

# Annual Report

2013-2014



**Bangladesh Power Development Board**

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## BANGLADESH POWER DEVELOPMENT BOARD

### VISION STATEMENT

Bangladesh Power Development Board's vision is to provide quality and reliable electricity to the people of Bangladesh for desired economic, social and human development of the country undertaking institutional and structural reforms leading to the creation of an organisation of international standard.

### MISSION STATEMENT

- To deliver quality electricity at reasonable and affordable prices with professional service excellence.
- To make electricity available to all citizens on demand by the year 2021.
- To provide specialized skilled services in operation & maintenance with outstanding performance in Generation, Transmission and Distribution for promoting competition among various power-sector entities.
- To follow international standard and adopt modern technology and practices in power generation and distribution activities.
- To ensure improved & satisfactory services to the consumers.
- To develop new mindset for all of its employees congruent with the corporate culture.
- To reach self sufficiency by increasing of its income and reduction of expenditure through efficiency improvement and diversification of activities.

## From the desk of Chairman



Bangladesh Power Development Board (BPDB) an organisation of excellence among the public sector entities has been serving the nation for more than 4 decades with a goal to provide electricity to the people of Bangladesh and contribute in economic agricultural and social development of the country.

This is indeed a matter of great pleasure that we are going to publish the Annual Report 2013-14 of Bangladesh Power Development Board (BPDB) which will focus on generation, transmission, distribution, planning and development and economic profile of the organisation.

In the year 2013-2014 significant progress was made in different areas of BPDB activities especially in generation. 1,545 MW (including 500 MW Import from India) capacity was added from the newly installed power plants which enhanced the total generation capacity to 9,821 MW from 8,537 MW. Out of this new capacity addition, BPDB's own contribution was 458MW. It may be mentioned that during the FY 13-14 highest peak power generation was 7,356 MW which was 14.33% and the total energy generation was 42,195 GWh which was 10.37% higher than previous year respectively.

In the said fiscal year BPDB's bulk sales to distribution entities were 10.69% higher and retail sales to BPDB's six zones were 9.91% higher than the previous year respectively which is a clear indication of rapid growing demand of electricity in the country. Distribution system loss of BPDB's six zones came down to 11.89% from 11.95% of previous year. Per capita generation and consumption were also increased mentionably in the year under report.

It may be mentioned that BPDB has adopted a pragmatic plan of adding about 18,000 MW capacity by 2021 in line with the mission of ensuring electricity for all the citizen of the country by 2021. At present 32 Power projects of capacity 7361 MW are under construction.

Due to prevailing gas shortage, plan has been adopted for balanced development of different sources of energy. Coal will be the best possible option for base load plants in near future. Alongside Liquefied Natural Gas (LNG) is also being considered to supplement present gas crisis. BPDB is working for development of renewable energy too.

During the said period expansion of Computerized Billing, Bill-pay through Mobile Phone, On line Application method, Energy Efficiency Measures and Training Programme also continued as usual.

BPDB is working relentlessly to bring all people of the country under the coverage of electricity by 2021 and materialize the vision and mission of the organisation.

I hope this annual report would be helpful to those who need it.

A handwritten signature in black ink, appearing to read 'Md. Shahinul Islam Khan'. The signature is fluid and cursive.

**Md. Shahinul Islam Khan**  
Chairman  
Bangladesh Power Development Board



Foundation stone laying of 1320 MW Rampal Maitree Super Thermal Power Plant, Bheramara 360 MW Power Plant and Inauguration of Bangladesh-India Grid Interconnection by Hon'ble Prime Minister Sheikh Hasina.

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## Present Board

(01 February, 2015)



**Md. Azizul Islam**  
Member (Finance)



**Md. Shahinul Islam Khan**  
Chairman



**Lokman Hossain Miah**  
Member (Administration)



**K. M. Hassan**  
Member (Distribution)



**Md. Shamsul Hassan Miah**  
Member (Company Affairs)



**A.B.M. Mizanur Rahman**  
Member (P & D)

## About BPDB

Bangladesh Power Development Board (BPDB) is a statutory body created in May 1, 1972 by Presidential Order No. 59 after bifurcation of erstwhile Bangladesh Water and Power Development Authority. BPDB had started its operation with generation capacity of only 180 MW. In its 42 years service, the generation capacity of the country increased to 9821 MW at the end of the FY 2013-2014.

As part of reform and restructuring, transmission was vertically separated as a subsidiary of BPDB and distribution was horizontally separated to create new distribution entities in capital city (DPDC & DESCO) and rural areas (REB). Further, a number of generation and urban distribution companies were created as a subsidiary of BPDB. The subsidiaries of BPDB are:

- ❑ Ashugongj Power Station Company Ltd. (APSCL)
- ❑ Electricity Generation Company of Bangladesh Ltd. (EGCB)
- ❑ North West Power Generation Company Ltd. (NWPGL)
- ❑ Power Grid Company of Bangladesh (PGCB)
- ❑ West Zone Power Distribution Company Ltd. (WZPDCL)

BPDB is under the Power Division of the Ministry of Power, Energy and Mineral Resources, Government of Bangladesh. Key responsibilities of the Board are:

- Generation of electricity from its own Power Plants
- Power purchase from Public & Private Generation companies as a single buyer
- Bulk sales of electricity to Utilities as a single buyer.
- Retail sales of electricity within its 6 Distribution Zones.
- Preparation of Generation and Distribution Expansion Plan.
- Implementation of Generation & Distribution Projects as approved by the Government.

BPDB prepared generation expansion plan to add about 18,000 MW from 2014 to 2021 to achieve generation capacity 24000 MW by 2021 with the aim to provide quality and reliable electricity to the all people across the country for desired economic growth and social development. BPDB also prepared distribution expansion plan to keep pace with the growing demand.

### **During the Financial Year under report (2013-14) Chairman and Members of the Board:**

#### **Chairman**

Mr. Md. Abdul Wahab Khan (Up to 04-11-2013)  
Mr. Md. Abduhu Ruhullah (From 04-11-2013)

#### **Member (Administration)**

Mr. Md. Humayun Kabir Khan (Up to 01-08-2013)  
Mr. Md. Saraf Uddin Ahmed (From 13-08-13 to 23-02-14)  
Mr. Md. Lokman Hossain Miah (From 23-02-2014)

#### **Member (Finance)**

Mr. Md. Fazlul Hoque (Up to 18-11-2013)  
Mr. Md. Azizul Islam (From 18-11-2013)

#### **Member (Generation)**

Mr. Tamal Chakraborti (Up to 29-08-2013)  
Mr. Jalal Uddin Ahmed Choudhury (From 29-08-'13 to 06-05-'14)  
Mr. Tamal Chakraborti (From 06-05-'14 to 12-06-'14))  
Mr. Md. Shahinul Islam Khan (From 12-06-2014)

#### **Member (Distribution)**

Mr. Md. Abu Taher (Up to 08-01-2014)  
Mr. Shawpan Kumar Saha (From 09-01-2014)

#### **Member (Planning & Development)**

Mr. Md. Abduhu Ruhullah (Up to 04-11-2013)  
Mr. Md. Abu Taher (From 05-11-2013 to 07-01-2014)  
Mr. Shawpan Kumar Saha (From 09-01-'14 to 15-04-'14)  
Mr. ATM Nannur Rahman (From 16-04-2014 to 26-06-2014)

#### **Member (Company Affairs)**

Mr. Jalal Uddin Ahmed Choudhury (Up to 29-08-2013)  
Mr. Tamal Chakraborti (From 29-08-2013)

## HIGHLIGHTS

Power sector witnessed significant progress in power generation in the fiscal year 2013-14. During this fiscal year, 1,545 MW (including 500 MW Import from India) new capacity added from the newly installed power plants which raised the total generation capacity to 9,821 MW from 8,537 MW and annual increment of generation capacity was 15.04%. Out of this new capacity addition, BPDB installed 458MW (including contracted capacity of IPPs) and the remaining 150 MW was installed by NWPGL, 412 MW was installed by EGCB, 25 MW was installed by REB and 500MW power Import from India. The highest peak generation was 7,356 MW and the total energy generated 42,195 GWh which was 14.33% and 10.37% higher than the previous year respectively. Despite increasing electricity demand, average load shedding came down at a tolerable limit.

Due to gas shortage and inadequate new generation addition in the few years back, demand of electricity outpaced generation capacity caused persistent load shedding. In order to mitigate the demand-supply gap, an aggressive plan had prepared by the Government for new generation addition. As part of the plan, 32 power generation projects of capacity 7,030 MW are now under construction. The plan envisages 9,600 MW new generation addition by 2018.

Gas supply for power generation increased 4% over previous year, power generation from liquid fuel based power plants increased by 99% caused higher cost in power generation.

In this fiscal year, BPDB sold bulk energy of 39,256 GWh to the distribution utilities including BPDB zones as single buyer and retail sales of BPDB's six distribution zones was 8,456 MWh, which was 10.69% and 9.91% higher than the previous year respectively. Distribution system loss of BPDB's six zones came down to 11.89% from 11.95% of previous year. Collection/Import (C/I) ratio decreased to 83.30% from 83.55%. Per capita generation and consumption (Grid) increased to 271 kWh & 233 kWh from 249 kWh & 213 kWh respectively of previous year.

The net loss in the FY 2013-14 increased to 68.09 Billion Taka from 50.44 Billion Taka of previous year. The net loss increased from the previous year mainly due to increased liquid fuel generation together with substantial fuel price hike in phases over the period.

## KEY STATISTICS

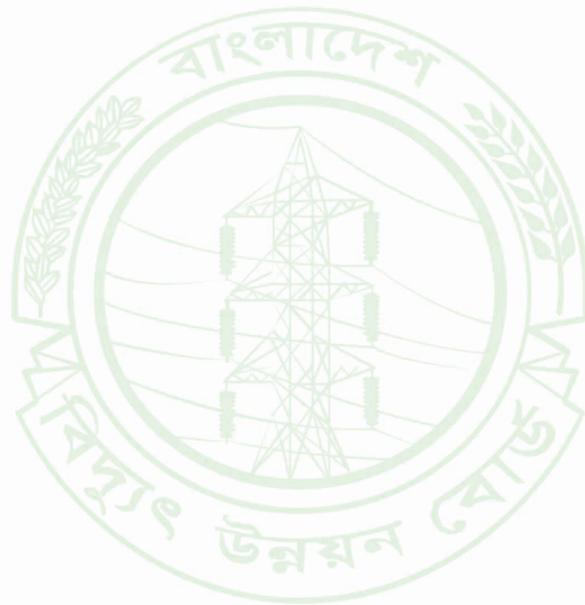
Sl. No.	Particulars	Year 2012-13	Year 2013-14	% Change over the previous year
1	<b>Generation Capacity of Power Plants as of June (MW)</b>			
	<b>a) Public Sector</b>			
	i) BPDB	3700	3651	-1.32
	ii) APSCCL	682	580	-14.96
	iii) EGCB	210	622	196.19
	iv) RPCL	77	77	0.00
	v) NWPGL	150	300	100.00
	<b>b) Private Sector</b>			
	i) IPP/SIPP	1,396	1,789	28.15
	ii) Rental	2096	2051	-2.15
	<b>c) REB (for PBS's only)</b>	226	251	11.06
	<b>d) Energy Import</b>		500	
	<b>e) System Total Generation Capacity (MW)</b>	<b>8,537</b>	<b>9,821</b>	<b>15.04</b>
2	Maximum Peak Generation (MW)	6,434	7,356	14.33
3	Maximum Peak Demand (MW)	8,349	9,268	11.01
4	<b>a) Net Energy generation (GWh)</b>			
	i) Public Sectors	17,994	19,645	9.17
	ii) Private Sectors ( IPP, SIPP, & Rental )	18,488	18,387	-0.55
	iii) Energy Import	-	2,256	-
	<b>iv) Total Generation (In account of Single Buyer)</b>	<b>36,482</b>	<b>40,296</b>	<b>10.45</b>
	b) REB (for PBS's only)	1,747	1,899	8.66
	<b>c) System Total Generation (GWh)</b>	<b>38,229</b>	<b>42,195</b>	<b>10.37</b>
5	Per Unit Generation Cost in Public & Private ( Tk/kWh)	5.73	5.88	1.55
6	a) Fuel Cost for Thermal Plants in Public Sector (MTk)	37,266	56,252	50.95
	b) Per Unit fuel Cost for thermal Plants (Tk/kWh)	2.06	2.8	35.92
7	Annual Plant Factor of Public Sector's Power Plants (%)	44.78	45.11	0.74
8	System load factor (%)	64.73	62.53	-3.39
9	BPDB's Commercial Activities as Single Buyer :			
	a) Bulk Sales Unit to Utilities (GWh)	35,466	39,256	10.69
	b) Bulk Billing Amount (MTk)	161,732	184,506	14.08
	c) Bulk Collection Amount (MTk)	151,675	174,740	15.21
	d) Accounts Receivables to Utilities (MTk)	68,766	78,415	14.03
10	Transmission Loss (%)	3.11	2.72	-6.75
11	Ave. Bulk Electricity Supply cost Taka/kWh	5.97	6.25	4.67
12	BPDB's Commercial Activities within Distribution Zones :			
	a) Energy Imports for Retail Sale (MkWh)	8,737	9,597	9.84
	b) Retail Sales Unit (MkWh)	7,693	8,456	9.91
	c) Retail Billing Amount (MTk)	42,749	49,122	14.91
	d) Retail Collection Amount (MTk)	40,564	46,439	14.48
	e) Accounts Receivables to Retail Consumers (MTk)	9,221	11,909	29.16
	f) Collection/Bill Ratio (%)	94.89	94.54	-0.37
	g) Collection/Import Ratio (%)	83.55	83.30	-0.30
	h) Distribution System loss (%)	11.95	11.89	-0.50
13	Transmission & Distribution (T & D) System Loss (%)	14.36	14.13	-1.60
14	Total Number of Consumers of BPDB (Nos.)	2,654,019	2,901,235	9.31
15	Total Population in the Country (Million)	154	156	1.43
16	Per capita generation ( kWh)	249	271	8.81
17	Per Capita Consumption ( kWh)	213	233	9.11
18	Net profit/(loss) (MTk)	(50438.39)	(68092.46)	34

Note : Maximum Demand is shown as per power system master plan 2010.



Finance Minister Mr. AMA Muhith addressing a seminar on Power System Master Plan.

## Chapter-1



## Overview on BPDB Operations

## GENERATION

### Electricity Demand

Demand of electricity is increasing rapidly due to enhanced economic activities in the country with sustained GDP growth. At present, growth of demand is about 10% which is expected to be more in coming years. The maximum demand in this fiscal year was 9,268 MW (as per PSMP-2010).

### Load Factor and Load Management

Demand of electricity in the system varies throughout the day and night. The maximum demand is occurred during 5 pm to 11 pm which is termed as 'peak hour' and other part of the time is termed as off-peak hour. The extent of this variation is measured in terms of Load Factor, which is the ratio of average and maximum demand. For economic reasons, it is desirable to have a higher Load Factor, as this would permit better utilization of plant capacity. Moreover, the cost of energy supply during peak hour is higher, because some relatively costlier power plants are required to put in operation during the peak hour. For these reasons, load management is essential throughout the year for better capacity utilization of power plants and minimum generation cost.

There are some loads in the system which can be avoided or minimized by consumers during peak hour. In order to shift these kinds of loads from peak hour to

off-peak hour by introducing some mechanism is termed as load management. From the view point of load management, (i) two-part tariff is introduced for 3-phase consumers (LT & HT) where peak hour price is much higher than the off-peak hour that motivates consumers to avoid or use less in the peak hour; (ii) Market & Shopping malls are kept close after 8.00 PM; (iii) holiday staggering is implemented to keep industries, markets & shopping malls close on area basis holiday marked day; (iv) consumers are encouraged to use energy efficient bulb, electric appliances, pumps, etc; (v) consumers are encouraged to keep their air-conditioner's temperature at 25 degree and so on. These measures also minimize load-shedding across the country.

## Generation

### Generation Capacity

Total generation capacity was 9,821 MW which includes 1789 MW IPP/SIPP, 2051 MW Rental Power Plant & 251 MW in REB (for PBS) and 500MW Power Import from India. The maximum peak generation was 7,356 MW which was 14.33% higher than that in the previous year. The reasons for lower peak generation with respect to generation capacity were: (i) some plants are out of operation for maintenance, rehabilitation & overhauling (ii) capacity of some plants derated due to aging and (iii) gas shortage. The Generation Capacity mix is shown below:

### Generation Capacity by Plant & Fuel Type

By type of plant		By type of fuel	
Hydro	230 MW (2.34%)	Gas	6016 MW (61.26%)
Steam Turbine	2115 MW (21.53%)	Furnace Oil	2050 MW (20.87%)
Gas Turbine	1616 MW (16.45 %)	Diesel	825 MW (8.40%)
Combined Cycle	1757 MW (17.89 %)	Power Import	500 MW (5.09 %)
Power Import	500 MW (5.09%)	Hydro	230 MW (2.34%)
Reciprocating Engine	3603 MW (36.69 %)	Coal	200 MW (2.04%)
<b>TOTAL</b>	<b>9,821 MW (100 %)</b>	<b>TOTAL</b>	<b>9,821 MW (100%)</b>

## Energy Generation

Total net energy generation (excluding REB) in FY 2014 was 40,296 GWh, which was about 10.45% higher than previous year's net generation of 36,482 GWh. Net energy generation in the public sector was 19,645 GWh and 18,387 GWh in the private sector. Another 2265 GWh was imported from India through the interconnection in Bheramara.

Total net energy generated in public and private sector power plants (excluding REB) by type of fuel are as follows:

Hydro	588 GWh (1.39%)
Natural Gas	28,661 GWh (67.93%)
Furnace Oil	6,516 GWh (15.44%)
Diesel	1228 GWh (2.91%)
Coal	1,038 GWh (2.46%)
Power Import	2265 GWh (5.37%)
<b>Total</b>	<b>40,296 GWh (100%)</b>

## Plant Efficiency and Maintenance

The overall thermal efficiency (Net) of the public sector power plants in FY 2014 was 33.06 %, higher than previous year's of 33 % efficiency.



Signing of contract between BPDB and Baraka Patenga Power Ltd. for purchasing power from Patenga 50 MW Power Plant.

