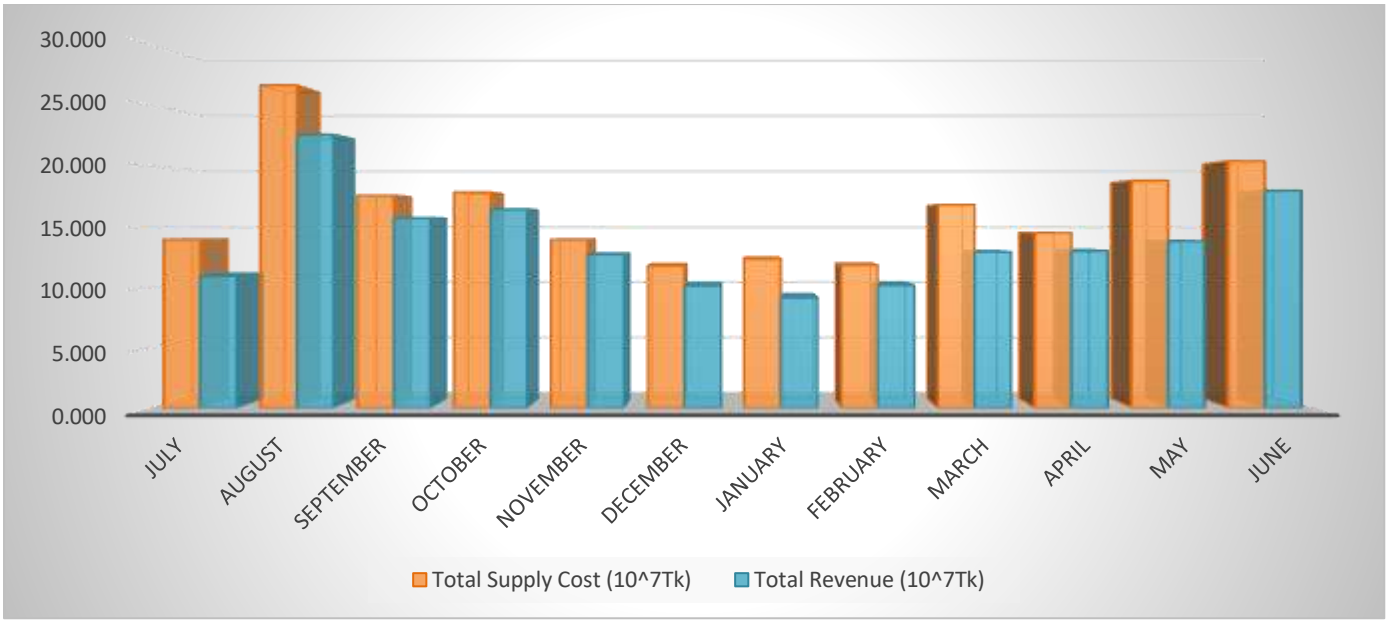



Fig 5.12: Revenue with Supply cost of DPBS-2 (2017-18)

## 5.7 Per Unit Cost Calculation

Per unit cost calculated to find cost or revenue on each unit energy that's why we assume profit and loss in short. Here we listed some per unit calculation for DPBS-2,

### 5.7.1 Distribution Cost (Tk/Unit)

In July, 2015 DPBS-2 had 44.525 core taka Total Supply Cost, 29.067 core taka Energy Purchase Cost and Energy sell is 54.752 MU. So the Distribution cost (Tk/Unit) of July, 2015 is

Distribution Cost (Tk/Unit**)** = ((Total Supply Cost - Energy Purchase Cost) / Energy Sell)*10

= ((44.525 – 29.067) / 54.752) * 10

= 2.82Tk / Unit

In July, 2017 DPBS-2 had 13.966 core taka Total Supply Cost, 10.457 core taka Energy Purchase Cost and Energy sell is 19.275 MU. So the Distribution cost (Tk/Unit) of July, 2017 is

Distribution Cost (Tk/Unit**)** = ((Total Supply Cost - Energy Purchase Cost) / Energy Sell)*10

= ((13.966 – 10.457) / 19.275) * 10

= 1.82Tk / Unit

### 5.7.2 Revenue (Tk/Unit)

In July 2015, DPBS-2 had 32.158 core taka Total Revenue and import energy 64.463 MU .So Revenue on July 2015 were,

Revenue (Tk/Unit) = (Total Revenue / Energy Import)*10

= (32.158/ 64.463) * 10

= 4.98 Tk / Unit

In July 2017, DPBS-2 had 10.946 core taka Total Revenue and import energy 23.192 MU. So Revenue on July 2016 were,

Revenue (Tk/Unit) = (Total Revenue / Energy Import)*10

= (10.946/ 23.192) * 10

= 4.72 Tk / Unit

### 5.7.3 System Loss (Tk/Unit) (SL)

System loss (Tk/Unit) is calculated the price of each unit in system loss.

In July 2015 DPBS-2 had buying 54.752 MU with 29.067 core taka and Energy sell is 54.752 MU. So the system loss (Tk/Unit) of July 2015 is

System loss (Tk/Unit) = ((Purchase cost/Sell Energy)-(Purchase cost/Import Energy))*10

(29.067/54.752) – (29.067/64.463)*10

= 0.79Tk / Unit

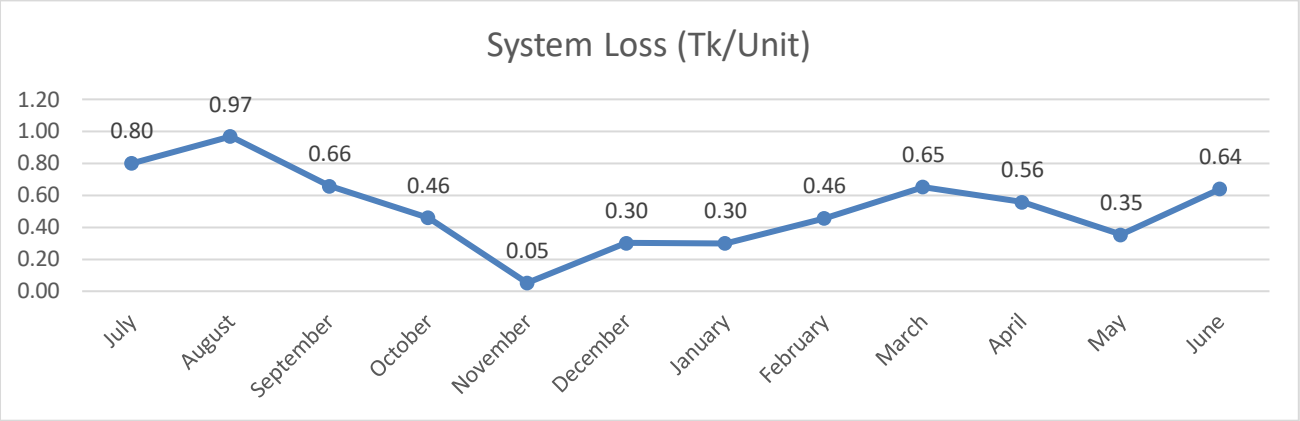



Fig 5.13: Month Wise System Loss (TK/Unit) of JPBS, 2015-2016

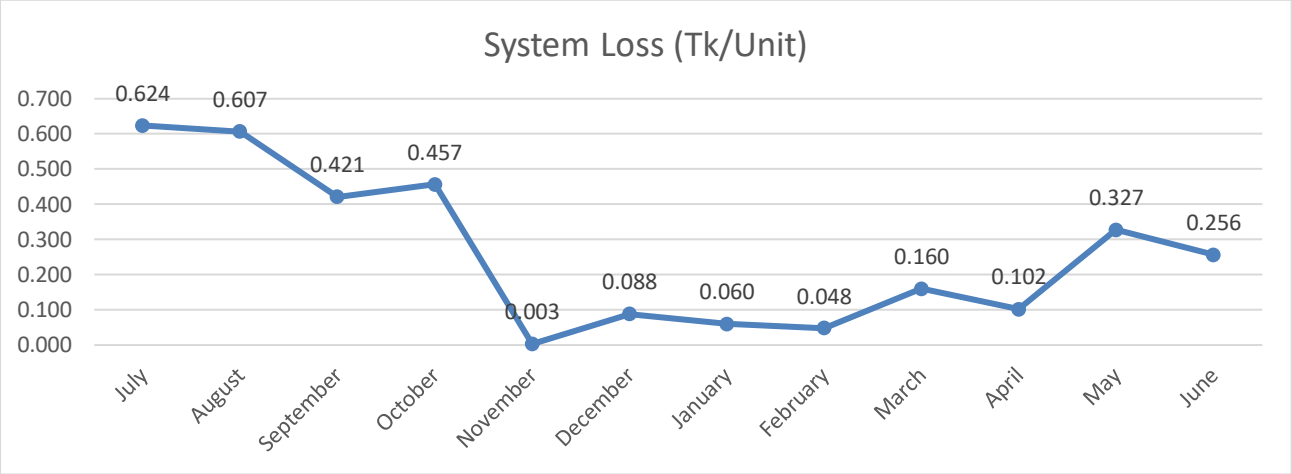



Fig 5.14: Month Wise System Loss (TK/Unit) of JPBS, 2016-2017

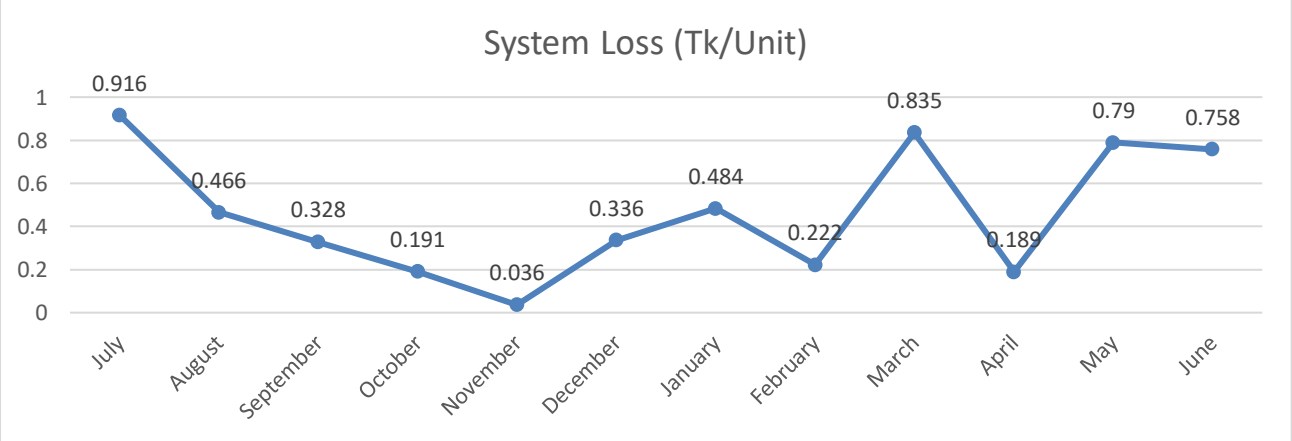



Fig 5.15: Month Wise System Loss (TK/Unit) of JPBS, 2017-2018

## 5.8 Tariff Rate

In this information all concerned that in accordance with the BERC Order Dated: 27 August 2015, the new tariff rates with respect to casual sales of electricity of Bangladesh Rural Electrification (BREB) has been made effective from bill month September 2015 as the following.

Table 5.3: Tariff Rates Since 2009 to 2016

| Consumer Class | Slab | Before Dec,2009 | 9-Dec | Slab | 1-Dec-11 | 1-Feb-12 | 1-Mar-12 | Slab | 1-Sep-12 | Slab | 14-Mar | 15-Sep |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0-25 | 0 | 0 | Minimum | 0 | 0 | 0 | Minimum | 0 | Minimum | 0 | 0 |
| | 0-100 | 2.53-2.90 | 2.64-3.03 | 00-100 | 2.77-3.18 | 2.90-3.34 | 3.08-3.55 | 00-75 | 3.36-3.87 | Jan-50 | 3.74 | 3.36-3.87 |
| | 101-300 | 2.57-2.95 | 2.81-3.23 | 101-300 | 3.25-3.73 | 3.45-3.95 | 3.67-4.20 | 76-200 | 4.05-4.63 | Jan-75 | 3.87 | 3.8 |
| | 301-500 | 3.89-4.15 | 4.28-4.56 | 301-500 | 5.21-5.54 | 5.63-5.98 | 5.98-6.35 | 201-300 | 4.18-4.79 | 76-200 | 5.01 | 5.14 |
| Domestic | 500++ | 4.99-5.95 | 5.64-6.72 | 500++ | 6.87-8.18 | 7.42-8.83 | 7.88-9.38 | 301-400 | 6.88-7.30 | 201-300 | 5.19 | 5.36 |
| | | | | | | | | 401-600 | 7.18-7.62 | 301-400 | 5.42 | 5.63 |
| | | | | | | | | 600++ | 9.38 | 401-600 | 8.51 | 8.7 |
| | | | | | | | | | | 600++ | 9.93 | 9.98 |
| | | | | Flat | 6.8 | 7.33 | 7.79 | Flat | 9 | Flat | 9.58 | 9.8 |
| Commercial | | 5.11-5.15 | 5.62-5.66 | Off-peak | 5.23 | 5.88 | 6.25 | Off-peak | 7.22 | Off-peak | 8.16 | 8.45 |
| | | | | Peak | 9.31 | 9.66 | 10.26 | Peak | 11.85 | Peak | 11.85 | 11.98 |
| Charitable | | 3.28-3.35 | 3.28-3.35 | | 3.45-3.52 | 3.62-3.70 | 3.85-3.93 | | 4.45-4.54 | | 4.98 | 5.22 |
| Irrgation | | 2.60-3.05 | 2.60-3.05 | | 2.73-3.20 | 2.87-3.36 | 3.05-3.57 | | 3.39-3.96 | | 3.39-3.96 | 3.82 |
| General Power | | | | Flat | 5.27 | 5.67 | 6.02 | Flat | 6.95 | Flat | 7.42 | 7.66 |
| | | 3.91-4.10 | 4.30-4.51 | Off-peak | 4.41 | 4.86 | 5.16 | Off-peak | 5.96 | Off-peak | 6.64 | 6.9 |
| | | | | Peak | 6.75 | 6.9 | 7.33 | Peak | 8.47 | Peak | 9 | 9.24 |
| Large Power | | | | Flat | 5.14 | 5.55 | 5.9 | Flat | 6.81 | Flat | 7.32 | 7.57 |
| | | 3.80-3.95 | 4.18-4.34 | Off-peak | 4.4 | 4.86 | 5.16 | Off-peak | 5.96 | Off-peak | 6.62 | 6.88 |
| | | | | Peak | 7.55 | 7.6 | 8.08 | Peak | 9.33 | Peak | 9.33 | 9.57 |
| | | | | Flat | 4.88 | 5.28 | 5.61 | Flat | 6.48 | Flat | 7.2 | 7.49 |
| 33KV | | | | Off-peak | 4.3 | 4.78 | 5.08 | Off-peak | 5.87 | Off-peak | 6.55 | 6.82 |
| | | | | Peak | 7.34 | 7.44 | 7.91 | Peak | 9.14 | Peak | 9.28 | 9.52 |
| Street Light | | 3.75-3.85 | 4.12-4.23 | | 4.9 | 5.28 | 5.61 | | 6.48 | | 6.93 | 7.17 |

## 5.9 Bill Interpretation

Principle of tariff adjustment and to phase out prevailing distortions in tariff structure:

- The average end-user electricity tariff for each customer class will be set to fully cover reasonable expense of supplying electricity to that customer class (including cost of generation, system services, transmission, and distribution), and generate a surplus to extend coverage and supply, and improve The quality of service.
- Should the Government decide to subsidize the capital or operating costs to distribute certain customer classes, it should do so directly from the budget.
- Tariffs will incorporate incentives to improve technical and commercial efficiency and generation costs will be "passed through" to end-user tariffs.
- Tariffs will be reviewed at least of three months and adjusted annually to reflect changes in fuel prices, generation mix, exchange rates and inflation. Should the quarterly review indicate a variation.
- In the recognized expense in spillover of 10%, the tariffs would be permanent at that time.
- Segregated rates will be maintained for peak and off-peak expense, and a two-part tariff introduced for BPDB's generation plants, with one part covering fixed (capacity) costs.

## 5.10 Summary

In this chapter, electricity rate, revenue and cost of DPBS-2 are calculated according to the thesis formula. System loss calculated in taka. System loss, Distribution cost and Total Revenue calculated month wise in per unit. DPBS-2 find in large loss.

# CHAPTER-6
# SOCIAL IMPACT OF BREB

## 6.1 Introduction

Infrastructure of extension in rural areas is indispensable for bringing down any meaningful change in the rural living patterns. Before our liberation in the year 1971, we had little facilities built for the rural people. Virtually, government had little opportunities for continuation of the distribution network in a massive scale. In 1972, Rural Electrification Directorate (under Power Development Board) were established to gear up efforts towards formation of a detached body responsible for electrifying rural areas. In 1976 NRECA conducted a probability study for reaching electricity to each and every rural home and other rural establishments. As a result Rural Electrification Board were formed to take up efforts at induction down changes in rural living patterns.

Over the last 38 years, the program has arrive at about 433 thanes of the country, thus making it a core development program. The program has fetched light to many families, hitherto remaining in complete darkness. It has given them the enlightenment towards modern lining, freedom from impoverishment, malnutrition and hunger. Electricity has fetched many families close to the rural homes. Some of them are thought of taking new initiatives in industrial and agricultural sectors. Rural Electric societies have provided jobs to rural families/youths. In accession, a total of 8000 persons are employed in the construction firms and consulting offices working for the program. Rural people now have much better work-habits and an improved sense of discipline and social security, which came as a result of the assurances of basic improvements in life.

Literacy rate in the rural areas has increased significantly due to the continuation of mass education program. Poor workers can attend the night schools at the end of the day's business. They can also sit beside the children to hoist their education. Living pattern in rural areas have changed due to introduction of new consumer items and like Refrigerator, Television, Radio, Cassette Players, Fans etc. Villages are experiencing a kind of urbanization in the shape of civic amenities, regular education, sanitation and health care and enhanced economic activities.

By dint of TV, people are now keeping informed about the latest state of sports, culture and political developments. As the satellite has opened up the world before the eyes, people get acquainted with the world and this ensures their early socialization. The workload of women has reduced and they have sufficient time to watch TV, listen to radio and can assist children in their education.

Access to resources, equality of men and women in terms of wage/employment, women trafficking, punishing criminal offences, child trafficking, acid throwing, choice of family planning use, right to participate in the election RE program have sped the other development activities in the rural areas. Many new infrastructure development NGOs (nongovernment organizations) and human development bodies have extended their activities in remote rural areas to help government efforts at poverty alleviation and human development. By dint of electricity, NGOs are encouraging varied human endeavors in the form of handicraft development and cross-cultural interchanges. These things ultimately reduce migration towards cities and relieve them of stagnation of infrastructures and civic amenities. On the other hand, it ensures effective and maximum utilization of human and other properties. Speedy electrification of our rural homesteads & other consumers have sped timely utilization of natural and other resources. Women of the rural areas are enjoying the benefits of electricity very well. They can do extra work after household job and add to family earnings. [11]

## 6.2 Broad and Earmarked

The broad objective of the study were to make an assessment of economic and social impacts of Rural Electrification Program in Bangladesh. In line with the Terms of Reference and the broad objective, the specific objectives of the study were

- To design the economic and social impact evaluation study of the Rural Electrification Program that includes reconfirmation of direct (intended) objectives and identification of broader (indirect) impacts of REP, defining impact indicators, identification of relevant testable hypotheses, and development of appropriate methodology.
- To determine impact of Rural Electrification Program on the various dimensions of human development focusing on standard of living, poverty reduction and gender development.
- To evaluate the impact of Rural Electrification Program on industrial development.
- To assess the impact of Rural Electrification Program on the develop commercial activities.
- To evaluate the impact of Rural Electrification Program on the various dimensions of irrigation and agriculture.
- To put forward logically sound recommendations based on scientifically rigorous impact evaluation in line with the above objectives and the Government's Energy Policy, especially for accelerated development and poverty reduction in a sustainable way through rural electrification. [11]

## 6.3 Impact on Education

Compared to the non-electrified households, the overall literacy rates for both male and female in the electrified were significantly higher, especially due to the household's access to electricity which has contributed much both in economic terms as well as in raising awareness about value of education. The rich-poor split in literacy were also less pronounced in the electrified than that in the non-electrified households.

The quality of education surveyed in terms of household expenditure on education, marks (grades) obtained in the last final examinations, school drop-outs, school presence rate, and time spent for study by students at night all found much improved in the electrified than in the no electrified household. Electricity matters in improving the quality of education.

This quality improvement in the electrified households works through vary many channels more time available for study after the sunset, the quality of that time due to sufficient light and fan for consolation, restorative the knowledge-based due to access to TV (which in turn increases the appetite for learning), parents (especially mothers/other elder female members) devote more time

In supporting children's education compared to before electricity etc. According to Bangladesh Bureau of Statistic, literacy rate of population over stands at 57.91 percent at national level, compared with 51.9 percent in 2005. In rural area, literacy rate in 2010 were 53.37 percent, compared with 46.7 percent in 2005. Literacy rate were in urban area 70.38 percent in 2010, compared with 67.6percent in 2005. In 2010, enrolment rate of children aged 6-10 years for both sexes at the national level were 84.75 percent, compared with 80.38 percent in 2005. The enrolment rate for girls is higher than that of the boys in both rural and urban areas. Total literacy rate in 2015 were 63.6 percent. [11]

## 6.4 Impact on Gender Dimensions

Electrification has contributed to the positive uplift on women's socio-economic status. Electricity has left a deep impact on women's mobility, decision-making, freedom in using income and savings, better utilization of credit, knowledge about gender imparity issues,

household work plan according to benefit, changes in attitude in terms of reducing healthcare inequality, increase in overall years of schooling for both boys and girls, preference to send girls to schools, awareness of legal issues (as for example, marriage for girls at 18 and boys at 21), and awareness about negative impact of dower.

Although, women in the non-electrified villages are working inside and outside home, they have less control over utilization rate of their earnings, decision-making; and their level of awareness of fundamental rights is low. One of the important facts that, risen is that if electricity is provided to them these women

can benefit substantially with more power or status.

Electricity enables all members in electrified households to patience much time after sunset, in comparison with those in EV and NEV. The daily average time from sunset to sleeping is higher for all categories of household members in HIM. Socio-cultural development is the most prominent activity after sunset for household of their electrification status. Watching TV/listening radio is the major activity for senior members both male and female in HE followed by socialization.

Business, come into view as the most prominent activity signifies increased economic activities in the region as has been reflection with higher time spent by EV in comparison with NEV.

Electricity plays the role of a catalyzer in having a quality education both by extended time period and by creating comfortable environment through electrical appliances. For landless electrified household, longer study hours for students and much time spent for socio-cultural development by the female household heads, enacted as a catalyst for reducing human impoverishment.

Higher assignment of time by the male household heads, the principal earner of the family in most cases, can contribute in reducing income poverty in an indirect fashion. The interplay of all those, actually create the environment for new improvements to overcome the hardship of poverty.

Providing electricity at the household level is climacteric to ensure better standard of living as the effective use of time shapes up the life style for each individual anxious. Given the study results, the better use of additional time attributed to electricity, has facilitated the electrified household members to pursue new range of activities as well as extended time period for the old ones.

Balance the pre and post electrification time allocation pattern for electrified household members, the study results published increased time allocation for activities like income generating activities or watching TV, which chore address income as well as human poverty. In the electrified household, reduced household chars for female members and reduced gender gap in terms of daily average time for studying is clearly introductory of prosperous gender status. Thus, it can be recommended that to ensure better use of time after sunset by efficient allocation across different functions, it will be important to provide electricity at the household level.

Electricity available at the household level should be a priority from the perspective of poverty reduction and women empowerment too, as the study revealed improved gender status in HE in the post - electrification period. Dominant spillover effect reported by higher difference in terms of time allocation between HE and WE-NEV, also rationalize the provision of electricity at the community level to ensure environment conducive to economic growth and higher standard of living. [11]

## 6.5 Impact on Irrigation and Agricultural Production

In agriculture, REP has contributed significantly in achieve food self-sufficiency through use of productive and efficient irrigation equipment's, and generated permanent employment opportunities.

Electrified irrigation equipment in general are more unfailing compared to diesel operated. Both operational cost and energy cost of electrified equipment, on average, three-fourths as compared to those of diesel sliced ones. Electrified irrigation equipment creates employment for two persons for almost half of the year and with the electrification of irrigation equipment, more than one hundred thousand extra employments have been created throughout the year in rural areas of the country. As land use predominance and cropping intensity through electrified equipment is

Higher and cost of operation of the same is lower (including breakdown and associated problems) in comparison with diesel equipment, electrified irrigation has got individual advantages over other types of irrigation.