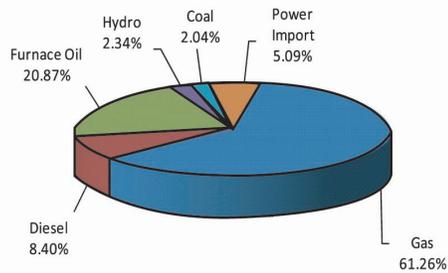
Three years maintenance plan has been prepared at the beginning of FY 2013 to improve overall thermal efficiency. Below the list of major power plants were under maintenance in the year under review:

### MAINTENANCE OF POWER PLANTS IN FY 2013-14

Sl. no.	Name of Power Station	Present Capacity (MW)	Type of Maint. (HGPI/MI/OH)	Duration of Maintenance	
				Starting Date	Completion Date
1.	Ghorashal ST unit-3	180	Condensate Pump Overhauling	04-Dec-13	26-Dec-13
2.	Shiddirganj ST	150	Control System, Boiler & Generator Maintenance	13-Jan-14	24-Jan-14
3.	Barapukuria ST - 1	100	Boiler Maintenance	21-Nov-13	20-Jan-14
4.	Chittagong ST Unit - 2	180	Upgradation of Turbine Governing System & Control System of Hydrozen3 Plant	22-Oct-13	28-Mar-14
5.	Chandpur 150MW CAPP	163	Combustion Inspection (CI) of GTG	9-Jan-14	24-Jan-14
6.	Shahjibazar GT - 9	35	Hot Gas Path Inspection	14-Aug-13	08-Sep-13
			Retaining Ring Change	04-Feb-14	23-Fen-14
7.	Sylhet 20 MW GT	20	Maintenance of Starting Diesel Engine	15-Dec-14	11-Jan-14
8.	Baghabari 71 MW GT	71	Generator Overhauling	14-Dec-13	24-Jan-14
9.	Bheramara GT - 2	14	Hot Gas Path Inspection	02-Jan-13	10-Jul-14
10.	Barisal GT - 2	16	Load Gear Replacement	10-Oct-13	13-Dec-13

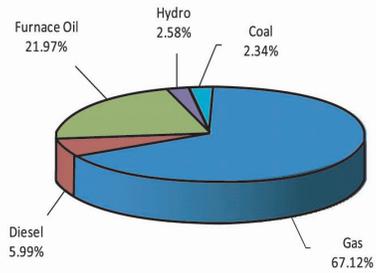
## GENERATION CAPACITY (NATIONAL) BY FUEL TYPE WITH COMPARISON

**(FY 2014)**



**Total = 9821 MW**

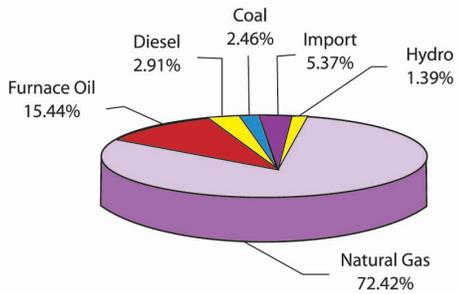
**(FY 2013)**



**Total = 8537 MW**

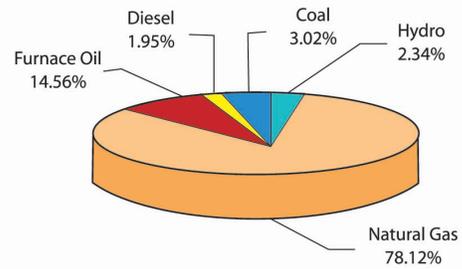
## GENERATION (NATIONAL) BY FUEL

**(FY 2013-14)**



**Total Net Generation : 42,195 MkWh**

**(FY 2012-13)**



**Total Net Generation : 38,229 MkWh**

## TRANSMISSION

### Transmission Line

During FY 2013-14, five important circuit lines are constructed & energized. The grid interconnection line with India is constructed and carrying 500MW Power From India. For the first time, a 400KV line has been constructed and two 230KV line has been added to the grid system. The line details are as below:

Sl. No.	Transmission Line	Conductor Name & Size	Length (Circuit km.)
1.	400 kV Grid Interconnection Line between Bangladesh (Bheramara) and India (Baharampur)	Twin Finch (1,113 MCM)	54.7
2.	230 kV loop in loop out at Bheramara HVDC station	Twin AAAC (37/4.176 mm.)	9
3.	Meghnaghat-Aminbazar 400 KV Transmission Line (Presently Operated at 230kV)	Quad Egret (636 MCM)	110
4.	Aminbazar- Old Airport 230 KV Transmission Line	Twin Mallard (2x795 MCM)	8(O/H)
		XLPE(2,000 sq. mm.)	8(U/G)
5.	Siddhirganj- Maniknagar 230 kV Transmission Line	Twin Mallard (2x795 MCM)	22
<b>Total</b>			<b>211.7</b>

Total length of 230 kV transmission line increased to 3,066 circuit km from the previous year of 3,020 circuit km. The total length of 132 kV transmission line increased to 6,150 circuit km from the previous year of 6,148 circuit km.

### Grid Sub-stations

During fiscal year 2013-14, a very significant transmission components have been added to the system because of the completion of different project works. By completing the Grid Interconnection Project a gateway is introduced to import 500 MW power from India. The transformer capacity at the end of year 2013-2014 has enlarged by 20.50% at 230/132 kV level and 230 kV transmission line length (ckt. km) has enlarged by 1.5 % than that of previous year. In this fiscal year, two number of 230/132 kV, 2x300 MVA sub-station are installed at Maniknagar & Siddhirganj. So the total capacity of 230/132 kV sub-stations increased to 9,325 MVA from the previous year of 7,525 MVA. Two number of 132/33 kV substation are installed at Dhaka in this fiscal year. However, MVA capacity in some 132/33 kV sub-stations is enhanced in FY 2013-14. Thus the total capacity of 132/33 kV substations increased to 12,983 MVA as of June 2014 from the previous year of 11,792 MVA.

### Transmission Summary

Sl. No.	Transmission Line Type	Circuit km
1.	400 kV Transmission Line	165
2.	230 kV Transmission Line	3066
3.	132 kV Transmission Line	6,150
<b>Total Transmission Line</b>		<b>9,381</b>
<b>Transmission Loss (%)</b>		<b>2.90 %</b>
Sub-Station Type		
	No of Substation	Capacity
400 kV HVDC Sub-Station (MVA)	1	500
230/132 kV Sub-Station Capacity (MVA)	18*	9,325
132/33 kV Sub-Station Capacity (MVA)	105	12,983
<b>Total</b>	<b>124</b>	<b>22,808</b>

\*Excluding 2 Switching Sub-stations

## Grid System operation

In FY 2014, total duration of Power interruption in the grid network was 21 hours 19 minutes.

### INTERRUPTION OF NATIONAL GRID FOR FY 2013 & 2014

Sl. no.	Type of Fault	Total Number of Faults		Total Duration	
		FY 2013	FY 2014	FY 2013 Hours/ Minutes	FY 2014 Hours/ Minutes
1.	Partial Power failure due to trouble in generation	85	85	06/44	06/55
2.	Partial Power failure due to trouble in grid S/S Equipment	04	08	04/53	13/59
3.	Partial Power failure due to fault in transmission line	00	00	00/00	00/00
4.	Partial Power failure due to the lightning on transmission line/Thunder Storm	01	01	02/42	00/25
5.	Partial Grid failure	01	00	00/13	00/13
6.	Total Grid failure	00	00	00/00	00/00
	<b>Total</b>	<b>91</b>	<b>94</b>	<b>14/32</b>	<b>21/19</b>

### BULK ELECTRICITY SALES BY BPDB

BPDB has been functioning as a single buyer in the power market of Bangladesh. BPDB purchases electricity from the public and private generation entities and sales bulk electricity to all the distribution utilities including its six distribution zones. Distribution entities purchases electricity from BPDB are as follows:

- Dhaka Power Distribution Company (DPDC)
- Dhaka Electric Supply Company (DESCO)
- West Zone Power Distribution Company Limited (WZPDCL)
- Rural Electrification Board (REB)
- BPDB's six distribution zones



Khulshi 132/33 kv Grid Sub-station

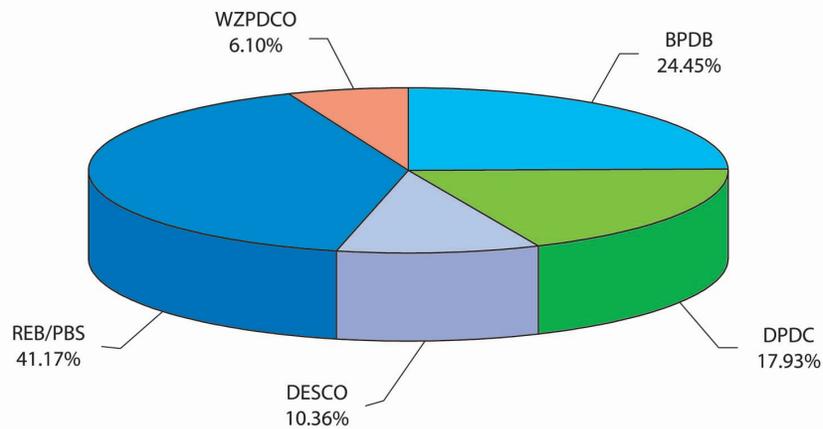
In FY 2014 bulk electricity sales to the distribution utilities increased to 39,256 M kWh from 35,466 M kWh which is 10.68 % higher than the previous year. Total revenue collection also increased to 1,74,740 M Tk from 1,51,675 M Tk which is 15.21% higher than the previous year.

## Utility Wise Bulk Energy Sales by BPDB As Single Buyer

In GWh

Year	BPDB zones	DPDC	DESCO	WZPDCL	REB	Total
2004-05	5,993	5,135	1,843	389	7039	20398
2005-06	5,180	5,316	2,030	1373	8062	21961
2006-07	5,305	5,243	2,191	1282	8040	22061
2007-08	5,626	5,204	2,574	1375	8655	23433
2008-09	6,042	5,449	2,743	1491	9032	24757
2009-10	6,744	5,749	2,934	1673	9525	26626
2010-11	7,338	5,964	3,123	1843	10359	28627
2011-12	8,136	6,340	3,401	2029	12537	32443
2012-13	8,737	6,593	3,726	2187	14222	35466
2013-14	9,597	7,038	4,067	2,394	16,161	39,256

### Utility Wise Bulk Sales (FY 2013-14)



**Total Sales : 39,256 MkWh**

### Utility Wise Billing & Collection Statistics of BPDB

Name of Utility	Billed Amount (Million Tk)		Collected Amount (Million Tk)		Accounts Receivable (Million Tk)		% increase over the previous year	Coll/Bill Ratio (%)	
	2012-13	2013-14	2012-13	2013-14	2012-13	2013-14		2012-13	2013-14
BPDB's Dist. Zones(in/c PS & GK)	42,749	49,122	40,564	46,439	9,221	11,909	29.16	94.89	94.54
WZPDCL	9,399	10,606	9,003	10,369	1,881	2,022	7.47	95.79	97.77
DPDC	34,126	37,518	32,301	34,142	38,927	43,693	12.24	94.65	91.00
DESCO	19,540	21,980	18,565	21,936	5,379	6,398	18.95	95.01	99.80
REB/PBS's	55,917	65,280	51,242	61,853	13,359	14,393	7.74	91.64	94.75
<b>TOTAL</b>	<b>161,732</b>	<b>184,506</b>	<b>151,675</b>	<b>174,740</b>	<b>68,766</b>	<b>78,415</b>	<b>14.03</b>	<b>93.80</b>	<b>94.71</b>



Signing of contract for repowering of Ghorashal 3rd unit between BPDB and consortium of CMC & Alsthom.

## DISTRIBUTION

BPDB has been functioning as a retail seller of electricity within its following six distributions zones:

- Distribution zone, Chittagong
- Distribution zone, Mymensingh
- Distribution zone, Rajshahi
- Distribution zone, Comilla
- Distribution zone, Sylhet
- Distribution zone, Rangpur

### Distribution network

In the FY 2014, BPDB has renovated & extended about 239 km distribution lines as a part of continuous improvement of the system. BPDB covers electrification in 243 thanas/upozillas and 5,393 villages within its six distribution zones up to the end of this fiscal year. The distribution networks possess:



A distribution line

33 kv line	3759 km
11 kv line	13242 km
0.4 kv line	21933 km
33/11 kv sub-station	153 nos.
<b>Total capacity of 33/11 kv sub-station</b>	<b>2924/3638 MVA</b>

### Number of consumers

During this fiscal year, BPDB has provided total 2,47,216 new connections and the total number of consumers has been increased to 29,01,235 and the annual increment was 9.31%.

### Distribution system loss

BPDB's distribution zones imported 9,597 MWh energy from the single buyer for retail sale in its six zones and sold 8,456 MWh to the consumers in the FY 2014 that results 11.89% distribution system loss which was 11.96% in FY 2013.

### Customer's service & satisfaction

BPDB has introduced following services for customer satisfaction:

- Computerized billing
- One stop service
- Pre payment metering
- Demand side management
- Easy bill pay
- Online application
- Supervisory control and data acquisition (SCADA) System

### Computerized billing

BPDB has brought sent percent consumers in computerized billing system in its six distribution zones. Each computerized bill shows present month's billing amount along with previous month's payment and arrear status for consumers' acknowledgement. It improves billing system, revenue collection, decreases system loss and ensures better service to the consumers than the previous manual one.

## Easy bill pay

BPDB has introduced easy bill pay system through mobile phone in its six distribution zones. Consumers can pay their electricity bill through prescribed mobile phone operator round the clock even in holidays. Zone wise mobile phone operators are as

## One stop service

BPDB has introduced one stop service in each S&D division/ESU in order to provide hassle free service for its consumers. Every S&D division/ESU has one designated desk for one stop service. Any consumer can lodge his complain on that desk and the officer-in-charge is empowered to do all necessary things in order to address the complain.

Name of Zone	Mobile Phone Operator
Chittagong	Grameen phone
Mymensingh	Banglalink
Rajshahi	Grameen phone
Comilla	Robi
Sylhet	Grameen phone
Rangpur	Banglalink

## Online application

BPDB has introduced online application facilities for new connection on test basis in distribution zone, Chittagong. Any applicant can apply round the clock for new connection of his house, shop, industry, etc. from the website of distribution zone, BPDB, Chittagong. BPDB also has a plan to develop similar facilities in its other distribution zones depending on the responsiveness of consumers of Chittagong zonal area.

## Pre-payment metering

About 46,000 nos. prepayment meters have been installed at the premises of different categories consumers in demarcated areas in Chittagong, Sylhet, Bogra & Sirajgonj through Pilot Project. They provide more advantages in sales performance than the traditional metering. The main advantages are:

- Assures 100% revenue collection and zero accounts receivable.
- Prevents using excess than sanctioned load by the consumer.
- Prevents electricity pilferage after meter.
- Provides hassle free service in billing/collection process, such as, inaccurate meter reading, fictitious billing etc.



Contract signing ceremony between BPPB and Energypac for construction of 33/11 KV Sub-stations at Chittagong and Comilla.

## SCADA

Supervisory Control And Data Acquisition (SCADA) has started functioning within the five zones of BPDB (Chittagong, Sylhet, Mymensingh, Rajshahi & Rangpur) for system control and data acquisition of the distribution system/networks under it from one point of each zone through microwave link. Provided that 34 sub-stations within Chittagong zone, 18 sub-stations within Sylhet zone, 17 sub-stations within Mymensingh zone, 32 sub-stations within Rajshahi zone and 14 sub-stations within Rangpur zone are connected under the SCADA of respective zone.

BPDB also has a plan to set up one SCADA in Dhaka to monitor/control all SCADA of BPDB centrally. Key functions of SCADA are:

- Supervising/Monitoring the networks under it continuously on its computer monitors round the clock and controls the power supply of the networks from the supervisors desk as and when necessary in a systematic manner as directed by the authority concerned.
- Data acquisition and recording of power flow/supply status through each circuit of the entire networks on hourly basis round the clock for reporting to authorities concerned and analyzing demand, power factor & other necessary elements of each circuit for system management within the SCADA in a smart manner.
- Preparing and reporting daily and monthly power supply, demand, load shedding, line shut-down, etc. of each circuit of the networks under it to authorities concerned for system planning.
- Preparing power supply, demand, load shedding, line shut-down, etc. report for any specified span of time as wanted by the authorities concerned for system planning.
- Load management matching with the power generation as per instructions of NLDC or authority concerned in order to keep the overall system healthy.
- Appraising all important information regarding system to the authorities concerned as and when required.

### Demand side management

Demand-side management (DSM) means modifying energy use to maximize energy efficiency. DSM tries to get maximum benefit out of existing energy generation. DSM involves changing energy use habits of consumers and encouraging them for using energy efficient appliances, equipment etc. at their premises.

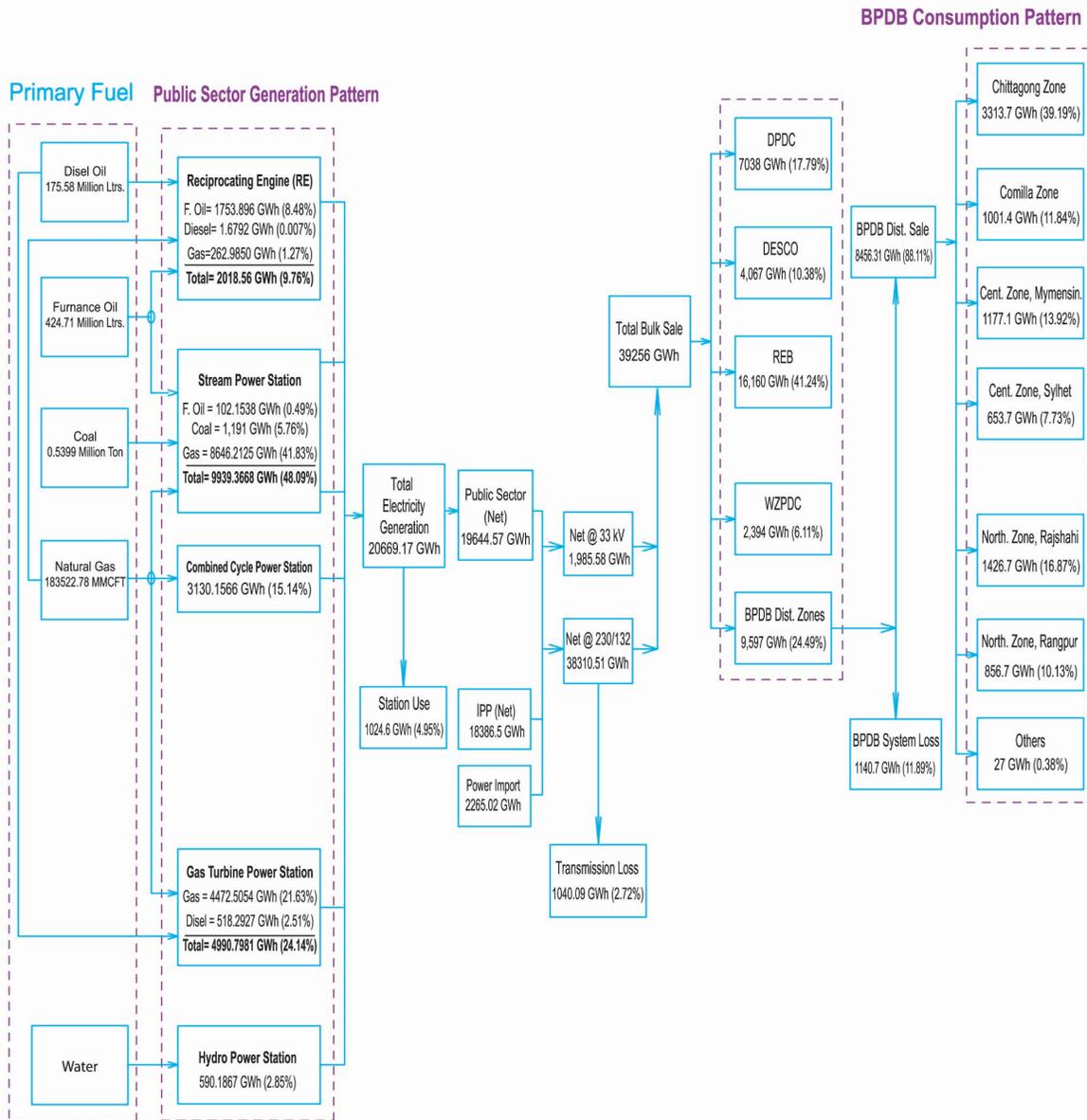
To keep load shedding at a minimum level, BPDB has taken a number of steps for demand side management, which are as follows :

- To shift irrigation load from peak hour to off peak hour, BPDB has started campaign through electronic and print media. In the last few years, it is estimated that about 400 MW irrigation load was shifted from peak hour to off peak hour.
- BPDB has taken motivational programs to enhance awareness of the consumers during peak hours. Consumers are being urged through electronic and print media to be rational and economical in electricity use during peak hour by switching off unnecessary loads like extra lighting, ironing, pumps, air conditioners, welding machines etc.
- As part of demand side management program, BPDB has taken steps to use CFL in BPDB's offices and also trying to motivate consumers to use Energy efficient lamps.
- Industries operating in two shifts are being requested not to operate during peak hours.
- Holiday staggering for industries has been implemented which contributes about 150 MW load shifting.
- Load Management Committee has been formed in every distribution zone/circle/division to monitor the proper load distribution during irrigation.
- As part of DSM, BPDB is monitoring shop/market closure time at 8 p.m. It is estimated that this measure contributes about 350 MW load shifting from peak hour there by reduces load shedding.

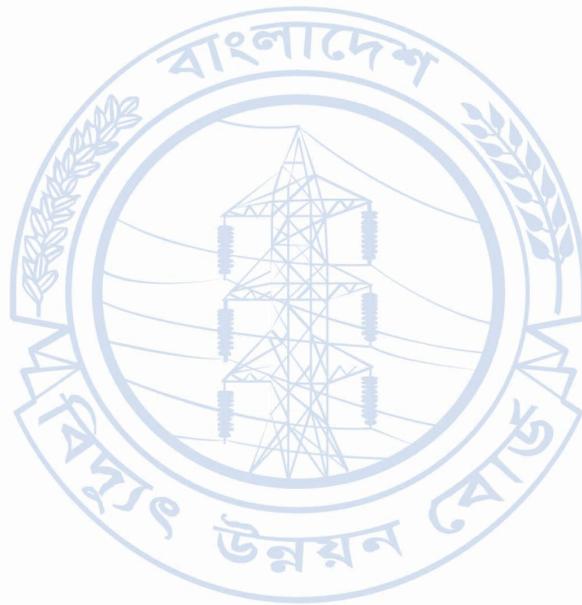


Signing of contract between BPDB and Valvitali SPA system Division for design, supply, erection, installation, commissioning and inter-connecting pipeline for natural gas of Bhola 225 MW Combined Cycle Power Plant.

# ENERGY FLOW CHART (FY 2014)



## Chapter-2



## Power Sector Development Plan

## Power Sector Development Plan

### POWER SECTOR AT PRESENT

Electricity is a crucial ingredient for poverty alleviation, industrial growth, infrastructure development, quality of living standard of the people and for overall development of the economy. Bangladesh government is trying to establish a sustainable development structure for many years but yet to accomplish such target due to shortage of electricity generation. The present electrification level is low compared to that of other countries in the world. At present only 68% of the population (FY 2014) has access to electricity and per capita generation is only 271 kWh (grid). Every year the demand is increasing at a rapid rate. Although the generation capacity is increased during past years, but due to fuel constraint and budgetary support it could not be fully utilized and resulted in power shortage in the country.

Total present installed generation capacity in public and private sector is 10,648 MW. Since this Government came to power in January, 2009 total 5,591 MW new power generation added to grid including 500 MW power imported from India. At present 700-1000 MW capacity is unable to generate due to gas shortage. About 900 MW load shedding was experienced during peak hours of the last summer. Under the above context, with a vision to achieve more than 7% projected GDP growth, short, medium & long terms generation expansion plan has been prepared in order to maintain sustained electricity supply facilitating establishment of new industries and SMEs, accomplishment of national target of "electricity for all" by 2021 and to build "digital Bangladesh".

Power generation projects identified in the immediate and short term plan have been implemented during FY 2011 and FY 2012. A midterm generation plan was prepared. Among these projects under midterm plan, some have already been commissioned and started electricity generation. Rest of them will be installed within 2018. For long term generation expansion plan "Power System Master Plan -2010" was published in February 2011. In the PSMP-2010 suggested requirement of 24,000 MW and 39,000 MW capacity in the year 2021 and 2030 to meet the increasing demand due to enhanced economic activity.

Due to prevailing gas crisis and future grim scenario of gas sector development, strategic decision of the government to diversify primary fuel supply for power is critical for sustained development of power sector. This diversification will help to ensure energy security but cost of energy will be higher. In this perspective, the plan has been prepared for considering balanced development of different sources of energy. For base load demand, coal is the near-term option whether indigenous or imported. Government is also considering imported Liquefied Natural Gas (LNG) to supplement present gas shortage, which can take advantage of the country's reasonably developed pipeline infrastructure.

## Mid Term Power Generation Expansion Plan Upto 2018

Based on the primary fuel supply availability and Government's limited ability to finance capital-intensive power generation projects, an aggressive mid term generation expansion plan was prepared to meet the growing demand of electricity to cope with accelerated economic growth under the present government. Revised generation expansion plan prepared in 2014 targeting about 9,600 MW generation additions from 2014 to 2018 which is provided in the table below:

### Year wise generation projects to be completed (From 2014 to 2018)

Year	2014 (MW)	2015 (MW)	2016 (MW)	2017 (MW)	2018 (MW)	Total
Public	350	943	770	2254	640	4957
Private	791	811	1264	168	1652	4686
Power Import	--	--	--	--	--	--
<b>Total</b>	<b>1,141</b>	<b>1,754</b>	<b>2,034</b>	<b>2,422</b>	<b>2,292</b>	<b>9,643</b>

### Annual Development Program for BPDB's Own Generation & Distribution Projects

A total of 14 generation and 9 distribution projects were undertaken in the Revised Annual Development Program (RADP) in the FY2014. Original Allocation, Revised Allocation & Expenditure incurred (provisional) in the FY 2014 are shown in the following table.

(Taka in lakh)

Sub-sector	Original ADP FY 2013-14			RADP FY 2013-14			Expenditure incurred FY 2013-14		
	Local	Foreign	Total	Local	Foreign	Total	Local	Foreign	Total
<b>Generation</b>	1,76,007	1,04,905	71,102	1,69,110	1,11,788	57,322	1,55,981	98,472	57,509
<b>Distribution</b>	62,414	34,750	27,664	38,017	15,417	22,600	53,276	15,394	37,882
<b>Total</b>	<b>2,38,421</b>	<b>1,39,655</b>	<b>98,766</b>	<b>2,07,127</b>	<b>1,27,205</b>	<b>79,922</b>	<b>2,09,257</b>	<b>1,13,866</b>	<b>95,391</b>

### Implementation Status of the Power Generation Expansion Plan

Since January 2009, total 65 small and medium sized power plants of capacity 5,591 MW have been commissioned and 500MW power import from India facility is constructed in 2013. 32 projects of capacity 7,030 MW are now under construction. At present 20 projects of capacity 4,017 MW are in the various stages of procurement process right from tender invitation to issuance of LOI.

## Year wise commissioning status of generation projects

### Projects commissioned in 2010

Sl. No.	Name of the Power Plant	Capacity (MW)	Ownership	Type of Fuel	Commissioning Date
<b>Public Sector</b>					
1.	Sikalbaha 150 MW	150	BPDB		18.08.2010
2.	Siddirganj 2x120 MW GT	105	EGCB		14.10.2011
	<b>Sub Total</b>	<b>255</b>			
<b>Private Sector</b>					
3.	Shikalbaha 55 MW Rental Power Plant	55	Rental (BPDB)	HFO	06.05.2010
4.	Ashugonj Rental Power Plant	55	Rental (BPDB)	Gas	07.04.2010
5.	Thakurgaon, 3 Years Rental	50	Rental (BPDB)	HFO	02.08.2010
6.	Ghorashal Sponsor: Aggreko	145	Rental (BPDB)	Gas	10.08.2010 23.08.2010
7.	Khulna, Sponsor: Aggreko	55	Rental (BPDB)	Diesel	10.08.2010
8.	Pagla, Narayaganj, Sponsor: DPAPGL	50	Rental (BPDB)	Diesel	24.11.2010
9.	Bheramara 3 Years Rental	110	Rental (BPDB)	Diesel	31.12.2010
	<b>Sub Total</b>	<b>520</b>			
	<b>Total</b>	<b>775</b>			

### Projects commissioned in 2011

Sl. No.	Name of the Power Plant	Capacity (MW)	Ownership	Type of Fuel	Commissioning Date
<b>Public Sector</b>					
1.	Ashugonj 50 MW Power Plant	53	APSCCL	Gas	30.04.2011
2.	Baghabari 50 MW Peaking PP	52	BPDB	HFO	29.08.2011
3.	Fenchuganj 90 MW CC	104	BPDB	Gas	26.10.2011
4.	Bera 70 MW Peaking PP	71	BPDB	HFO	28.10.2011
5.	Titas, Doudkandi 50 MW Peaking PP	52	BPDB	HFO	29.10.2011
6.	Siddirganj 2x120 MW Peaking PP	105	EGCB	Gas	December, 2011
7.	Faridpur 50 MW Peaking PP	54	BPDB	HFO	November, 2011
8.	Gopanlgonj 100 MW Peaking PP	109	BPDB	HFO	29.09.2011
9.	Sangu, Dohazari 100 MW Peaking PP	102	BPDB	HFO	30.12.2011
10.	Hathazari 100 MW Peaking PP	98	BPDB	HFO	23.12.2011
	<b>Sub Total</b>	<b>800</b>			

<b>Private Sector</b>					
1.	Siddirganj (Sponsor: Desh Energy)	100	Rental (BPDB)	Diesel	17.02.2011
2.	B Baria (Sponsor: Aggreko)	70	Rental (BPDB)	Gas	06.03.2011
3.	Modanganj (Sponsor: Summit Power)	102	Rental (BPDB)	HFO	01.04.2011
4.	Meghnagat (Sponsor: IEL)	100	Rental (BPDB)	HFO	08.05.2011
5.	Ghorasal (Sponsor: Max Power)	78	Rental (BPDB)	Gas	27.05.2011
6.	Nowapara (Sponsor: Khan Jahan Ali)	40	Rental (BPDB)	HFO	28.05.2011
7.	Ashuganj (Sponsor: Aggreko)	80	Rental (BPDB)	Gas	31.05.2011
8.	Khulna (Sponsor: KPCL)	115	Rental (BPDB)	HFO	01.06.2011
9.	Ashuganj (Sponsor: United Power)	53	Rental (BPDB)	Gas	22.06.2011
10.	Siddirganj (Sponsor: Dutch Bangla Power)	100	Rental (BPDB)	HFO	21.07.2011
11.	Noapara, Jessore (5 Years Rental)	105	Rental (BPDB)	HFO	26.08.2011
12.	Bogra 3 Years Rental (Sponsor: Energy Prima)	20	Rental (BPDB)	Gas	
	<b>Sub Total</b>	<b>963</b>			
	<b>Total</b>	<b>1763</b>			

### Projects commissioned in 2012

Sl. No.	Name of the Power Plant	Capacity (MW)	Ownership	Type of Fuel	Commissioning Date
<b>Public</b>					
1.	Sylhet 150 MW Power Plant	142	BPDB	Gas	28 March, 2012
2.	Gazipur 50 MW PP	52	RPCL	Gas/HFO	July, 2012
3.	Chandpur 150 MW CC Power Plant	163	BPDB	Gas	GT: March, 2012 CC: July, 2012
4.	Sirajganj 150 MW GT	150	NWPGC	Gas/HSD	December, 2012
5.	Santahar 50 MW Peaking Power Plant	50	BPDB	HFO	December, 2012
6.	Katakali 50 MW Peaking Power Plant	50	BPDB	HFO	December, 2012
	<b>Sub Total (Public)</b>	<b>607</b>			
<b>Private Sector</b>					
1.	Amnura, Chapainawabganj (Sponsor: Sinha Power)	50	Rental (BPDB)	HFO	13 January, 2012
2.	Fenchuganj 3 Years Rental (Sponsor: Energy Prime Ltd.)	44	Rental (BPDB)	Gas	15 February, 2012
3.	Julda, Chittagong	100	Rental (BPDB)	HFO	26 March, 2012
4.	Keraniganj (Power Pack)	100	Rental (BPDB)	HFO	27 March, 2012
5.	Katakali, Rajshahi (Sponsor: NPSL)	50	Rental (BPDB)	HFO	23 May, 2012
	<b>Sub Total</b>	<b>344</b>			
	<b>Total</b>	<b>951</b>			

## Projects commissioned in 2013

Sl. No.	Name of the Power Plant	Capacity (MW)	Ownership	Type of Fuel	Commissioning Date
<b>Public Sector</b>					
1.	Raujan 25 MW PP	25	RPCL	Gas/HFO	3 May, 2013
2.	Khulna 150 MW GT	150	NWPGC	Gas/HSD	September, 2013
3.	Haripur 360 MW CCPP: GT Unit	412	EGCB	Gas	October, 2013
<b>Sub Total (Public)</b>		<b>587</b>			
<b>Private Sector</b>					
1.	Regional Import	500	Import		October, 2013
2.	Ashuganj 50 MW PP	51	IPP	Gas	December, 2013
<b>Sub Total (Private)</b>		<b>551</b>			
<b>Total</b>		<b>1138</b>			

## Year wise expected generation projects

### Projects to be commissioned in 2014

Sl. No.	Name of the Power Plant	Capacity (MW)	Ownership	Type of Fuel	Commissioning Date
<b>Public Sector</b>					
1.	Sirajganj 150 MW PP Conversion	68	NWPGC	Gas/HSD	14 July, 2014
2.	Ashuganj 225 MW CCPP : SC GT Unit	150	APSCL	Gas	December, 2014
<b>Sub-Total (Public)</b>		<b>218</b>			
<b>Private Sector</b>					
1.	Natore, Rajshahi 50 MW PP	52	IPP	HFO	24 January, 2014
2.	Baraka-Patenga Chittagong 50 MW PP	50	IPP	HFO	03 May, 2014
3.	Meghnaghat 300-450 MW CCPP (2nd Unit Dual Fuel: SC GT Unit	203	IPP	HFO/Gas	29 May, 2014
4.	Gogonnagar 100 MW PP	102	IPP	HFO	03 June, 2014
5.	Ghorasal, Narsindi 100 MW PP	108	IPP	Gas	15 July, 2014
6.	Potiya, Chittagong 100 MW PP	108	IPP	HFO	December, 2014

Sl. No.	Name of the Power Plant	Capacity (MW)	Ownership	Type of Fuel	Commissioning Date
<b>Private Sector</b>					
7.	Munshiganj (Kathpotti) 50 MW PP	53	IPP	HFO	December, 2014
8.	Meghnaghat 300-450 MW CCPP (2nd Unit):ST Unit	115	IPP	Gas/HFO	December, 2014
9.	Comilla (Jangalia) 50 MW PP	52	IPP	HFO	December, 2014
<b>Total</b>		<b>843</b>			

### Projects to be commissioned in 2015

Sl. No.	Name of the Power Plant	Capacity (MW)	Ownership	Type of Fuel	Expected Commissioning Date
<b>Public Sector</b>					
1.	Bhola 225 MW CCPP : SC GT Unit	125	BPDB	Gas	April, 2015
2.	Bibiana #3 CCPP: SC GT Unit	274	BPDB	Gas	June, 2015
3.	Ashuganj 225 CCPP: ST Unit	75	APSCL	Gas	June, 2015
4.	Ashuganj (South) 450 MW CCPP	373	APSCL	Gas	June, 2015
5.	Baghabari 100 MW PP Conversion	50	BPDB	Gas	June, 2015
6.	Shahjibazar 70 MW PP Conversion	35	BPDB	Gas	June, 2015
7.	Sylhet 150 MW PP Conversion	75	BPDB	Gas	June, 2015
8.	Siddhirganj 335 MW CCPP : SC GT Unit	200	EGCB	Gas	July-2015
9.	Ghorasal 300-450 MW CCPP: SC GT Unit	254	BPDB	Gas	September, 2015
10.	Shahjibazar CCPP: SC GT Unit	216	BPDB	Gas	September, 2015
11.	Sikalbaha 150-225 MW CCPP: SC GT Unit	150	BPDB	Gas/HFO	September, 2015
12.	Bhola 225 MW CCPP: ST Unit	70	BPDB	Gas	December, 2015
<b>Sub Total (Public)</b>		<b>1837</b>			

Sl. No.	Name of the Power Plant	Capacity (MW)	Ownership	Type of Fuel	Expected Commissioning Date
<b>Private Sector</b>					
1.	Bibiana 300-450 MW CCPP (2nd Unit):ST Unit	222	IPP	HFO	February, 2015
2.	Kodda, Gazipur 150 MW P	150	BPDB-RPCL Powergren	HFO/Gas	February, 2015
3.	Ashuganj 200 ± 10% MW Modular Power Plant	195	APSCL	Gas	February, 2015
4.	Sathkira 50 MW PP	50	IPP	HFO	March, 2015
5.	Bibiana 300-450 MW CCPP (2nd Unit):ST Unit	119	IPP	Gas	March, 2015
6.	Sirajganj 150-225 MW CCPP: SC GT Unit (LANKO)	145	IPP	Gas	June, 2015
7.	Solar	7	IPP	Solar	June, 2015
8.	Kliakair Peaking Plant, Gazipur	149	IPP	Gas/HFO	June, 2015
9.	Nababganj 55 MW PP	55	IPP	HFO	June, 2015
10.	Basila, Keraniganj (CLC Power)108 MW PP	108	IPP	HFO	June, 2015
11.	Fenchuganj 50 MW PP	50	IPP/NRB	Gas	June, 2015
12.	Sirajganj 300-450 MW CCPP: SC GT Unit	249	IPP	Gas/HSD	August, 2015
13.	Chittagong 65-85 MW CCPP	65	IPP	Naptha/ Gas	August, 2015
14.	Wind	100	IPP	Wind	September, 2015
15.	Fenchuganj 163 MW CCPP	163		Gas	December, 2015
<b>Sub Total (Private)</b>		<b>1097</b>			
<b>Total</b>		<b>2934</b>			

### Projects to be commissioned in 2016

Sl. No.	Name of the Power Plant	Capacity (MW)	Ownership	Type of Fuel	Expected Commissioning Date
<b>Public</b>					
1.	Bibiana #3 CCPP:ST Unit	126	BPDB	Gas	March, 2016
2.	Siddirganj 335 MW CCPP :ST Unit	135	EGCB	Gas	March, 2016
3.	Sikalbaha 150-225 MW CCPP:ST Unit	75	BPDB	Gas/HFO	June. 2016
4.	Ghorasal 300-450 MW CCPP:ST Unit	109	BPDB	Gas	June, 2016
5.	Chapai nababganj 104 MW PP	104	BPDB	HFO	June, 2016
6.	Shahjibazar CCPP:ST Unit	116	BPDB	Gas	June, 2016
7.	Bheramara 360 MW CCPP	360	NEPGC	Gas	October, 2016
8.	Barapukuria 275 MW (3rd Unit)	274	BPDB	Coal	December, 2014

Sl. No.	Name of the Power Plant	Capacity (MW)	Ownership	Type of Fuel	Expected Commissioning Date
<b>Public</b>					
9.	Kaptai Solar	5	BPDB	Solar	December, 2014
10.	Hatiya 7MW Solar	7	BPDB	Solar	December, 2014
<b>Sub Total (Public)</b>		<b>1614</b>			
<b>Private Sector</b>					
1.	Jamalpur 100 MW PP	95	IPP	HFO/Gas	January, 2016
2.	Khulna 100 MW PP	100	IPP	HFO	January, 2016
3.	Alirtek, Narayanganj 50 MW PP	53	IPP	HFO	January, 2016
4.	Sirajganj 300-450 MW CCPP: ST Unit	118	IPP	Gas/HSD	March, 2016
5.	Sirajganj 150-225 MW CCPP: ST Unit (LANKO)	73	IPP	Gas	March, 2016
6.	Manikganj 55 MW PP	55	IPP	HFO	March, 2016
7.	Dhaka (Gabtoli) 108 MW PP	108	IPP	HFO	March, 2016
8.	Basila, Keraniganj ( Dhaka West) 108 MW PP	108	IPP	HFO	March, 2016
9.	Bibiana 300-450 MW CCPP (1st Unit) : SC GT Unit	222	IPP	Gas	July, 2016
10.	LNG Based 200-850 MW CCPP: ST Unit	225	IPP	LNG	October, 2016
11.	Bhairab, Kishoregonj 50 MW PP	50	IPP	HFO	December, 2016
<b>Sub Total (Private)</b>		<b>638</b>			
<b>Total</b>		<b>2148</b>			

### Projects to be commissioned in 2017

Sl. No.	Name of the Power Plant	Capacity (MW)	Ownership	Type of Fuel	Expected Commissioning Date
<b>Private Sector</b>					
1.	Ashuganj (North) CCPP	450	APSCCL	Gas	January, 2017
2.	Bibiana 300-450 MW CCPP (1st Unit) : ST Unit	119	IPP	Gas	March, 2017
3.	Maowa, Munshiganj 300-650 MW Coal Fired Power Project	522	IPP	Imp.Coal	June, 2017
4.	Khulna 630 MW Coal Fired Power Project	630	IPP	Imp.Coal	September, 2017
<b>Sub Total (Private)</b>		<b>1271</b>			
<b>Total</b>		<b>1271</b>			

### Projects to be commissioned in 2018

Sl. No.	Name of the Power Plant	Capacity (MW)	Ownership	Type of Fuel	Expected Commissioning Date
<b>Public Sector</b>					
1.	Khulna 1300 MW Large Coal	1320	BIFPCL	Imp.Coal	June, 2018
<b>Sub Total (Public)</b>		<b>1320</b>			
<b>Total</b>		<b>1320</b>			

## RENEWABLE ENERGY DEVELOPMENT PROGRAM

Development of renewable energy is one of the important strategies adopted by the Government for going green. Under the existing generation scenario of Bangladesh, renewable energy has a very small share to the total generation. The present share of renewable energy is about 1.4%. BPDB has taken systematic steps for the last few years in the development of renewable energy and implementation of energy efficiency measures to achieve the target of renewable energy policy 2008 of the Government.