Irregularity of power supply and load shedding are intense problems in REP. Irregular power supply mostly takes place in the summer and the 6-10 PM is the time of most irregular supply. These findings are sufficient enough to raise the question of quality of electricity supply through REP in the PBSs. The policy implications are avowedly forward: regularity in power supply needs to be ensured (or frequency of irregularity needs to be minimized); power supply during prime time, 6-10 PM should be made regular; and all subsidence efforts should be directed to address the problem of irregular supply during the summer season.

It is most likely that more generation of is the most important route to resolve the issue of irregular power supply, because of the increasing population size and increasing demand for electricity in the rural households As the contribution of electricity is evidentially clear in the agriculture sector of Bangladesh, therefore, more generation of electricity, on the one hand, and better distribution of the same, on the other, is recommended. The REB needs to entertain its elementary mission of connecting all irrigation pumps and think its mission/goal about attractive itself into generation of electricity too. [12]

## 6.6 Impact on Satellite Mass Media

The satellite has opened up the world before the eyes, people get acquainted with the world and this ensures their early socialization. The workload of women has reduced and they have sufficient time to watch TV, listen to radio and can assist children in their education. Access to resources, equality of men and women in terms of wage/employment, women trafficking, punishing criminal offences, child trafficking, acid throwing, choice of family planning use, right to participate in the election.

With all the fluctuations in the movement of households, industrial and irrigational electrified area from one riches group to another, as compared to the non-electrified area, the electrified area have shown a much

dynamic trend in their economic strengths measured through upward movement of the people asset situation. [11] NGOs (non-government organizations) and human development bodies have extended their activities in remote rural areas to help govt' efforts at poverty alleviation and human development. By dint of electricity, NGOs are encouraging varied human endeavors in the form of handicraft development and cross-cultural interchanges.

These things ultimately reduce migration towards cities and relieve them of stagnation of infrastructures and civic amenities. On the other hand, it ensures effective and maximum utilization of human and other properties. Speedy electrification of our rural homesteads & other consumers have sped timely utilization of natural and other resources. RE program have sped the other development activities in the rural areas. Many new infrastructure development. [11]

## 6.7 Impact on NGO

NGOs (non-government organizations) and human development bodies have extended their activities in remote rural areas to help govt' efforts at poverty alleviation and human development. By dint of electricity, NGOs are encouraging varied human endeavors in the form of handicraft development and Cross-cultural interchanges. These things ultimately reduce migration towards cities and relieve them of stagnation of infrastructures and civic amenities. On the other hand, it ensures effective and maximum utilization of human and other properties. Speedy electrification of our rural homesteads & other consumers have sped timely utilization of natural and other resources. RE program have sped the other development activities in the rural areas. Many new infrastructure development. [11]

## 6.8 Impact on DHAKA PBS-2

Rural electrification program is a powerful and successful addition to the socio-economic development Of Bangladesh. Dhaka PBS-2 plays an important role in promoting food production, rural industrialization, education and public health development in the country. This samity is conducting all activities of the association in Nawabganj, Dohar and Munshiganj districts of Dhaka district and partial geographical areas of Singaiir and Harirampur upazilas of Manikganj district. In addition to the headquarters located in the geographical area of the association, the management of the 01 zonal offices, 01 sub zonal offices, 02 area offices and 5 complaints centers continues to operate, maintain and provide continuous service to the customers.

## 6.9 Summary

Finally we show that the Rural electrified industries have been playing a pivotal role in changing the living condition of the rural people whose fortune were tied -up with existence agriculture till the coming of rural electrification. More and more people have been shifting their traditional stereo type business to the more dynamic industrial venture.

# CHAPTER 7

# CONCLUSIONS

## 7.1 Introduction

Energy is instrumental for the development and economic prosperity of a country. Although Bangladesh is known as a developing country in South Asia and this country has made extraordinary progress in accretive acceptance. Electricity distribution cost is significant issue in our country. Because electricity tariff rate and distribution cost are related with our economic growth. When electricity tariff rate becomes high then poor people of our country suffers a lot. By thinking about them, electricity tax rate of our country should be low. This study has reviewed the plot of DHAKA PBS-2 and hope of rural electrification in Bangladesh thesis. Bangladesh has important expectation cause of its inclinable geographic location and agricultural nature, and unlocking this potential should be considered seriously by policy makers. Given the lack of incessant electricity in rural areas, the majority of earning initiatives, including offices, educational institutions, and business organizations, are city centric, thereby asserting extra pressure on the entire management of city affairs.

The government of Bangladesh has already finalized the Renewable Energy Policy and has recently consecrated SREDA as the main authority under the SREDA Act 2010.Government has given highest priority to power development in Bangladesh and is committed to generating electricity will enough for all citizens by 2021, 2030, 2041. Our government should take step for betterment our power station. In our power station, generators skill rate is low. It should be increased to a high value by taking essential steps

## 7.2 Rule & Regulation

Government has undertaken various efforts to increase power generation capacity to reduce power shortage. Also due importance has been given for transmission and distribution system improvement. These measures already have resulted in appreciable improvement of power supply situation in the Country and considerable reduction of power failure, load shedding, electricity pilferage, etc. at recent times. The study shows that service reliability in terms of quality and uninterrupted power supply has been improved significantly.

However, in order to achieve even greater heights particularly in terms of serving customer needs, the following are some of the recommendations that the concerned authority may ponder upon:

- Most of the logistic are not in good condition. Hence enough modern logistic needs to be allocated considering the level of requirement.
- Communication system needs to improve besides so that the customers are conscious about the limitation and progress of the companies.
- Introduction of easier bill payment systems that may include designated payment booth in electricity offices, online bill payment; payment through credit cards, payment through mobile banking, etc.
- Clearance Certificate needs to be provided yearly basis onetime for maintaining lucid and friendly relation between customers and the utilities department
- Billing Department should be separated from Operation & Maintenance Department and pre-paid
- Meter system may be introduced to avoid any malpractice.
- Creating self-sufficient and well equipped one-stop service center to resolve customer complaints without any delay.
- Step needs to be taken to improve the power generation to reduce load shedding further.
- The old decayed distribution system needs to be inflamed and resettle.

## 7.3 Limitations of the Work

There are few limitations I have faced are mentioned below-

- In this study the data of SPBS. I have used are collected from BERC (Bangladesh Energy Regulatory Commission) but some of these data are cockiness.
- The distribution cost of SPBS I have calculated are almost the same as that given by BERC. The disrespect difference of expense caused by the data that are cockiness.
- In this thesis, I have discussed about electricity distribution structure and calculated the distribution cost of several power plants. But the tariff rate of electric power depends on generating, transmission, distribution cost. To calculate the tariff rate of electric power, transmission and distribution expense needs to be calculated along with the generation cost.

### 7.4 Future Outline

In 2021, 2030 and 2041 the demand of electricity of rural areas in Bangladesh will be respectively 9500 MW, 19000 MW and 36000 MW. To fulfill this upcoming demand BREB are implementing 9 (Nine) projects which are constructing, upgrading, intensifying, and rehabilitant new and old

substations. And also in the upcoming years BREB will construct more new substations and will upgrade, intensify or rehabilitate the old existing substations to increase the capacity through the new projects

Normally, Tariff rate of electrical power depends on transmission and distribution expense. If electricity supply costs are high then electrical tariff rate will high and committed negative result. In this paper, we discussed about Distribution cost of a PBS, how to calculate, with example. We also discussed about important terms. Interested people can study to calculate the Distribution cost and electricity tariff. This paper will also be helpful to get knowledge a permanent electricity distribution structure to meet the future electricity crisis of Bangladesh.

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# APPENDIX- A

## 1.Organization and function of BREB

It consists of a Chairman, four full time members and four part time members. Also to assure direct participation of the beneficiaries, each project area should form an electric cooperative, called a Palli Bidyut Samity (PBS).These PBS consists of several members. But PBS is directed by a member of REB.A organization chart of REB is given below:

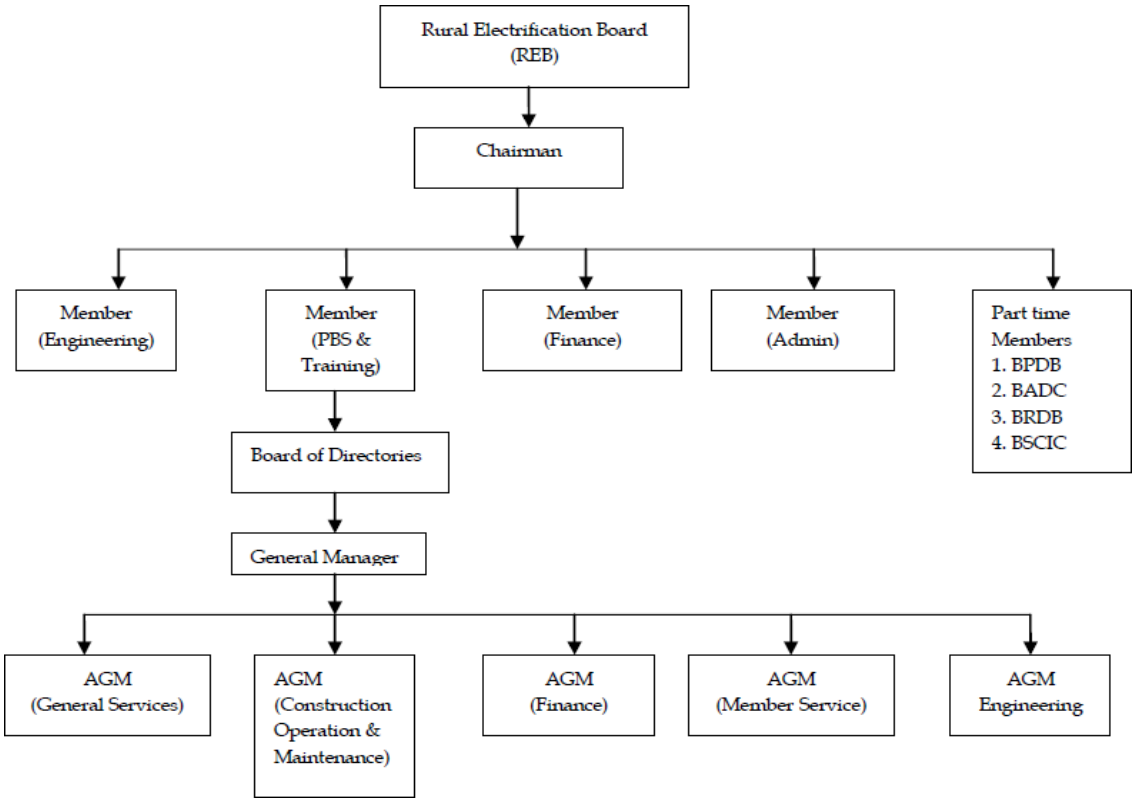


Fig 7.1.Organogram of REB

# APPENDIX- B

## Formula According to Thesis

Total revenue = Revenue from sales of energy + revenue from others

Revenue from others = other operating revenue + Non-operating Margins- interest+ Non-operating Margins-Others

Distribution cost = Operation & maintenance+ Consumer selling expenses + Administration & general Expenses + Depreciation & amortization +Tax Expenses+ interest Expenses

Total supply cost = Energy Purchase Cost+ System Loss + Distribution cost

System Loss (Tk) = Import Energy × System loss (Tk/Unit)

Surplus (Tk) = Total Revenue − Total supply cost

Energy Purchase Cost = Energy × Rate

$$\text{System loss (TK/Unit)} = \frac{\text{Purchase cost}}{\text{Sell Energy}} - \frac{\text{Purchase}}{\text{Import Energy}} \times 10$$

$$\text{System Loss \%} = \frac{\text{Energy Import} - \text{Energy Sell}}{\text{Energy Import}} \times 100$$

$$\text{Distribution Cost (Tk /Unit)} = \frac{\text{Total Supply Cost} - \text{Energy Purchase}}{\text{Energy Sell}} \times 10$$

$$\text{Total Revenue (Tk/Unit)} = \frac{\text{Revenue from other sources}}{\text{Energy Import}} \times 10$$

$$\text{Load Factor} = \frac{\text{Total Unit kWh (Purchase)}}{(\text{Total Peak demand} \times 1000) \times 24 \times 30)} \times 100$$

$$\text{Unit KWh (Purchase) \%} = \frac{\text{Reference grid unit KWh}}{\text{Total Unit KWh purchase}} \times 100$$

$$\text{Increment \%} = \frac{\text{Present value} - \text{Past value}}{\text{Past value}} \times 100$$

Grand Total = Sum of all values

# APPENDIX- C

## 1. As per Sub-station Meter Data (2015-16)

| Import point | July'15 | | | | | August'15 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Peak Demand(MW) | Unit kWh(Purchase) | Total KWh(sold) | Substation SL % | Load Factor | Peak Demand(MW | Unit kWh(Purchase) | Total KWh(sold) | Substation SL % | Load Factor |
| ZINZIRA | 22.000 | 10,717,000 | | | | 23.000 | 12,122,500 | | | |
| HASHNABAD | 13.500 | 7,399,626 | | | | 14.000 | 7,854,580 | | | |
| NAWABGONJ | 15.000 | 7,798,006 | | | | 15.000 | 6,838,270 | | | |
| DOHAR | 17.000 | 7,369,500 | | | | 17.000 | 6,899,000 | | | |
| KALATIA | 7.040 | 2,785,000 | | | | 8.100 | 3,463,000 | | | |
| MUNSIGONJ PBS-33 | 0.000 | 2,460 | | | | 0.000 | 565,405 | | | |
| MUNSIGONJ PBS-11 | 0.000 | 0 | | | | 0.000 | 0 | | | |
| MANIKGONJ | 0.000 | 28,090 | | | | 0.000 | 32,595 | | | |
| BAGHAIR-1 | 5.538 | 3,193,970 | | | | 5.538 | 3,355,450 | | | |
| BASED STEEL | 0.000 | 0 | | | | 0.000 | 0 | | | |
| S.CHARIGRAM | 0.000 | 162,445 | | | | 0.000 | 171,455 | | | |
| BSCIC | 6.500 | 2,859,000 | | | | 7.500 | 2,975,000 | | | |
| BAGHAIR-2 | 4.500 | 2,039,565 | 54,751,648 | 12.36 | 64.62 | 4.500 | 2,253,735 | 57,037,917 | **14.34** | **66.96** |
| QUALITY STEEL | 0.000 | 0 | | | | 0.000 | 0 | | | |
| GRID COMPLAIN CENTER | 0.000 | 0 | | | | 0.000 | 0 | | | |
| HASNABAD T-8 | 6.500 | 3,052,818 | | | | 7.000 | 3,859,704 | | | |
| PANGAON | 5.100 | 1,839,000 | | | | 5.500 | 1,734,000 | | | |
| BASUNDARA | 2.660 | 662,750 | | | | 2.660 | 649,000 | | | |
| KALATIA UNIT-2 | 3.100 | 919,000 | | | | 3.100 | 1,108,000 | | | |
| AGANAGOR-1 | 7.000 | 2,703,997 | | | | 7.000 | 3,397,000 | | | |
| AGANAGOR-2 | 6.000 | 3,701,500 | | | | 6.000 | 4,037,770 | | | |
| BARUKHALI | 4.576 | 2,238,500 | | | | 4.576 | 2,018,500 | | | |
| ATIBAZAR | 7.910 | 2,693,000 | | | | 7.240 | 2,832,000 | | | |
| MACCA MULTYLAYER | 0.348 | 304,810 | | | | 0.395 | 417,808 | | | |
| **total** | **134.272** | **62,470,037** | | | | **138.109** | **66,584,772** | | | |

| Import point | September'15 | | | | | October'15 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Peak Demand( | Unit kWh(Purchase) | Total KWh(sold) | Substation SL % | Load Factor | Peak Demand(MW) | Unit kWh(Purchase) | Total KWh(sold) | Substatio n SL % | Load Factor |
| ZINZIRA | 23.00 | 11,419,000 | | | | 15.000 | 7,689,000 | | | |
| HASHNABAD | 12.500 | 7,678,806 | | | | 12.100 | 7,755,261 | | | |
| NAWABGONJ | 17.000 | 4,525,000 | | | | 17.000 | 5,450,000 | | | |
| DOHAR | 17.000 | 7,581,500 | | | | 17.000 | 7,089,000 | | | |
| KALATIA | 8.100 | 3,425,000 | | | | 5.600 | 3,111,000 | | | |
| MUNSIGONJ PBS-33 | 0.000 | 3,976,220 | | | | 0.000 | 2,431,110 | | | |
| MUNSIGONJ PBS-11 | 0.000 | 0 | | | | 0.000 | 0 | | | |
| MANIKGONJ | 0.000 | 21,995 | | | | 0.000 | 26,765 | | | |
| BAGHAIR-1 | 7.625 | 3,266,420 | | | | 7.625 | 3,385,000 | | | |
| BASED STEEL | 0.000 | 0 | | | | 0.000 | 0 | | | |
| S.CHARIGRAM | 0.000 | 188,680 | | | | 0.000 | 187,090 | | | |
| BSCIC | 7.500 | 2,927,000 | | | | 7.500 | 3,252,000 | | | |
| BAGHAIR-2 | 4.650 | 2,120,965 | 60,459,254 | 10.32 | 68.23 | 4.873 | 2,134,000 | 61,559,648 | **6.24** | **69.52** |
| QUALITY STEEL | 0.000 | 0 | | | | 0.000 | 0 | | | |
| GRID COMPLAIN CENTER | 0.000 | 0 | | | | 0.000 | 0 | | | |
| HASNABAD T-8 | 6.000 | 3,405,510 | | | | 5.400 | 3,035,844 | | | |
| PANGAON | 3.450 | 1,711,000 | | | | 3.450 | 1,709,397 | | | |
| BASUNDARA | 2.100 | 1,333,750 | | | | 2.660 | 1,567,500 | | | |
| KALATIA UNIT-2 | 3.100 | 1,068,000 | | | | 1.500 | 889,000 | | | |
| AGANAGOR-1 | 7.000 | 3,127,000 | | | | 7.000 | 2,613,000 | | | |
| AGANAGOR-2 | 6.000 | 3,909,730 | | | | 6.000 | 3,712,500 | | | |
| BARUKHALI | 4.576 | 2,541,000 | | | | 4.576 | 2,381,500 | | | |
| ATIBAZAR | 7.240 | 2,801,000 | | | | 6.000 | 2,934,000 | | | |
| MACCA MULTYLAYER | 0.380 | 385,633 | | | | 0.380 | 459,250 | | | |
| ZINZIRA-T3(SUVADDA | 0.000 | 0 | | | | 7.500 | 3,844,500 | | | |
| **total** | **137.221** | **67,413,209** | | | | **131.164** | **65,656,717** | | | |

| Import point | November'15 | | | | | December'15 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Peak Demand( | Unit kWh(Purchase) | Total KWh(sold) | Substation SL % | Load Factor | Peak Demand( | Unit kWh(Purchase) | Total KWh(sold) | Substation SL % | Load Factor |
| ZINZIRA | 12.500 | 5,825,000 | | | | 11.500 | 4,940,000 | | | |
| HASHNABAD | 7.700 | 4,983,331 | | | | 11.500 | 4,490,646 | | | |
| NAWABGONJ | 12.000 | 5,200,000 | | | | 12.000 | 4,411,935 | | | |
| DOHAR | 17.000 | 5,192,000 | | | | 17.000 | 4,669,500 | | | |
| KALATIA | 4.000 | 2,420,000 | | | | 4.764 | 1,632,000 | | | |
| MUNSIGONJ PBS-33 | 0.000 | 659,810 | | | | 0.000 | 923,497 | | | |
| MINSIGONJ PBS-11 | 0.000 | 0 | | | | 0.000 | 0 | | | |
| MANIKGONJ | 0.000 | 19,080 | | | | 0.000 | 19,610 | | | |
| BAGHAIR-1 | 6.140 | 2,663,000 | | | | 6.373 | 2,426,000 | | | |
| BASED STEEL | 0.000 | 0 | | | | 0.000 | 0 | | | |
| S.CHARIGRAM | 0.000 | 97,255 | | | | 0.000 | 123,225 | | | |
| BSCIC | 6.200 | 2,886,000 | | | | 5.750 | 2,645,000 | | | |
| BAGHAIR-2 | 1.004 | 2,205,500 | 53,235,270 | 0.80 | 67.14 | 1.006 | 1,639,000 | 44,028,274 | **1.53** | 55.24678138 |
| QUALITY STEEL | 0.000 | 0 | | | | 0.000 | 0 | | | |
| GRID COMPLAIN CENTER | 0.000 | 0 | | | | 0.000 | 0 | | | |
| HASNABAD T-8 | 4.400 | 3,272,958 | | | | 7.000 | 2,491,884 | | | |
| PANGAON | 5.500 | 1,824,412 | | | | 2.500 | 1,295,191 | | | |
| BASUNDARA | 2.660 | 1,674,750 | | | | 3.270 | 1,443,750 | | | |
| KALATIA UNIT-2 | 2.500 | 835,000 | | | | 1.318 | 817,000 | | | |
| AGANAGOR-1 | 6.000 | 3,004,000 | | | | 6.000 | 2,385,000 | | | |
| AGANAGOR-2 | 6.000 | 3,355,000 | | | | 6.000 | 2,657,105 | | | |
| BARUKHALI | 5.000 | 1,732,500 | | | | 5.989 | 1,347,500 | | | |
| ATIBAZAR | 5.500 | 2,194,000 | | | | 4.014 | 1,411,000 | | | |
| MACCA MULTYLAYER | 0.409 | 467,500 | | | | 0.426 | 387,750 | | | |
| ZINZIRA-T3(SUVADDA | 6.500 | 3,151,500 | | | | 6.000 | 2,557,500 | | | |
| **total** | **111.013** | **53,662,596** | | | | **112.410** | **44,714,093** | | | |

| Import point | January'16 | | | | | February'16 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Peak Demand( | Unit kWh(Purchase) | Total KWh(sold) | Substation SL % | Load Factor | Peak Demand( | Unit kWh(Purchase) | Total KWh(sold) | Substation SL % | Load factor |
| ZINZIRA | 11.500 | 4,923,000 | | | | 11.500 | 5,389,000 | | | |
| HASHNABAD | 11.500 | 5,013,912 | | | | 11.500 | 5,606,443 | | | |
| NAWABGONJ | 12.000 | 5,119,703 | | | | 12.000 | 5,094,623 | | | |
| DOHAR | 17.000 | 4,986,500 | | | | 17.000 | 4,743,500 | | | |
| KALATIA | 4.803 | 1,796,000 | | | | 4.925 | 2,001,000 | | | |
| MUNSIGONJ PBS-33 | 0.000 | 412,833 | | | | 0.000 | 493,719 | | | |
| MANIKGONJ PBS-11 | 0.000 | 0 | | | | 0.000 | 0 | | | |
| MANIKGONJ | 0.000 | 19,080 | | | | 0.000 | 40,015 | | | |
| BAGHAIR-1 | 6.373 | 2,397,000 | | | | 6.373 | 2,405,000 | | | |
| BASED STEEL | 0.000 | 0 | | | | 0.000 | 0 | | | |
| S.CHARIGRAM | 0.000 | 147,605 | | | | 0.000 | 217,300 | | | |
| BSCIC | 5.750 | 2,744,000 | | | | 5.750 | 2,638,000 | | | |
| BAGHAIR-2 | 1.006 | 1,644,500 | 44,126,713 | 3.89 | 56.97 | 1.006 | 1,710,500 | 45,081,251 | **6.37** | 58.59883072 |
| QUALITY STEEL | 0.000 | 0 | | | | 0.000 | 0 | | | |
| GRID COMPLAIN CENTER | 0.000 | 0 | | | | 0.000 | 0 | | | |
| HASNABAD T-8 | 7.000 | 2,013,318 | | | | 5.300 | 2,343,906 | | | |
| PANGAON | 2.500 | 1,163,000 | | | | 5.600 | 1,201,000 | | | |
| BASUNDARA | 3.270 | 1,589,500 | | | | 2.330 | 1,201,750 | | | |
| KALATIA UNIT-2 | 1.194 | 864,000 | | | | 1.215 | 913,000 | | | |
| AGANAGOR-1 | 6.000 | 2,190,840 | | | | 6.000 | 2,652,836 | | | |
| AGANAGOR-2 | 6.000 | 2,397,395 | | | | 6.500 | 2,866,270 | | | |
| BARUKHALI | 5.989 | 2,007,500 | | | | 5.989 | 1,710,500 | | | |
| ATIBAZAR | 4.108 | 1,596,000 | | | | 4.702 | 1,855,000 | | | |
| MACCA MULTYLAYER | 0.426 | 558,250 | | | | 0.426 | 462,000 | | | |
| ZINZIRA-T3(SUVADDA | 5.500 | 2,326,500 | | | | 6.000 | 2,601,500 | | | |
| **total** | **111.919** | **45,910,436** | | | | **114.116** | **48,146,862** | | | |