### SOLAR POWER PROJECT

#### Ongoing Solar Projects

- BPDB has taken steps to install 8 MW PV power plant at Kaptai Hydro Power station.
- 1 MW solar PV power plant (off grid solar-wind- diesel based hybrid system) in Hatiya Island, Noakhali.
- 650 kWp (400 kW load) solar mini grid power plant at remote haor area of sulla upazila at Sunamgonj district under climate change trust fund (CCTF).
- 3 MW grid connected solar PV power plant at Sharishabari, Jamalpur on Build, Own & Operate basis.
- 1000 KM of street lighting based on solar PV and LED based technology in seven (7) city corporations of the country.
- BPDB is installing solar power systems in all offices of BPDB across the country to run the light and fan load

#### Solar Projects under Planning

- BPDB has planned to install 1 MW solar mini grid power plant under climate change trust fund (CCTF) at remote and inaccessible areas of Chittagong and Bandarban district.
- BPDB has planned to implement solar park projects on BOO basis under the roadmap of ADB's 500 MW solar power mission.
- BPDB has planned to install 1 MW solar pv plant (off grid solar- diesel based hybrid system) in Kutubdia island.

### WIND POWER PROJECT

The potential of wind energy is limited to coastal areas, off-shore islands, rivers sides and other inland open areas with strong wind regime. In order to generate electricity from wind energy, BPDB installed 4x225 kW = 900 kW capacity grid connected wind turbine at muhuri dam area of sonagazi in feni. Another project of 1000 kW wind battery hybrid power plant at Kutubdia Island was completed in 2008 which consists of 50 wind turbines of 20kW capacity each.

#### Ongoing wind Projects

- BPDB has taken steps to install 1MW wind power plant (off grid solar-wind- diesel based hybrid system) in Hatiya Island, Noakhali.
- BPDB is also going to install 15 MW wind power plant across the coastal regions of Bangladesh pursuant to wind resources assessment at Muhuri dam area of Feni, Mognamaghat of Cox's Bazar, parky beach of Anwara in Chittagong, Kepupara and Kuakata of Patuakhali. Installation of wind masts has already been started at "7 no Char" of Muhuri Dam area at Feni and "Sattar Majhir Ghat" area of Mognamaghat in Cox's Bazar.
- 60 MW Wind Power Project in Cox'sbazar by US-DK-BDGEL on IPP basis.
- 100 MW Wind Power Project in Anwara of Chittagong by PIA Energy Ltd on IPP basis.

#### Wind Projects under Planning

- BPDB has planned to implement 50-200 MW wind power project at parky beach area, Anwara, Chittagong on IPP basis.
- On-shore wind power plants along the coastline in coastal regions of Bangladesh.
- To install wind monitoring stations at 19 potential sites of the country for comprehensive wind resource assessment (WRA).

## ON GOING DISTRIBUTION PROJECTS OF FY 2013-2014

With the aim of renovation and expansion of existing distribution network for reduction of distribution line loss, electrification new areas and improved customer satisfaction, BPDB has undertaken various distribution projects. The under construction distribution projects are as follows:

Sl. no.	Name of the Projects	Projects costs			Year of completion	Cumulative progress (%)
		Local (Lakh Tk.)	Foreign (Lakh Tk.)	Total (Lakh Tk.)		
1.	10-Town power system dev. project (Rajshahi, Pabna, Shirajgonj, Bogora, Joypurhat, Gaibandah, Nilfamari, Dinajpur, Thakurgaon & Rongpur)	23,788	26,901	50,689	June'2015	89.53
2.	Emergency rehabilitation & expansion of urban areas power dist. system under Ctg. zone	18,013	-	18,013	June'2015	61.10
3.	Emergency rehabilitation & expansion of urban areas power dist. system under Rajshahi (northern) zone	11,001	-	11,001	Dec'2014	99.50
4.	Prepayment metering project for dist. southern zone, Ctg. (Phase-I)	13,736	-	13,736	Dec'2014	1.13
5.	Greater Ctg. power dist. project, SCADA rehabilitation	1,817	8,589	10,405	Dec'2014	72.50
6.	Central zone power dist. project, Mymensingh	43,113	1,00,831	1,43,943	June'2015	50.38
7.	Ctg. hill-tracts power dist. dev. project, Rangamati	16,447	-	16,447	June'2014	74.00
8.	Solar Street-Lighting Programme in city corporation	8,002	23,659	31,661	Dec'2015	2.85
9.	Pre-payment Metering Project for Distribution Comilla and Mymensingh zone.	2,844	10,405	13,249	Dec'2015	0.00

## FUTURE DISTRIBUTION PROJECTS UPTO 2018

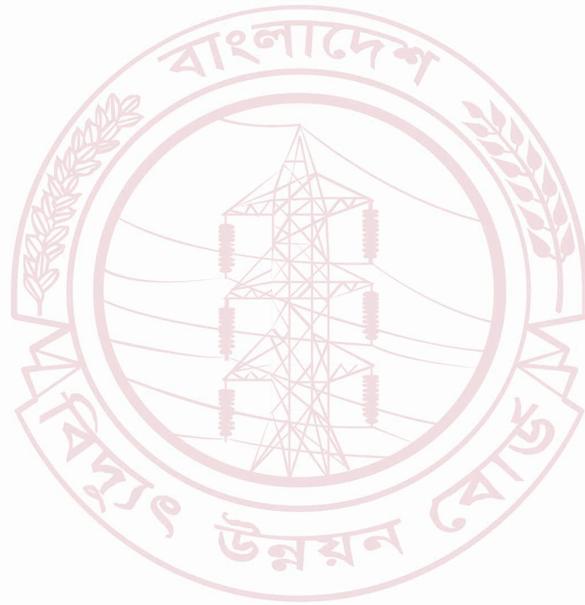
From the view point of continuous improvement in retail sales performance and consumers' service & satisfaction, BPDB has under taken the following distribution projects that are at the various stages of approval and procurement process:

Sl. no.	Name of the Projects	Projects costs		Total (Lakh Tk.)
		Local (Lakh Tk.)	Foreign (Lakh Tk.)	
1.	Power system development project, Rajshahi zone	56,776	33,670	90,447
2.	Power system development project, Rangpur zone	51,701	13,364	65,065
3.	Power system development project, Chittagong zone	66,072	43,898	1,09,970
4.	Power system development project, Comilla zone	38,943	8,954	47,896
5.	Power system development project, Mymensingh zone	63,776	-	63,776
6.	Power system development project, Sylhet zone	40,987	-	40,987
7.	Prepayment metering project for distribution, Rajshahi zone,	17,253	9,141	26,398



Hon'ble Prime Minister Sheikh Hasina Inaugurating the Haripur 412 MW Power Plant and laying the foundation stone of Shiddhirganj 335 MW Power Plant.

## Chapter-3



## Reforms & Other Activities

## Reform & Restructure

Government has given top priority in power sector development and has made commitment to provide access to electricity to all citizens across the country by 2021. In order to achieve this goal Government has undertaken a number of reform measures, some of them have already been implemented. Till-to-date the implementation status is as follows:

- The Electricity Directorate was established in 1948 in order to plan and improve power supply situation of the country. Considering the increasing demand of electricity and its importance in agriculture & industry "Water & Power Development Authority" (WAPDA) was created in 1959. Later the "WAPDA" was divided into two parts namely "Bangladesh Power Development Board" & "Bangladesh Water Development Board" by the Presidential Order 59 (PO-59) of 31st May 1972. As a result, Bangladesh Power Development Board was entrusted with the responsibilities of Operation, Maintenance, and Development of Generation, Transmission & Distribution facilities of electricity throughout the country.
- By the ordinance (Ordinance No-LI of 1977) Rural Electrification Board (REB) was established for the development of electricity in the rural areas for the effective benefit of rural people on October, 1977.
- Under the reform program Dhaka Electric Supply Authority (DESA) was created for the proper management & electrification in Dhaka city and its adjoining areas in 1990.
- DESCO has started functioning from 1996 after taking over part of the distribution network of DESA.
- DESA was reformed again as Dhaka Power Distribution Company (DPDC) in July, 2008.
- Under the Companies Act 1994, Power Grid Company (PGCB) was created in 1996 to look after the transmission system.
- Ashuganj Power Station has been converted into Ashuganj Power Station Company Ltd. (APSC) in 1996, as a subsidiary company of BPDB.
- West Zone Power Distribution Company Ltd. (WZPDCL) was created in 2002 to look after the distribution system of Barisal and Khulna Zone. WZPDCL is a distribution subsidiary of BPDB.
- Electricity Generation Company of Bangladesh (EGCB) has been formed as a Generation Company since 2004. EGCB has implemented 2x105 MW Peaking Power Plant at Shiddirgonj and 412 MW CCPP Power Plant at Haripur. EGCB has also started construction process of another 335 MW CCPP at Shiddirgonj.
- North West Power Generation Company (NWPGL) was created in 2008. NWPGL has implemented 210 MW Combined Cycle Power Plant at Sirajganj and another 158 MW Peaking Power Plant at Khulna. NWPGL has also started construction process of 360 MW CCPP at Bheramara.
- BPDB is in the process of identifying Strategic Business Unit (SBU) for its generation and distribution sectors as a new reform initiative. Functional and financial performance of the SBUs will be operated like components of a corporate body and will be evaluated separately under the legal frame work of existing BPDB structure.
- Functional, financial and human resource sharing is much easier and highly effective under one legal binding in a big organization rather than small corporate power entities.

## HRD Activities

BPDB's vision is to provide quality and reliable electricity to the people of Bangladesh for desired economic, social and human development of the country undertaking institutional and structural reforms leading to the creation of an organization of international standard. In order to achieve this vision, it is needed to develop specialized skilled services in the field of operation & maintenance with outstanding performance in Generation, Transmission & Distribution. Human resource development is the key for successful implementation of development projects of hi-tech nature in power sector and efficient operation of these facilities to keep tariff at affordable range. Sector entities have program to train 60 hours/year/employee and have a plan to increase its 100 hours in future. It is very important to ensure quality training otherwise all efforts will go in vain.

## Achievement against training program conducted during FY 2014 is shown below

Sl. No.	Name of Training Center/Academy	No. of Course	Total No. of Trainees
1.	Engineering Academy, Kaptai	39	1,347
2.	Regional Training Centre, Tongi	41	440
3.	Regional Training Centre, Chittagong	36	503
4.	Regional Training Centre, Rajshahi	37	292
5.	Ghorasal Training Centre, Narsingdi	60	1,388
6.	Directorate of Training & Career Development, Dhaka.	86	1,268
7.	Training in Abroad	81	647
	<b>Total</b>	<b>380</b>	<b>5,885</b>

BPDB has been implementing all its training Programs through Directorate of Training & Career Development. Training Academy of Kaptai, four regional training centers and two specialized training center for power plants are providing training courses for technical and non-technical manpower of power sector entities. Regional Training Centers of BPDB are located at Tongi, Rajshahi, Chittagong and Khulna. Training centers at Ghorasal and Ashuganj are dedicated to train power plant engineers & staff. Recently the construction work of a well-equipped training center at Jhilogjai in Cox's Bazar has been completed. Efforts are underway to establish state-of-the-art training academy at Keraniganj near Dhaka for this purpose.



Mr. Nasrul Hamid MP, Hon'ble State Minister for Power, Energy & Mineral Resources addressing the Inaugural Ceremony of Audio Visual Training on Power Plant Simulator at Ghorashal.

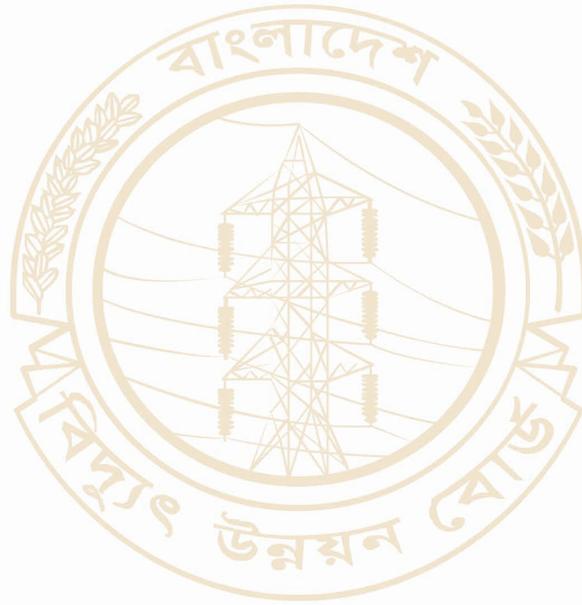


Signing of Contract between BPDB and CHDHK China for establishment of 1320 MW Coal Based Power Plant at Maheshkhali.



Contract Signing Ceremony between BIFPL and Fichtner GmbH & Co. for rendering consultancy services as Owner's Engineer.

## Chapter-4



## Tables and Charts

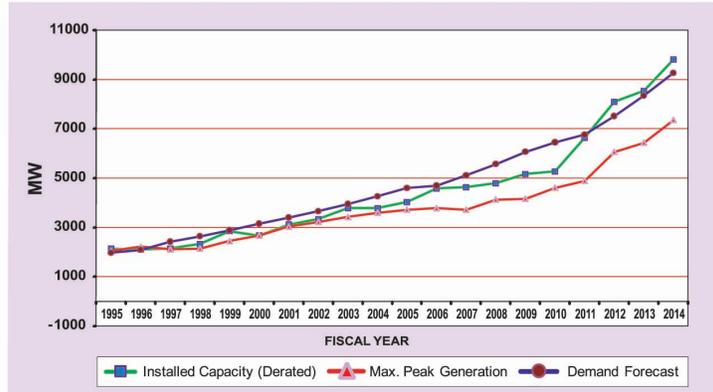
## GENERATION TABLES AND CHARTS

### Installed Capacity, Present Capacity (Derated), Maximum Demand Maximum Peak Generation and Load Shedding

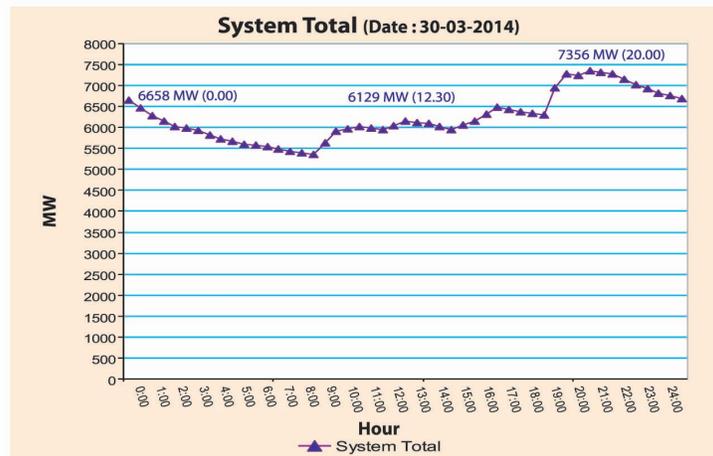
Year	Installed capacity (MW) <sup>1</sup>	Present Capacity (Derated) (MW) <sup>2</sup>	Maximum Demand (MW) <sup>3</sup>	Maximum Peak Generation (MW)	Maximum Load Shedding (MW)
1974-75	667	490		266	
1975-76	766	606		301	
1976-77	767	571		342	
1977-78	752	557		396	
1978-79	718	571		437	
1979-80	822	625		462	
1980-81	813	707		545	
1981-82	857	712		604	
1982-83	919	810		709	
1983-84	1,121	998		761	
1984-85	1,141	1,018		887	
1985-86	1,171	1,016		883	
1986-87	1,607	1,442		1,084	
1987-88	2,146	1,859	-	1,317	200
1988-89	2,365	1,936	-	1,393	170
1989-90	2,352	1,834	-	1,509	180
1990-91	2,350	1,719	-	1,640	340
1991-92	2,398	1,724	-	1,672	550
1992-93	2,608	1,918	-	1,823	480
1993-94	2,608	1,881	-	1,875	540
1994-95	2,908	2,133	2,038	1,970	537
1995-96	2,908	2,105	2,220	2,087	545
1996-97	2,908	2,148	2,419	2,114	674
1997-98	3,091	2,320	2,638	2,136	711
1998-99	3,603	2,850	2,881	2,449	774
1999-00	3,711	2,665	3,149	2,665	536
2000-01	4,005	3,033	3,394	3,033	663
2001-02	4,230	3,218	3,659	3,218	367
2002-03	4,680	3,428	3,947	3,428	468
2003-04	4,680	3,592	4,259	3,592	694
2004-05	4,995	3,721	4,597	3,721	770
2005-06	5,245	3,782	4,693	3,782	1312
2006-07	5,202	3,718	5,112	3,718	1345
2007-08	5,201	4,130	5,569	4,130	1049
2008-09	5,719	5,166	6,066	4,162	1269
2009-10	5,823	5,271	6,454	4,606	1459
2010-11	7,264	6,639	6,765	4,890	1335
2011-12	8,716	8,100	7,518	6,066	1058
2012-13	9,151	8,537	8,349	6,434	1048
2013-14	10,416	9,821	9,268	7,356	932

- Note :**
- 1 Installed capacity is as of June of the year.
  - 2 Present Capacity (Derated) is the Maximum available generation capacity at present.
  - 3 Maximum Demand is shown as per power system master plan 2010.

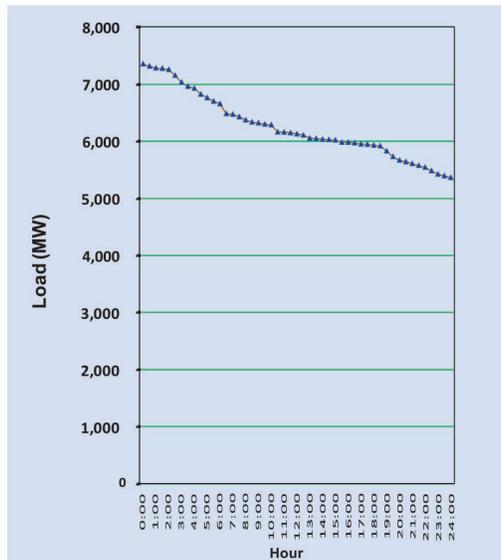
## Installed Capacity (Derated), Maximum Peak Generation & Demand Forecast



## Daily Load Curve



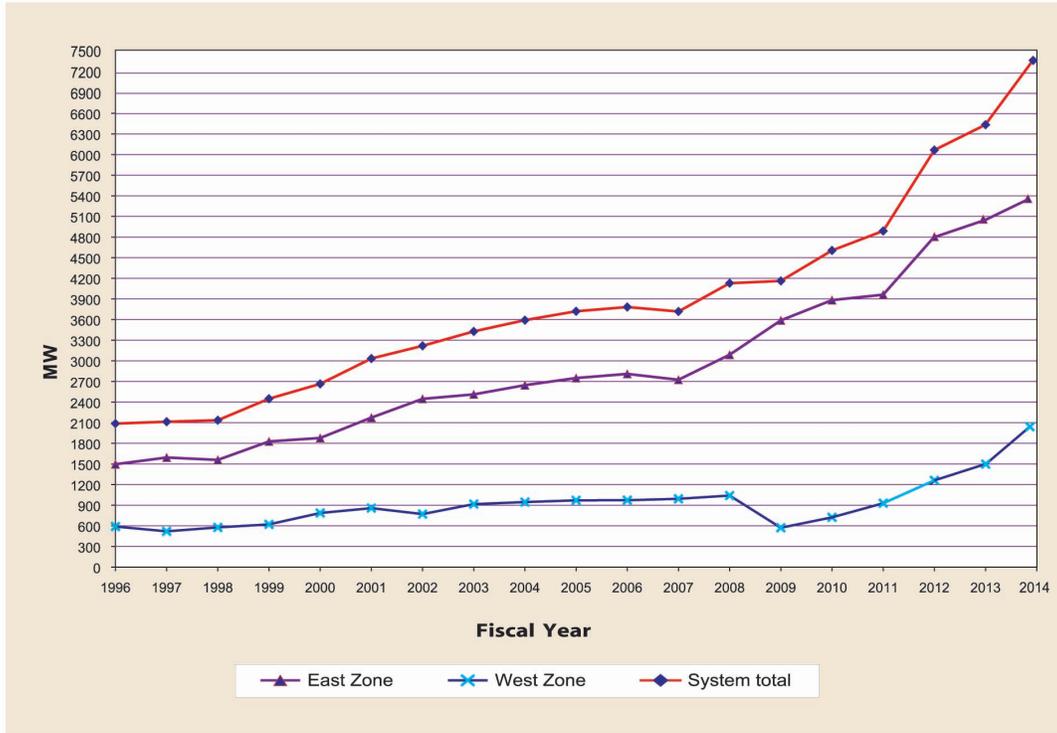
## Load Duration Curve



## Year Wise Maximum Generation

Year	Maximum Generation in MW			% Increase over the preceding year
	East Zone	West Zone	System Total	
1970-71	172	53	225	-
1971-72	141	42	183	(18.661)
1972-73	175	47	222	21.532
1973-74	185	65	250	12.603
1974-75	199	67	266	6.362
1975-76	220	81	301	13.275
1976-77	254	88	342	13.495
1977-78	287	109	396	15.779
1978-79	331	105	437	10.245
1979-80	338	124	462	5.816
1980-81	399	146	545	18.033
1981-82	451	153	604	10.719
1982-83	506	203	709	17.445
1983-84	549	212	761	7.395
1984-85	651	236	887	16.470
1985-86	613	270	883	(0.468)
1986-87	734	349	1,084	22.755
1987-88	925	392	1,317	21.551
1988-89	980	413	1,393	5.771
1989-90	1,070	439	1,509	8.327
1990-91	1,141	499	1,640	8.681
1991-92	1,160	512	1,672	1.951
1992-93	1,293	530	1,823	9.049
1993-94	1,355	520	1,875	2.836
1994-95	1,472	498	1,970	5.067
1995-96	1,497	590	2,087	5.959
1996-97	1,594	520	2,114	1.293
1997-98	1,560	577	2,136	1.026
1998-99	1,828	621	2,449	14.625
99-2000	1,878	787	2,665	8.842
2000-01	2,175	858	3,033	13.816
2001-02	2,447	771	3,218	6.076
2002-03	2,512	917	3,428	6.542
2003-04	2,646	946	3,592	4.787
2004-05	2,750	971	3,721	3.583
2005-06	2,809	973	3,782	1.647
2006-07	2,725	993	3,718	-1.700
2007-08	3,089	1,041	4,130	11.087
2008-09	3,589	573	4,162	0.777
2009-10	3,883	723	4,606	10.665
2010-11	3,962	928	4,890	6.166
2011-12	4,805	1,261	6,066	24.049
2012-13	5,010	1,424	6,434	6.07
2013-14	5,320	2,036	7,356	14.33

## Growth of Maximum Generation (Actual)



Signing of contract between BPDB and Joint venture of Harbin Electric International Company and CCC Engineering Ltd. for construction of Barapukuria 275 MW Power Plant.

### Plant Wise Generation (FY 2013-14)

Sl. No.	Name of power plant	Type of fuel	Installed Capacity (As of June) (MW)	Net Energy Generation (GWh)	Annual Plant factor (%)	Efficiency (%) (Net)	Overall Thermal Efficiency (%) (Net)
1.	Karnafuli Hydro(2x40 MW+3x50 MW)	Hydro	230	588.03	29.19		<b>33.06</b>
2.	Chittagong Thermal Power Plan Unit #-1 (Raozan)	Gas	180	365.65	23.19	27.98	
	Chittagong Thermal Power Plan Unit #-2 (Raozan)	Gas	180	149.53	9.48	28.89	
3.	Sikalbaha 60 MW Steam Turbine	Gas	40	38.53	11.00	23.38	
4.	Sikalbaha 150 MW Gas Turbine	Gas	150	274.15	20.86	30.24	
5.	Hathazari 100 MW Peaking PP	FO	98	192.08	22.37	42.19	
6.	Sangu, Dohazari 100MW PP	FO	102	206.92	23.16	39.64	
7.	RPCL Raozan 25 MW	FO	25	118.48	54.10	40.00	
8.	RPCL Gazipur 52 MW	FO	52	171.63	37.68	40.00	
9.	Ashuganj 2x64 MW Steam Turbine	Gas	97	400.23	47.10	29.79	
	Ashuganj 3x150 MW Steam Turbine	Gas	398	2829.54	81.16	33.88	
	Ashuganj GT 1	Gas	-	70.73	-	20.47	
	Ashuganj ST	Gas	-	6.49	-	65.57	
	Ashuganj GT 2	Gas	40	212.96	60.78	22.74	
	Ashuganj 50 MW gas Engine	Gas	45	254.05	64.45	36.71	
10.	Chandpur 150MW CCPP	Gas	163	696.08	48.75	37.27	
11.	Ghorasal 2x55 MW Steam Turbine (1+2nd Unit)	Gas	85	481.25	64.63	25.85	
	Ghorasal 2x210 MW Steam Turbine( 3+4th Unit)	Gas	350	1922.82	62.71	31.09	
	Ghorasal 2X210 MW S/T (5+6th Unit)	Gas	380	1281.62	38.50	28.76	
12.	Siddhirganj 210 MW Steam Turbine	Gas	150	538.22	40.96	30.32	
13.	Siddhirganj 2x120 MW Gas Turbine	Gas	210	265.49	14.43	26.58	
14.	Haripur 3x33 MW Gas Turbine	Gas	60	49.26	9.37	21.16	
15.	Haripur 412 MW CCPP (EGCB)	Gas	412	997.29	27.63	0.00	
16.	Tongi 100 MW Gas Turbine	Gas	105	115.10	12.51	25.93	
17.	Shahjibazar 60 MW Gas Turbine	Gas	66	422.46	73.07	25.53	
18.	Sylhet 1x20 MW Gas Turbine	Gas	20	116.53	66.51	22.11	
19.	Sylhet 1x150 MW Gas Turbine	Gas	142	901.28	72.46	29.19	
20.	Fenchuganj C.C. (1st Unit)	Gas	80	480.76	68.60	35.56	
	Fenchuganj C.C. (2nd Unit)	Gas	90	633.97	80.41	30.16	
21.	Titas(Doudkandi) 50 MW RE	FO	52	117.75	25.85	37.81	
22.	Khulna 1x110 MW Steam Turbine	FO	55	90.27	18.74	20.17	
23.	Barisal 2x20 MW Gas Turbine	HSD	30	37.86	14.41	18.75	
24.	Bheramara 3x20 MW Gas Turbine	HSD	46	72.58	18.01	20.29	
25.	Khulna 150 MW (NWPGL)	HSD	158	357.66	25.84	33.75	
26.	Baghabari 71 MW Gas Turbine	Gas	71	505.79	81.32	28.66	
	Baghabari 100 MW Gas Turbine	Gas	100	727.19	83.01	28.29	
27.	Baghabari 50 MW RE	FO	52	128.19	28.14	39.67	
28.	Gopalganj 100 MW Peaking PP	FO	109	273.96	28.69	38.89	
29.	Bera 70 MW RE	FO	71	186.43	29.97	41.01	
30.	Faridpur 50 MW Peaking PP	FO	54	134.61	28.46	40.79	
31.	Rangpur 20 MW Gas Turbine	HSD	20	19.46	11.11	21.36	
32.	Saidpur 20 MW Gas Turbine	HSD	20	26.17	14.94	22.65	
33.	Barapukuria 2x125 MW ST (COAL)	COAL	200	1038.33	59.27	27.56	
34.	Sirajgonj 150 MW Gas Turbine (NWPGL)	Gas	142	962.65	77.39	30.96	
35.	Santahar 50 MW PP	FO	50	86.47	19.74	38.59	
36.	Katakhali 50 MW PP	FO	50	96.44	22.02	40.65	
	<b>Total (Grid)</b>		<b>5,230</b>	<b>19642.93</b>	<b>42.87</b>		
37.	Isolated East Isolated West	HSD HSD		1.68			
	<b>Total Public Sector</b>		<b>5,230</b>	<b>19644.61</b>			

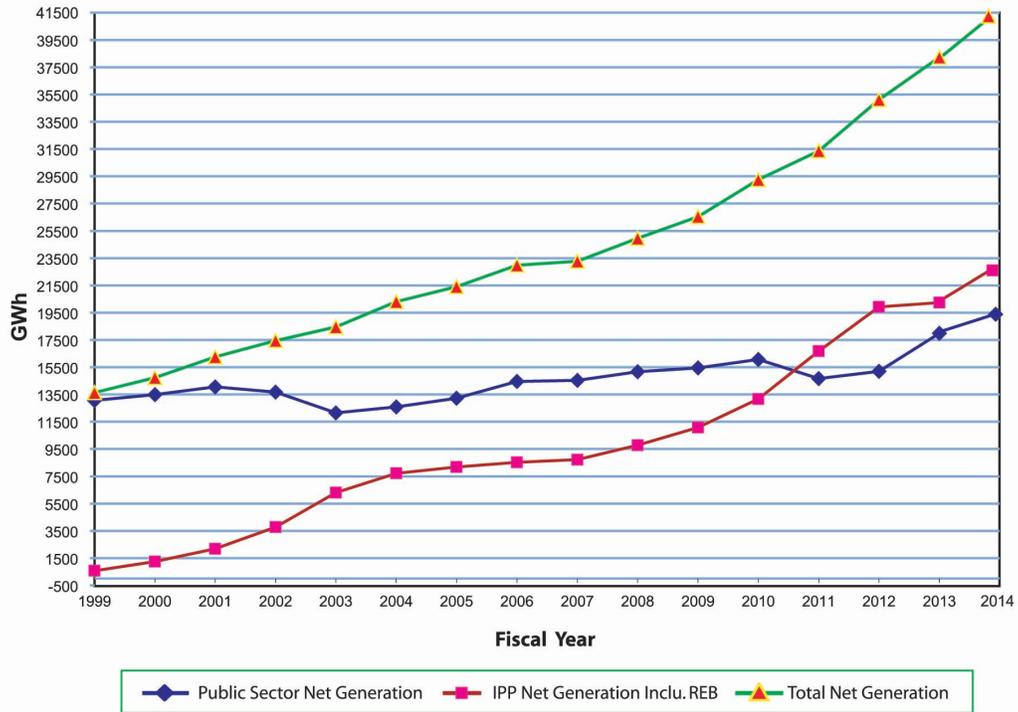
Sl. No.	Name of power plant	Type of fuel	Installed Capacity (As of June) (MW)	Net Energy Generation (GWh)	Annual Plant factor (%)	Efficiency (%) (Net)	Overall Thermal Efficiency (%) (Net)
<b>IPP</b>							
1.	KPCL (Khulna, BMPP)	FO	110	403.13	41.84	38.52	
2.	Westmont	FO	0	67.98	-	30.15	
3.	NEPC (Haripur, BMPP)	Gas	110	442.12	45.88	40.12	
4.	RPCL 210 MW (Mymensingh)	Gas	202	1206.41	68.18	45.60	
5.	AES, Haripur	Gas	360	2530.93	80.26	49.06	
6.	AES, Meghnaghat	Gas	450	2776.09	70.42	45.87	
7.	Ashuganj 51 MW (Midland)	Gas	51	154.60	61.92	23.52	
8.	Natore, Rajshahi 50 MW PP (RajLanka)	FO	52	87.75	45.07	21.01	
9.	Meghnagat power Co. (summit)	HSD	203	126.29	83.62	33.68	
10.	Gogonnogor 102 MW PP	FO	102	47.73	72.21	22.20	
11.	Baraka-Potengga 50 MW PP	FO	50	24.43	35.72	21.27	
	Ghorashal 108 MW (Regent Power)	Gas	0	11.03	-	23.06	
	<b>Sub Total IPP</b>		<b>1690</b>	<b>7878.49</b>			
<b>RENTAL &amp; SIPP</b>							
1	Bogra Rental (GBB) ( 15 Years)	Gas	22	165.52	85.89	29.02	
	Khulna Rental ( 3 Years)(Aggreko)	Gas	0	27.91	-	43.62	
2	Kumargoan (Energy Prima)( 3 Years)	Gas	50	295.97	67.57	34.27	
3	Sahzibazar RPP (Energyprima) ( 3 Years)	Gas	50	302.81	69.13	28.43	
4	Sahzibazar RPP (Shahjibazar Power) ( 15 Years)	Gas	86	543.26	72.11	27.26	
5	Tangail SIPP (Doreen) (22 MW) (BPDB)	Gas	22	135.38	70.25	38.28	
6	Feni SIPP (22 MW) (BPDB)	Gas	22	135.31	70.21	38.28	
7	Kumargao 10 MW(Desh Energy) (15 Years)	Gas	10	59.45	67.87	35.56	
8	Barabkundu	Gas	22	129.87	67.39	38.28	
9	Bhola RPP (34.5 MW)	Gas	33	49.71	17.20	30.04	
10	Jangalia , Comilla (33 MW)	Gas	33	236.99	81.98	38.24	
11	Fenchugonj 51 MW Rental ( Barakatullah) (15 Yrs)	Gas	51	337.86	75.62	31.29	
	Malancha	Gas	0	192.24	-	41.09	
12	Ashugonj 55 MW (Precision Energy) 3 Years Rental	Gas	55	354.90	73.66	32.50	
13	Thakurgaon 50 MW 3 Years Rental	HSD	40	61.35	17.51	36.69	
14	Fenchugonj 50 MW (Energy Prima)	Gas	44	318.98	82.76	31.26	
15	Ghorashal 45 MW RPP (Aggreko)	HSD	45	332.36	84.31	35.94	
16	Khulna 55 MW RPP 3 yrs (Aggreko)	HSD	55	129.23	26.82	32.48	
17	Ghorashal 100 MW RPP ( Aggreko)	Gas	100	616.19	70.34	32.00	
18	Pagla 50 MW ( DPA)	HSD	50	160.17	36.57	38.31	
19	Bheramara 110 MW 3 Yrs Rental (Quantum)	HSD	105	17.21	1.87	41.01	
20	Shiddirgonj 100 MW Q. Rental (Desh Energy) 3 Yrs	HSD	98	191.01	22.25	39.20	
21	B.Barua 70 MW QRPP (3 Yrs Aggreco)	Gas	70	523.01	85.29	35.94	
22	Madangonj 100 MW QRPP (5 Yrs Summit)	FO	100	555.63	63.43	41.63	
23	Khulna 115 MW QRPP (5 Yrs Summit)	FO	115	550.33	54.63	39.20	
24	Ghorashal 78 MW QRPP (3 Yrs Max Power)	Gas	78	465.42	68.12	35.82	
25	Noapara 40 MW QRPP (5 Yrs Khan Jahan Ali)	FO	40	215.64	61.54	40.96	
26	Ashugonj 80 MW QRPP (3 Yrs Aggreco)	Gas	80	552.46	78.83	35.94	
27	Noapara 105 MW RPP (5 Yrs Quantum)	FO	101	16.37	1.85	41.01	
28	Ashugonj 53 MW Q. Rental PP (3 Years) ( United Power)	Gas	53	353.08	76.05	36.27	
29	Meghnagat 100 MW QRPP (5 Yrs) IEL	FO	100	525.93	60.04	41.13	
30	Shiddirgonj 100 MW QRPP (5Years) Dutch Bangla	FO	100	535.05	61.08	41.13	
31	Bogra RPP 3 Yrs (Energy Prima)	Gas	20	112.95	64.47	41.13	
32	Amnura 50 MW QRPP (5 Yrs, Sinha Power)	FO	50	100.30	22.90	41.63	
33	Keranigonj 100 MW QRPP(5Yrs) (Power Pac)	FO	100	484.18	55.27	40.80	
34	Julda 100MW QRPP (5Yrs, Acron infra)	FO	100	581.48	66.38	43.05	
35	Katakhali 50 MW QRPP	FO	50	142.49	32.53	41.13	
36	Energy Import	Import	500	2265.02	51.71	-	
	<b>Sub Total Rental &amp; SIPP</b>		<b>2650</b>	<b>10508.00</b>			
	<b>Total Private (IPP+SIPP+Rental+Import)</b>		<b>4340</b>	<b>20651.51</b>			
	<b>Public Sector Net Generation</b>		<b>5230</b>	<b>19644.61</b>			
	<b>Total Net Generation (Public+IPP Net+Import)</b>		<b>9570</b>	<b>40296.12</b>			

## Energy Generation (National)

In GWh

Year	Gross Energy Generation of Public Sector			Net Generation of Public Sector	Total Private Generation Inclu. REB (Net)	Total Generation (Net)	% Change over the Preceding Year	Energy Transfer through East-West Interconnector	
	East Zone	West Zone	System Total					East to West	West to East
1970-71	725	204	929	883		883			
1971-72	582	135	717	681		681	(22.82)		
1972-73	857	229	1086	1031		1,031	51.41		
1973-74	982	283	1265	1202		1,202	16.56		
1974-75	1022	300	1322	1256		1,256	4.48		
1975-76	1116	344	1460	1387		1,387	10.41		
1976-77	1224	394	1619	1538		1,538	10.89		
1977-78	1444	468	1913	1817		1,817	18.18		
1978-79	1603	519	2122	2016		2,016	10.95		
1979-80	1745	609	2353	2236		2,236	10.89		
1980-81	1,978	684	2,662	2529		2,529	13.11	-	-
1981-82	2,292	744	3,036	2885		2,885	14.07	-	-
1982-83	2,846	587	3,433	3261		3,261	13.05	341.32	0.24
1983-84	3,398	568	3,966	3768		3,768	15.54	519.04	1.44
1984-85	3,656	873	4,528	4302		4,302	14.18	477.41	20.63
1985-86	3,488	1,312	4,800	4560		4,560	6.00	222.40	106.43
1986-87	4,749	838	5,587	5308		5,308	16.39	797.84	10.91
1987-88	5,753	789	6,541	6214		6,214	17.08	1,179.54	0.02
1988-89	6,534	581	7,115	6759		6,759	8.77	1,550.00	--
1989-90	7,401	331	7,732	7345		7,345	8.67	1,956.78	--
1990-91	8,126	144	8,270	7857		7,857	6.96	2,314.07	--
1991-92	8,500	394	8,894	8450		8,450	7.55	2,213.00	--
1992-93	8,583	624	9,206	8746		8,746	3.51	1,919.89	--
1993-94	9,129	655	9,784	9295		9,295	6.28	1,980.76	--
1994-95	9,885	921	10,806	10266		10,266	10.45	1,954.62	--
1995-96	10,735	740	11,474	10901		10,901	6.18	2,215.02	--
1996-97	10,805	1,053	11,858	11,243		11,243	3.14	1,924.17	--
1997-98	11,789	1,093	12,882	12,194		12,194	8.46	1,997.00	--
1998-99	13,126	746	13,872	13,060	578	13,638	11.84	2,186.00	--
1999-00	13,634	684	14,318	13,495	1,244	14,739	8.07	2,482.45	--
2000-01	13,717	1,111	14,828	14,062	2,193	16,255	10.28	1,979.40	--
2001-02	13,267	1,183	14,450	13,674	3,771	17,445	7.32	2,249.16	--
2002-03	11,371	1,510	12,881	12,159	6,299	18,458	5.80	2,170.40	--
2003-04	11,303	2,039	13,342	12,584	7,718	20,302	9.99	2,135.55	--
2004-05	11,910	2,157	14,067	13,223	8,185	21,408	5.45	2,146.20	--
2005-06	13,177	2,240	15,417	14,456	8,522	22,978	7.33	2344.72	--
2006-07	12,964	2,531	15,495	14,539	8,729	23,268	1.26	1950.25	--
2007-08	13,397	2,758	16,155	15,167	9,779	24,946	7.21	2462.08	--
2008-09	13,627	2,803	16,431	15,449	11,084	26,533	6.36	2548.99	--
2009-10	14,735	2,329	17,064	16,072	13,175	29,247	10.23	3831.43	--
2010-11	12,845	2,680	15,525	14,673	16,682	31,355	7.21	3574.00	--
2011-12	13,316	2,758	16,074	15,201	19,917	35,118	12.00	4445.42	--
2012-13	15,078	3,929	19,008	17,994	20,235	38,229	8.86	4696.49	--
2013-14	15,726	4,943	20,669	19,645	22,550	42,195	10.37	3138.37	--

## Total Net Energy Generation



Secretary, Power Division Mr. Monowar Islam and BPDB Chairman Mr. Md. Abduhu Ruhullah visiting the under construction Meghnaghat 335 MW Power Plant (IPP).