| Import point | March'16 | | | | | April'16 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Peak Demand( | Unit kWh(Purchase) | Total KWh(sold) | Substation SL % | Load factor | Peak Demand( | Unit kWh(Purchase) | Total KWh(sold) | Substation SL % | Load Facto |
| ZINZIRA | 15.500 | 7,483,600 | | | | 17.600 | 8,043,400 | | | |
| HASHNABAD | 12.720 | 7,571,308 | | | | 15.020 | 8,434,578 | | | |
| NAWABGONJ | 15.000 | 6,307,620 | | | | 17.000 | 7,188,225 | | | |
| DOHAR | 15.000 | 5,873,000 | | | | 19.000 | 6,823,500 | | | |
| KALATIA | 4.211 | 3,025,000 | | | | 6.845 | 3,173,000 | | | |
| MUNSIGONJ PBS-33 | 0.000 | 432,363 | | | | 0.000 | 777,233 | | | |
| MANIKGONJ PBS-11 | 0.000 | 0 | | | | 0.000 | 0 | | | |
| MANIKGONJ | 0.000 | 13,515 | | | | 0.000 | 19,080 | | | |
| BAGHAIR-1 | 6.373 | 3,133,000 | | | | 6.104 | 3,431,000 | | | |
| BASED STEEL | 0.000 | 0 | | | | 0.000 | 0 | | | |
| S.CHARIGRAM | 0.000 | 219,950 | | | | 0.000 | 279,575 | | | |
| BSCIC | 7.500 | 3,242,000 | | | | 7.500 | 3,116,000 | | | |
| BAGHAIR-2 | 4.785 | 2,007,500 | 56,301,952 | 8.23 | 66.07 | 3.487 | 2,153,250 | 63,676,065 | **7.39** | 66.32 |
| QUALITY STEEL | 0.000 | 0 | | | | 0.000 | 0 | | | |
| GRID COMPLAIN CENTER | 0.000 | - | | | | 0.000 | 0 | | | |
| HASNABAD T-8 | 5.600 | 3,201,138 | | | | 6.400 | 3,541,860 | | | |
| PANGAON | 5.400 | 1,369,000 | | | | 6.400 | 1,638,454 | | | |
| BASUNDARA | 2.330 | 1,325,500 | | | | 2.330 | 1,256,750 | | | |
| KALATIA UNIT-2 | 1.666 | 600,000 | | | | 3.610 | 1,438,000 | | | |
| AGANAGOR-1 | 6.500 | 3,273,169 | | | | 6.500 | 3,562,707 | | | |
| AGANAGOR-2 | 6.500 | 3,801,655 | | | | 6.500 | 4,219,490 | | | |
| BARUKHALI | 5.830 | 2,178,000 | | | | 6.000 | 2,596,000 | | | |
| ATIBAZAR | 6.127 | 2,686,000 | | | | 5.775 | 2,917,000 | | | |
| MACCA MULTYLAYER | 0.426 | 448,250 | | | | 0.426 | 430,375 | | | |
| ZINZIRA-T3(SUVADDA | 7.500 | 3,158,870 | | | | 7.500 | 3,719,155 | | | |
| **total** | **128.968** | **61,350,438** | | | | **143.997** | **68,758,632** | | | |

| Import point | May'16 | | | | | June'16 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Peak Demand( | Unit kWh(Purchase) | Total KWh(sold) | Substatio n SL % | Load Factor | Peak Demand( | Unit kWh(Purchase) | Total KWh(sold) | Substatio n SL % | Load Factor |
| ZINZIRA | 17.600 | 7,634,000 | | | | 17.600 | 8,421,000 | | | |
| HASHNABAD | 15.020 | 8,329,496 | | | | 15.020 | 9,229,129 | | | |
| NAWABGONJ | 17.000 | 6,633,330 | | | | 17.000 | 8,101,500 | | | |
| DOHAR | 19.000 | 6,391,500 | | | | 19.000 | 7,703,000 | | | |
| KALATIA | 6.850 | 2,711,000 | | | | 6.850 | 3,202,000 | | | |
| MUNSIGONJ PBS-33 | 0.000 | 167,929 | | | | 0.000 | 68,450 | | | |
| MANIKGONJ PBS-11 | 0.000 | 0 | | | | 0.000 | 0 | | | |
| MANIKGONJ | 0.000 | 24,910 | | | | 0.000 | 29,680 | | | |
| BAGHAIR-1 | 6.104 | 3,285,000 | | | | 6.104 | 3,770,000 | | | |
| BASED STEEL | 0.000 | - | | | | 0.000 | 0 | | | |
| S.CHARIGRAM | 0.000 | 160,855 | | | | 0.000 | 343,970 | | | |
| BSCIC | 7.500 | 2,970,000 | | | | 7.500 | 4,013,000 | | | |
| BAGHAIR-2 | 3.487 | 2,321,000 | 62,511,688 | 3.87 | 63.61 | 3.487 | 2,590,500 | 65,865,370 | **11.72** | **72.98** |
| QUALITY STEEL | 0.000 | 0 | | | | 0.000 | 0 | | | |
| GRID COMPLAIN CENTER | 0.000 | 0 | | | | 0.000 | 0 | | | |
| HASNABAD T-8 | 6.400 | 3,525,732 | | | | 6.400 | 3,923,226 | | | |
| PANGAON | 4.400 | 1,576,105 | | | | 4.400 | 1,504,446 | | | |
| BASUNDARA | 2.330 | 1,234,750 | | | | 2.330 | 561,000 | | | |
| KALATIA UNIT-2 | 3.600 | 1,243,000 | | | | 3.600 | 1,425,000 | | | |
| AGANAGOR-1 | 6.500 | 3,668,280 | | | | 6.500 | 4,359,014 | | | |
| AGANAGOR-2 | 6.500 | 4,194,245 | | | | 6.500 | 4,803,975 | | | |
| BARUKHALI | 6.000 | 2,029,500 | | | | 6.000 | 2,596,000 | | | |
| ATIBAZAR | 5.775 | 2,678,000 | | | | 5.775 | 3,129,000 | | | |
| MACCA MULTYLAYER | 0.426 | 482,625 | | | | 0.426 | 723,250 | | | |
| ZINZIRA-T3(SUVADDA | 7.500 | 3,768,105 | | | | 7.500 | 4,110,370 | | | |
| **total** | **141.992** | **65,029,362** | | | | **141.992** | **74,607,510** | | | |

## 2. As per Sub-station Meter Data (2016-2017)

| Import point | July'16 | | | | | August'16 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Peak Demand(MW) | Unit kWh(Purchase) | Total KWh(sold) | Substation SL % | Load Factor | Peak Demand(MW | Unit kWh(Purchase) | Total KWh(sold) | Substation SL % | Load factor |
| ZINZIRA | 17.600 | 7,944,000 | | | | 16.600 | 8,062,000 | | | |
| HASHNABAD | 15.330 | 8,158,738 | | | | 15.330 | 9,250,444 | | | |
| NAWABGONJ | 16.000 | 8,904,225 | | | | 16.000 | 8,321,775 | | | |
| DOHAR | 17.000 | 8,126,000 | | | | 18.000 | 7,915,500 | | | |
| KALATIA | 6.790 | 3,367,000 | | | | 6.825 | 3,328,000 | | | |
| MUNSIGONJ PBS-33 | 0.000 | 132,307 | | | | 0.000 | 239,333 | | | |
| MUNSIGONJ PBS-11 | 0.000 | 0 | | | | 0.000 | 0 | | | |
| MANIKGONJ | 0.000 | 31,270 | | | | 0.000 | 30,740 | | | |
| BAGHAIR-1 | 6.104 | 3,523,000 | | | | 6.104 | 3,616,000 | | | |
| BASED STEEL | 0.000 | 0 | | | | 0.000 | 0 | | | |
| S.CHARIGRAM | 0.000 | 209,350 | | | | 0.000 | 230,020 | | | |
| BSCIC | 7.500 | 3,507,000 | | | | 7.500 | 4,132,000 | | | |
| BAGHAIR-2 | 3.487 | 2,442,000 | 63,156,269 | 10.21 | 69.37 | 3.487 | 2,700,500 | 67,872,813 | **10.13** | **74.45** |
| QUALITY STEEL | 0.000 | 0 | | | | 0.000 | 0 | | | |
| GRID COMPLAIN CENTER | 0.000 | 0 | | | | 0.000 | 0 | | | |
| HASNABAD T-8 | 6.300 | 3,066,840 | | | | 6.300 | 3,773,718 | | | |
| PANGAON | 4.100 | 2,015,730 | | | | 4.100 | 1,940,270 | | | |
| BASUNDARA | 2.330 | 1,056,000 | | | | 2.330 | 1,212,750 | | | |
| KALATIA UNIT-2 | 3.695 | 1,562,000 | | | | 3.650 | 1,469,000 | | | |
| AGANAGOR-1 | 6.500 | 2,355,260 | | | | 6.500 | 3,791,811 | | | |
| AGANAGOR-2 | 6.500 | 3,670,865 | | | | 6.500 | 4,240,500 | | | |
| BARUKHALI | 6.815 | 2,920,500 | | | | 6.815 | 2,678,500 | | | |
| ATIBAZAR | 5.855 | 3,156,000 | | | | 5.925 | 3,187,000 | | | |
| MACCA MULTYLAYER | 0.426 | 305,250 | | | | 0.426 | 621,500 | | | |
| ZINZIRA-T3(SUVADDA | 8.500 | 3,886,520 | | | | 8.500 | 4,778,565 | | | |
| **total** | **140.832** | **70,339,855** | | | | **140.892** | **75,519,926** | | | |

| Import point | September'16 | | | | | October'16 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Peak Demand(MW) | Unit kWh(Purchase) | Total KWh(sold) | Substation SL % | Load Factor | Peak Demand(MW) | Unit kWh(Purchase) | Total KWh(sold) | Substation SL % | Load Factor |
| ZINZIRA | 16.600 | 7,829,000 | | | | 16.600 | 8,372,000 | | | |
| HASHNABAD | 15.330 | 8,312,156 | | | | 15.330 | 8,972,383 | | | |
| NAWABGONJ | 16.000 | 8,629,500 | | | | 16.000 | 8,010,750 | | | |
| DOHAR | 18.000 | 8,254,000 | | | | 19.000 | 7,743,000 | | | |
| KALATIA | 6.825 | 3,340,000 | | | | 6.510 | 3,258,000 | | | |
| MUNSIGONJ PBS-33 | 0.000 | 242,870 | | | | 0.000 | 221,883 | | | |
| MUNSIGONJ PBS-11 | 0.000 | 0 | | | | 0.000 | 0 | | | |
| MANIKGONJ | 0.000 | 28,090 | | | | 0.000 | 27,295 | | | |
| BAGHAIR-1 | 6.104 | 3,652,000 | | | | 6.104 | 3,793,000 | | | |
| BASED STEEL | 0.000 | 0 | | | | 0.000 | 0 | | | |
| S.CHARIGRAM | 0.000 | 201,930 | | | | 0.000 | 200,075 | | | |
| BSCIC | 7.500 | 3,687,000 | | | | 7.500 | 4,004,000 | | | |
| BAGHAIR-2 | 3.487 | 2,722,500 | 64,529,887 | 8.84 | 69.78 | 3.487 | 2,887,500 | 67,499,579 | **8.98** | 73.73472279 |
| QUALITY STEEL | 0.000 | 0 | | | | 0.000 | 0 | | | |
| GRID COMPLAIN CENTER | 0.000 | 0 | | | | 0.000 | 0 | | | |
| HASNABAD T-8 | 6.300 | 2,561,742 | | | | 6.300 | 3,578,040 | | | |
| PANGAON | 4.100 | 1,933,000 | | | | 3.500 | 1,857,000 | | | |
| BASUNDARA | 2.330 | 1,061,500 | | | | 1.060 | 1,141,250 | | | |
| KALATIA UNIT-2 | 3.650 | 1,551,000 | | | | 3.650 | 1,483,000 | | | |
| AGANAGOR-1 | 6.500 | 2,308,702 | | | | 6.500 | 3,338,381 | | | |
| AGANAGOR-2 | 6.500 | 4,006,750 | | | | 6.500 | 4,452,250 | | | |
| BARUKHALI | 6.815 | 2,854,500 | | | | 6.815 | 2,662,000 | | | |
| ATIBAZAR | 5.930 | 3,175,000 | | | | 5.905 | 3,285,000 | | | |
| MACCA MULTYLAYER | 0.426 | 453,750 | | | | 0.426 | 577,500 | | | |
| ZINZIRA-T3(SUVADDA | 8.500 | 3981725 | | | | 8.500 | 4,294,125 | | | |
| **total** | **140.897** | **70,786,715** | | | | **139.687** | **74,158,432** | | | |

| Import point | November'16 | | | | | December'16 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Peak Demand(MW) | Unit kWh(Purchase) | Total KWh(sold) | Substation SL % | Load Factor | Peak Demand(MW) | Unit kWh(Purchase) | Total KWh(sold) | Substation SL % | Load Factor |
| ZINZIRA | 16.600 | 6,230,000 | | | | 12.500 | 5,914,000 | | | |
| HASHNABAD | 15.330 | 6,711,628 | | | | 11.700 | 5,891,893 | | | |
| NAWABGONJ | 16.000 | 6,548,693 | | | | 16.000 | 5,336,678 | | | |
| DOHAR | 19.000 | 5,507,000 | | | | 11.000 | 4,821,000 | | | |
| KALATIA | 6.510 | 2,277,000 | | | | 5.251 | 2,062,000 | | | |
| MUNSIGONJ PBS-33 | 0.000 | 164,280 | | | | 0.000 | 134,474 | | | |
| MINSIGONJ PBS-11 | 0.000 | 0 | | | | 0.000 | 0 | | | |
| MANIKGONJ | 0.000 | 17,225 | | | | 0.000 | 21,730 | | | |
| BAGHAIR-1 | 6.104 | 2,812,000 | | | | 6.104 | 2,447,000 | | | |
| BASED STEEL | 0.000 | 0 | | | | 0.000 | 0 | | | |
| S.CHARIGRAM | 0.000 | 147,340 | | | | 0.000 | 146,015 | | | |
| BSCIC | 7.500 | 2,512,000 | | | | 6.500 | 2,490,000 | | | |
| BAGHAIR-2 | 3.487 | 2,238,500 | | | | 3.487 | 2,123,000 | | | |
| QUALITY STEEL | 0.000 | 0 | 55,961,557 | 0.64 | 57.06 | 0.000 | 0 | 47,448,511 | **2.90** | 59.24922667 |
| GRID COMPLAIN CENTER | 0.000 | 0 | | | | 0.000 | 0 | | | |
| HASNABAD T-8 | 6.300 | 2,813,400 | | | | 5.200 | 2,405,682 | | | |
| PANGAON | 3.500 | 1,365,000 | | | | 3.300 | 1,272,000 | | | |
| BASUNDARA | 1.060 | 1,699,500 | | | | 1.020 | 1,111,000 | | | |
| KALATIA UNIT-2 | 3.650 | 982,000 | | | | 3.650 | 906,000 | | | |
| AGANAGOR-1 | 6.500 | 3,087,797 | | | | 6.000 | 2,666,892 | | | |
| AGANAGOR-2 | 6.500 | 3,371,500 | | | | 6.000 | 2,080,100 | | | |
| BARUKHALI | 4.210 | 1,903,000 | | | | 4.210 | 1,595,000 | | | |
| ATIBAZAR | 5.905 | 2,195,000 | | | | 5.200 | 1,923,000 | | | |
| MACCA MULTYLAYER | 0.426 | 624,250 | | | | 0.426 | 638,000 | | | |
| ZINZIRA-T3(SUVADDA | 8.500 | 3,113,990 | | | | 7.000 | 2,880,075 | | | |
| **total** | **137.082** | **56,321,103** | | | | **114.548** | **48,865,539** | | | |

| Import point | January'17 | | | | | February'17 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Peak Demand(MW) | Unit kWh(Purchase) | Total KWh(sold) | Substation SL % | Load Factor | Peak Demand(MW) | Unit kWh(Purchase) | Total KWh(sold) | Substation SL % | Load Factor |
| ZINZIRA | 0.000 | 0 | | | | 0.000 | 44,351,000 | | | |
| HASHNABAD | 0.000 | 0 | | | | 0.000 | 47,297,242 | | | |
| NAWABGONJ | 13.000 | 6,054,342 | | | | 13.000 | 6,000,220 | | | |
| DOHAR | 12.000 | 5,119,500 | | | | 12.000 | 4,974,000 | | | |
| KALATIA | 0.000 | 0 | | | | 0.000 | 17,632,000 | | | |
| MUNSIGONJ PBS-33 | 0.000 | 60,472 | | | | 0.000 | 286,624 | | | |
| MANIKGONJ PBS-11 | 0.000 | 0 | | | | 0.000 | 0 | | | |
| MANIKGONJ | 0.000 | 20,140 | | | | 0.000 | 230,815 | | | |
| BAGHAIR-1 | 0.000 | 0 | | | | 0.000 | 19,843,000 | | | |
| BASED STEEL | 0.000 | 0 | | | | 0.000 | 0 | | | |
| S.CHARIGRAM | 0.000 | 171,720 | | | | 0.000 | 0 | | | |
| BSCIC | 0.000 | 0 | | | | 0.000 | 20,332,000 | | | |
| BAGHAIR-2 | 0.000 | 0 | | | | 0.000 | 15,114,000 | | | |
| QUALITY STEEL | 0.000 | 0 | 12,325,412 | 7.30 | 63.22 | 0.000 | 0 | 254,519,615 | **16.34** | 1446.51937 |
| GRID COMPLAIN CENTER | 0.000 | 0 | | | | 0.000 | 0 | | | |
| HASNABAD T-8 | 0.000 | 0 | | | | 0.000 | 18,199,422 | | | |
| PANGAON | 0.000 | 0 | | | | 0.000 | 10,383,000 | | | |
| BASUNDARA | 0.000 | 0 | | | | 0.000 | 7,282,000 | | | |
| KALATIA UNIT-2 | 0.000 | 0 | | | | 0.000 | 7,953,000 | | | |
| AGANAGOR-1 | 0.000 | 0 | | | | 0.000 | 17,548,843 | | | |
| AGANAGOR-2 | 0.000 | 0 | | | | 0.000 | 21,821,965 | | | |
| BARUKHALI | 4.210 | 1,870,000 | | | | 4.210 | 1,895,000 | | | |
| ATIBAZAR | 0.000 | 0 | | | | 0.000 | 16,921,000 | | | |
| MACCA MULTYLAYER | 0.000 | 0 | | | | 0.000 | 3,220,250 | | | |
| ZINZIRA-T3(SUVADDA | 0.000 | 0 | | | | 0.000 | 22,935,000 | | | |
| **total** | **29.210** | **13,296,174** | | | | **29.210** | **304,220,381** | | | |

| Import point | March'17 | | | | | April'17 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Peak Demand(MW) | Unit kWh(Purchase) | Total KWh(sold) | Substation SL % | Load Factor | Peak Demand(MW) | Unit kWh(Purchase) | Total KWh(sold) | Substation SL % | Load factor |
| ZINZIRA | 0.000 | 0 | | | | 0.000 | 0 | | | |
| HASHNABAD | 0.000 | 0 | | | | 0.000 | 0 | | | |
| NAWABGONJ | 12.790 | 6,369,660 | | | | 13.000 | 6,890,400 | | | |
| DOHAR | 19.000 | 6,048,000 | | | | 12.000 | 6,940,000 | | | |
| KALATIA | 0.000 | 0 | | | | 0.000 | 0 | | | |
| MUNSIGONJ PBS-33 | 0.000 | 127,371 | | | | 0.000 | 15,076 | | | |
| MANIKGONJ PBS-11 | 0.000 | 0 | | | | 0.000 | 0 | | | |
| MANIKGONJ | 0.000 | 24,380 | | | | 0.000 | 23,320 | | | |
| BAGHAIR-1 | 0.000 | 0 | | | | 0.000 | 0 | | | |
| BASED STEEL | 0.000 | 0 | | | | 0.000 | 0 | | | |
| S.CHARIGRAM | 0.000 | 236,115 | | | | 0.000 | 197,425 | | | |
| BSCIC | 0.000 | 0 | | | | 0.000 | 0 | | | |
| BAGHAIR-2 | 0.000 | 0 | 13,875,758 | 6.50 | 57.26 | 0.000 | 0 | 16,042,881 | **2.27** | 78.049379 |
| QUALITY STEEL | 0.000 | 0 | | | | 0.000 | 0 | | | |
| GRID COMPLAIN CENTER | 0.000 | 0 | | | | 0.000 | 0 | | | |
| HASNABAD T-8 | 0.000 | 0 | | | | 0.000 | 0 | | | |
| PANGAON | 0.000 | 0 | | | | 0.000 | 0 | | | |
| BASUNDARA | 0.000 | 0 | | | | 0.000 | 0 | | | |
| KALATIA UNIT-2 | 0.000 | 0 | | | | 0.000 | 0 | | | |
| AGANAGOR-1 | 0.000 | 0 | | | | 0.000 | 0 | | | |
| AGANAGOR-2 | 0.000 | 0 | | | | 0.000 | 0 | | | |
| BARUKHALI | 4.210 | 2,035,000 | | | | 4.210 | 2,348,500 | | | |
| ATIBAZAR | 0.000 | 0 | | | | 0.000 | 0 | | | |
| MACCA MULTYLAYER | 0.000 | 0 | | | | 0.000 | 0 | | | |
| ZINZIRA-T3(SUVADDA | 0.000 | 0 | | | | 0.000 | 0 | | | |
| **total** | **36.000** | **14,840,526** | | | | **29.210** | **16,414,721** | | | |

| Import point | May'17 | | | | | June'17 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Peak Demand(MW) | Unit kWh(Purchase) | Total KWh(sold) | Substation SL % | Load Factor | Peak Demand(MW) | Unit kWh(Purchase) | Total KWh(sold) | Substation SL % | Load Factor |
| ZINZIRA | 0.000 | 0 | | | | 0.000 | 0 | | | |
| HASHNABAD | 0.000 | 0 | | | | 0.000 | 0 | | | |
| NAWABGONJ | 20.000 | 9,320,028 | | | | 20.000 | 9,173,817 | | | |
| DOHAR | 19.000 | 7,881,000 | | | | 20.000 | 8,048,000 | | | |
| KALATIA | 0.000 | 0 | | | | 0.000 | 0 | | | |
| MUNSIGONJ PBS-33 | 0.000 | 26,427 | | | | 0.000 | 95,393 | | | |
| MANIKGONJ PBS-11 | 0.000 | 0 | | | | 0.000 | 0 | | | |
| MANIKGONJ | 0.000 | 31,005 | | | | 0.000 | 31,800 | | | |
| BAGHAIR-1 | 0.000 | 0 | | | | 0.000 | 0 | | | |
| BASED STEEL | 0.000 | 0 | | | | 0.000 | 0 | | | |
| S.CHARIGRAM | 0.000 | 220,480 | | | | 0.000 | 204,050 | | | |
| BSCIC | 0.000 | 0 | | | | 0.000 | 0 | | | |
| BAGHAIR-2 | 0.000 | 0 | 18,013,150 | 11.55 | 60.18 | 0.000 | 0 | 18,125,774 | **11.30** | 59.1292245 |
| QUALITY STEEL | 0.000 | 0 | | | | 0.000 | 0 | | | |
| GRID COMPLAIN CENTER | 0.000 | 0 | | | | 0.000 | 0 | | | |
| HASNABAD T-8 | 0.000 | 0 | | | | 0.000 | 0 | | | |
| PANGAON | 0.000 | 0 | | | | 0.000 | 0 | | | |
| BASUNDARA | 0.000 | 0 | | | | 0.000 | 0 | | | |
| KALATIA UNIT-2 | 0.000 | 0 | | | | 0.000 | 0 | | | |
| AGANAGOR-1 | 0.000 | 0 | | | | 0.000 | 0 | | | |
| AGANAGOR-2 | 0.000 | 0 | | | | 0.000 | 0 | | | |
| BARUKHALI | 8.000 | 2,887,500 | | | | 8.000 | 2,882,000 | | | |
| ATIBAZAR | 0.000 | 0 | | | | 0.000 | 0 | | | |
| MACCA MULTYLAYER | 0.000 | 0 | | | | 0.000 | 0 | | | |
| ZINZIRA-T3(SUVADDA | 0.000 | 0 | | | | 0.000 | 0 | | | |
| **total** | **47.000** | **20,366,440** | | | | **48.000** | **20,435,060** | | | |