## Per Capita Generation And Consumption (Grid)

Year	Total Generation (GWh)	Total Population (In million)	Total Sale (MkWh)	Per Capita Generation (kWh)	Per Capita Consumption (kWh)
1976-77	1,619	82	1,013	19.80	12.39
1977-78	1,913	84	1,205	22.85	14.39
1978-79	2,122	86	1,381	24.78	16.13
1979-80	2,353	88	1,406	26.85	16.04
1980-81	2,662	90	1,740	29.73	19.43
1981-82	3,036	92	2,028	33.04	22.07
1982-83	3,433	94	2,399	36.48	25.49
1983-84	3,966	96	2,703	41.25	28.12
1984-85	4,528	98	2,841	46.16	28.96
1985-86	4,800	100	3,307	48.00	33.07
1986-87	5,587	103	3,485	54.19	33.81
1987-88	6,541	105	3,773	62.02	35.77
1988-89	7,115	108	4,695	65.91	43.49
1989-90	7,732	110	4,705	70.02	42.60
1990-91	8,270	111	4,871	74.77	44.04
1991-92	8,894	112	6,021	79.32	53.70
1992-93	9,206	115	6,906	80.01	60.02
1993-94	9,784	116	7,448	84.19	64.08
1994-95	10,806	117	8,371	92.06	71.32
1995-96	11,474	119	8,996	96.79	75.88
1996-97	11,858	120	9,447	99.03	78.90
1997-98	12,882	127	10,176	101.84	80.44
1998-99	14,450	128	11,352	112.89	88.69
1999-00	15,563	130	12,461	119.71	95.85
2000-01	16,255	132	14,003	123.14	106.08
2001-02	17,445	134	15,243	136.02	113.80
2002-03	18,458	133	16,332	138.36	122.43
2003-04	20,302	135	18,024	149.94	133.11
2004-05	21,408	137	19,196	155.78	139.68
2005-06	22,978	139	20,954	164.73	150.22
2006-07	23,268	141	21,181	164.75	149.97
2007-08	24,946	143	22,622	174.45	158.20
2008-09	26,533	145	23,937	183.26	165.32
2009-10	29,247	146	24,860	200.32	170.27
2010-11	31,355	148	26,652	211.86	180.08
2011-12	35,118	152	29,974	231.65	197.72
2012-13	38,229	154	32,740	248.89	213.15
2013-14	42,195	156	36,233	270.83	232.56

## Fuel Consumption of Public Sector Power Plants



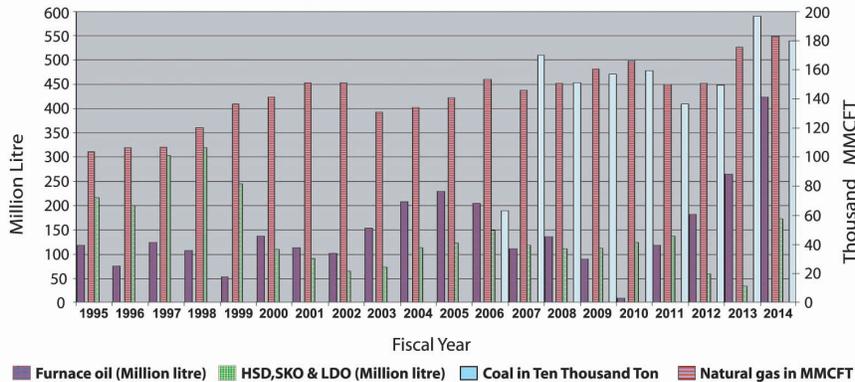
Narayanganj (Gognagar) 100 MW Power Plant



Ghorashal 108 MW Power Plant

Year	Natural Gas in MMCFT	Liquid Fuel in Million liter		Coal (Ten Thousand Ton)
		Furnace oil	HSD, SKO & LDO	
1975-76	8,841.12	81.91	0.39	
1976-77	10,850.48	75.05	67.97	
1977-78	13,081.39	80.77	103.35	
1978-79	14,579.55	128.41	84.50	
1979-80	15,940.70	103.63	134.58	
1980-81	18,904.42	68.66	209.44	
1981-82	22,251.24	77.47	229.56	
1982-83	27,697.51	120.06	113.20	
1983-84	30,298.69	175.55	86.63	
1984-85	38,116.27	201.16	94.23	
1985-86	39,809.78	283.49	142.51	
1986-87	51,773.82	199.03	94.35	
1987-88	59,220.57	231.51	52.00	
1988-89	62,291.95	122.68	103.58	
1989-90	72,461.50	53.50	78.02	
1990-91	78,258.10	17.73	40.64	--
1991-92	83,803.43	68.87	75.78	--
1992-93	88,117.25	127.27	94.21	--
1993-94	92,064.05	122.70	113.79	--
1994-95	1,03,907.60	118.42	216.80	--
1995-96	1,06,592.75	75.58	200.49	--
1996-97	1,07,240.03	124.48	304.13	--
1997-98	1,20,376.26	108.47	320.11	--
1998-99	1,36,802.00	53.14	245.05	--
1999-00	1,41,330.13	137.35	110.49	--
2000-01	1,51,312.47	114.02	92.01	--
2001-02	1,51,577.35	102.10	66.00	--
2002-03	1,31,180.00	154.20	74.08	--
2003-04	1,34,482.37	209.17	114.32	--
2004-05	1,41,021.85	229.86	123.75	--
2005-06	1,53,920.65	204.85	149.61	189.00
2006-07	1,46,261.67	111.84	119.19	510.00
2007-08	1,50,991.54	137.11	111.52	454.00
2008-09	1,61,007.68	90.26	112.81	471.00
2009-10	1,66,557.42	9.74	124.69	479.00
2010-11	1,50,031.41	118.73	137.66	410.00
2011-12	1,51,047.84	182.48	59.89	448.65
2012-13	1,75,944.51	266.11	34.97	591.59
2013-14	1,83,522.79	424.72	173.00	539.90

## Consumption of Fuel (Public Sector)



Note : Y-axis represents the values of Liquid Fuel and Coal, Unit of Liquid Fuel is Million Litre and Coal Unit is Ten Thousand Ton

## Fuel Cost of Public Sector Power Plants

Million Taka

Year	East Zone	West Zone	System Total	% Change over preceding Year
1991-92	3,337	1,484	4,821	
1992-93	3,803	2,157	5,960	23.62
1993-94	4,085	2,388	6,473	8.61
1994-95	4,951	3,242	8,193	26.58
1995-96	5,072	2,828	7,900	(-) 3.58
1996-97	4,882	4,376	9,258	17.20
1997-98	5,809	4,479	10,289	11.13
1998-99	7,116	3,325	10,441	1.48
1999-00	7,732	2,080	9,812	(-) 6.02
2000-01	8,846	2,533	11,378	15.96
2001-02	9,152	2,474	11,626	2.18
2002-03	8,324	3,488	11,813	1.60
2003-04	8,482	4,926	13,409	13.51
2004-05	9,313	6,757	16,070	19.85
2005-06	8,945	7,385	16,330	1.62
2006-07	7,265	9,494	16,759	2.63
2007-08	8,759	8,194	16,953	1.16
2008-09	6,624	11,609	18,232	7.54
2009-10	7,120	9,245	16,364	(10.25)
2010-11	6,431	12,632	19,063	16.49
2011-12	13,831	14,740	28,571	49.88
2012-13	18,885	18,380	37,266	30.43
2013-14	23,430	32,822	56,252	50.95

## Fuel Price

Fuel Type	Unit price with effect from																
	06.01.03	08.06.04	01.01.05	04.09.05	26.06.06	02.04.08	01.07.08	27.10.08	23.12.08	13.01.09	15.03.09	01.08.09	01.07.10	05.05.11	01.01.12	01.02.12	04.01.13
High speed Diesel Oil (TK./ Lit)	19.83	19.83	22.37	29.18	31.98	40.00	53.43	46.51	44.61	42.71	42.71	42.71	42.71	46.00	61.00	61.00	68.00
Furnace oil (TK./ Lit)	10.00	12.00	12.00	14.00	14.00	20.00	30.00	30.00	30.00	30.00	26.00	26.00	26.00	42.00	60.00	60.00	60.00
Natural Gas (TK./ 1000 Cft)	70.00	70.00	73.91	73.91	73.91	73.91	73.91	73.91	73.91	73.91	73.91	79.82	79.82	79.82	79.82	79.82	79.82
Coal (US \$./ M Ton)	-	-	-	-	60	60	71.5	71.5	71.5	71.5	71.5	71.5	86.00	86.00	86.00	105.00	105.00

Bheramara HVDC Sub-station



## TRANSMISSION TABLES AND CHARTS

### CIRCLE WISE SUBSTATIONS CAPACITY (MVA) (As of June 2014)

#### A) 400 KV HVDC Substations

Name of Sub-stations	Capacity
Bheramara HVDC Bac to Bac Station	500 MW

#### B) 230/132 kV Substations

Name of Grid Circle	PGCB		PDB/APSCL		DPDC & Others	
	No. of S/S	Total MVA	No. of S/S	Total MVA	No. of S/S	Total MVA
Dhaka	8+1(Switching)	4,575	1	250		
Chittagong	1	600				
Comilla	2	750	1	300		
Khulna	1	450				
Bogra	4+1(Switching)	1,800				
<b>Total</b>	<b>18</b>	<b>8,775</b>	<b>2</b>	<b>550</b>		
<b>Grand Total</b>			<b>9,325</b>			

#### C) 132/33 kV Substations

Name of Grid Circle	PGCB		PDB/APSCL		DPDC, APSCL & Others	
	No. of S/S	Total MVA	No. of S/S	Total MVA	No. of S/S	Total MVA
Dhaka	25	4,258	1	100	12	1,860
Chittagong	11	1,231	2	103	2	70
Comilla	12	1,486	1	116		
Khulna	19	1,789			Bheramara GK Project	20
Bogra	19	1,950				
<b>Total</b>	<b>86</b>	<b>10,714</b>	<b>4</b>	<b>319</b>	<b>15</b>	<b>1,950</b>
<b>Grand Total</b>			<b>12,983</b>			

## Synopsis of Transmission Lines

(As of June 2014)

### A) 400 KV Transmission Lines

Sl. No.	Name of Lines	Lenth in Route kilometers	Lenth in Ckt kilometers	No. of Ckt.	Conductor	
					Name	Size
1	HVDC Bheramara-Baharpur	27.35	54.70	Double	Twin Finch	1113 MCM
2	Aminbazar-Meghnaghat*	55.00	110.00	Double	Quad Egret	636 MCM
<b>Total</b>		<b>82.35</b>	<b>164.70</b>			

\*Presently Operated at 230 KV

### B) 230 KV Transmission Lines

Sl. No.	Name of Lines	Lenth in Route kilometers	Lenth in Ckt kilometers	No. of Ckt.	Conductor	
					Name	Size
1	Ghorasal-Ishurdi (1st EWI)	178	356	Double	Mallard	795 MCM
2	Tongi - Ghorasal	27	54	Double	Mallard	795 MCM
3	Ghorasal - Ashuganj	44	88	Double	Mallard	795 MCM
4	Raojan - Hathazari	23	45	Double	Twin 300 sq.mm	
5	Ashuganj - Comilla North	79	158	Double	Finch	1113 MCM
6	Ghorasal - Rampura	50	100	Double	Twin Mallard	2x795 MCM
7	Rampura - Haripur	28	56	Double	Twin Mallard	2x795 MCM
8	Haripur - Meghnaghat	13	25	Double	Twin Mallard	2x795 MCM
9	Meghnaghat - Hasnabad	26	52	Double	Twin Mallard	2x795 MCM
10	Comilla North - Hathazari	150	300	Double	Finch	1113 MCM
11	AES, Haripur - Haripur	2	5	Double	Finch	1113 MCM
12	Comilla North - Meghnaghat	58	116	Double	Twin Mallard	2x795 MCM
13	Hasnabad - Aminbazar - Tongi	47	93	Double	Twin AAAC	37/4.176 mm.
14	Siddhirganj 210 MW P/S - Haripur	2	2	Single	ACSR	600 sq. mm.
15	Ashuganj - Sirajganj (2nd EWI)	143	286	Double	Twin AAAC	37/4.176 mm.
16	Khulna - Ishurdi	185	370	Double	Twin AAAC	37/4.176 mm.
17	Bogra-Barapukuria	106	212	Double	Twin AAAC	37/4.176 mm.
18	Sirajganj-Bogra	72	144	Double	Twin AAAC	37/4.176 mm.
19	Ishurdi-Baghabari	55	110	Double	Twin AAAC	37/4.176 mm.
20	Baghabari-Sirajganj	38	76	Double	Twin AAAC	37/4.176 mm.
21	Fenchuganj-Bibiyana	33	66	Double	Twin Mallard	2x795 MCM
22	Bibiyana-Comilla(N)	154	306	Double	Twin Mallard	2x795 MCM
23	HVDC Double Circuit LILO	5	9	Double	Twin AAAC	37/4.176 mm.
24	Aminbazar- Old Airport (O/H)	4	7	Double	Twin Mallard	2x795 MCM
25	Aminbazar- Old Airport (U/G)	4	8	Double	XLPE	2000sq.mm.
26	Siddhirganj-Maniknagar	11	22	Double	Twin Mallard	2x795 MCM
<b>Total</b>		<b>1534</b>	<b>3066</b>			

### C) 132 KV Transmission Lines

Sl. No.	Name of Lines	Length in Route kilometers	Length in Ckt. kilometers	No. of Ckt.	Conductor	
					Name	Size
1	Siddhirganj - Shahjibazar	138	276	Double	Grosbeak	636 MCM
2	Shahjibazar - Chatak	150	300	Double	Grosbeak	636 MCM
3	Siddhirganj - Kaptai	273	546	Double	Grosbeak	636 MCM
4	Kulshi - Halishahar	13	26	Double	Grosbeak	636 MCM
5	Comilla South - Chandpur	61	122	Double	Linet + Grosbeak	(336.4 + 636) MCM
6	Comilla North - Comilla South	16	32	Double	Grosbeak	636 MCM
7	Ashuganj - Jamalpur	166	332	Double	Grosbeak	636 MCM
8	Madanhat - Sikalbaha	13	26	Double	Grosbeak	636 MCM
9	Sikalbaha - Dohazari	35	70	Double	Grosbeak	636 MCM
10	Sikalbaha - Julda	5	5	Single	AAAC	804 sq.mm
11	Julda-Halishahar	8	8	Single	AAAC	804 sq.mm
12	Kulshi - Baraulia	13	13	single	Grosbeak	636 MCM
13	Khulshi-Abul Khair	9	9	single	Grosbeak	636 MCM
14	Abul Khair-Baraulia	4	4	single	Grosbeak	636 MCM
15	Madanhat - Kulshi	13	13	Single	Grosbeak	636 MCM
16	Madanhat - Kulshi	13	13	Single	Grosbeak	636 MCM
17	Kaptai - Baraulia	58	116	Double	Grosbeak	636 MCM
18	Dohazari - Cox's Bazar	87	174	Double	Grosbeak	636 MCM
19	Feni - Chowmuhani	32	64	Double	Grosbeak	636 MCM
20	Baraulia - Kabir Steel	4	4	Single	Grosbeak	636 MCM
21	Mymensingh - Netrokona	34	68	Double	Grosbeak	636 MCM
22	Goalpara - Ishurdi	169	338	Double	AAAC	804 MCM
23	Ishurdi - Bogra	103	206	Double	AAAC	804 MCM
24	Bogra - Saidpur	140	280	Double	AAAC	804 MCM
25	Saidpur - Thakurgaon	64	128	Double	AAAC	804 MCM
26	Goalpara - Bagerhat	45	45	Single	AAAC	804 MCM
27	Barisal - Bhandaria - Bagerhat	80	80	Single	HAWK	477 MCM
28	Bagerhat - Mangla	31	31	Single	HAWK	477 MCM
29	Barisal - Patuakhali	37	37	Single	Grosbeak	636 MCM
30	Bheramara - Faridpur - Barisal	225	450	Double	HAWK	477 MCM
31	Rajshahi - Natore	40	40	Single	HAWK	477 MCM
32	Ishurdi - Baghabari - Shahjadpur	57	57	Single	HAWK	477 MCM
33	Ishurdi - Pabna - Shahjadpur	56	56	Single	Grosbeak	636 MCM
34	Bogra - Sirajganj	66	132	Double	Grosbeak	636 MCM
35	Sirajganj-Shahjadpur	34	34	Single	Grosbeak	636 MCM
36	Rajshahi - Nawabganj	47	94	Double	Grosbeak	636 MCM
37	Rangpur - Lalmonirhat	38	38	Single	Grosbeak	636 MCM
38	Bogra - Noagaon	52	104	Double	Grosbeak	636 MCM
39	Kabirpur - Tangail	51	102	Double	Grosbeak	636 MCM
40	Tongi - Mirpur - Kallyanpur - Hasnabad	49	98	Double	Grosbeak	636 MCM

Sl. No.	Name of Lines	Length in Route kilometers	Length in Ckt. kilometers	No. of Ckt.	Conductor	
					Name	Size
41	Tongi-New tongi	0.5	1	Double		
42	Hasnabad - Shyampur - Haripur	40	80	Double	Grosbeak	636 MCM
43	Siddhirganj - Ullon	16	32	Double	Grosbeak	636 MCM
44	Siddhirganj -Matuil- Maniknagar	10	10	Single	Grosbeak	636 MCM
45	Siddhirganj - Maniknagar	10	10	Single	Grosbeak	636 MCM
46	Maniknagar - Bangabhaban	3	6	Double	Cu.Cable	240 sq.mm
47	Maniknagar - Narinda	5	10	Double	Cu.Cable	240 sq.mm
48	Ullon - Dhanmondi	5.5	11	Double	Cu.Cable	240 sq.mm
49	Ullon - Dhanmondi	5.5	11	Double	XLPE	800 sq.mm
50	Tongi - Kabirpur - Manikganj	56	112	Double	Grosbeak	636 MCM
51	Ullon - Rampura -Tongi	23	46	Double	Grosbeak	636 MCM
52	Rampura-Mogbazar	4.5	9	Double	Grosbeak	636 MCM
53	Ghorasal - Joydebpur	26	52	Double	Grosbeak	636 MCM
54	Baghabari - Shahjadpur	7	14	Double	Grosbeak	636 MCM
55	Chandpur - Chowmuhani	75	150	Double	Grosbeak	636 MCM
56	Barapukuria-Rangpur	45	90	Double	Grosbeak	636 MCM
57	Barapukuria-Saidpur	36	72	Double	Grosbeak	636 MCM
58	Madaripur-Gopalganj	45	45	Single	AAAC	804 MCM
59	Khulna(C)-Khulna(S)	9	18	Double	Twin AAAC	37/4.176 mm.
60	Khulna(S)-Satkhira	56	56	Single	AAAC	804 MCM
61	Rajshahi - Natore	40	40	Single	Grosbeak	636 MCM
62	Matuail In-Out from Hari-Manik	5.5	11	Double	Grosbeak	636 MCM
63	Rampura-Gulshan U/G Cable	3.3	6.6	Double	XLPE	800 sq.mm
64	Sikalbaha-Bakulia	4	8	Double	Grosbeak	636 MCM
65	Julda-Shahmirpur	7	14	Double	Grosbeak	636 MCM
66	Kamrangirchar In-Out from Has-Kal	3	6	Double	Grosbeak	636 MCM
67	Kulshi-Bakulia	15	30	Double	Grosbeak	636 MCM
68	Haripur-Maniknagar	12	12	Single	Grosbeak	636 MCM
69	Joydebpur-Kabirpur	15	30	Double	Grosbeak	636 MCM
70	Sikalbaha-Shahmirpur	9	18	Double	Grosbeak	636 MCM
71	Kulshi-Halishahar (Open at Kulshi)	13	13	Single	Grosbeak	636 MCM
72	Bogra Old-Bogra New	3	6	Double	Twin AAAC	37/4.176 mm.
73	Ashuganj-Shahjibazar Single Ckt.	53	53	Single	Grosbeak	636 MCM
74	Khulna (S) - Gallamari	4.2	8.4	Double	Grosbeak	636 MCM
75	Noagaon-Niamotpur	46	46	Single	AAAC	804 MCM
76	Aminbazar-Savar	15.8	31.6	Double	Grosbeak	636 MCM
77	Jhenaidah-Magura	26	26	Single	Grosbeak	636 MCM
78	Jhenaidah-Chuadanga	39	39	Single	Grosbeak	636 MCM
79	Naogaon-Joypurhat	46	46	Single	Grosbeak	636 MCM
80	Thakurgoan-Panchagor	45	45	Single	AAAC	636 MCM
81	Megnaghat S/S to Megnaghat Rental PP	5	10	Double	Grosbeak	636 MCM
82	Shiddhirganj to Siddhirganj Dutch Bangla PP	2.4	2.4	sinlge	Grosbeak	636 MCM

Sl. No.	Name of Lines	Length in Route kilometers	Length in Ckt. kilometers	No. of Ckt.	Conductor	
					Name	Size
83	In-out at Ashuganj-Shahjibazar 132 kV line to B.Baría	11.1	44.4	Four	Grosbeak	636 MCM
84	In-out at Haripur-Daudkandi 132 kV line to Meghnaghat	10.26	41.04	Four	AAAC	636 MCM
85	In-out at Megnaghat-Comilla(N) 132 kV line to Daudkandi	19.5	78	Four	AAAC	636 MCM
86	Goalpara-Khulna (c ) 132 kV U/G Cable	2.4	2.4	single		
87	Noapara PP to Noapara Ss	1.6	1.6	single		
88	Daudkandi PP to Daudkandi ss	1.2	1.2	single		
89	Gopalganj PP to Gopalganj ss	1.2	1.2	single		
90	Shiddhirganj desh energy PP to Shiddhirganj ss	2.5	2.5	single		
91	Faridpur pp to faridpur -bheramara 132 kV line.	1	1	single		
92	Bera pp to bagagari -ishridi line	4.5	4.5	single		
93	Amnura pp to Rajshahi-chapai	12.6	12.6	single		
94	In-out of Hasnabad-kallayanpur line to keraniganj pp	7.5	30	Four		
95	Madanganj-Munsiganj 132 kV line	10	20	Double		
96	Old Airport-Cantonment (U/G)	6.99	13.98	Double	XLPE	800 sq.mm
<b>Total</b>		<b>3506</b>	<b>6150</b>			

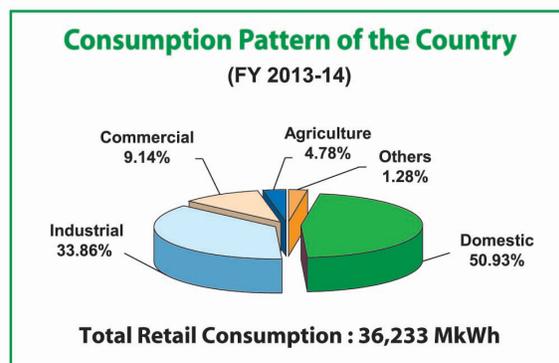
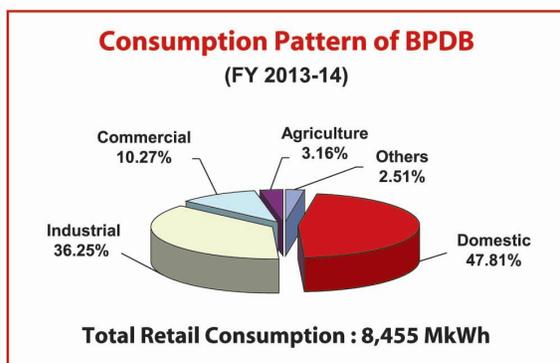


Hon'ble State Minister for Power, Energy and Mineral Resources Mr. Nasrul Hamid MP witnessing a presentation on BPDB while visiting BPDB Headquarters at WAPDA Building.

## DISTRIBUTION TABLES & CHARTS

### Distribution Zone Wise Energy Import & Energy Sales Statistics of BPDB

Distribution Zone's Name	Energy Imported (MkWh)		Energy Sold (MkWh)		Distribution System loss (%)		% Change over the previous year
	2012-13	2013-14	2012-13	2013-14	2012-13	2013-14	
Mymensingh	1219.22	1401.27	1028.95	1177.14	15.61	15.99	2.46
Chittagong	3356.02	3655.76	3047.24	3313.71	9.2	9.36	1.70
Comilla	1015.78	1117.86	909.57	1001.40	10.46	10.42	-0.40
Sylhet	732.44	772.44	609.36	653.66	16.80	15.38	-8.47
Rangpur	887.28	1000.93	760.56	856.68	14.28	14.41	0.92
Rajshahi	1494.43	1621.73	1306.03	1426.71	12.61	12.03	-4.64
Others	32.10	27.01	31.66	26.64	1.39	1.37	-1.45
<b>Total</b>	<b>8737.27</b>	<b>9597.00</b>	<b>7693.37</b>	<b>8455.94</b>	<b>11.95</b>	<b>11.89</b>	<b>-0.50</b>



### Distribution Zone Wise Billing & Collection Statistics of BPDB

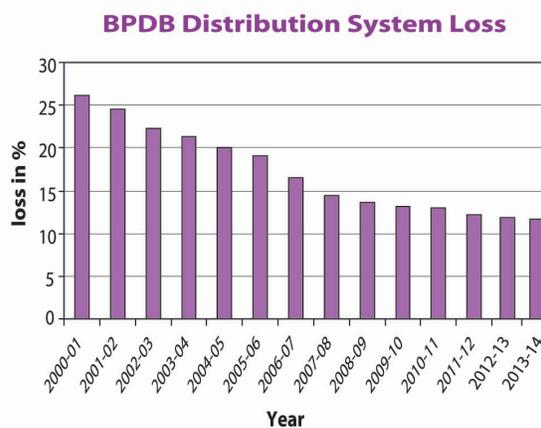
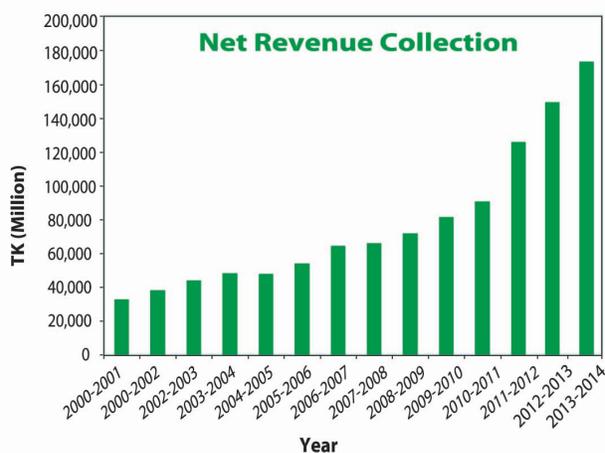
Distribution Zone's Name	Billed Amount (Million Tk)		Collected Amount (Million Tk)		Accounts Receivable (Million Tk)		% increase over the previous year	Coll/Bill Ratio (%)		C/I Ratio (%)	
	2012-13	2013-14	2012-13	2013-14	2012-13	2013-14		2012-13	2013-14	2012-13	2013-14
Mymensingh	5,199	6,146	4,688	5,543	1,755	2,459	40.08	90.17	90.18	76.09	75.76
Chittagong	17,716	20,277	17,187	19,554	2,604	3,341	28.29	97.01	96.43	88.09	87.41
Comilla	5,055	5,798	4,859	5,565	912	1,170	28.32	96.12	95.98	86.07	85.98
Sylhet	3,413	3,918	3,163	3,625	938	1,172	24.94	92.69	92.51	77.11	78.29
Rangpur	4,147	4,826	3,836	4,411	1,278	1,640	28.34	92.48	91.4	79.27	78.23
Rajshahi	7,021	7,973	6,666	7,577	1,626	1,999	22.88	94.94	95.03	82.97	83.6
Others	198	183	166	164	107	130	20.82	83.83	89.5	-	-
<b>Total</b>	<b>42,749</b>	<b>49,122</b>	<b>40,564</b>	<b>46,439</b>	<b>9,221</b>	<b>11,909</b>	<b>29.16</b>	<b>94.89</b>	<b>94.54</b>	<b>83.55</b>	<b>83.30</b>

## Revenue Collection of BPDB

Year	Million Taka	% Change over previous year
1995-96	16,791	7.05
1996-97	16,015	-4.62
1997-98	17,199	7.39
1998-99	16,235	-5.61
1999-00	22,450	38.28
2000-01	27,017	20.34
2001-02	31,373	16.12
2002-03	36,066	14.96
2003-04	39,608	9.82
2004-05	39,177	-1.09
2005-06	44,284	13.03
2006-07	52,799	19.23
2007-08	54,060	2.39
2008-09	58,922	8.99
2009-10	66,776	13.33
2010-11	74,303	11.27
2011-12	102,242	37.60
2012-13	151,711	48.38
2013-14	174,740	15.18

## Distribution System Loss

Year	Distribution System loss In %
1991-92	35.79
1992-93	31.24
1993-94	30.72
1994-95	29.94
1995-96	29.09
1996-97	28.28
1997-98	29.82
1998-99	30.56
1999-00	27.73
2000-01	26.11
2001-02	24.5
2002-03	22.35
2003-04	21.33
2004-05	20.00
2005-06	19.06
2006-07	16.58
2007-08	14.43
2008-09	13.57
2009-10	13.10
2010-11	13.06
2011-12	12.15
2012-13	11.95
2013-14	11.89



## Category Wise Consumer Growth

In Nos.

Year	Domestic	Agriculture	Small Industrial	Small Commercial	Large Inds. & Comm.	REB	DPDC/ Others	DESCO	WZPDCL	Others	Total	% Increase Over the Preceding Year
	A	B	C	E	F+H	I	G	G1	G2	D+J		
1981-82	390,450	5,549	40,703	204,834	1,403	16				2,121	645,076	
1982-83	418,532	6,603	34,595	205,629	1,531	22				2,287	669,199	3.74
1983-84	461,043	7,754	35,762	214,250	1,632	25				7,119	727,585	8.72
1984-85	518,532	8,637	39,730	226,670	1,657	33				8,508	803,767	10.47
1985-86	574,907	11,773	42,688	244,703	1,798	37				12,704	888,610	10.56
1986-87	632,814	10,885	45,666	257,510	1,931	48				14,238	963,092	8.38
1987-88	697,254	12,279	47,057	266,258	1,922	51				13,568	1,038,389	7.82
1988-89	784,951	14,104	48,659	285,629	2,027	59				16,253	1,151,682	10.91
1989-90	815,059	10,705	47,454	281,818	2,975	67				16,494	1,174,572	1.99
1990-91	853,959	12,828	48,479	287,498	3,251	77				17,872	1,223,964	4.21
1991-92	606,627	11,675	35,943	231,450	1,294	82	6			15,924	903,001	-26.22
1992-93	649,173	16,670	36,969	230,096	1,375	93	6			18,227	952,609	5.49
1993-94	708,118	17,854	38,395	237,922	1,437	102	6			22,015	1,025,849	7.69
1994-95	750,273	17,974	39,702	245,234	1,486	118	6			20,941	1,075,734	4.86
1995-96	811,370	19,807	41,313	260,167	1,514	130	6			22,365	1,156,672	7.52
1996-97	858,354	17,878	42,248	267,197	1,595	143	6			22,711	1,210,132	4.62
1997-98	923,117	18,387	43,856	283,032	1,714	158	6			23,393	1,293,663	6.90
1998-99	963,319	17,142	43,742	287,636	1,748	178	6			23,099	1,336,870	3.34
1999-00	1,043,977	17,872	44,793	299,896	1,801	179	6			24,293	1,432,817	7.18
2000-01	1,134,074	18,293	45,816	316,629	1,890	182	6			25,760	1,542,650	7.67
2001-02	1,221,324	17,215	46,068	331,224	1,999	199	6			26,720	1,644,755	6.62
2002-03	1,270,727	15,084	44,432	331,997	2,038	212	6			25,955	1,690,451	2.78
2003-04	1,359,724	14,284	44,018	347,635	2,183	246	4	1		26,863	1,794,958	6.18
2004-05	1,114,679	12,484	34,472	273,957	1,867	266	4	1	1	21593	1,459,324	-18.70
2005-06	1,165,265	14,911	34,574	280,079	2,010	275	4	1	1	21771	1,518,891	4.08
2006-07	1,272,144	17,693	35,561	297,213	2,163	184	5	1	1	23450	1,648,415	8.53
2007-08	1,385,424	21,191	37,065	312,041	2,299	185	5	1	1	25083	1,783,295	8.18
2008-09	1,495,195	25,175	39,114	333,818	2,534	185	5	1	1	26333	1,922,361	7.80
2009-10	1,621,596	28,724	40,903	345,605	2,689	185	6	1	1	27628	2,067,338	7.54
2010-11	1,704,936	30,523	41,607	351,673	2,846	185	7	1	1	27846	2,159,625	4.46
2011-12	1,947,827	36,506	43,241	372,245	3,184	70	7	1	1	28973	2,432,055	12.61
2012-13	2,146,940	39,810	44,809	386,947	3,464	70	9	1	1	31968	2,654,019	9.13
2013-14	2,378,278	45,042	45,792	396,776	3,780	71	9	1	1	31559	2,901,309	9.32

**A** = Residential Light & Fan  
**E** = Commercial  
**I** = REB/PBS

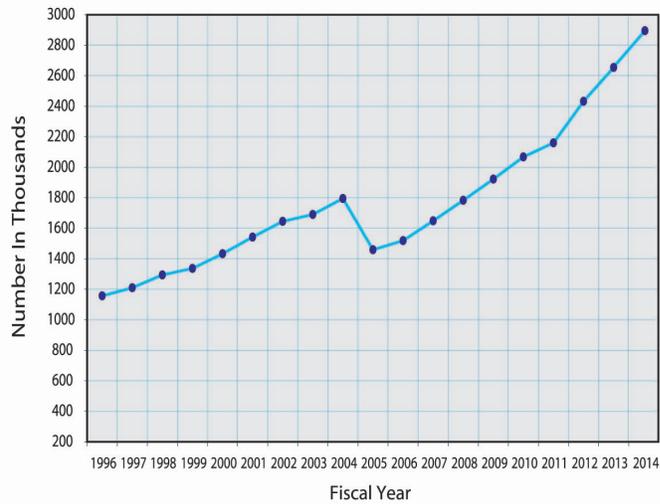
**B** = Agricultural pump  
**F** = Medium voltage general pump  
**J** = Street light and water pump

**C** = Small Industry  
**G** = DPDC/Others

**D** = Non residential light & Fan  
**H** = High voltage general purpose

## Electrification of Thana Villages and Pumps

### Consumer Growth



Signing of contract between BPDB and Ashuganj 55 MW Power Plant for purchasing power from the plant

Year	Upazila/Thana (Nos.)	Village (Nos.)	Hat/Bazar (Nos.)	Deep, Shallow & Low Lift Pumps(Nos.)
1971-72	111	250	--	551
1972-73	123	300	--	551
1973-74	133	326	--	594
1974-75	161	500	--	710
1975-76	237	1024	--	984
1976-77	295	1424	410	1280
1977-78	321	1518	448	1911
1978-79	335	1596	481	2317
1979-80	357	1675	506	4406
1980-81	377	1675	786	6155
1981-82	388	1956	903	7270
1982-83	403	2054	1050	8287
1983-84	417	2104	1078	8559
1984-85	422	2191	1096	8762
1985-86	432	2361	1181	9368
1986-87	437	2461	1231	9593
1987-88	437	2561	1275	9875
1988-89	438	2612	1326	10428
1989-90	438	2,657	1,371	11,031
1990-91	438	2,717	1,391	12,331
1991-92	438	2,767	1,411	14,033
1992-93	438	2,807	1,431	16,023
1993-94	438	2,837	1,446	16,943
1994-95	443	2,867	1,466	17,193
1995-96	443	2,927	1,513	18,622
1996-97	443	3,017	1,581	19,774
1997-98	443	3,061	1,613	19,969
1998-99	443	3,111	1,668	20,157
1999-00	443	3,201	1,718	20,307
2000-01	443	3,292	1,768	20,467
2001-02	443	3,356	1,858	20,687
2002-03	443	3,400	1,958	20,812
2003-04	443	3,432	2,040	20,928
2004-05	443	3,478	2,080	20,993
2005-06	443	3,495	2,113	21,020
2006-07	443	3,495	2,113	21,020
2007-08	443	3,495	2,113	21,020
2008-09	221	4,204	1,410	26,572
2009-10 *	236	4,792	1,626	29,626
2010-11 *	236	4,792	1,780	30,405
2011-12 *	236	4,810	1,880	30,933
2012-13 *	236	5,344	1,863	36,232
2013-14 *	243	5,393	2,044	43,822