## 3.As per Sub-station Meter Data (2017-2018)

| Import point | July'17 | | | | | August'17 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Peak Demand(MW) | Unit kWh(Purchase) | Total KWh(sold) | Substation SL % | Load Factor | Peak Demand(MW | Unit kWh(Purchase) | Total KWh(sold) | Substation SL % | Load Factor |
| ZINZIRA | 0.000 | 0 | | | | 0.000 | 0 | | | |
| HASHNABAD | 0.000 | 0 | | | | 0.000 | 0 | | | |
| NAWABGONJ | 20.000 | 9,020,715 | | | | 20.000 | 9,330,750 | | | |
| DOHAR | 19.000 | 8,625,000 | | | | 19.000 | 8,643,000 | | | |
| KALATIA | 0.000 | 856,705 | | | | 0.000 | 0 | | | |
| MUNSIGONJ PBS-33 | 0.000 | 188,205 | | | | 0.000 | 186,375 | | | |
| MUNSIGONJ PBS-11 | 0.000 | 0 | | | | 0.000 | 874,089 | | | |
| MANIKGONJ | 0.000 | 32,065 | | | | 0.000 | 37,100 | | | |
| BAGHAIR-1 | 0.000 | 0 | | | | 0.000 | 0 | | | |
| BASED STEEL | 0.000 | 0 | | | | 0.000 | 6,718,125 | | | |
| S.CHARIGRAM | 0.000 | 237,970 | | | | 0.000 | 262,615 | | | |
| BSCIC | 0.000 | 0 | | | | 0.000 | 0 | | | |
| BAGHAIR-2 | 0.000 | 0 | 19,275,364 | 12.96 | 66.07 | 0.000 | 0 | 47,043,887 | **7.21** | 154.595692 |
| QUALITY STEEL | 0.000 | 0 | | | | 0.000 | 13,422,040 | | | |
| GRID COMPLAIN CENTER | 0.000 | 0 | | | | 0.000 | 8,092,109 | | | |
| HASNABAD T-8 | 0.000 | 0 | | | | 0.000 | 0 | | | |
| PANGAON | 0.000 | 0 | | | | 0.000 | 0 | | | |
| BASUNDARA | 0.000 | 0 | | | | 0.000 | 0 | | | |
| KALATIA UNIT-2 | 0.000 | 0 | | | | 0.000 | 0 | | | |
| AGANAGOR-1 | 0.000 | 0 | | | | 0.000 | 0 | | | |
| AGANAGOR-2 | 7.550 | 3,184,500 | | | | 6.550 | 3,135,000 | | | |
| BARUKHALI | 0.000 | 0 | | | | 0.000 | 0 | | | |
| ATIBAZAR | 0.000 | 0 | | | | 0.000 | 0 | | | |
| MACCA MULTYLAYER | 0.000 | 0 | | | | 0.000 | 0 | | | |
| **total** | **46.550** | **22,145,160** | | | | **45.550** | **50,701,203** | | | |

| Import point | September'17 | | | | | October'17 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Peak Demand(MW) | Unit kWh(Purchase) | Total KWh(sold) | Substation SL % | Load Factor | Peak Demand(MW) | Unit kWh(Purchase) | Total KWh(sold) | Substation SL % | Load Factor |
| ZINZIRA | 0.000 | 0 | | | | 0.000 | 0 | | | |
| HASHNABAD | 0.000 | 0 | | | | 0.000 | 0 | | | |
| NAWABGONJ | 20.000 | 9,363,915 | | | | 20.000 | 8,211,638 | | | |
| DOHAR | 19.000 | 8,842,000 | | | | 19.000 | 7,865,500 | | | |
| KALATIA | 0.000 | 0 | | | | 0.000 | 0 | | | |
| MUNSIGONJ PBS-33 | 0.000 | 22,688 | | | | 0.000 | 65,245 | | | |
| 11KV (HOGLAGATI) | 0.000 | 812,057 | | | | 0.000 | 704,595 | | | |
| MANIKGONJ | 0.000 | 32,860 | | | | 0.000 | 29,945 | | | |
| BAGHAIR-1 | 0.000 | 0 | | | | 0.000 | 0 | | | |
| TOLSHI KHALI POL | 0.000 | 2,190,875 | | | | 0.000 | 3,891,529 | | | |
| S.CHARIGRAM | 0.000 | 256,785 | | | | 0.000 | 226,575 | | | |
| BSCIC | 0.000 | 0 | | | | 0.000 | 0 | | | |
| BAGHAIR-2 | 0.000 | 0 | 29,944,634 | 3.65 | 92.74 | 0.000 | 0 | 31,449,519 | **1.36** | **95.15** |
| ZINZIRA CKT-1 | 0.000 | 4,393,944 | | | | 0.000 | 5,504,002 | | | |
| ZINZIRA CKT-2 | 0.000 | 1,862,421 | | | | 0.000 | 2,503,146 | | | |
| HASNABAD | 0.000 | 0 | | | | 0.000 | 0 | | | |
| PANGAON | 0.000 | 0 | | | | 0.000 | 0 | | | |
| BASUNDARA | 0.000 | 0 | | | | 0.000 | 0 | | | |
| KALATIA UNIT-2 | 0.000 | 0 | | | | 0.000 | 0 | | | |
| AGANAGOR-1 | 0.000 | 0 | | | | 0.000 | 0 | | | |
| AGANAGOR-2 | 0.000 | 0 | | | | 0.000 | 0 | | | |
| BARUKHALI | 7.541 | 3,300,000 | | | | 7.541 | 2,882,000 | | | |
| ATIBAZAR | 0.000 | 0 | | | | 0.000 | 0 | | | |
| MACCA MULTYLAYER | 0.000 | 0 | | | | 0.000 | 0 | | | |
| ZINZIRA-T3(SUVADDA | 0.000 | 0 | | | | 0.000 | 0 | | | |
| **total** | **46.541** | **31,077,545** | | | | **46.541** | **31,884,175** | | | |

| Import point | November'17 | | | | | December'17 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Peak Demand(MW) | Unit kWh(Purchase) | Total KWh(sold) | Substation SL % | Load Factor | Peak Demand(MW) | Unit kWh(Purchase) | Total KWh(sold) | Substation SL % | Load Factor |
| ZINZIRA | 0.000 | 0 | | | | 0.000 | 0 | | | |
| HASHNABAD | 0.000 | 0 | | | | 0.000 | 0 | | | |
| NAWABGONJ | 15.000 | 6,258,697 | | | | 12.000 | 5,921,113 | | | |
| DOHAR | 14.000 | 6,070,000 | | | | 12.000 | 5,480,000 | | | |
| KALATIA | 0.000 | 0 | | | | 0.000 | 0 | | | |
| MUNSIGONJ PBS-33 | 0.000 | 0 | | | | 0.000 | 8,926 | | | |
| 11KV (HOGLAGATI) | 0.000 | 571499 | | | | 0.000 | 497,074 | | | |
| MANIKGONJ | 0.000 | 22,963 | 23,575,800 | 0.25 | 96.54 | 0.000 | 194,337 | 17,959,502 | **5.27** | **90.79** |
| TOLSHI KHALI POL | 0.000 | 2987471 | | | | 0.000 | 1,704,217 | | | |
| S.CHARIGRAM | 0.000 | 199,101 | | | | 0.000 | 0 | | | |
| ZINZIRA CKT -1 | 0.000 | 3476418 | | | | 0.000 | 2,340,632 | | | |
| ZINZIRA CKT-2 | 0.000 | 1979963 | | | | 0.000 | 831,634 | | | |
| HASNABAD | 0.000 | 0 | | | | 0.000 | 0 | | | |
| BARUKHALI | 5.000 | 2,068,000 | | | | 5.000 | 1,980,000 | | | |
| **total** | **34.000** | **23,634,112** | | | | **29.000** | **18,957,933** | | | |

| Import point | January'18 | | | | | February'18 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Peak Demand(MW) | Unit kWh(Purchase) | Total KWh(sold) | Substation SL % | Load Factor | Peak Demand(MW) | Unit kWh(Purchase) | Total KWh(sold) | Substation SL % | Load Factor |
| NAWABGONJ | 12.000 | 5,575,680 | | | | 15.000 | 5,885,550 | | | |
| DOHAR | 11.500 | 5,500,000 | | | | 12.000 | 5,342,000 | | | |
| KALATIA | 0.000 | 0 | | | | 0.000 | 0 | | | |
| MUNSIGONJ PBS-33 | 0.000 | 17,502 | | | | 0.000 | 55,539 | | | |
| 11KV (HOGLAGATI) | 0.000 | 723066 | | | | 0.000 | 533,471 | | | |
| MANIKGONJ | 0.000 | 208,618 | | | | 0.000 | 21,662 | | | |
| BASED STEEL | 0.000 | 1225783 | 16,271,625 | 7.58 | 87.33 | 0.000 | 1,486,000 | 18,595,518 | **3.06** | **80.73** |
| S.CHARIGRAM | 0.000 | 0 | | | | 0.000 | 223,026 | | | |
| ZINZIRA CKT-1 | 0.000 | 1,648,933 | | | | 0.000 | 2,350,372 | | | |
| ZINZIRA CKT-2 | 0.000 | 681,652 | | | | 0.000 | 1,210,904 | | | |
| HASNABAD | 0.000 | 0 | | | | 0.000 | 0 | | | |
| BARUKHALI | 4.500 | 2,024,000 | | | | 6.000 | 2,073,500 | | | |
| **total** | **28.000** | **17,605,234** | | | | **33.000** | **19,182,024** | | | |

| Import point | March'18 | | | | | April'18 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Peak Demand(MW) | Unit kWh(Purchase) | Total KWh(sold) | Substation SL % | Load Factor | Peak Demand(MW) | Unit kWh(Purchase) | Total KWh(sold) | Substation SL % | Load Factor |
| NAWABGONJ | 15.000 | 7,697,250 | | | | 16.500 | 5,684,250 | | | |
| DOHAR | 17.000 | 7,654,000 | | | | 18.000 | 6,665,000 | | | |
| KALATIA | 0.000 | 0 | | | | 0.000 | 0 | | | |
| MUNSIGONJ PBS-33 | 0.000 | 0 | | | | 0.000 | 86,492 | | | |
| MANIKGONJ PBS-11 | 0.000 | 652411 | | | | 0.000 | 643,751 | | | |
| MANIKGONJ | 0.000 | 31,780 | | | | 0.000 | 27,706 | | | |
| TOLSHI KHALI POL | 0.000 | 2,305,000 | 24,337,625 | 13.82 | 93.39 | 0.000 | 1,976,000 | 24,380,031 | **1.43** | 77.20 |
| S.CHARIGRAM | 0.000 | 337,665 | | | | 0.000 | 263,585 | | | |
| ZINZIRA CKT-1 | 0.000 | 4,016,269 | | | | 0.000 | 3,445,030 | | | |
| ZINZIRA CKT-2 | 0.000 | 2,276,151 | | | | 0.000 | 2,567,570 | | | |
| HASNABAD | 0.000 | 0 | | | | 0.000 | 0 | | | |
| BARUKHALI | 8.000 | 2,772,000 | | | | 6.000 | 2,359,500 | | | |
| BANDURA SS | 2.000 | 497,388 | | | | 4.000 | 1,015,387 | | | |
| **total** | **42.000** | **28,239,914** | | | | **44.500** | **24,734,271** | | | |

| Import point | May'18 | | | | | June'18 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Peak Demand(MW) | Unit kWh(Purchase) | Total KWh(sold) | Substation SL % | Load Factor | Peak Demand(MW) | Unit kWh(Purchase) | Total KWh(sold) | Substation SL % | Load Factor |
| NAWABGONJ | 16.000 | 6,818,295 | | | | 16.000 | 7,920,000 | | | |
| DOHAR | 20.000 | 7,781,000 | | | | 20.000 | 8,876,000 | | | |
| KALATIA | 0.000 | 0 | | | | 0.000 | 0 | | | |
| MUNSIGONJ PBS-33 | 0.000 | 13,170 | | | | 0.000 | 0 | | | |
| MANIKGONJ PBS-11 | 0.000 | 742623 | | | | 0.000 | 842,038 | | | |
| MANIKGONJ | 0.000 | 32,867 | | | | 0.000 | 55,412 | | | |
| TOLSHI KHALI POL | 0.000 | 2,191,000 | 24,424,198 | 12.43 | 81.56 | 0.000 | 1,876,000 | 26,933,198 | **11.60** | 84.63 |
| S.CHARIGRAM | 0.000 | 259,945 | | | | 0.000 | 340,889 | | | |
| ZINZIRA CKT-1 | 0.000 | 3,847,654 | | | | 0.000 | 4,069,142 | | | |
| ZINZIRA CKT-2 | 0.000 | 1,997,552 | | | | 0.000 | 1,712,165 | | | |
| HASNABAD | 0.000 | 0 | | | | 0.000 | 0 | | | |
| BARUKHALI | 7.500 | 2,882,000 | | | | 7.500 | 3,190,000 | | | |
| BANDURA SS | 4.000 | 1,325,765 | | | | 6.500 | 1,584,973 | | | |
| **total** | **47.500** | **27,891,871** | | | | **50.000** | **30,466,619** | | | |

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## 1. Energy Import DPBS-2 (2015-2016)

| Import point | July'15 | | | August'15 | | |
|---|---|---|---|---|---|---|
| | Unit kWh(Purchase) | Total KWh(sold) | Substation SL % | Unit kWh(Purchase) | Total KWh(sold) | Substation SL % |
| NAWABGONJ | 10,971,120 | 54,751,648 | 15.06 | 10,526,688 | 57,037,917 | 17.41 |
| ZINZIRA Ckt-1 | 7,551,744 | | | 10,128,000 | | |
| ZINZIRA Ckt-2 | 8,479,728 | | | 8,703,216 | | |
| HASNABAD T-3(Has) | 3,990,528 | | | 4,260,864 | | |
| HASNABAD T-4(Has) | 3,369,648 | | | 3,556,752 | | |
| MUNSIGONJ PBS-33 | 2,460 | | | 565,405 | | |
| 11KV (HOGLAGATI) | 0 | | | 0 | | |
| MANIKGONJ PBS-11 | 28,090 | | | 32,595 | | |
| S. CHARIGRAM | 162,445 | | | 171,455 | | |
| 132 KV AUXILARY (PGCB) | 21,143 | | | 20,246 | | |
| 230 KV AUXILARY | 18,307 | | | 16,718 | | |
| LALBAG Ckt-1 (Has) | 0 | | | 0 | | |
| GRID COMPLAIN CENTER | 0 | | | 0 | | |
| HASNABAD (Has-Grid) | 3,052,818 | | | 3,859,704 | | |
| PANGAON(Hasnabad) | 9,102,060 | | | 9,701,244 | | |
| DOHAR (Hasnabad) | 11,205,396 | | | 9,961,560 | | |
| BUS LOSS | 69,881 | | | 87,969 | | |
| AGNAGOR(Hasnabad) | 6,437,525 | | | 7,472,302 | | |
| **Total** | **64,462,893** | | | **69,064,718** | | |

| Import point | September'15 | | | October'15 | | |
|---|---|---|---|---|---|---|
| | Unit kWh(Purchase) | Total KWh(sold) | Substation SL % | Unit kWh(Purchase) | Total KWh(sold) | Substation SL % |
| NAWABGONJ | 8,447,856 | 60,459,254 | 12.74 | 9,439,296 | 61,559,648 | 9.25 |
| ZINZIRA Ckt-1 | 8,712,000 | | | 7,656,000 | | |
| ZINZIRA Ckt-2 | 9,391,680 | | | 10,041,792 | | |
| HASNABAD T-3 (Has) | 4,323,264 | | | 4,379,232 | | |
| HASNABAD T-4 (Has) | 3,321,600 | | | 3,343,152 | | |
| MUNSIGONJ PBS-33 | 3,976,220 | | | 2,431,110 | | |
| 11KV(HOGLAGATI) | 0 | | | 0 | | |
| MANIKGONJ PBS-11 | 21,995 | | | 26,765 | | |
| S. CHARIGRAM | 188,680 | | | 187,090 | | |
| 132 KV AUXILARY (PGCB) | 18,229 | | | 17,072 | | |
| 230 KV AUXILARY | 15,713 | | | 15,805 | | |
| LALBAG Ckt-1 (Has) | 0 | | | 0 | | |
| GRID COMPLAIN CENTER | 0 | | | 0 | | |
| HASNABAD (Has-Grid) | 3,405,510 | | | 3,035,844 | | |
| PANGAON (Hasnabad) | 9,822,384 | | | 10,728,900 | | |
| DOHAR (Hasnabad) | 10,547,100 | | | 10,143,468 | | |
| BUS LOSS | 19,128 | | | 28,432 | | |
| AGNAGOR (Hasnabad) | 7,072,688 | | | 6,357,128 | | |
| **Total** | **69,284,047** | | | **67,831,086** | | |

| Import point | November'15 | | | December'15 | | |
|---|---|---|---|---|---|---|
| | Unit kWh(Purchase) | Total KWh(sold) | Substation SL % | Unit kWh(Purchase) | Total KWh(sold) | Substation SL % |
| NAWABGONJ | 8,901,264 | | | 8,977,056 | | |
| ZINZIRA Ckt-1 | 4,992,000 | | | 4,776,000 | | |
| ZINZIRA Ckt-2 | 7,933,776 | | | 6,401,424 | | |
| HASNABAD T-3 (Has) | 3,379,008 | | | 2,041,056 | | |
| HASNABAD T-4 (Has) | 1,577,376 | | | 2,437,776 | | |
| MUNSIGONJ PBS-33 | 659,810 | | | 923,497 | | |
| 11KV (HOGLAGATI) | 0 | | | 0 | | |
| MANIKGONJ PBS-11 | 19,080 | | | 19,610 | | |
| S. CHARIGRAM | 97,255 | | | 123,225 | | |
| 132 KV AUXILARY (PGCB) | 15,805 | 53,235,270 | 1.15 | 11,804 | 44,028,274 | 6.26 |
| 230 KV AUXILARY | 11,142 | | | 10 | | |
| LALBAG Ckt-1 (Has) | 0 | | | 0 | | |
| GRID COMPLAIN CENTER | 0 | | | 0 | | |
| HASNABAD (Has-Grid) | 3,272,958 | | | 2,491,884 | | |
| PANGAON (Hasnabad) | 9,772,488 | | | 8,389,044 | | |
| DOHAR (Hasnabad) | 6,733,656 | | | 5,268,816 | | |
| BUS LOSS | 97,792 | | | 40,343 | | |
| AGNAGOR (Hasnabad) | 6,390,795 | | | 5,066,708 | | |
| **Total** | **53,854,205** | | | **46,968,253** | | |

| Import point | January'16 | | | February'16 | | |
|---|---|---|---|---|---|---|
| | Unit kWh(Purchase) | Total KWh(sold) | Substation SL % | Unit kWh(Purchase) | Total KWh(sold) | Substation SL % |
| NAWABGONJ | 9,428,208 | | | 8,396,448 | | |
| ZINZIRA Ckt-1 | 4,416,000 | | | 5,191,920 | | |
| ZINZIRA Ckt-2 | 6,187,008 | | | 7,398,960 | | |
| HASNABAD T-3 (Has) | 3,204,912 | | | 3,660,720 | | |
| HASNABAD T-4 (Has) | 1,767,504 | | | 1,910,160 | | |
| MUNSIGONJ PBS-33 | 412,833 | | | 493,719 | | |
| 11KV (HOGLAGATI) | 0 | | | 0 | | |
| MANIKGONJ PBS-11 | 19,080 | | | 40,015 | | |
| S. CHARIGRAM | 147,605 | | | 217,300 | | |
| 132 KV AUXILARY (PGCB) | 11,033 | 44,126,713 | 6.24 | 12,500 | 45,081,251 | 9.18 |
| 230 KV AUXILARY | 30,463 | | | 23,063 | | |
| LALBAG Ckt-1 (Has) | 0 | | | 0 | | |
| GRID COMPLAIN CENTER | 0 | | | 0 | | |
| HASNABAD (Has-Grid) | 2,013,318 | | | 2,343,906 | | |
| PANGAON (Hasnabad) | 8,426,880 | | | 7,813,836 | | |
| DOHAR (Hasnabad) | 6,359,400 | | | 6,555,960 | | |
| BUS LOSS | 26,757 | | | 36,301 | | |
| AGNAGOR (Hasnabad) | 4,613,221 | | | 5,545,264 | | |
| **Total** | **47,064,222** | | | **49,640,072** | | |

| Import point | March'16 | | | April'16 | | |
|---|---|---|---|---|---|---|
| | Unit kWh(Purchase) | Total KWh(sold) | Substation SL % | Unit kWh(Purchase) | Total KWh(sold) | Substation SL % |
| NAWABGONJ | 10,273,824 | | | 11,127,792 | | |
| ZINZIRA Ckt-1 | 6,771,600 | | | 9,054,960 | | |
| ZINZIRA Ckt-2 | 9,189,696 | | | 8,749,776 | | |
| HASNABAD T-3 (Has) | 4,972,080 | | | 4,936,512 | | |
| HASNABAD T-4 (Has) | 2,567,616 | | | 3,459,312 | | |
| MUNSIGONJ PBS-33 | 432,363 | | | 777,233 | | |
| 11KV (HOGLAGATI) | 0 | | | 0 | | |
| MANIKGONJ PBS-11 | 13,515 | | | 19,080 | | |
| S. CHARIGRAM | 219,950 | | | 279,575 | | |
| 132 KV AUXILARY (PGCB) | 16,278 | 56,301,952 | 12.61 | 21,606 | 63,676,065 | 11.01 |
| 230 KV AUXILARY | 15,334 | | | 17,148 | | |
| LALBAG Ckt-1 (Has) | 0 | | | 0 | | |
| GRID COMPLAIN CENTER | 0 | | | 0 | | |
| HASNABAD (Has-Grid) | 3,201,138 | | | 3,541,860 | | |
| PANGAON (Hasnabad) | 10,174,140 | | | 10,352,592 | | |
| DOHAR (Hasnabad) | 9,367,308 | | | 11,278,944 | | |
| BUS LOSS | 101,055 | | | 118,373 | | |
| AGNAGOR (Hasnabad) | 7,110,198 | | | 7,821,108 | | |
| **Total** | **64,426,095** | | | **71,555,871** | | |

| Import point | May'16 | | | June'16 | | |
|---|---|---|---|---|---|---|
| | Unit kWh(Purchase) | Total KWh(sold) | Substation SL % | Unit kWh(Purchase) | Total KWh(sold) | Substation SL % |
| NAWABGONJ | 9,947,397 | | | 10,784,268 | | |
| ZINZIRA Ckt-1 | 8,173,920 | | | 9,151,680 | | |
| ZINZIRA Ckt-2 | 8,883,552 | | | 9,261,120 | | |
| HASNABAD T-3 (Has) | 4,805,280 | | | 5,283,072 | | |
| HASNABAD T-4 (Has) | 3,485,184 | | | 3,907,152 | | |
| MUNSIGONJ PBS-33 | 167,929 | | | 68,450 | | |
| 11KV (HOGLAGATI) | 0 | | | 0 | | |
| MANIKGONJ PBS-11 | 24,910 | | | 29,680 | | |
| S. CHARIGRAM | 160,855 | | | 343,970 | | |
| 132 KV AUXILARY (PGCB) | 38,376 | 62,511,688 | 7.27 | 38,905 | 65,865,370 | 12.42 |
| 230 KV AUXILARY | 656 | | | 0 | | |
| LALBAG Ckt-1 (Has) | 7,901,838 | | | 0 | | |
| GRID COMPLAIN CENTER | 0 | | | 0 | | |
| HASNABAD (Has-Grid) | 3,525,732 | | | 3,923,226 | | |
| PANGAON (Hasnabad) | 10,049,328 | | | 10,813,104 | | |
| DOHAR (Hasnabad) | 10,131,252 | | | 12,293,736 | | |
| BUS LOSS | 117,685 | | | 99,488 | | |
| AGNAGOR (Hasnabad) | 0 | | | 9,208,804 | | |
| **Total** | **67,413,894** | | | **75,206,655** | | |

## 2. Energy Import DPBS-2 (2016-2017)

| Import point | July'16 | | | August'16 | | |
|---|---|---|---|---|---|---|
| | Unit kWh(Purchase) | Total KWh(sold) | Substation SL % | Unit kWh(Purchase) | Total KWh(sold) | Substation SL % |
| NAWABGONJ | 12,836,172 | 63,156,269 | 12.89 | 11,991,468 | 67,872,813 | 12.34 |
| ZINZIRA Ckt-1 | 9,593,280 | | | 10,268,160 | | |
| ZINZIRA Ckt-2 | 9,167,904 | | | 10,141,488 | | |
| HASNABAD T-3 (Has) | 4,685,232 | | | 5,169,888 | | |
| HASNABAD T-4 (Has) | 3,436,704 | | | 4,044,480 | | |
| MUNSIGONJ PBS-33 | 132,307 | | | 239,333 | | |
| 11KV (HOGLAGATI) | 0 | | | 0 | | |
| MANIKGONJ PBS-11 | 31,270 | | | 30,740 | | |
| S. CHARIGRAM | 209,350 | | | 230,020 | | |
| 132 KV AUXILARY (PGCB) | 36,802 | | | 36,076 | | |
| 230 KV AUXILARY | 0 | | | 0 | | |
| LALBAG Ckt-1 (Has) | 0 | | | 6,965,014 | | |
| GRID COMPLAIN CENTER | 0 | | | 0 | | |
| HASNABAD (Has-Grid) | 3,066,840 | | | 3,773,718 | | |
| PANGAON (Hasnabad) | 10,662,840 | | | 9,565,128 | | |
| DOHAR (Hasnabad) | 12,505,512 | | | 14,887,056 | | |
| BUS LOSS | 83,247 | | | 85,023 | | |
| AGNAGOR (Hasnabad) | 6,057,250 | | | 0 | | |
| **Total** | **72,504,710** | | | **77,427,592** | | |

| Import point | September'16 | | | October'16 | | |
|---|---|---|---|---|---|---|
| | Unit kWh(Purchase) | Total KWh(sold) | Substation SL % | Unit kWh(Purchase) | Total KWh(sold) | Substation SL % |
| NAWABGONJ | 12,309,192 | 64,529,887 | 10.73 | 11,102,784 | 67,499,579 | 10.92 |
| ZINZIRA Ckt-1 | 9,807,360 | | | 9,974,640 | | |
| ZINZIRA Ckt-2 | 8,770,416 | | | 9,300,768 | | |
| HASNABAD T-3 (Has) | 4,713,408 | | | 5,036,208 | | |
| HASNABAD T-4 (Has) | 3,563,472 | | | 3,896,544 | | |
| MUNSIGONJ PBS-33 | 242,870 | | | 221,883 | | |
| 11KV (HOGLAGATI) | 0 | | | 0 | | |
| MANIKGONJ PBS-11 | 28,090 | | | 27,295 | | |
| S. CHARIGRAM | 201,930 | | | 200,075 | | |
| 132 KV AUXILARY(PGCB) | 35,276 | | | 39,631 | | |
| 230 KV AUXILARY | 0 | | | 0 | | |
| LALBAG Ckt-1 (Has) | 6,345,924 | | | 7,829,584 | | |
| GRID COMPLAINCENTER | 0 | | | 0 | | |
| HASNABAD (Has-Grid) | 2,561,742 | | | 3,578,040 | | |
| PANGAON (Hasnabad) | 10,814,832 | | | 11,539,800 | | |
| DOHAR (Hasnabad) | 12,796,872 | | | 12,957,720 | | |
| BUS LOSS | 96,679 | | | 69,993 | | |
| AGNAGOR (Hasnabad) | 0 | | | 0 | | |
| **Total** | **72,288,063** | | | **75,774,965** | | |

| Import point | November'16 | | | December'16 | | |
|---|---|---|---|---|---|---|
| | Unit kWh(Purchase) | Total KWh(sold) | Substation SL % | Unit kWh(Purchase) | Total KWh(sold) | Substation SL % |
| NAWABGONJ | 8,072,517 | | | 7,641,156 | | |
| ZINZIRA Ckt-1 | 7,097,909 | | | 5,783,896 | | |
| ZINZIRA Ckt-2 | 6,740,962 | | | 6,485,184 | | |
| HASNABAD T-3 (Has) | 3,701,184 | | | 3,183,504 | | |
| HASNABAD T-4 (Has) | 2,979,792 | | | 2,684,256 | | |
| MUNSIGONJ PBS-33 | 164,280 | | | 134,474 | | |
| 11KV (HOGLAGATI) | 0 | | | 0 | | |
| MANIKGONJ PBS-11 | 17,225 | | | 21,730 | | |
| S. CHARIGRAM | 147,340 | | | 146,015 | | |
| 132 KV AUXILARY(PGCB) | 30,652 | 55,961,557 | 1.15 | 24,133 | 47,448,511 | 6.03 |
| 230 KV AUXILARY | 0 | | | 0 | | |
| LALBAG Ckt-1 (Has) | 6,491,593 | | | 0 | | |
| GRID COMPLAINCENTER | 0 | | | 0 | | |
| HASNABAD (Has-Grid) | 2,813,400 | | | 2,405,682 | | |
| PANGAON (Hasnabad) | 9,520,200 | | | 8,408,448 | | |
| DOHAR (Hasnabad) | 8,775,588 | | | 8,730,416 | | |
| BUS LOSS | 59,202 | | | 72,506 | | |
| AGNAGOR (Hasnabad) | 0 | | | 4,770,727 | | |
| **Total** | **56,611,844** | | | **50,492,127** | | |

| Import point | January'17 | | | February'17 | | |
|---|---|---|---|---|---|---|
| | Unit kWh(Purchase) | Total KWh(sold) | Substation SL % | Unit kWh(Purchase) | Total KWh(sold) | Substation SL % |
| NAWABGONJ | 8,402,602 | | | 8265237 | | |
| ZINZIRA Ckt-1 | 0 | | | 0 | | |
| ZINZIRA Ckt-2 | 0 | | | 0 | | |
| HASNABAD T-3 (Has) | 0 | | | 0 | | |
| HASNABAD T-4 (Has) | 0 | | | 0 | | |
| MUNSIGONJ PBS-33 | 60,472 | | | 70,840 | | |
| 11KV (HOGLAGATI) | 0 | | | 0 | | |
| MANIKGONJ PBS-11 | 20,140 | | | 20405 | | |
| S. CHARIGRAM | 171,720 | | | 210410 | | |
| 132 KV AUXILARY (PGCB) | 0 | 12,325,412 | 9.38 | 0 | 13,245,475 | 8.23 |
| 230 KV AUXILARY | 0 | | | 0 | | |
| LALBAG Ckt-1 (Has) | 0 | | | 0 | | |
| GRID COMPLAIN CENTER | 0 | | | 0 | | |
| HASNABAD (Has-Grid) | 0 | | | 0 | | |
| PANGAON (Hasnabad) | 0 | | | 0 | | |
| DOHAR (Hasnabad) | 4,930,506 | | | 5850403 | | |
| BUS LOSS | 15,328 | | | 16625 | | |
| AGNAGOR (Hasnabad) | 0 | | | 0 | | |
| **Total** | **13,600,768** | | | **14,433,920** | | |

| Import point | March'17 | | | April'17 | | |
|---|---|---|---|---|---|---|
| | Unit kWh(Purchase) | Total KWh(sold) | Substation SL % | Unit kWh(Purchase) | Total KWh(sold) | Substation SL % |
| NAWABGONJ | 9,550,295 | | | 10,449,181 | | |
| ZINZIRA Ckt-1 | 0 | | | 0 | | |
| ZINZIRA Ckt-2 | 0 | | | 0 | | |
| HASNABAD T-3 (Has) | 0 | | | 0 | | |
| HASNABAD T-4 (Has) | 0 | | | 0 | | |
| MUNSIGONJ PBS-33 | 0 | | | 15,076 | | |
| 11KV (HOGLAGATI) | 127,371 | | | 0 | | |
| MANIKGONJ PBS-11 | 24,380 | | | 23,320 | | |
| S. CHARIGRAM | 236,115 | | | 197,425 | | |
| 132 KV AUXILARY (PGCB) | 0 | 13,875,758 | 13.78 | 0 | 16,042,881 | 10.62 |
| 230 KV AUXILARY | 0 | | | 0 | | |
| LALBAG Ckt-1 (Has) | 0 | | | 0 | | |
| GRID COMPLAIN CENTER | 0 | | | 0 | | |
| HASNABAD (Has-Grid) | 0 | | | 0 | | |
| PANGAON (Hasnabad) | 0 | | | 0 | | |
| DOHAR (Hasnabad) | 6,145,188 | | | 7,253,421 | | |
| BUS LOSS | 9,700 | | | 9,757 | | |
| AGNAGOR (Hasnabad) | 0 | | | 0 | | |
| **Total** | **16,093,049** | | | **17,948,180** | | |

| Import point | May'17 | | | June'17 | | |
|---|---|---|---|---|---|---|
| | Unit kWh(Purchase) | Total KWh(sold) | Substation SL % | Unit kWh(Purchase) | Total KWh(sold) | Substation SL % |
| NAWABGONJ | 13,346,249 | | | 13,223,403 | | |
| ZINZIRA Ckt-1 | 0 | | | 0 | | |
| ZINZIRA Ckt-2 | 0 | | | 0 | | |
| HASNABAD T-3 (Has) | 0 | | | 0 | | |
| HASNABAD T-4 (Has) | 0 | | | 0 | | |
| MUNSIGONJ PBS-33 | 26,427 | | | 95,393 | | |
| 11KV (HOGLAGATI) | 0 | | | 0 | | |
| MANIKGONJ PBS-11 | 31,005 | | | 31,800 | | |
| S. CHARIGRAM | 220,480 | | | 204,050 | | |
| 132 KV AUXILARY(PGCB) | 0 | 18,013,150 | 16.72 | 0 | 18,125,774 | **15.05** |
| 230 KV AUXILARY | 0 | | | 0 | | |
| LALBAG Ckt-1 (Has) | 0 | | | 0 | | |
| GRID COMPLAINCENTER | 0 | | | 0 | | |
| HASNABAD (Has-Grid) | 0 | | | 0 | | |
| PANGAON (Hasnabad) | 0 | | | 0 | | |
| DOHAR (Hasnabad) | 7,997,070 | | | 7,778,915 | | |
| BUS LOSS | 7,685 | | | 2,865 | | |
| AGNAGOR (Hasnabad) | 0 | | | 0 | | |
| **Total** | **21,628,916** | | | **21,336,426** | | |

## 3. Energy Import DPBS-2 (2017-2018)

| Import point | July'17 | | | August'17 | | |
|---|---|---|---|---|---|---|
| | Unit kWh(Purchase) | Total KWh(sold) | Substation SL % | Unit kWh(Purchase) | Total KWh(sold) | Substation SL % |
| NAWABGONJ | 13,614,864 | 19,275,364 | 16.89 | 13,234,835 | 47,043,887 | 9.38 |
| ZINZIRA Ckt-1 | 0 | | | 13,422,040 | | |
| ZINZIRA Ckt-2 | 0 | | | 8,092,109 | | |
| HASNABAD T-3 (Has) | 0 | | | 0 | | |
| HASNABAD T-4 (Has) | 0 | | | 0 | | |
| MUNSIGONJ PBS-33 | 188,205 | | | 186,375 | | |
| 11KV (HOGLAGATI) | 0 | | | 874,089 | | |
| MANIKGONJ PBS-11 | 32,065 | | | 37,100 | | |
| S. CHARIGRAM | 237,970 | | | 262,615 | | |
| 132 KV AUXILARY (PGCB) | 0 | | | 0 | | |
| 230 KV AUXILARY | 0 | | | 0 | | |
| LALBAG Ckt-1 (Has) | 0 | | | 0 | | |
| TOLSHIKHALI POL METER | 0 | | | 6,718,125 | | |
| HASNABAD (Has-Grid) | 0 | | | 0 | | |
| PANGAON (Hasnabad) | 0 | | | 0 | | |
| DOHAR (Hasnabad) | 9,116,918 | | | 9,082,491 | | |
| BUS LOSS | 1,805 | | | 1,000 | | |
| AGNAGOR (Hasnabad) | 0 | | | 0 | | |
| **Total** | **23,191,827** | | | **51,910,779** | | |

| Import point | September'17 | | | October'17 | | |
|---|---|---|---|---|---|---|
| | Unit kWh(Purchase) | Total KWh(sold) | Substation SL % | Unit kWh(Purchase) | Total KWh(sold) | Substation SL % |
| NAWABGONJ | 13,428,762 | 29,944,634 | 6.78 | 11,822,937 | 31,449,519 | 4.06 |
| ZINZIRA Ckt-1 | 4,393,944 | | | 5,504,002 | | |
| ZINZIRA Ckt-2 | 1,862,421 | | | 2,503,146 | | |
| HASNABAD T-3 (Has) | 0 | | | 0 | | |
| HASNABAD T-4 (Has) | 0 | | | 0 | | |
| MUNSIGONJ PBS-33 | 22,688 | | | 66,385 | | |
| 11KV (HOGLAGATI) | 812,057 | | | 704,595 | | |
| MANIKGONJ PBS-11 | 32,860 | | | 29,945 | | |
| S. CHARIGRAM | 256,785 | | | 226,575 | | |
| 132 KV AUXILARY (PGCB) | 0 | | | 0 | | |
| 230 KV AUXILARY | 0 | | | 0 | | |
| LALBAG Ckt-1 (Has) | 0 | | | 0 | | |
| TOLSHIKHALI POL METER | 2,190,875 | | | 3,891,529 | | |
| HASNABAD (Has-Grid) | 0 | | | 236,383 | | |
| PANGAON (Hasnabad) | 0 | | | 0 | | |
| DOHAR (Hasnabad) | 9,111,183 | | | 7,794,382 | | |
| BUS LOSS | 11,664 | | | 2,166 | | |
| AGNAGOR (Hasnabad) | 0 | | | 0 | | |
| **Total** | **32,123,239** | | | **32,782,045** | | |

| Import point | November'17 | | | December'17 | | |
|---|---|---|---|---|---|---|
| | Unit kWh(Purchase) | Total KWh(sold) | Substation SL % | Unit kWh(Purchase) | Total KWh(sold) | Substation SL % |
| NAWABGONJ | 8,441,486 | | | 8,232,779 | | |
| ZINZIRA Ckt-1 | 3,476,418 | | | 2,340,632 | | |
| ZINZIRA Ckt-2 | 1,979,963 | | | 831,634 | | |
| HASNABAD T-3 (Has) | 0 | | | 0 | | |
| HASNABAD T-4 (Has) | 0 | | | 0 | | |
| MUNSIGONJ PBS-33 | 0 | | | 8,926 | | |
| 11KV (HOGLAGATI) | 571,499 | | | 497074 | | |
| MANIKGONJ PBS-11 | 29,376 | | | 20,225 | | |
| S. CHARIGRAM | 199,101 | | | 174,112 | | |
| 132KV AUXILARY(PGCB) | 0 | 23,575,800 | 0.79 | 0 | 17,959,502 | 6.93 |
| 230 KV AUXILARY | 0 | | | 0 | | |
| LALBAG Ckt-1 (Has) | 0 | | | 0 | | |
| TOLSHI KHALIPOL METER | 2,987,471 | | | 1,704,217 | | |
| HASNABAD (Has-Grid) | 203,342 | | | 363,936 | | |
| PANGAON (Hasnabad) | 0 | | | 0 | | |
| DOHAR (Hasnabad) | 5,873,226 | | | 5,120,142 | | |
| BUS LOSS | 2,344 | | | 3,344 | | |
| AGNAGOR (Hasnabad) | 0 | | | 0 | | |
| **Total** | **23,764,226** | | | **19,297,021** | | |

| Import point | January'18 | | | February'18 | | |
|---|---|---|---|---|---|---|
| | Unit kWh(Purchase) | Total KWh(sold) | Substation SL % | Unit kWh(Purchase) | Total KWh(sold) | Substation SL % |
| NAWABGONJ | 7,932,389 | | | 8,401,939 | | |
| ZINZIRA Ckt-1 | 1,648,933 | | | 2,350,372 | | |
| ZINZIRA Ckt-2 | 681,652 | | | 1,210,904 | | |
| HASNABAD T-3 (Has) | 0 | | | 0 | | |
| HASNABAD T-4 (Has) | 0 | | | 0 | | |
| MUNSIGONJ PBS-33 | 17,502 | | | 55,539 | | |
| 11KV (HOGLAGATI) | 723,066 | | | 533,471 | | |
| MANIKGONJ PBS-11 | 22,069 | | | 21,662 | | |
| S. CHARIGRAM | 186,549 | | | 223,026 | | |
| 132 KV AUXILARY(PGCB) | 0 | 16,271,625 | 9.69 | 0 | 18,595,518 | 4.69 |
| 230 KV AUXILARY | 0 | | | 0 | | |
| LALBAG Ckt-1 (Has) | 0 | | | 0 | | |
| TOLSHIKHALI POLMETER | 1,225,783 | | | 1,486,000 | | |
| HASNABAD (Has-Grid) | 1,608,166 | | | 725,700 | | |
| PANGAON (Hasnabad) | 0 | | | 0 | | |
| DOHAR (Hasnabad) | 3,967,159 | | | 4,497,013 | | |
| BUS LOSS | 4,509 | | | 4,169 | | |
| AGNAGOR (Hasnabad) | 0 | | | 0 | | |
| **Total** | **18,017,777** | | | **19,509,795** | | |

| Import point | March'18 | | | April'18 | | |
|---|---|---|---|---|---|---|
| | Unit kWh(Purchase) | Total KWh(sold) | Substation SL % | Unit kWh(Purchase) | Total KWh(sold) | Substation SL % |
| NAWABGONJ | 11,342,924 | 24,337,625 | 15.63 | 9,586,789 | 24,380,031 | **4.03** |
| ZINZIRA Ckt-1 | 4,016,269 | | | 3,445,030 | | |
| ZINZIRA Ckt-2 | 2,276,151 | | | 2,567,570 | | |
| HASNABAD T-3 (Has) | 0 | | | 0 | | |
| HASNABAD T-4 (Has) | 0 | | | 0 | | |
| MUNSIGONJ PBS-33 | 0 | | | 86,492 | | |
| 11KV (HOGLAGATI) | 652,411 | | | 643,751 | | |
| MANIKGONJ PBS-11 | 31,780 | | | 34,948 | | |
| S. CHARIGRAM | 337,665 | | | 236,585 | | |
| 132 KV AUXILARY (PGCB) | 0 | | | 0 | | |
| 230 KV AUXILARY | 0 | | | 0 | | |
| LALBAG Ckt-1 (Has) | 0 | | | 0 | | |
| TOLSHIKHALI POL METER | 2,305,000 | | | 1,976,000 | | |
| HASNABAD (Has-Grid) | 705,200 | | | 707,250 | | |
| PANGAON (Hasnabad) | 0 | | | 0 | | |
| DOHAR (Hasnabad) | 7,177,736 | | | 6,116,943 | | |
| BUS LOSS | 1,813 | | | 3,177 | | |
| AGNAGOR (Hasnabad) | 0 | | | 0 | | |
| **Total** | **28,846,949** | | | **25,404,535** | | |

| Import point | May'18 | | | June'18 | | |
|---|---|---|---|---|---|---|
| | Unit kWh(Purchase) | Total KWh(sold) | Substation SL % | Unit kWh(Purchase) | Total KWh(sold) | Substation SL % |
| NAWABGONJ | 11,515,146 | 24,424,198 | 14.91 | 13,370,681 | 26,933,198 | 14.39 |
| ZINZIRA Ckt-1 | 3,847,654 | | | 4,069,142 | | |
| ZINZIRA Ckt-2 | 1,997,552 | | | 1,712,165 | | |
| HASNABAD T-3 (Has) | 0 | | | 0 | | |
| HASNABAD T-4 (Has) | 0 | | | 0 | | |
| MUNSIGONJ PBS-33 | 13,170 | | | 0 | | |
| 11KV (HOGLAGATI) | 742,623 | | | 842,038 | | |
| MANIKGONJ PBS-11 | 32,867 | | | 65,191 | | |
| S. CHARIGRAM | 259,945 | | | 340,889 | | |
| 132 KV AUXILARY (PGCB) | 0 | | | 0 | | |
| 230 KV AUXILARY | 0 | | | 0 | | |
| LALBAG Ckt-1 (Has) | 0 | | | 0 | | |
| GRID COMPLAIN CENTER | 2,191,000 | | | 1,876,000 | | |
| HASNABAD (Has-Grid) | 716,475 | | | 1,103,925 | | |
| PANGAON (Hasnabad) | 0 | | | 0 | | |
| DOHAR (Hasnabad) | 7,381,640 | | | 8,074,796 | | |
| BUS LOSS | 6,355 | | | 5,260 | | |
| AGNAGOR (Hasnabad) | 0 | | | 0 | | |
| **Total** | **28,704,427** | | | **31,460,087** | | |

## 1. Monthly Revenue Data of DPBS-2, 2015-16.

| Customer Class | Tariff Rate | July'15 | | | | | |
|---|---|---|---|---|---|---|---|
| | | Unit | % | Consumers | % | Revenue | % |
| **Domestic** | | | | | | | |
| **Minimum Kwh** | | 11614 | 0.18 | | 0.00 | 160,380 | 0.44 |
| **0-50** | 2.99 | 209496 | 3.22 | 7448 | 18.55 | 813,684 | 2.26 |
| **0-75** | 3.48 | 313261 | 4.81 | 4814 | 11.99 | 1,212,505 | 3.36 |
| **76-200** | 4.58 | 2710500 | 41.64 | 20708 | 51.58 | 12,937,581 | 35.89 |
| **201-300** | 4.59 | 1197937 | 18.40 | 4893 | 12.19 | 5,622,635 | 15.60 |
| **301-400** | 4.79 | 526697 | 8.09 | 1520 | 3.79 | 2,565,282 | 7.12 |
| **401-600** | 5.43 | 309830 | 4.76 | 656 | 1.63 | 1,701,708 | 4.72 |
| **600++** | 7.36 | 100521 | 1.54 | 109 | 0.27 | 742,717 | 2.06 |
| **Total** | | **5379856** | **82.65** | **40148** | **100%** | **25,756,492** | **71.45** |
| **Commercial** | 3277.32 | 860320 | 13.22 | 3733 | | 8,466,216 | 23.49 |
| **Charitable (school/mosque/mandir)** | 5.45 | 0 | 0.00 | 0 | | 0 | 0.00 |
| **Charitable (club)** | 5.06 | 97891 | 1.50 | 611 | | 519,018 | 1.44 |
| **Irrigation (season)** | 3.85 | 21030 | 0.32 | 399 | | 91,167 | 0.25 |
| **Irrigation (off-season)** | 3.24 | 0 | 0.00 | 0 | | 0 | 0.00 |
| **General Power** | 0.00 | 102777 | 1.58 | 214 | | 827,945 | 2.30 |
| **Large Power** | 0.00 | 47000 | 0.72 | 3 | | 384,795 | 1.07 |
| **33 KV** | 0.00 | 0 | 0.00 | 0 | | 0 | 0.00 |
| **Street Light** | 6.96 | 420 | 0.01 | 1 | | 2,926 | 0.01 |
| **Grand Total** | | **6,509,294** | **100%** | **45,109** | | **36,048,559** | **100%** |

| Customer Class | Tariff Rate | August'15 | | | | | |
|---|---|---|---|---|---|---|---|
| | | Unit | % | Consumers | % | Revenue | % |
| **Domestic** | | | | | | | |
| **Minimum Kwh** | | 10939 | 0.18 | | 0.00 | 149,220 | 0.45 |
| **0-50** | 2.99 | 245837 | 4.11 | 8342 | 20.61 | 945,049 | 2.86 |
| **0-75** | 3.48 | 359998 | 6.01 | 5521 | 13.64 | 1,393,394 | 4.22 |
| **76-200** | 4.57 | 2683326 | 44.81 | 21021 | 51.94 | 12,791,815 | 38.77 |
| **201-300** | 4.58 | 955531 | 15.96 | 3939 | 9.73 | 4,480,324 | 13.58 |
| **301-400** | 4.79 | 396125 | 6.62 | 1149 | 2.84 | 1,928,200 | 5.84 |
| **401-600** | 5.38 | 198404 | 3.31 | 425 | 1.05 | 1,079,041 | 3.27 |
| **600++** | 6.80 | 54453 | 0.91 | 73 | 0.18 | 372,304 | 1.13 |
| **Total** | | **4904613** | **81.91** | **40470** | **100%** | **23,139,347** | **70.14** |
| **Commercial** | 2664.51 | 805506 | 13.45 | 3744 | | 7,938,986 | 24.06 |
| **Charitable (school/mosque/mandir)** | 5.20 | 0 | 0.00 | 0 | | 0 | |
| **Charitable (club)** | 5.07 | 95240 | 1.59 | 616 | | 502,509 | 1.52 |
| **Irrigation (season)** | 3.75 | 14333 | 0.24 | 359 | | 62,510 | 0.19 |
| **Irrigation (off-season)** | 2.60 | 0 | 0.00 | 0 | | 0 | |
| **General Power** | 0.00 | 110862 | 1.85 | 213 | | 888,523 | 2.69 |
| **Large Power** | 0.00 | 56700 | 0.95 | 3 | | 455,799 | 1.38 |
| **33 KV** | 0.00 | 0 | 0.00 | 0 | | 0 | 0.00 |
| **Street Light** | 6.96 | 420 | 0.01 | 1 | | 2,926 | 0.01 |
| **Grand Total** | | **5,987,674** | **100%** | **45,406** | | **32,990,600** | **100%** |

| Customer Class | Tariff Rate | September'15 | | | | | |
|---|---|---|---|---|---|---|---|
| | | Unit | % | Consumers | % | Revenue | % |
| **Domestic** | | | | | | | |
| **Minimum Kwh** | | 7835 | 0.11 | | 0.00 | 124,650 | 0.32 |
| **0-50** | 2.97 | 186731 | 2.66 | 6386 | 15.66 | 716,056 | 1.84 |
| **0-75** | 3.46 | 306066 | 4.37 | 4706 | 11.54 | 1,179,525 | 3.03 |
| **76-200** | 4.59 | 2861797 | 40.81 | 21585 | 52.94 | 13,677,138 | 35.09 |
| **201-300** | 4.61 | 1329311 | 8.00 | 5435 | 13.33 | 6,264,014 | 16.07 |
| **301-400** | 4.83 | 611888 | 8.73 | 1764 | 4.33 | 3,000,634 | 7.70 |
| **401-600** | 5.48 | 362727 | 5.17 | 766 | 1.88 | 2,009,835 | 5.16 |
| **600++** | 6.92 | 100331 | 1.43 | 128 | 0.31 | 698,141 | 1.79 |
| **Total** | | **5766686** | **82.24** | **40770** | **100%** | **27,669,993** | **70.98** |
| **Commercial** | 3766.58 | 919560 | 13.11 | 3757 | | 9,103,057 | 23.35 |
| **Charitable (school/mosque/mandir)** | 5.26 | 0 | | 0 | | 0 | |
| **Charitable (club)** | 5.10 | 130471 | 1.86 | 619 | | 692,576 | 1.78 |
| **Irrigation (season)** | 3.92 | 23121 | 0.33 | 352 | | 0 | 0.00 |
| **Irrigation (off-season)** | 3.38 | 0 | | 0 | | 99,101 | |
| **General Power** | 0.00 | 112809 | 1.61 | 215 | | 928,200 | 2.38 |
| **Large Power** | 0.00 | 58705 | 0.84 | 3 | | 485,153 | 1.24 |
| **33 KV** | 0.00 | 0 | 0.00 | 0 | | 0 | 0.00 |
| **Street Light** | 6.96 | 420 | 0.01 | 1 | | 2,926 | 0.01 |
| **Grand Total** | | **7,011,772** | **100%** | **45,717** | | **38,981,006** | **100%** |

| Customer Class | Tariff Rate | October'15 | | | | | |
|---|---|---|---|---|---|---|---|
| | | Unit | % | Consumers | % | Revenue | % |
| **Domestic** | | | | | | | |
| **Minimum Kwh** | | 9273 | 0.12 | | 0.00 | 130,770 | 0.31 |
| **0-50** | 2.99 | 182851 | 2.43 | 6364 | 15.24 | 707,082 | 1.65 |
| **0-75** | 3.41 | 285707 | 3.80 | 4389 | 10.51 | 1,085,585 | 2.54 |
| **76-200** | 4.72 | 2923402 | 38.90 | 21827 | 52.27 | 14,369,242 | 33.57 |
| **201-300** | 4.66 | 1475574 | 19.63 | 6034 | 14.45 | 7,037,407 | 16.44 |
| **301-400** | 4.90 | 703390 | 9.36 | 2034 | 4.87 | 3,501,492 | 8.18 |
| **401-600** | 5.56 | 443312 | 5.90 | 940 | 2.25 | 2,489,669 | 5.82 |
| **600++** | 6.37 | 165794 | 2.21 | 170 | 0.41 | 1,061,858 | 2.48 |
| **Total** | | **6189303** | **82.36** | **41758** | **100%** | **30,383,105** | **70.98** |
| **Commercial** | 4510.18 | 1007278 | 13.40 | 3896 | | 10,249,684 | 23.95 |
| **Charitable (school/mosque/mandir)** | 5.44 | 0 | | 0 | | 0 | |
| **Charitable (club)** | 5.48 | 125439.6 | 1.67 | 629 | | 702,523 | 1.64 |
| **Irrigation (season)** | 3.85 | 34348 | 0.46 | 347 | | 141,501 | 0.33 |
| **Irrigation (off-season)** | 3.72 | 0 | | 0 | | 0 | |
| **General Power** | 0.00 | 111594 | 1.48 | 218 | | 921,322 | 2.15 |
| **Large Power** | 207.66 | 46800 | 0.62 | 3 | | 403,706 | 0.94 |
| **33 KV** | 0.00 | 0 | 0.00 | 0 | | 0 | 0.00 |
| **Street Light** | 4.50 | 420 | 0.01 | 1 | | 1,894 | 0.00 |
| **Grand Total** | | **7,515,183** | **100%** | **46,852** | | **42,803,735** | **100%** |

| Customer Class | Tariff Rate | November'15 | | | | | |
|---|---|---|---|---|---|---|---|
| | | Unit | % | Consumers | % | Revenue | % |
| **Domestic** | | | | | | | |
| **Minimum** | | 19886 | 0.33 | | 0.00 | 232,650 | 0.68 |
| **0-50** | 3 | 293660 | 4.89 | 10814 | 25.59 | 1,153,937 | 3.36 |
| **0-75** | 3.41 | 413907 | 6.89 | 6350 | 15.03 | 1,572,845 | 4.58 |
| **76-200** | 4.58 | 2530763 | 42.16 | 20220 | 47.85 | 12,116,787 | 35.25 |
| **201-300** | 4.66 | 832575 | 13.87 | 3438 | 8.14 | 3,966,062 | 11.54 |
| **301-400** | 4.90 | 342471 | 5.70 | 992 | 2.35 | 1,704,442 | 4.96 |
| **401-600** | 5.55 | 180044 | 3.00 | 383 | 0.91 | 1,009,802 | 2.94 |
| **600++** | 6.21 | 55831 | 0.93 | 61 | 0.14 | 348,374 | 1.01 |
| **Total** | | **4669137** | **77.78** | **42258** | **100%** | **22,104,899** | **64.30** |
| **Commercial** | 3549.39 | 986743 | 16.44 | 3977 | | 9,879,562 | 28.74 |
| **Charitable (school/mosque/mandir)** | 5.39 | 0 | | 0 | | 0 | |
| **Charitable (club)** | 5.30 | 101958 | 1.70 | 635 | | 561,495 | 1.63 |
| **Irrigation (season)** | 3.86 | 40399 | 0.67 | 347 | | 165,251 | 0.48 |
| **Irrigation (off-season)** | 4.20 | 0 | | 0 | | 0 | |
| **General Power** | 0.00 | 118375 | 1.97 | 218 | | 973,243 | 2.83 |
| **Large Power** | 0.00 | 86075 | 1.43 | 3 | | 692,343 | 2.01 |
| **33 KV** | 0.00 | 0 | 0.00 | 0 | | 0 | 0.00 |
| **Street Light** | 4.50 | 420 | 0.01 | 1 | | 1,894 | 0.01 |
| **Grand Total** | | **6,003,107** | **100%** | **47,439** | | **34,378,687** | **100%** |

| Customer Class | Tariff Rate | December'15 | | | | | |
|---|---|---|---|---|---|---|---|
| | | Unit | % | Consumers | % | Revenue | % |
| **Domestic** | | | | | | | |
| **Minimum** | | 32861 | 0.68 | | 0.00 | 338,040 | 1.20 |
| **0-50** | 3.03 | 398673 | 8.24 | 15064 | 35.17 | 1,587,003 | 5.64 |
| **0-75** | 3.41 | 566911 | 11.71 | 8744 | 20.41 | 2,154,265 | 7.65 |
| **76-200** | 4.61 | 1973962 | 40.78 | 16791 | 39.20 | 9,531,589 | 33.87 |
| **201-300** | 4.65 | 401177 | 8.29 | 1673 | 3.91 | 1,908,668 | 6.78 |
| **301-400** | 4.90 | 125257 | 2.59 | 363 | 0.85 | 622,958 | 2.21 |
| **401-600** | 5.60 | 81764 | 1.69 | 171 | 0.40 | 462,853 | 1.64 |
| **600++** | 6.80 | 27696 | 0.57 | 30 | 0.07 | 189,304 | 0.67 |
| **Total** | | **3608301** | **74.55** | **42836** | **100%** | **16,794,680** | **59.67** |
| **Commercial** | 2270.43 | 899441 | 18.58 | 4021 | | 9,044,514 | 32.13 |
| **Charitable (school/mosque/mandir)** | 5.58 | 0 | | 0 | | 0 | |
| **Charitable (club)** | 5.37 | 74305 | 1.54 | 637 | | 419,842 | 1.49 |
| **Irrigation (season)** | 3.85 | 52638 | 1.09 | 476 | | 215,803 | 0.77 |
| **Irrigation (off-season)** | 2.30 | 0 | | 0 | | 0 | |
| **General Power** | 0.00 | 107273 | 2.22 | 222 | | 889,206 | 3.16 |
| **Large Power** | 0.00 | 97605 | 2.02 | 3 | | 779,626 | 2.77 |
| **33 KV** | 0.00 | 0 | 0.00 | 0 | | 0 | 0.00 |
| **Street Light** | 4.50 | 420 | 0.01 | 1 | | 1,894 | 0.01 |
| **Grand Total** | | **4,839,983** | **100%** | **48,196** | | **28,145,565** | **100%** |

| Customer Class | Tariff Rate | January'16 | | | | | |
|---|---|---|---|---|---|---|---|
| | | Unit | % | Consumers | % | Revenue | % |
| **Domestic** | | | | | | | |
| **Minimum** | | 34850 | 0.64 | | 0.00 | 361,170 | 1.19 |
| **0-50** | 3.03 | 442393 | 8.14 | 16436 | 37.94 | 1,755,681 | 5.79 |
| **0-75** | 3.41 | 599887 | 11.04 | 9273 | 21.41 | 2,279,562 | 7.52 |
| **76-200** | 4.64 | 1822332 | 33.54 | 15725 | 36.30 | 8,864,019 | 29.25 |
| **201-300** | 4.65 | 331651 | 6.10 | 1374 | 3.17 | 1,579,213 | 5.21 |
| **301-400** | 4.90 | 106281 | 1.96 | 307 | 0.71 | 529,331 | 1.75 |
| **401-600** | 5.58 | 82211 | 1.51 | 173 | 0.40 | 463,828 | 1.53 |
| **600++** | 6.78 | 27910 | 0.51 | 32 | 0.07 | 190,305 | 0.63 |
| **Total** | | **3447515** | **63.45** | **43320** | **100%** | **16,023,109** | **52.87** |
| **Commercial** | 2038.81 | 897509 | 16.52 | 4055 | | 9,036,165 | 29.81 |
| **Charitable (school/mosque/mandir)** | 5.87 | 0 | | 0 | | 0 | |
| **Charitable (club)** | 5.38 | 62616 | 1.15 | 643 | | 361,244 | 1.19 |
| **Irrigation (season)** | 3.82 | 810162 | 14.91 | 979 | | 3,127,683 | 10.32 |
| **Irrigation (off-season)** | 3.53 | 0 | | 0 | | 0 | |
| **General Power** | 0.00 | 117383 | 2.16 | 225 | | 976,519 | 3.22 |
| **Large Power** | 0.00 | 97575 | 1.80 | 3 | | 781,197 | 2.58 |
| **33 KV** | 0.00 | 0 | 0.00 | 0 | | 0 | 0.00 |
| **Street Light** | 4.50 | 420 | 0.01 | 1 | | 1,894 | 0.01 |
| **Grand Total** | | **5,433,180** | **100%** | **49,226** | | **30,307,811** | **100%** |

| Customer Class | Tariff Rate | February'16 | | | | | |
|---|---|---|---|---|---|---|---|
| | | Unit | % | Consumers | % | Revenue | % |
| **Domestic** | | | | | | | |
| **Minimum** | | 34420 | 0.61 | | 0.00 | 364,320 | 1.18 |
| **0-50** | 3.03 | 431889 | 7.70 | 16244 | 36.77 | 1,715,634 | 5.54 |
| **0-75** | 3.41 | 596091 | 10.63 | 9204 | 20.83 | 2,265,147 | 7.32 |
| **76-200** | 4.63 | 1937293 | 34.56 | 16648 | 37.68 | 9,385,500 | 30.33 |
| **201-300** | 4.65 | 360842 | 6.44 | 1505 | 3.41 | 1,716,026 | 5.55 |
| **301-400** | 4.90 | 122935 | 2.19 | 358 | 0.81 | 611,708 | 1.98 |
| **401-600** | 5.55 | 82736 | 1.48 | 177 | 0.40 | 464,001 | 1.50 |
| **600++** | 6.69 | 36365 | 0.65 | 43 | 0.10 | 244,407 | 0.79 |
| **Total** | | **3602571** | **64.26** | **44179** | **100%** | **16,766,743** | **54.18** |
| **Commercial** | 2061.55 | 877080 | 15.64 | 4096 | | 8,847,454 | 28.59 |
| **Charitable (school/mosque/mandir)** | 5.68 | 0 | | 0 | | 0 | |
| **Charitable (club)** | 5.40 | 67710 | 1.21 | 650 | | 386,897 | 1.25 |
| **Irrigation (season)** | 3.82 | 860471 | 15.35 | 1073 | | 3,327,138 | 10.75 |
| **Irrigation (off-season)** | 2.88 | 0 | | 0 | | 0 | |
| **General Power** | 0.00 | 110884 | 1.98 | 224 | | 915,598 | 2.96 |
| **Large Power** | 0.00 | 87540 | 1.56 | 3 | | 703,434 | 2.27 |
| **33 KV** | 0.00 | 0 | 0.00 | 0 | | 0 | 0.00 |
| **Street Light** | 0.00 | 0 | 0.00 | 0 | | 0 | 0.00 |
| **Grand Total** | | **5,606,256** | **100%** | **50,225** | | **30,947,263** | **100%** |

| Customer Class | Tariff Rate | March'16 | | | | | |
|---|---|---|---|---|---|---|---|
| | | Unit | % | Consumers | % | Revenue | % |
| **Domestic** | | | | | | | |
| **Minimum** | | 30320 | 0.48 | | 0.00 | 327,960 | 0.94 |
| **0-50** | 3.02 | 359693 | 5.69 | 13928 | 31.23 | 1,435,468 | 4.11 |
| **0-75** | 3.41 | 511922 | 8.09 | 7850 | 17.60 | 1,945,281 | 5.57 |
| **76-200** | 4.57 | 2380267 | 37.63 | 19699 | 44.17 | 11,387,107 | 32.63 |
| **201-300** | 4.65 | 574436 | 9.08 | 2390 | 5.36 | 2,733,814 | 7.83 |
| **301-400** | 4.89 | 175239 | 2.77 | 511 | 1.15 | 870,964 | 2.50 |
| **401-600** | 5.54 | 78316 | 1.24 | 167 | 0.37 | 438,661 | 1.26 |
| **600++** | 6.25 | 46601 | 0.74 | 49 | 0.11 | 292,819 | 0.84 |
| **Total** | | **4156794** | **65.72** | **44594** | **100%** | **19,432,074** | **55.68** |
| **Commercial** | 2230.69 | 974572 | 15.41 | 4269 | | 9,803,056 | 28.09 |
| **Charitable (school/mosque/mandir)** | 5.41 | 0 | | 0 | | 0 | |
| **Charitable (club)** | 5.33 | 96537 | 1.53 | 658 | | 534,609 | 1.53 |
| **Irrigation (season)** | 3.81 | 886755 | 14.02 | 1094 | | 3,419,381 | 9.80 |
| **Irrigation (off-season)** | 3.65 | 0 | | 0 | | 0 | |
| **General Power** | 0.00 | 123167 | 1.95 | 449 | | 1,011,710 | 2.90 |
| **Large Power** | 0.00 | 87010 | 1.38 | 3 | | 701,221 | 2.01 |
| **33 KV** | 0.00 | 0 | 0.00 | 0 | | 0 | 0.00 |
| **Street Light** | 0.00 | 0 | 0.00 | - | | 0 | 0.00 |
| **Grand Total** | | **6,324,835** | **100%** | **51,067** | | **34,902,051** | **100%** |

| Customer Class | Tariff Rate | April'16 | | | | | |
|---|---|---|---|---|---|---|---|
| | | Unit | % | Consumers | % | Revenue | % |
| **Domestic** | | | | | | | |
| **Minimum** | | 20237 | 0.28 | | 0.00 | 254,610 | 0.62 |
| **0-50** | 2.98 | 292746 | 3.98 | 11162 | 24.42 | 1,151,936 | 2.82 |
| **0-75** | 3.41 | 379715 | 5.16 | 5837 | 12.77 | 1,442,916 | 3.53 |
| **76-200** | 4.57 | 2936181 | 39.91 | 23019 | 50.37 | 13,999,672 | 34.23 |
| **201-300** | 4.66 | 1004111 | 13.65 | 4127 | 9.03 | 4,786,025 | 11.70 |
| **301-400** | 4.89 | 383217 | 5.21 | 1123 | 2.46 | 1,904,315 | 4.66 |
| **401-600** | 5.53 | 173061 | 2.35 | 371 | 0.81 | 966,481 | 2.36 |
| **600++** | 5.92 | 69880 | 0.95 | 62 | 0.14 | 415,562 | 1.02 |
| **Total** | | **5259148** | **71.48** | **45701** | **100%** | **24,921,517** | **60.93** |
| **Commercial** | 4185.51 | 1110397 | 15.09 | 4348 | | 11,133,059 | 27.22 |
| **Charitable (school/mosque/mandir)** | 5.35 | 0 | | 0 | | 0 | |
| **Charitable (club)** | 5.33 | 115142 | 1.57 | 667 | | 631,526 | 1.54 |
| **Irrigation (season)** | 3.86 | 686130 | 9.33 | 1090 | | 2,683,691 | 6.56 |
| **Irrigation (off-season)** | 3.50 | 0 | | 0 | | 0 | |
| **General Power** | 0.00 | 117873 | 1.60 | 227 | | 972,315 | 2.38 |
| **Large Power** | 0.00 | 68605 | 0.93 | 4 | | 562,385 | 1.37 |
| **33 KV** | 0.00 | 0 | 0.00 | 0 | | 0 | 0.00 |
| **Street Light** | 0.00 | 0 | 0.00 | 0 | | 0 | 0.00 |
| **Grand Total** | | **7,357,295** | **100%** | **52,037** | | **40,904,493** | **100%** |

| Customer Class | Tariff Rate | May'16 | | | | | |
|---|---|---|---|---|---|---|---|
| | | Unit | % | Consumers | % | Revenue | % |
| **Domestic** | | | | | | | |
| **Minimum** | | 19091 | 0.29 | | 0.00 | 244,800 | 0.67 |
| **0-50** | 2.98 | 308264 | 4.74 | 11404 | 24.58 | 1,204,812 | 3.29 |
| **0-75** | 3.41 | 412355 | 6.34 | 6333 | 13.65 | 1,566,949 | 4.28 |
| **76-200** | 4.55 | 2990419 | 45.99 | 23715 | 51.11 | 14,218,347 | 38.86 |
| **201-300** | 4.65 | 903519 | 13.90 | 3736 | 8.05 | 4,303,368 | 11.76 |
| **301-400** | 4.89 | 303182 | 4.66 | 889 | 1.92 | 1,506,670 | 4.12 |
| **401-600** | 5.48 | 126051 | 1.94 | 274 | 0.59 | 698,452 | 1.91 |
| **600++** | 7.05 | 39130 | 0.60 | 45 | 0.10 | 277,195 | 0.76 |
| **Total** | | **5102011** | **78.47** | **46396** | **100%** | **24,020,593** | **65.66** |
| **Commercial** | 3035.50 | 969929 | 14.92 | 4417 | | 9,761,624 | 26.68 |
| **Charitable (school/mosque/mandir)** | 5.37 | 0 | | 0 | | 0 | |
| **Charitable (club)** | 5.35 | 104885 | 1.61 | 680 | | 579,627 | 1.58 |
| **Irrigation (season)** | 4.71 | 132857 | 2.04 | 986 | | 638,921 | 1.75 |
| **Irrigation (off-season)** | 3.86 | 0 | | 0 | | 0 | |
| **General Power** | 1089.26 | 117187 | 1.80 | 228 | | 967,098 | 2.64 |
| **Large Power** | 0.00 | 75235 | 1.16 | 4 | | 616,584 | 1.69 |
| **33 KV** | 0.00 | 0 | 0.00 | 0 | | 0 | 0.00 |
| **Street Light** | 0.00 | 0 | 0.00 | 0 | | 0 | 0.00 |
| **Grand Total** | | **6,502,104** | **100%** | **52,711** | | **36,584,447** | **100%** |

| Customer Class | Tariff Rate | June'16 | | | | | |
|---|---|---|---|---|---|---|---|
| | | Unit | % | Consumers | % | Revenue | % |
| **Domestic** | | | | | | | |
| **Minimum** | | 18617 | 0.29 | | 0.00 | 250,200 | 0.69 |
| **0-50** | 2.97 | 309687 | 4.87 | 11384 | 24.38 | 1,204,948 | 3.34 |
| **0-75** | 3.41 | 438891 | 6.90 | 6727 | 14.41 | 1,667,785 | 4.63 |
| **76-200** | 4.52 | 2984902 | 46.90 | 24061 | 51.53 | 14,093,262 | 39.09 |
| **201-300** | 4.65 | 836290 | 13.14 | 3471 | 7.43 | 3,981,203 | 11.04 |
| **301-400** | 4.89 | 274598 | 4.31 | 801 | 1.72 | 1,365,404 | 3.79 |
| **401-600** | 5.52 | 102570 | 1.61 | 220 | 0.47 | 572,648 | 1.59 |
| **600++** | 6.82 | 25562 | 0.40 | 33 | 0.07 | 175,170 | 0.49 |
| **Total** | | **4991117** | **78.42** | **46697** | **100%** | **23,310,620** | **64.65** |
| **Commercial** | 3295.25 | 986739 | 15.50 | 4435 | | 9,927,285 | 27.53 |
| **Charitable (school/mosque/mandir)** | 5.47 | 0 | | 0 | | 0 | |
| **Charitable (club)** | 5.35 | 100932 | 1.59 | 683 | | 560,305 | 1.55 |
| **Irrigation (season)** | 4.87 | 24167 | 0.38 | 568 | | 126,842 | 0.35 |
| **Irrigation (off-season)** | 2.56 | 0 | | 0 | | 0 | |
| **General Power** | 0.00 | 110285 | 1.73 | 227 | | 940,876 | 2.61 |
| **Large Power** | 0.00 | 151520 | 2.38 | 4 | | 1,190,051 | 3.30 |
| **33 KV** | 0.00 | 0 | 0.00 | 0 | | 0 | 0.00 |
| **Street Light** | 0.00 | 0 | 0.00 | 0 | | 0 | 0.00 |
| **Grand Total** | | **6,364,760** | **100%** | **52,614** | | **36,055,979** | **100%** |

## 2. Monthly Revenue Data of DPBS-2, 2016-17.

| Customer Class | Tariff Rate | July'16 | | | | | |
|---|---|---|---|---|---|---|---|
| | | Unit | % | Consumers | % | Revenue | % |
| **Domestic** | | | | | | | |
| **Minimum Kwh** | | 11519 | 0.15 | | 0.00 | 186,390 | 0.45 |
| **0-50** | 2.96 | 235879 | 3.16 | 8489 | 18.03 | 910,518 | 2.18 |
| **0-75** | 3.41 | 361351 | 4.85 | 5557 | 11.80 | 1,373,134 | 3.29 |
| **76-200** | 4.57 | 3351417 | 44.94 | 25454 | 54.07 | 15,958,410 | 38.21 |
| **201-300** | 4.66 | 1334746 | 17.90 | 5493 | 11.67 | 6,360,902 | 15.23 |
| **301-400** | 4.90 | 517513 | 6.94 | 1506 | 3.20 | 2,574,069 | 6.16 |
| **401-600** | 5.55 | 247231 | 3.31 | 526 | 1.12 | 1,386,530 | 3.32 |
| **600++** | 6.75 | 42986 | 0.58 | 54 | 0.11 | 291,633 | 0.70 |
| **Total** | | **6102642** | **81.83** | **47079** | **100%** | **29,041,586** | **69.54** |
| **Commercial** | 3995.47 | 1079676 | 14.48 | 4480 | | 10,839,341 | 25.95 |
| **Charitable (school/mosque/mandir)** | 5.46 | 0 | 0.00 | 0 | | 0 | 0.00 |
| **Charitable (club)** | 5.30 | 123036 | 1.65 | 689 | | 675,610 | 1.62 |
| **Irrigation (season)** | 4.77 | 28601 | 0.38 | 443 | | 141,058 | 0.34 |
| **Irrigation (off-season)** | 2.42 | 0 | 0.00 | 0 | | 0 | 0.00 |
| **General Power** | 0.00 | 102644 | 1.38 | 228 | | 856,611 | 2.05 |
| **Large Power** | 511.18 | 21506 | 0.29 | 4 | | 211,068 | 0.51 |
| **33 KV** | 0.00 | 0 | 0.00 | 0 | | 0 | 0.00 |
| **Street Light** | 0.00 | 0 | 0.00 | 0 | | 0 | 0.00 |
| **Grand Total** | | **7,458,105** | **100%** | **52,923** | | **41,765,274** | **100%** |

| Customer Class | Tariff Rate | August'16 | | | | | |
|---|---|---|---|---|---|---|---|
| | | Unit | % | Consumers | % | Revenue | % |
| **Domestic** | | | | | | | |
| **Minimum Kwh** | | 12063 | 0.16 | | 0.00 | 192,690 | 0.45 |
| **0-50** | 2.96 | 241114 | 3.21 | 8639 | 18.13 | 931,790 | 2.20 |
| **0-75** | 3.41 | 382623 | 5.09 | 5846 | 12.27 | 1,453,967 | 3.43 |
| **76-200** | 4.56 | 3409806 | 45.37 | 26088 | 54.75 | 16,216,720 | 38.25 |
| **201-300** | 4.66 | 1266152 | 16.85 | 5206 | 10.92 | 6,034,552 | 14.24 |
| **301-400** | 4.89 | 461093 | 6.14 | 1344 | 2.82 | 2,292,664 | 5.41 |
| **401-600** | 5.52 | 224973 | 2.99 | 483 | 1.01 | 1,255,366 | 2.96 |
| **600++** | 6.75 | 40962 | 0.55 | 47 | 0.10 | 277,783 | 0.66 |
| **Total** | | **6038786** | **80.36** | **47653** | **100%** | **28,655,532** | **67.60** |
| **Commercial** | 4485.57 | 1127328 | 15.00 | 4540 | | 11,307,124 | 26.67 |
| **Charitable (school/mosque/mandir)** | 5.32 | 0 | 0.00 | 0 | | 0 | |
| **Charitable (club)** | 5.31 | 135686 | 1.81 | 691 | | 739,897 | 1.75 |
| **Irrigation (season)** | 4.16 | 20355 | 0.27 | 392 | | 93,062 | 0.22 |
| **Irrigation (off-season)** | 3.70 | 0 | 0.00 | 0 | | 0 | |
| **General Power** | 0.00 | 135086 | 1.80 | 230 | | 1,104,518 | 2.61 |
| **Large Power** | 159.63 | 57850 | 0.77 | 4 | | 491,234 | 1.16 |
| **33 KV** | 0.00 | 0 | 0.00 | 0 | | 0 | 0.00 |
| **Street Light** | 0.00 | 0 | 0.00 | 0 | | 0 | 0.00 |
| **Grand Total** | | **7,515,091** | **100%** | **53,510** | | **42,391,367** | **100%** |

| Customer Class | Tariff Rate | September'16 | | | | | |
|---|---|---|---|---|---|---|---|
| | | Unit | % | Consumers | % | Revenue | % |
| **Domestic** | | | | | | | |
| **Minimum Kwh** | | 10354 | 0.12 | | 0.00 | 170,820 | 0.36 |
| **0-50** | 2.96 | 204146 | 2.46 | 7386 | 15.39 | 789,384 | 1.68 |
| **0-75** | 3.41 | 346558 | 4.18 | 5316 | 11.08 | 1,316,920 | 2.81 |
| **76-200** | 4.58 | 3473102 | 41.88 | 25949 | 54.07 | 16,573,993 | 35.38 |
| **201-300** | 4.66 | 1582388 | 8.00 | 6495 | 13.53 | 7,543,376 | 16.10 |
| **301-400** | 4.90 | 688272 | 8.30 | 1995 | 4.16 | 3,425,190 | 7.31 |
| **401-600** | 5.56 | 344508 | 4.15 | 734 | 1.53 | 1,933,954 | 4.13 |
| **600++** | 6.99 | 90858 | 1.10 | 120 | 0.25 | 638,455 | 1.36 |
| **Total** | | **6740186** | **81.28** | **47995** | **100%** | **32,392,092** | **69.14** |
| **Commercial** | 4148.86 | 1207134 | 14.56 | 4606 | | 12,083,469 | 25.79 |
| **Charitable (school/mosque/mandir)** | 5.32 | 0 | | 0 | | 0 | |
| **Charitable (club)** | 5.31 | 132350 | 1.60 | 692 | | 722,303 | 1.54 |
| **Irrigation (season)** | 3.92 | 24348 | 0.29 | 379 | | 105,628 | 0.23 |
| **Irrigation (off-season)** | 3.88 | 0 | | 0 | | 0 | |
| **General Power** | 0.00 | 118158 | 1.42 | 233 | | 974,790 | 2.08 |
| **Large Power** | 0.00 | 70274 | 0.85 | 3 | | 570,119 | 1.22 |
| **33 KV** | 0.00 | 0 | 0.00 | 0 | | 0 | 0.00 |
| **Street Light** | 0.00 | 0 | 0.00 | - | | 0 | 0.00 |
| **Grand Total** | | **8,292,450** | **100%** | **53,908** | | **46,848,401** | **100%** |

| Customer Class | Tariff Rate | October'16 | | | | | |
|---|---|---|---|---|---|---|---|
| | | Unit | % | Consumers | % | Revenue | % |
| **Domestic** | | | | | | | |
| **Minimum Kwh** | | 13924 | 0.18 | | 0.00 | 201,150 | 0.46 |
| **0-50** | 2.9 | 248111 | 3.22 | 8999 | 18.56 | 946,578 | 2.17 |
| **0-75** | 3.41 | 382497 | 4.96 | 5879 | 12.12 | 1,453,488 | 3.33 |
| **76-200** | 4.56 | 3375681 | 43.75 | 26013 | 53.65 | 16,060,429 | 36.80 |
| **201-300** | 4.66 | 1323137 | 17.15 | 5425 | 11.19 | 6,308,550 | 14.45 |
| **301-400** | 4.90 | 509323 | 6.60 | 1481 | 3.05 | 2,533,398 | 5.80 |
| **401-600** | 5.54 | 291040 | 3.77 | 621 | 1.28 | 1,630,050 | 3.73 |
| **600++** | 7.12 | 55909 | 0.72 | 71 | 0.15 | 400,247 | 0.92 |
| **Total** | | **6199622** | **80.35** | **48489** | **100%** | **29,533,890** | **67.67** |
| **Commercial** | 3986.64 | 1163025 | 15.07 | 4644 | | 11,639,151 | 26.67 |
| **Charitable (school/mosque/mandir)** | 5.34 | 0 | | 0 | | 0 | |
| **Charitable (club)** | 5.30 | 128132 | 1.66 | 700 | | 700,284 | 1.60 |
| **Irrigation (season)** | 4.02 | 17428 | 0.23 | 376 | | 79,152 | 0.18 |
| **Irrigation (off-season)** | 3.85 | 0 | | 0 | | 0 | |
| **General Power** | 0.00 | 115099 | 1.49 | 235 | | 952,361 | 2.18 |
| **Large Power** | 0.00 | 92467 | 1.20 | 3 | | 738,120 | 1.69 |
| **33 KV** | 0.00 | 0 | 0.00 | 0 | | 0 | 0.00 |
| **Street Light** | 0.00 | 0 | 0.00 | 0 | | 0 | 0.00 |
| **Grand Total** | | **7,715,773** | **100%** | **54,447** | | **43,642,957** | **100%** |

| Customer Class | Tariff Rate | November'16 | | | | | |
|---|---|---|---|---|---|---|---|
| | | Unit | % | Consumers | % | Revenue | % |
| **Domestic** | | | | | | | |
| **Minimum** | | 24032 | 0.37 | | 0.00 | 295,740 | 0.80 |
| **0-50** | 2.91 | 338995 | 5.21 | 12878 | 26.33 | 1,308,728 | 3.53 |
| **0-75** | 3.41 | 488139 | 7.50 | 7481 | 15.30 | 1,854,944 | 5.01 |
| **76-200** | 4.56 | 2952212 | 45.35 | 23751 | 48.57 | 14,060,477 | 37.94 |
| **201-300** | 4.66 | 849650 | 13.05 | 3503 | 7.16 | 4,048,244 | 10.92 |
| **301-400** | 4.90 | 319833 | 4.91 | 931 | 1.90 | 1,590,769 | 4.29 |
| **401-600** | 5.55 | 144600 | 2.22 | 313 | 0.64 | 804,231 | 2.17 |
| **600++** | 7.08 | 35666 | 0.55 | 46 | 0.09 | 253,758 | 0.68 |
| **Total** | | **5153127** | **79.16** | **48903** | **100%** | **24,216,891** | **65.35** |
| **Commercial** | 2888.78 | 1091515 | 16.77 | 4740 | | 10,970,706 | 29.60 |
| **Charitable (school/mosque/mandir)** | 5.41 | 0 | | 0 | | 0 | |
| **Charitable (club)** | 5.34 | 99491 | 1.53 | 702 | | 551,903 | 1.49 |
| **Irrigation (season)** | 4.27 | 17296 | 0.27 | 383 | | 81,808 | 0.22 |
| **Irrigation (off-season)** | 1.68 | 0 | | 0 | | 0 | |
| **General Power** | 0.00 | 101782 | 1.56 | 235 | | 849,434 | 2.29 |
| **Large Power** | 0.00 | 46284 | 0.71 | 3 | | 388,515 | 1.05 |
| **33 KV** | 0.00 | 0 | 0.00 | 0 | | 0 | 0.00 |
| **Street Light** | 0.00 | 0 | 0.00 | - | | 0 | 0.00 |
| **Grand Total** | | **6,509,495** | **100%** | **54,966** | | **37,059,256** | **100%** |

| Customer Class | Tariff Rate | December'16 | | | | | |
|---|---|---|---|---|---|---|---|
| | | Unit | % | Consumers | % | Revenue | % |
| **Domestic** | | | | | | | |
| **Minimum** | | 51290 | 1.09 | | 0.00 | 554,760 | 1.98 |
| **0-50** | 3.03 | 561150 | 11.94 | 21975 | 44.65 | 2,254,359 | 8.06 |
| **0-75** | 3.41 | 695757 | 14.81 | 10806 | 21.96 | 2,643,761 | 9.45 |
| **76-200** | 4.68 | 1716105 | 36.52 | 15142 | 30.77 | 8,408,647 | 30.07 |
| **201-300** | 4.66 | 236183 | 5.03 | 974 | 1.98 | 1,125,302 | 4.02 |
| **301-400** | 4.90 | 74610 | 1.59 | 217 | 0.44 | 371,134 | 1.33 |
| **401-600** | 5.60 | 38684 | 0.82 | 82 | 0.17 | 217,389 | 0.78 |
| **600++** | 7.20 | 14596 | 0.31 | 18 | 0.04 | 105,682 | 0.38 |
| **Total** | | **3388375** | **72.11** | **49214** | **100%** | **15,681,034** | **56.07** |
| **Commercial** | 1531.23 | 960109 | 20.43 | 4797 | | 9,707,388 | 34.71 |
| **Charitable (school/mosque/mandir)** | 5.84 | 0 | | 0 | | 0 | |
| **Charitable (club)** | 5.49 | 60971 | 1.30 | 709 | | 356,872 | 1.28 |
| **Irrigation (season)** | 3.90 | 27021 | 0.58 | 376 | | 116,058 | 0.41 |
| **Irrigation (off-season)** | 3.46 | 0 | | 0 | | 0 | |
| **General Power** | 0.00 | 113316 | 2.41 | 241 | | 939,420 | 3.36 |
| **Large Power** | 0.00 | 149074 | 3.17 | 3 | | 1,166,636 | 4.17 |
| **33 KV** | 0.00 | 0 | 0.00 | 0 | | 0 | 0.00 |
| **Street Light** | 0.00 | 0 | 0.00 | 0 | | 0 | 0.00 |
| **Grand Total** | | **4,698,866** | **100%** | **55,340** | | **27,967,408** | **100%** |

| Customer Class | Tariff Rate | January'17 | | | | | |
|---|---|---|---|---|---|---|---|
| | | Unit | % | Consumers | % | Revenue | % |
| **Domestic** | | | | | | | |
| **Minimum** | | 48771 | 0.91 | | 0.00 | 537,120 | 1.75 |
| **0-50** | 3.03 | 550748 | 10.24 | 21391 | 43.13 | 2,206,556 | 7.20 |
| **0-75** | 3.41 | 717477 | 13.34 | 11142 | 22.46 | 2,726,413 | 8.89 |
| **76-200** | 4.67 | 1762895 | 32.77 | 15572 | 31.39 | 8,635,607 | 28.17 |
| **201-300** | 4.65 | 266209 | 4.95 | 1103 | 2.22 | 1,267,789 | 4.14 |
| **301-400** | 4.91 | 87052 | 1.62 | 249 | 0.50 | 433,968 | 1.42 |
| **401-600** | 5.52 | 50676 | 0.94 | 109 | 0.22 | 282,485 | 0.92 |
| **600++** | 7.25 | 28876 | 0.54 | 35 | 0.07 | 210,429 | 0.69 |
| **Total** | | **3512704** | **65.30** | **49601** | **100%** | **16,300,367** | **53.17** |
| **Commercial** | 1469.72 | 976945 | 18.16 | 4839 | | 9,879,481 | 32.22 |
| **Charitable (school/mosque/mandir)** | 5.85 | 0 | | 0 | | 0 | |
| **Charitable (club)** | 5.44 | 62548 | 1.16 | 715 | | 365,876 | 1.19 |
| **Irrigation (season)** | 3.85 | 622589 | 11.57 | 955 | | 2,432,651 | 7.93 |
| **Irrigation (off-season)** | 3.46 | 0 | | 0 | | 0 | |
| **General Power** | 0.00 | 109838 | 2.04 | 241 | | 924,856 | 3.02 |
| **Large Power** | 0.00 | 94815 | 1.76 | 3 | | 755,895 | 2.47 |
| **33 KV** | 0.00 | 0 | 0.00 | 0 | | 0 | 0.00 |
| **Street Light** | 0.00 | 0 | 0.00 | - | | 0 | 0.00 |
| **Grand Total** | | **5,379,439** | **100%** | **56,354** | | **30,659,126** | **100%** |

| Customer Class | Tariff Rate | February'17 | | | | | |
|---|---|---|---|---|---|---|---|
| | | Unit | % | Consumers | % | Revenue | % |
| **Domestic** | | | | | | | |
| **Minimum** | | 47723 | 0.80 | | 0.00 | 523,890 | 1.56 |
| **0-50** | 3.03 | 513889 | 8.57 | 20269 | 40.60 | 2,066,910 | 6.15 |
| **0-75** | 3.41 | 716135 | 11.95 | 11104 | 22.24 | 2,721,327 | 8.10 |
| **76-200** | 4.63 | 1921592 | 32.06 | 16826 | 33.70 | 9,332,665 | 27.77 |
| **201-300** | 4.65 | 302588 | 5.05 | 1256 | 2.52 | 1,440,578 | 4.29 |
| **301-400** | 4.91 | 109065 | 1.82 | 313 | 0.63 | 543,543 | 1.62 |
| **401-600** | 5.59 | 57215 | 0.95 | 120 | 0.24 | 323,388 | 0.96 |
| **600++** | 7.44 | 33339 | 0.56 | 36 | 0.07 | 249,036 | 0.74 |
| **Total** | | **3701546** | **61.75** | **49924** | **100%** | **17,201,337** | **51.19** |
| **Commercial** | 1534.91 | 1032158 | 17.22 | 4900 | | 10,438,069 | 31.06 |
| **Charitable (school/mosque/mandir)** | 5.78 | 0 | | 0 | | 0 | |
| **Charitable (club)** | 5.41 | 70650 | 1.18 | 718 | | 408,235 | 1.21 |
| **Irrigation (season)** | 3.85 | 972207 | 16.22 | 1040 | | 3,778,232 | 11.24 |
| **Irrigation (off-season)** | 3.05 | 0 | | 0 | | 0 | |
| **General Power** | 0.00 | 112162 | 1.87 | 251 | | 939,326 | 2.80 |
| **Large Power** | 0.00 | 105404 | 1.76 | 3 | | 836,053 | 2.49 |
| **33 KV** | 0.00 | 0 | 0.00 | 0 | | 0 | 0.00 |
| **Street Light** | 0.00 | 0 | 0.00 | 0 | | 0 | 0.00 |
| **Grand Total** | | **5,994,127** | **100%** | **56,836** | | **33,601,252** | **100%** |

| Customer Class | Tariff Rate | March'17 | | | | | |
|---|---|---|---|---|---|---|---|
| | | Unit | % | Consumers | % | Revenue | % |
| **Domestic** | | | | | | | |
| **Minimum** | | 54984 | 1.05 | | 0.00 | 597,600 | 2.02 |
| **0-50** | 3.03 | 536091 | 10.19 | 21850 | 43.51 | 2,175,528 | 7.34 |
| **0-75** | 3.41 | 709639 | 13.49 | 10981 | 21.87 | 2,696,628 | 9.10 |
| **76-200** | 4.64 | 1809833 | 34.40 | 15993 | 31.85 | 8,798,020 | 29.69 |
| **201-300** | 4.65 | 254547 | 4.84 | 1064 | 2.12 | 1,210,687 | 4.09 |
| **301-400** | 4.89 | 79841 | 1.52 | 233 | 0.46 | 396,971 | 1.34 |
| **401-600** | 5.58 | 42644 | 0.81 | 90 | 0.18 | 240,213 | 0.81 |
| **600++** | 7.35 | 8563 | 0.16 | 10 | 0.02 | 63,246 | 0.21 |
| **Total** | | **3496142** | **66.46** | **50221** | **100%** | **16,178,893** | **54.59** |
| **Commercial** | 1242.95 | 918101 | 17.45 | 4928 | | 9,310,025 | 31.42 |
| **Charitable (school/mosque/mandir)** | 5.70 | 0 | | 0 | | 0 | |
| **Charitable (club)** | 5.47 | 72129 | 1.37 | 722 | | 415,252 | 1.40 |
| **Irrigation (season)** | 3.85 | 617174 | 11.73 | 1042 | | 2,408,309 | 8.13 |
| **Irrigation (off-season)** | 2.30 | 0 | | 0 | | 0 | |
| **General Power** | 0.00 | 96184 | 1.83 | 255 | | 822,910 | 2.78 |
| **Large Power** | 0.00 | 61018 | 1.16 | 3 | | 500,051 | 1.69 |
| **33 KV** | 0.00 | 0 | 0.00 | 0 | | 0 | 0.00 |
| **Street Light** | 0.00 | 0 | 0.00 | 0 | | 0 | 0.00 |
| **Grand Total** | | **5,260,748** | **100%** | **57,171** | | **29,635,440** | **100%** |

| Customer Class | Tariff Rate | April'17 | | | | | |
|---|---|---|---|---|---|---|---|
| | | Unit | % | Consumers | % | Revenue | % |
| **Domestic** | | | | | | | |
| **Minimum** | | 34445 | 0.51 | | 0.00 | 410,760 | 1.07 |
| **0-50** | 3 | 400198 | 5.92 | 15946 | 31.52 | 1,599,640 | 4.18 |
| **0-75** | 3.41 | 582066 | 8.60 | 8929 | 17.65 | 2,211,915 | 5.78 |
| **76-200** | 4.72 | 2819597 | 41.68 | 22640 | 44.75 | 13,871,727 | 36.23 |
| **201-300** | 4.65 | 566711 | 8.38 | 2348 | 4.64 | 2,698,349 | 7.05 |
| **301-400** | 4.90 | 181353 | 2.68 | 528 | 1.04 | 901,978 | 2.36 |
| **401-600** | 5.52 | 77814 | 1.15 | 168 | 0.33 | 434,358 | 1.13 |
| **600++** | 7.31 | 23593 | 0.35 | 28 | 0.06 | 173,258 | 0.45 |
| **Total** | | **4685777** | **69.27** | **50587** | **100%** | **22,301,985** | **58.25** |
| **Commercial** | 2118.13 | 1095782 | 16.20 | 4933 | | 11,066,062 | 28.90 |
| **Charitable (school/mosque/mandir)** | 5.44 | 0 | | 0 | | 0 | |
| **Charitable (club)** | 5.35 | 104998 | 1.55 | 724 | | 583,722 | 1.52 |
| **Irrigation (season)** | 3.85 | 667913 | 9.87 | 1042 | | 2,631,563 | 6.87 |
| **Irrigation (off-season)** | 3.69 | 0 | | 0 | | 0 | |
| **General Power** | 0.00 | 134004 | 1.98 | 259 | | 1,104,706 | 2.89 |
| **Large Power** | 0.00 | 75959 | 1.12 | 2 | | 600,155 | 1.57 |
| **33 KV** | 0.00 | 0 | 0.00 | 0 | | 0 | 0.00 |
| **Street Light** | 0.00 | 0 | 0.00 | 0 | | 0 | 0.00 |
| **Grand Total** | | **6,764,433** | **100%** | **57,547** | | **38,288,193** | **100%** |

| Customer Class | Tariff Rate | May'17 | | | | | |
|---|---|---|---|---|---|---|---|
| | | Unit | % | Consumers | % | Revenue | % |
| **Domestic** | | | | | | | |
| **Minimum** | | 17374 | 0.22 | | 0.00 | 254,970 | 0.58 |
| **0-50** | 2.96 | 297269 | 3.85 | 11084 | 21.76 | 1,157,476 | 2.63 |
| **0-75** | 3.41 | 411739 | 5.33 | 6295 | 12.36 | 1,564,608 | 3.55 |
| **76-200** | 4.55 | 3454926 | 44.70 | 26852 | 52.72 | 16,421,131 | 37.30 |
| **201-300** | 4.66 | 1196741 | 15.48 | 4925 | 9.67 | 5,703,279 | 12.95 |
| **301-400** | 4.89 | 422376 | 5.46 | 1231 | 2.42 | 2,099,769 | 4.77 |
| **401-600** | 5.54 | 223304 | 2.89 | 477 | 0.94 | 1,249,632 | 2.84 |
| **600++** | 7.27 | 58539 | 0.76 | 70 | 0.14 | 427,741 | 0.97 |
| **Total** | | **6082268** | **78.69** | **50934** | **100%** | **28,878,606** | **65.59** |
| **Commercial** | 3450.95 | 1224681 | 15.84 | 4942 | | 12,292,061 | 27.92 |
| **Charitable (school/mosque/mandir)** | 5.38 | 0 | | 0 | | 0 | |
| **Charitable (club)** | 5.31 | 126439 | 1.64 | 730 | | 694,147 | 1.58 |
| **Irrigation (season)** | 4.62 | 79586 | 1.03 | 1002 | | 383,101 | 0.87 |
| **Irrigation (off-season)** | 3.94 | 0 | | 0 | | 0 | |
| **General Power** | 0.00 | 144324 | 1.87 | 259 | | 1,193,703 | 2.71 |
| **Large Power** | 0.00 | 72458 | 0.94 | 3 | | 586,922 | 1.33 |
| **33 KV** | 0.00 | 0 | 0.00 | 0 | | 0 | 0.00 |
| **Street Light** | 0.00 | 0 | 0.00 | 0 | | 0 | 0.00 |
| **Grand Total** | | **7,729,756** | **100%** | **57,870** | | **44,028,540** | **100%** |

## 3. Monthly Revenue Data of DPBS-2, 2017-18

| Customer Class | Tariff Rate | July'17 | | | | | |
|---|---|---|---|---|---|---|---|
| | | Unit | % | Consumers | % | Revenue | % |
| **Domestic** | | | | | | | |
| **Minimum Kwh** | | 18742 | 0.24 | | 0.00 | 335,700 | 0.77 |
| **0-50** | 2.89 | 267192 | 3.44 | 11126 | 21.41 | 1,050,566 | 2.41 |
| **0-75** | 3.41 | 414245 | 5.33 | 6344 | 12.21 | 1,573,896 | 3.61 |
| **76-200** | 4.55 | 3511517 | 45.19 | 26982 | 51.93 | 16,670,580 | 38.27 |
| **201-300** | 4.66 | 1323884 | 17.04 | 5409 | 10.41 | 6,314,892 | 14.50 |
| **301-400** | 4.90 | 482512 | 6.21 | 1389 | 2.67 | 2,402,786 | 5.52 |
| **401-600** | 5.53 | 281594 | 3.62 | 603 | 1.16 | 1,573,173 | 3.61 |
| **600++** | 6.89 | 85175 | 1.10 | 110 | 0.21 | 590,188 | 1.35 |
| **Total** | | **6384861** | **82.16** | **51963** | **100%** | **30,511,781** | **70.05** |
| **Commercial** | 2804.31 | 1094274 | 14.08 | 4996 | | 11,072,557 | 25.42 |
| **Charitable (school/mosque/mandir)** | 5.48 | 0 | 0.00 | 0 | | 0 | 0.00 |
| **Charitable (club)** | 5.33 | 128409 | 1.65 | 739 | | 712,360 | 1.64 |
| **Irrigation (season)** | 4.54 | 27566 | 0.35 | 518 | | 147,798 | 0.34 |
| **Irrigation (off-season)** | 13.52 | 0 | 0.00 | 0 | | 0 | 0.00 |
| **General Power** | 0.00 | 127181 | 1.64 | 256 | | 1,020,849 | 2.34 |
| **Large Power** | 0.00 | 8808 | 0.11 | 2 | | 91,821 | 0.21 |
| **33 KV** | 0.00 | 0 | 0.00 | 0 | | 0 | 0.00 |
| **Street Light** | 0.00 | 0 | 0.00 | 0 | | 0 | 0.00 |
| **Grand Total** | | **7,771,099** | **100%** | **58,474** | | **43,557,166** | **100%** |

| Customer Class | Tariff Rate | August'17 | | | | | |
|---|---|---|---|---|---|---|---|
| | | Unit | % | Consumers | % | Revenue | % |
| **Domestic** | | | | | | | |
| **Minimum Kwh** | | 15846 | 0.20 | | 0.00 | 273,150 | 0.62 |
| **0-50** | 2.93 | 264264 | 3.36 | 10179 | 19.39 | 1,030,861 | 2.34 |
| **0-75** | 3.41 | 433245 | 5.52 | 6617 | 12.61 | 1,646,331 | 3.73 |
| **76-200** | 4.54 | 3722358 | 47.39 | 28802 | 54.87 | 17,639,854 | 40.01 |
| **201-300** | 4.66 | 1250131 | 15.91 | 5141 | 9.79 | 5,958,320 | 13.51 |
| **301-400** | 4.90 | 431748 | 5.50 | 1247 | 2.38 | 2,148,554 | 4.87 |
| **401-600** | 5.55 | 209252 | 2.66 | 443 | 0.84 | 1,173,932 | 2.66 |
| **600++** | 7.03 | 48137 | 0.61 | 63 | 0.12 | 340,458 | 0.77 |
| **Total** | | **6374981** | **81.16** | **52492** | **100%** | **30,211,460** | **68.53** |
| **Commercial** | 3109.36 | 1140532 | 14.52 | 5008 | | 11,482,552 | 26.04 |
| **Charitable (school/mosque/mandir)** | 5.38 | 0 | 0.00 | 0 | | 0 | |
| **Charitable (club)** | 5.30 | 137440 | 1.75 | 751 | | 754,480 | 1.71 |
| **Irrigation (season)** | 4.65 | 9892 | 0.13 | 417 | | 53,811 | 0.12 |
| **Irrigation (off-season)** | 3.91 | 0 | 0.00 | 0 | | 0 | |
| **General Power** | 0.00 | 140697 | 1.79 | 257 | | 1,163,693 | 2.64 |
| **Large Power** | 0.00 | 51760 | 0.66 | 3 | | 421,778 | 0.96 |
| **33 KV** | 0.00 | 0 | 0.00 | 0 | | 0 | 0.00 |
| **Street Light** | 0.00 | 0 | 0.00 | 0 | | 0 | 0.00 |
| **Grand Total** | | **7,855,302** | **100%** | **58,928** | | **44,087,774** | **100%** |

| Customer Class | Tariff Rate | September'17 | | | | | |
|---|---|---|---|---|---|---|---|
| | | Unit | % | Consumers | % | Revenue | % |
| **Domestic** | | | | | | | |
| **Minimum Kwh** | | 12412 | 0.14 | | 0.00 | 226,620 | 0.44 |
| **0-50** | 2.93 | 218640 | 2.41 | 8366 | 15.77 | 850,377 | 1.66 |
| **0-75** | 3.41 | 355160 | 3.92 | 5441 | 10.26 | 1,349,633 | 2.64 |
| **76-200** | 4.57 | 3939152 | 43.50 | 29323 | 55.28 | 18,737,160 | 36.62 |
| **201-300** | 4.66 | 1735032 | 8.00 | 7076 | 13.34 | 8,278,111 | 16.18 |
| **301-400** | 4.90 | 658384 | 7.27 | 1900 | 3.58 | 3,278,350 | 6.41 |
| **401-600** | 5.59 | 378571 | 4.18 | 797 | 1.50 | 2,136,593 | 4.18 |
| **600++** | 7.07 | 108668 | 1.20 | 140 | 0.26 | 771,887 | 1.51 |
| **Total** | | **7406019** | **81.79** | **53043** | **100%** | **35,628,731** | **69.63** |
| **Commercial** | 4434.92 | 1322070 | 14.60 | 5103 | | 13,257,021 | 25.91 |
| **Charitable (school/mosque/mandir)** | 5.37 | 0 | | 0 | | 0 | |
| **Charitable (club)** | 5.31 | 138435 | 1.53 | 759 | | 758,838 | 1.48 |
| **Irrigation (season)** | 4.37 | 12919 | 0.14 | 398 | | 66,644 | 0.13 |
| **Irrigation (off-season)** | 3.92 | 0 | | 0 | | 0 | |
| **General Power** | 0.00 | 125324 | 1.38 | 254 | | 1,048,724 | 2.05 |
| **Large Power** | 0.00 | 49858 | 0.55 | 3 | | 407,381 | 0.80 |
| **33 KV** | 0.00 | 0 | 0.00 | 0 | | 0 | 0.00 |
| **Street Light** | 0.00 | 0 | 0.00 | - | | 0 | 0.00 |
| **Grand Total** | | **9,054,625** | **100%** | **59,560** | | **51,167,339** | **100%** |

| Customer Class | Tariff Rate | October'17 | | | | | |
|---|---|---|---|---|---|---|---|
| | | Unit | % | Consumers | % | Revenue | % |
| **Domestic** | | | | | | | |
| **Minimum Kwh** | | 15182 | 0.19 | | 0.00 | 247,680 | 0.55 |
| **0-50** | 2.95 | 260229 | 3.24 | 9814 | 18.34 | 1,013,479 | 2.25 |
| **0-75** | 3.41 | 444490 | 5.53 | 6787 | 12.68 | 1,688,984 | 3.75 |
| **76-200** | 4.54 | 3880617 | 48.31 | 29995 | 56.05 | 18,367,105 | 40.81 |
| **201-300** | 4.66 | 1246455 | 15.52 | 5131 | 9.59 | 5,939,594 | 13.20 |
| **301-400** | 4.89 | 439033 | 5.47 | 1274 | 2.38 | 2,182,930 | 4.85 |
| **401-600** | 5.54 | 206724 | 2.57 | 442 | 0.83 | 1,157,093 | 2.57 |
| **600++** | 7.13 | 56388 | 0.70 | 70 | 0.13 | 404,006 | 0.90 |
| **Total** | | **6549118** | **81.54** | **53513** | **100%** | **31,000,871** | **68.88** |
| **Commercial** | 3372.89 | 1175164 | 14.63 | 5148 | | 11,884,610 | 26.41 |
| **Charitable (school/mosque/mandir)** | 5.39 | 0 | | 0 | | 0 | |
| **Charitable (club)** | 5.31 | 133405 | 1.66 | 763 | | 732,969 | 1.63 |
| **Irrigation (season)** | 4.12 | 19139 | 0.24 | 391 | | 88,999 | 0.20 |
| **Irrigation (off-season)** | 3.91 | 0 | | 0 | | 0 | |
| **General Power** | 0.00 | 116457 | 1.45 | 253 | | 976,109 | 2.17 |
| **Large Power** | 1226.91 | 38775 | 0.48 | 3 | | 325,206 | 0.72 |
| **33 KV** | 0.00 | 0 | 0.00 | 0 | | 0 | 0.00 |
| **Street Light** | 0.00 | 0 | 0.00 | 0 | | 0 | 0.00 |
| **Grand Total** | | **8,032,058** | **100%** | **60,071** | | **45,008,764** | **100%** |

| Customer Class | Tariff Rate | November'17 | | | | | |
|---|---|---|---|---|---|---|---|
| | | Unit | % | Consumers | % | Revenue | % |
| **Domestic** | | | | | | | |
| **Minimum** | | 34543 | 0.53 | | 0.00 | 417,870 | 1.12 |
| **0-50** | 3 | 408116 | 6.28 | 16188 | 30.00 | 1,629,235 | 4.37 |
| **0-75** | 3.41 | 629070 | 9.68 | 9627 | 17.84 | 2,390,438 | 6.41 |
| **76-200** | 4.54 | 2963546 | 45.62 | 24559 | 45.51 | 14,088,712 | 37.80 |
| **201-300** | 4.66 | 656229 | 10.10 | 2703 | 5.01 | 3,127,147 | 8.39 |
| **301-400** | 4.89 | 213787 | 3.29 | 617 | 1.14 | 1,062,932 | 2.85 |
| **401-600** | 5.55 | 110471 | 1.70 | 235 | 0.44 | 619,598 | 1.66 |
| **600++** | 7.04 | 28362 | 0.44 | 37 | 0.07 | 200,860 | 0.54 |
| **Total** | | **5044124** | **77.65** | **53966** | **100%** | **23,536,792** | **63.15** |
| **Commercial** | 2696.93 | 1147961 | 17.67 | 5187 | | 11,566,693 | 31.03 |
| **Charitable (school/mosque/mandir)** | 5.49 | 0 | | 0 | | 0 | |
| **Charitable (club)** | 5.36 | 97144 | 1.50 | 766 | | 544,934 | 1.46 |
| **Irrigation (season)** | 3.99 | 21654 | 0.33 | 390 | | 96,699 | 0.26 |
| **Irrigation (off-season)** | 3.95 | 0 | | 0 | | 0 | |
| **General Power** | 0.00 | 136398 | 2.10 | 260 | | 1,130,042 | 3.03 |
| **Large Power** | 0.00 | 48494 | 0.75 | 3 | | 397,729 | 1.07 |
| **33 KV** | 0.00 | 0 | 0.00 | 0 | | 0 | 0.00 |
| **Street Light** | 0.00 | 0 | 0.00 | 0 | | 0 | 0.00 |
| **Grand Total** | | **6,495,775** | **100%** | **60,572** | | **37,272,889** | **100%** |

| Customer Class | Tariff Rate | December'17 | | | | | |
|---|---|---|---|---|---|---|---|
| | | Unit | % | Consumers | % | Revenue | % |
| **Domestic** | | | | | | | |
| **Minimum** | | 0 | 0.00 | | 0.00 | 0 | 0.00 |
| **0-50** | 2.75 | 567811 | 10.11 | 20965 | 38.50 | 2,089,707 | 6.05 |
| **0-75** | 3.61 | 763145 | 13.59 | 11788 | 21.65 | 3,052,580 | 8.83 |
| **76-200** | 5.06 | 2258377 | 40.21 | 19570 | 35.94 | 11,933,232 | 34.52 |
| **201-300** | 4.94 | 369623 | 6.58 | 1529 | 2.81 | 1,865,218 | 5.40 |
| **301-400** | 5.21 | 125349 | 2.23 | 362 | 0.66 | 662,378 | 1.92 |
| **401-600** | 5.97 | 93392 | 1.66 | 195 | 0.36 | 563,018 | 1.63 |
| **600++** | 8.04 | 40459 | 0.72 | 40 | 0.07 | 326,609 | 0.94 |
| **Total** | | **4218156** | **75.11** | **54449** | **100%** | **20,492,742** | **59.29** |
| **Commercial** | 0.00 | 1138379 | 20.27 | 5260 | | 12,068,975 | 34.92 |
| **Charitable (school/mosque/mandir)** | 5.91 | 0 | | 0 | | 0 | |
| **Charitable (club)** | 5.86 | 74166 | 1.32 | 771 | | 455,493 | 1.32 |
| **Irrigation (season)** | 4.39 | 16993 | 0.30 | 390 | | 74,122 | 0.21 |
| **Irrigation (off-season)** | 4.28 | 0 | | 0 | | 0 | |
| **General Power** | 0.00 | 121833 | 2.17 | 264 | | 1,061,012 | 3.07 |
| **Large Power** | 0.00 | 46805 | 0.83 | 3 | | 414,011 | 1.20 |
| **33 KV** | 0.00 | 0 | 0.00 | 0 | | 0 | 0.00 |
| **Street Light** | 0.00 | 0 | 0.00 | 0 | | 0 | 0.00 |
| **Grand Total** | | **5,616,332** | **100%** | **61,137** | | **34,566,355** | **100%** |

| Customer Class | Tariff Rate | January'18 | | | | | |
|---|---|---|---|---|---|---|---|
| | | Unit | % | Consumers | % | Revenue | % |
| **Domestic** | | | | | | | |
| **Minimum** | | 30 | 0.00 | | 0.00 | 25 | 0.00 |
| **0-50** | 2.78 | 735135 | 13.67 | 26399 | 48.27 | 2,705,256 | 8.33 |
| **0-75** | 3.61 | 770445 | 14.33 | 12013 | 21.97 | 3,081,789 | 9.49 |
| **76-200** | 5.31 | 1665597 | 30.97 | 14832 | 27.12 | 9,222,847 | 28.41 |
| **201-300** | 4.94 | 241952 | 4.50 | 997 | 1.82 | 1,220,909 | 3.76 |
| **301-400** | 5.21 | 94540 | 1.76 | 271 | 0.50 | 500,097 | 1.54 |
| **401-600** | 5.95 | 64458 | 1.20 | 136 | 0.25 | 387,370 | 1.19 |
| **600++** | 7.73 | 32754 | 0.61 | 40 | 0.07 | 254,198 | 0.78 |
| **Total** | | **3604911** | **67.03** | **54688** | **100%** | **17,372,491** | **53.52** |
| **Commercial** | 0.00 | 1054478 | 19.61 | 5305 | | 11,170,787 | 34.42 |
| **Charitable (school/mosque/mandir)** | 5.97 | 0 | | 0 | | 0 | |
| **Charitable (club)** | 5.89 | 85597 | 1.59 | 792 | | 527,990 | 1.63 |
| **Irrigation (season)** | 4.20 | 471834 | 8.77 | 967 | | 1,985,991 | 6.12 |
| **Irrigation (off-season)** | 3.93 | 0 | | 0 | | 0 | |
| **General Power** | 0.00 | 105974 | 1.97 | 260 | | 911,498 | 2.81 |
| **Large Power** | 0.00 | 55408 | 1.03 | 4 | | 488,925 | 1.51 |
| **33 KV** | 0.00 | 0 | 0.00 | 0 | | 0 | 0.00 |
| **Street Light** | 0.00 | 0 | 0.00 | - | | 0 | 0.00 |
| **Grand Total** | | **5,378,202** | **100%** | **62,016** | | **32,457,682** | **100%** |

| Customer Class | Tariff Rate | February'18 | | | | | |
|---|---|---|---|---|---|---|---|
| | | Unit | % | Consumers | % | Revenue | % |
| **Domestic** | | | | | | | |
| **Minimum** | | 50 | 0.00 | | 0.00 | 25 | 0.00 |
| **0-50** | 2.77 | 703788 | 12.09 | 25553 | 46.44 | 2,590,439 | 7.57 |
| **0-75** | 3.61 | 791228 | 13.59 | 12307 | 22.37 | 3,164,921 | 9.25 |
| **76-200** | 5.27 | 1758212 | 30.20 | 15596 | 28.35 | 9,666,173 | 28.25 |
| **201-300** | 4.94 | 258692 | 4.44 | 1065 | 1.94 | 1,305,605 | 3.82 |
| **301-400** | 5.22 | 106366 | 1.83 | 305 | 0.55 | 562,864 | 1.64 |
| **401-600** | 5.92 | 72190 | 1.24 | 153 | 0.28 | 431,648 | 1.26 |
| **600++** | 8.53 | 44832 | 0.77 | 40 | 0.07 | 383,429 | 1.12 |
| **Total** | | **3735358** | **64.16** | **55019** | **100%** | **18,105,104** | **52.91** |
| **Commercial** | 0.00 | 1007498 | 17.31 | 5379 | | 10,683,243 | 31.22 |
| **Charitable (school/mosque/mandir)** | 5.98 | 0 | | 0 | | 0 | |
| **Charitable (club)** | 5.89 | 82129 | 1.41 | 796 | | 507,811 | 1.48 |
| **Irrigation (season)** | 4.11 | 815255 | 14.00 | 1070 | | 3,359,791 | 9.82 |
| **Irrigation (off-season)** | 4.11 | 0 | | 0 | | 0 | |
| **General Power** | 0.00 | 102466 | 1.76 | 252 | | 878,640 | 2.57 |
| **Large Power** | 0.00 | 79281 | 1.36 | 4 | | 683,741 | 2.00 |
| **33 KV** | 0.00 | 0 | 0.00 | 0 | | 0 | 0.00 |
| **Street Light** | 0.00 | 0 | 0.00 | 0 | | 0 | 0.00 |
| **Grand Total** | | **5,821,987** | **100%** | **62,520** | | **34,218,330** | **100%** |

| Customer Class | Tariff Rate | March'18 | | | | | |
|---|---|---|---|---|---|---|---|
| | | Unit | % | Consumers | % | Revenue | % |
| **Domestic** | | | | | | | |
| **Minimum** | | 0 | 0.00 | | 0.00 | 0 | 0.00 |
| **0-50** | 2.75 | 530365 | 7.76 | 19676 | 35.62 | 1,951,907 | 4.96 |
| **0-75** | 3.61 | 720967 | 10.55 | 11121 | 20.13 | 2,884,047 | 7.33 |
| **76-200** | 4.99 | 2554609 | 37.39 | 21906 | 39.65 | 13,316,237 | 33.86 |
| **201-300** | 4.93 | 461453 | 6.75 | 1915 | 3.47 | 2,326,230 | 5.92 |
| **301-400** | 5.20 | 147460 | 2.16 | 428 | 0.77 | 778,670 | 1.98 |
| **401-600** | 5.90 | 78306 | 1.15 | 167 | 0.30 | 466,594 | 1.19 |
| **600++** | 8.10 | 27950 | 0.41 | 29 | 0.05 | 227,196 | 0.58 |
| **Total** | | **4521110** | **66.17** | **55242** | **100%** | **21,950,881** | **55.82** |
| **Commercial** | 0.00 | 1055127 | 15.44 | 5397 | | 11,083,108 | 28.18 |
| **Charitable (school/mosque/mandir)** | 5.89 | 0 | | 0 | | 0 | |
| **Charitable (club)** | 5.87 | 132187 | 1.93 | 798 | | 797,642 | 2.03 |
| **Irrigation (season)** | 4.09 | 925528 | 13.55 | 1078 | | 3,793,916 | 9.65 |
| **Irrigation (off-season)** | 3.82 | 0 | | 0 | | 0 | |
| **General Power** | 0.00 | 124486 | 1.82 | 252 | | 1,059,118 | 2.69 |
| **Large Power** | 0.00 | 74057 | 1.08 | 4 | | 641,214 | 1.63 |
| **33 KV** | 0.00 | 0 | 0.00 | 0 | | 0 | 0.00 |
| **Street Light** | 0.00 | 0 | 0.00 | - | | 0 | 0.00 |
| **Grand Total** | | **6,832,495** | **100%** | **62,771** | | **39,325,879** | **100%** |

| Customer Class | Tariff Rate | April'18 | | | | | |
|---|---|---|---|---|---|---|---|
| | | Unit | % | Consumers | % | Revenue | % |
| **Domestic** | | | | | | | |
| **Minimum** | | 0 | 0.00 | | 0.00 | 0 | 0.00 |
| **0-50** | 2.73 | 485336 | 7.02 | 18273 | 32.88 | 1,785,991 | 4.42 |
| **0-75** | 3.61 | 635988 | 9.19 | 9768 | 17.58 | 2,543,826 | 6.30 |
| **76-200** | 4.95 | 2891268 | 41.79 | 24104 | 43.37 | 14,934,507 | 36.96 |
| **201-300** | 4.93 | 639834 | 9.25 | 2648 | 4.76 | 3,226,723 | 7.99 |
| **301-400** | 5.20 | 193754 | 2.80 | 566 | 1.02 | 1,022,448 | 2.53 |
| **401-600** | 5.88 | 79278 | 1.15 | 172 | 0.31 | 470,871 | 1.17 |
| **600++** | 7.71 | 37289 | 0.54 | 45 | 0.08 | 288,661 | 0.71 |
| **Total** | | **4962747** | **71.74** | **55576** | **100%** | **24,273,027** | **60.08** |
| **Commercial** | 0.00 | 1094293 | 15.82 | 5431 | | 11,563,033 | 28.62 |
| **Charitable (school/mosque/mandir)** | 5.88 | 0 | | 0 | | 0 | |
| **Charitable (club)** | 5.86 | 142688 | 2.06 | 800 | | 858,540 | 2.13 |
| **Irrigation (season)** | 4.14 | 557282 | 8.06 | 1081 | | 2,310,708 | 5.72 |
| **Irrigation (off-season)** | 3.78 | 0 | | 0 | | 0 | |
| **General Power** | 0.00 | 98230 | 1.42 | 253 | | 851,960 | 2.11 |
| **Large Power** | 0.00 | 62669.15 | 0.91 | 3 | | 544,553 | 1.35 |
| **33 KV** | 0.00 | 0 | 0.00 | 0 | | 0 | 0.00 |
| **Street Light** | 0.00 | 0 | 0.00 | 0 | | 0 | 0.00 |
| **Grand Total** | | **6,917,909** | **100%** | **63,144** | | **40,401,821** | **100%** |

| Customer Class | Tariff Rate | May'18 | | | | | |
|---|---|---|---|---|---|---|---|
| | | Unit | % | Consumers | % | Revenue | % |
| **Domestic** | | | | | | | |
| **Minimum** | | 0 | 0.00 | | 0.00 | 0 | 0.00 |
| **0-50** | 2.74 | 446852 | 6.65 | 16637 | 29.71 | 1,642,806 | 4.14 |
| **0-75** | 3.61 | 609503 | 9.06 | 9344 | 16.69 | 2,438,338 | 6.14 |
| **76-200** | 4.89 | 3153856 | 46.90 | 26214 | 46.81 | 16,083,924 | 40.50 |
| **201-300** | 4.93 | 713275 | 10.61 | 2956 | 5.28 | 3,595,891 | 9.05 |
| **301-400** | 5.20 | 210820 | 3.14 | 613 | 1.09 | 1,112,961 | 2.80 |
| **401-600** | 5.90 | 91870 | 1.37 | 199 | 0.36 | 547,038 | 1.38 |
| **600++** | 7.83 | 27135 | 0.40 | 32 | 0.06 | 213,325 | 0.54 |
| **Total** | | **5253311** | **78.13** | **55995** | **100%** | **25,634,283** | **64.55** |
| **Commercial** | 0.00 | 1079162 | 16.05 | 5451 | | 11,423,944 | 28.77 |
| **Charitable (school/mosque/mandir)** | 5.88 | 0 | | 0 | | 0 | |
| **Charitable (club)** | 5.85 | 134538 | 2.00 | 807 | | 809,745 | 2.04 |
| **Irrigation (season)** | 4.91 | 92182 | 1.37 | 948 | | 448,846 | 1.13 |
| **Irrigation (off-season)** | 3.20 | 0 | | 0 | | 0 | |
| **General Power** | 0.00 | 122035 | 1.81 | 253 | | 1,049,827 | 2.64 |
| **Large Power** | 0.00 | 42842 | 0.64 | 2 | | 345,397 | 0.87 |
| **33 KV** | 0.00 | 0 | 0.00 | 0 | | 0 | 0.00 |
| **Street Light** | 0.00 | 0 | 0.00 | 0 | | 0 | 0.00 |
| **Grand Total** | | **6,724,070** | **100%** | **63,456** | | **39,712,042** | **100%** |

| Customer Class | Tariff Rate | June'18 | | | | | |
|---|---|---|---|---|---|---|---|
| | | Unit | % | Consumers | % | Revenue | % |
| **Domestic** | | | | | | | |
| **Minimum** | | 35 | 0.00 | | 0.00 | 25 | 0.00 |
| **0-50** | 2.77 | 346056 | 4.44 | 12538 | 22.29 | 1,273,702 | 2.78 |
| **0-75** | 3.61 | 488016 | 6.26 | 7465 | 13.27 | 1,952,064 | 4.26 |
| **76-200** | 4.87 | 3830531 | 49.10 | 30236 | 53.75 | 19,426,998 | 42.38 |
| **201-300** | 4.94 | 1105155 | 14.17 | 4549 | 8.09 | 5,576,919 | 12.17 |
| **301-400** | 5.20 | 360109 | 4.62 | 1050 | 1.87 | 1,900,371 | 4.15 |
| **401-600** | 5.89 | 164709 | 2.11 | 352 | 0.63 | 979,691 | 2.14 |
| **600++** | 7.40 | 51107 | 0.66 | 63 | 0.11 | 380,045 | 0.83 |
| **Total** | | **6345718** | **81.33** | **56253** | **100%** | **31,489,815** | **68.70** |
| **Commercial** | 0.00 | 1138310 | 14.59 | 5433 | | 12,028,515 | 26.24 |
| **Charitable (school/mosque/mandir)** | 5.90 | 0 | | 0 | | 0 | |
| **Charitable (club)** | 5.83 | 169685 | 2.17 | 809 | | 1,015,374 | 2.22 |
| **Irrigation (season)** | 0.00 | 9402 | 0.12 | 587 | | 78,423 | 0.17 |
| **Irrigation (off-season)** | 4.45 | 0 | | 0 | | 0 | |
| **General Power** | 0.00 | 115473 | 1.48 | 250 | | 842,058 | 1.84 |
| **Large Power** | 0.00 | 23424 | 0.30 | 3 | | 380,645 | 0.83 |
| **33 KV** | 0.00 | 0 | 0.00 | 0 | | 0 | 0.00 |
| **Street Light** | 0.00 | 0 | 0.00 | 0 | | 0 | 0.00 |
| **Grand Total** | | **7,802,012** | **100%** | **63,335** | | **45,834,830** | **100%** |