\* Excluding DPDC, DESCO, WZPDCO & REB

## Total Electrified Areas & Consumer Numbers of BPDB (As of June 2014)

Sl. No.	Name of Divi./ESU	Total Electrified Area					Total Consumers
		Thana/Upazila	Ward	Village	Hat/Bazar	Deep, Shallow & Low Fit Pump	
<b>Southern Zone, Chittagong</b>							
<b>O &amp; M Circle, Chatta-Metro (East)</b>							
1	S & Patharghata	2	3	0	0	0	41904
2	S & D Stadium	2	5	0	0	0	27323
3	S & D Sholoshar	3	4	0	6	5	43452
4	S & D Kalurghat	4	6	0	4	0	43322
5	S & D Bakalia	4	5	0	10	9	53496
6	S & D Matarbari	2	3	0	0	0	26787
<b>O &amp; M Circle, Chatta-Metro (West)</b>							
7	S & D Agrabad	2	4	0	0	0	38723
8	S & D Halisahar	2	3	0	4	0	30222
9	S & D Khulshi	3	8	0	0	0	31329
10	S & D Pahartali	2	3	0	2	0	49431
11	S & D Rampur	2	3	0	2	0	34875
12	S & D Newmooring	3	2	0	5	0	26992
<b>O &amp; M Circle, Chatta-Metro (North)</b>							
13	DD-Fouzderhat	1	30	50	25	0	18027
14	S & D Hathazari	1	0	30	15	13	32275
15	S & D Barabkunda	1	38	52	16	4	20852
16	S & D Mohara	2	11	18	4	21	23055
<b>O &amp; M Circle, Chatta-Metro (South)</b>							
17	Dist. Divn. Patiya	11	61	186	50	226	43347
18	Dist. Divn. Cox's Bazar	9	80	56	42	317	52800
<b>O &amp; M Circle, Rangamati</b>							
19	Dist. Divn. Rangamati	8	99	240	24	23	31529
20	Dist. Divn. Khagrachari	12	164	367	59	148	34596
21	Bandarban	3	36	128	12	10	9635
<b>Sub Total</b>		<b>79</b>	<b>568</b>	<b>1127</b>	<b>280</b>	<b>776</b>	<b>713972</b>
<b>Comilla Zone</b>							
<b>O &amp; M, Comilla</b>							
1	S & D-1, Comilla	3	20	97	22	127	54748
2	S & D-2, Comilla	2	4	120	30	120	49328
3	S & D-3, Comilla	1	10	72	6	98	25693
4	S & D Chandpur	1	15	25	11	13	36873
5	Dist. Div. B. Baria	3	6	77	16	425	53177
6	S & D Daulotgonj	1	5	20	5	368	18375
7	S & D Ashuganj	1	3	11	5	62	14466
8	S & D Sarail	1	3	17	6	361	17537
<b>O &amp; M, Noakhali</b>							
9	Dist. Div. Noakhali	3	14	37	24	19	41813
10	Dist. Div. Feni	2	18	10	3	108	53962
11	S & D Div. Laxmipur	1	12	12	1	65	19372
12	S & D Chowmohani	1	12	9	8	1	22732
<b>Sub Total</b>		<b>20</b>	<b>122</b>	<b>507</b>	<b>137</b>	<b>1767</b>	<b>408076</b>
<b>Central Zone, Mymensingh</b>							
<b>O &amp; M Circle, Mymensingh</b>							
1	S & D -1(N)	8	95	195	132	4960	93668
2	S & D -2 (S)	3	125	252	85	1718	73901
3	S & D Goffargoan	1	15	75	42	907	26108
4	Netrokona E/S	1	9	21	9	767	22386
5	Dist. Div. Kishorgonj	2	30	124	32	302	37816
6	Bhairab E/S	2	30	62	25	599	36682
7	Dist. Div. Sherpur	5	50	112	42	2514	46632
<b>O &amp; M Circle, Tangail</b>							
8	Jamalpur E/S	1	12	37	9	852	30424
9	Sharishabari E/S	2	12	39	7	1222	9299
10	Ghatail E/S	2	28	39	38	659	17354
11	S & D, Shakhipur	7	29	74	54	675	40669
12	S & D Bhuapur	4	20	25	25	1221	19625
13	S & D Khalihati	2	25	33	33	1288	19062
14	S & D-1 Tangail	2	21	116	26	1525	45689
15	S & D-2 Tangail	3	16	51	57	1783	24559
<b>Sub Total</b>		<b>45</b>	<b>517</b>	<b>1255</b>	<b>656</b>	<b>20992</b>	<b>543874</b>

Sl. No.	Name of Divi./ESU	Total Electrified Area					Total Consumers
		Thana/ Upazila	Ward	Village	Hat/ Bazar	Deep, Shallow & Low Fit Pump	
<b>Sylhet Zone</b>							
<b>O &amp; M Circle, Sylhet</b>							
1	S & D-1	1	20	12	25	4	73677
2	S & D-2	1	6	40	40	0	58109
3	S & D-3	3	40	120	42	1	25367
4	Dist. Div. Moulavibazar	2	16	32	28	23	14691
5	Dist. Div. Sylhet	2	10	42	30	7	6751
<b>O &amp; M Circle, Moulavibazar</b>							
6	Dist. Div. Moulavibazar	1	7	14	7	0	17540
7	S & D-Hobigonj	2	11	20	18	44	18013
8	S & D-Kulaura	4	9	80	15	0	24264
9	Jogonathpur E/S	1	9	84	15	9	10712
10	Jaintapur E/S	3	18	26	18	7	8419
11	Chatak E/S	3	9	48	38	33	17621
<b>Sub Total</b>		<b>23</b>	<b>155</b>	<b>518</b>	<b>276</b>	<b>128</b>	<b>275164</b>
<b>Rajshahi Zone</b>							
<b>O &amp; M Circle, Bogra</b>							
1	S & D -1, Bogra	2	6	34	10	51	29905
2	S & D -2, Bogra	1	8	41	17	266	43777
3	S & D -3, Bogra	2	7	24	9	107	27870
4	S & D Sherpur	1	9	74	12	258	19822
5	S & D Dupchachia	2	27	80	14	435	16956
6	S & D, Santahar	3	33	82	9	550	24109
7	Shibgonj E/S	2	6	14	4	197	8750
8	Joypurhat E/S	1	9	48	5	225	15606
9	Naogaon E/S	2	16	70	65	264	37449
<b>O &amp; M Circle, Pabna</b>							
10	S & D-1	1	7	10	3	22	21510
11	S & D-2	1	5	7	4	40	24391
12	Ishurdi E/S	2	9	32	12	295	24608
13	Sirajgonj E/S	1	15	8	12	485	41358
<b>O &amp; M Circle, Rajshahi-1</b>							
14	S & D-1	2	7	11	4	0	25198
15	S & D-2	3	6	22	14	109	38702
16	S & D-3	6	25	42	14	107	34634
17	Tanir E/S	1	0	13	6	127	4677
18	S & D-4	2	6	0	8	19	22481
19	S & D-5	3	8	16	8	16	11654
<b>O &amp; M Circle, Rajshahi-2</b>							
20	Chapai nowabgonj E/S-1	2	10	50	8	121	21373
21	Chapai nowabgonj E/S-2	1	10	55	7	124	22536
22	Natore E/S	1	9	0	6	27	19010
23	Gomostapur E/S	2	52	247	26	675	18226
24	Shibgonj E/S	1	2	35	6	85	10913
25	Godagari E/S	1	44	224	30	258	16419
<b>Sub Total</b>		<b>46</b>	<b>336</b>	<b>1239</b>	<b>313</b>	<b>4863</b>	<b>581934</b>
<b>Rangpur Zone</b>							
<b>O &amp; M Circle, Rangpur</b>							
1	S & D -1	2	23	33	14	65	34322
2	S & D -2	1	10	0	10	103	27504
3	Dist. Div. Rangpur	5	28	180	90	4927	36761
4	Dist. Div. Sayedpur	2	18	10	13	550	24714
5	Dist. Div. Nilphamari	1	9	14	15	1243	15523
6	Dist. Div. Kurigram	1	9	8	15	780	17186
7	Dist. Div. Gaibandha	7	21	135	30	2522	50725
8	Dist. Div. Lalmonirhat	3	9	110	70	3192	37827

<b>O &amp; M Circle, Dinajpur</b>							
9	S & D-1, Dinajpur	3	16	30	23	689	37894
10	S & D-2, Dinajpur	2	13	26	10	315	33027
11	Dist. Div. Thakurgaon	1	29	15	33	118	20707
12	Dist. Div. Panchagar	2	16	186	59	792	21145
<b>Sub Total</b>		<b>30</b>	<b>201</b>	<b>747</b>	<b>382</b>	<b>15296</b>	<b>357335</b>
<b>Total</b>		<b>243</b>	<b>1899</b>	<b>5393</b>	<b>2044</b>	<b>43822</b>	<b>2880355</b>

### Synopsis of Distribution lines of BPDB (As of June 2014)

Name of the Divi. /ESU	Sub-Station Name	33 KV Feeder Length (km)	11 KV Feeder Length (km)	0.4 KV Feeder Length (km)
<b>Name of the Zone: Southern Zone, Chittagong</b>				
<b>O &amp; M Circle, Chatta-Metro (East)</b>				
S & D Pathargahta	Patharghata	19	36	53
S & D Stadium	Stadium	29	76	95
S & D Sholoshar	Sholoshahar	60	70	235
S & D Kalurghat	Kalurghat	22	173	70
	Muradpur	11	76	45
S & D Bakulia	Bakulia	0	130	204
S & D Madarbari	Madarbari	12	48	100
<b>O &amp; M Circle, Chatta-Metro (West)</b>				
S & D Agrabad	Agrabad	33	95	117
S & D Halisahar	Halishahar	18	35	60
	Patenga	10	53	65
S & D Khulshi	Khulshi	8	23	19
	Jalalabad	7	35	32
S & D Pahartali	Pahartali	27	112	158
S & D Rampur	Rampur	21	56	92
S & D Newmoring	Newmoring	18	40	80
<b>O &amp; M Circle, Chatta-Metro (North)</b>				
Dist. Divn. Fouzderhat	Fouzderhat	20	50	63
	Baroaulia	50	40	45
S & D Hathazari	Hathazari	110	100	230
	Nazirhat			
S & D Barabkunda	Barabkunda	22	84	132
S & D Mohara	Madunaghat	17	0	0
	Mohara	10	176	218
<b>O &amp; M Circle, Chatta-Metro (South)</b>				
Dist. Divn. Potiya	Patiya	0	29	49
	Fishharbor	0	31	38
	Sikalbhaha	77	28	41
	Julda	20	16	24
	Sahmirpur	5	0	0
	Dohazari	41	22	68
Dist. Divn. Cox's Bazar	Satkania	0	20	54
	Zilonza	55	147	139
	Aziznagar	44	23	7
	Chakaria	65	126	45
<b>O &amp; M Circle, Rangamati</b>				
Dist. Divn. Rangamati	Vedvedi (Rangamati)	91	265	120
	Majerbosti	6	25	20
	Kaptai	75	100	130
	Kaptai (132/11)			
	Ghagra	0	12	10

Name of the Divi. /ESU	Sub-Station Name	33 KV Feeder Length (km)	11 KV Feeder Length (km)	0.4 KV Feeder Length (km)
Dist. Divn. Khagrachari	Jalipara	50	129	138
	Ramgarh	65	23	52
	Khagrachari	35	95	180
	Dighinala	22	130	182
	Mohalchari	43	82	90
Dist. Divn. Bandarban	Bandarban	75	223	205
	Kasingghata	2	10	15
<b>Sub Total</b>		<b>1293</b>	<b>3041</b>	<b>3719</b>
<b>Comilla Zone</b>				
<b>O &amp; M Circle, Comilla</b>				
S & D- 1, Comilla	Kotbari	51	40	91
	Kaliajuri	0	132	243
Burichang E/S	Palpara	8	45	105
S & D- 2, Comilla	Balutupa	13	107	228
	Chouddagram	33	32	11
S & D- 3, Comilla	Jangalia	0	37	149
	Daulatgonj	18	38	160
S & D, Chandpur	Balur Math	2	31	96
	Puran Bazar	0	30	67
Dist. Divn. B. Baria	Ashuganj Network	2	0	0
	132/33KV (network)	0	0	0
B. Baria E/S	Kalabaghan	25	0	0
	Datiara	40	92	123
	Ghatara	5	100	68
	ZFCL	10	0	0
Ashuganj E/S	Kalabaghan	0	39	32
Sarail E/S	Shabazpur	0	46	79
<b>O &amp; M Circle, Noakhali</b>				
Maijdee E/S	Maijdee	10	15	35
	Datterhat	20	74	160
Chowmuhani E/S	Chamuhani	0	81	121
Hatia E/S	Hatia	0	60	30
S & D, Laxmipur	Laxmipur	75	58	300
Dist. Divn. Feni	Feni	81	86	328
Bosurhat E/S	Dagonbuyan	13	25	60
<b>Sub Total</b>		<b>406</b>	<b>1167</b>	<b>2486</b>
<b>Central Zone, Mymensingh</b>				
<b>O &amp; M Circle, Mymensingh</b>				
S & D (North)	Akua	27	85	140
	Shambugonj	14	50	85
	Fulpur	30	130	260
	Gauripur	22	82	175
S & D (South)	Kewatkhali	0	235	165
	Batircal	6	75	90
	Trisal	35	110	95
	Bhaluka	56	160	225
S & D Goffargoan	Goffargoan	48	150	225
Netrokona E/S	Satpai Netrokona	7	75	135
Bhairab E/S	Bhairab	20	100	165
Sherpur E/S	Sherpur	40	295	465
Dist. Divn. Kishorgonj	Josodal	0	115	90
	Mollapara	7	55	25
	Sararchar	45	120	135

Name of the Divi. /ESU	Sub-Station Name	33 KV Feeder Length (km)	11 KV Feeder Length (km)	0.4 KV Feeder Length (km)
<b>O &amp; M Circle, Tangail</b>				
Jamulpur E/S	Bojrapur	102	130	251
	Shekhervita			
Sharishabari E/S	Sharishabari	0	50	85
Ghatail E/S	Ghatail	30	122	368
S & D Shakipur	Shakipur	25	452	865
S & D Bhuapur	Bhuapur	26	98	310
S & D Kalihati	Kalihati	32	62	245
S & D -1 Tangail	Betka	8	215	361
S & D -2 Tangail	Kachudanga	22	245	665
<b>Sub Total</b>		<b>602</b>	<b>3211</b>	<b>5625</b>
<b>Sylhet Zone</b>				
<b>O &amp; M Circle, Sylhet</b>				
S & D -1	Ambarkhana	7	68	208
	Kumargaon	0	151	206
S & D -2	Uposhahar	22	77	222
	Botessor	47	115	318
S & D -3	Boroikandi	34	117	468
S & D Sunamgonj	Sunamgonj	25	43	59
Derai E/S	Derai	42	70	140
<b>O &amp; M Circle, PDB, Moulvibazar</b>				
Jaintapur E/S	Jaintapur	0	62	182
Jogonnathpur E/S	Jogonnathpur	43	113	170
Chattak	Chattak	65	76	203
Dist. Div. Moulvibazar	Bagbari	87	100	360
	Hobigonj	28	75	320
S & D Kulaura	Kulaura	141	110	688
<b>Sub Total</b>		<b>541</b>	<b>1177</b>	<b>3544</b>
<b>Rajshahi Zone</b>				
<b>O &amp; M Circle, Rajshahi</b>				
S & D -1	Talaimari	10	64	145
S & D -2	Horogram	25	142	30
S & D -3	Shalbagan	14	101	124
	Airport	22	153	72
S & D -4	City Central	23	91	105
S & D -5	Katakhali	0	96	175
	Huzrapur	5	97	92
Chapai nowabgonj E/S	Bottola	4	69	75
	Roanpur	35	207	383
Shibgonj	Shibgonj	24	55	66
Godagari	Godagari	25	105	352
Natore ESU	Horispur	5	76	20
	Alaipur			
<b>O &amp; M Circle, Pabna</b>				
S & D -1	Laskarpur	15	60	118
S & D -2	Nurpur	7	52	79
	Shatiani			
Ishurdi E/S	Jaynagar	48	94	150
	Patilkhali	8		
Sirajgonj E/S	Bahirgola	11	53	40
	Raypur	8		
	Shahjadpur	30		

Name of the Divi. /ESU	Sub-Station Name	33 KV Feeder Length (km)	11 KV Feeder Length (km)	0.4 KV Feeder Length (km)
<b>O &amp; M Circle, Bogra</b>				
S & D -1	Rahmannagar	9	66	88
S & D -2	Shibbati	9	107	135
S & D -3	Puran Bogra	1	72	76
S & D Sherpur	Sherpur	22	109	171
S & D Dupchachia	Dupchachia	30	122	123
Santahar E/S	Kathaltoly	0	58	188
Shibgonj E/S	Shibgonj	0	29	27
Joypurhat E/S	Joypurhat	0	145	251
Naogaon E/S	Kathaltoly	0	60	58
	Baludanga	11	0	0
<b>Sub Total</b>		<b>400</b>	<b>2281</b>	<b>3143</b>
<b>Rangpur Zone</b>				
<b>O &amp; M Circle, Rangpur</b>				
S & D -1, Rangpur	Lalbag	0	203	211
S & D -2, Rangpur	Katkipara	12	77	102
Dist. Divn. Sayedpur	Golhat	5	41	50
	Niamotpur	20	82	162
Dist. Div. Kurigram	Kurigram	32	70	145
Dist. Div. Nilphamari	Nilphamari	22	312	390
Dist. Div. Rangpur	Jaldhaka	23	65	45
	Domar	22	140	112
	Doani, Patgram	30	430	55
Dist. Div. Lalmonirhat	Hatibandha	16	60	40
	Kaligonj	40	65	520
	Lalmonirhat	15	70	620
Dist. Divn. Gaibandha	Gaibandha	45	142	100
	Gobindoganj	25	27	108
	Palashbari	0	27	26
<b>O &amp; M Circle, Dinajpur</b>				
S & D -1	Fakirpara-1	18	65	140
	Parbotipur	35	35	6
	Setabgonj	24	20	33
S & D -2	Balubari	25	25	250
	Phulbari	12	89	35
Dist. Divn. Thakurgaon	Goalpara	10	21	136
	PS	1	17	29
Dist. Divn. Panchagar	Panchagar	47	196	88
	Tetulia	38	85	15
<b>Sub Total</b>		<b>517</b>	<b>2364</b>	<b>3418</b>
<b>Total</b>		<b>3759</b>	<b>13242</b>	<b>21933</b>

### 33/11 KV Sub-stations of BPDB (As of June 2014)

Sl. No.	Name of the Division	Name of the 33/11 KV Sub-Station	Capacity (MVA)	Maximum Demand (MW)
<b>Southern Zone, Chittagong</b>				
<b>O &amp; M Circle, Chatta-Metro (East)</b>				
1	S & D Patharghata	Patharghata	2x16/20	33.5
2	S & D Stadium	Stadium	2x16/20	28
3	S & D Sholoshar	Sholoshar	1x16/20 2x16	34
4	S & D Kalurghat	Kalurghat	1x16/20 1x16	32
		Muradpur	2x16/20	34
5	S & D Bakalia	Bakalia	2x16/20	30
6	S & D Madarbari	Madarbari	2x16/20	26
<b>O &amp; M Circle, Chatta-Metro (West)</b>				
7	S & D Agrabad	Agrabad	2x16/20	38
8	S & D Halisahar	Halisahar	2x16/20	22
		Patenga	2x16/20	10
9	S & D Khulshi	Khulshi	2x16/20	27
		Jalalabad	2x16/20	23
10	S & D Pahartali	Pahartali	2x16/20	31
11	S & D Newmooring	Newmooring	2x16/20	28
12	S & D Rampur	Rampur	2x16/20	24
<b>O &amp; M Circle, Chatta-Metro (North)</b>				
13	Dis. Div. Fouzderhat	Baroulia	2x16/20	40
		Fouzderhat	2x16/20	40
14	S & D, Hathazari	Hathazari	1x16/20 1x10/12.33	13 6
15	S & D Barabkunda	Barabkunda	2x16/20	22
		Mohara	2x16/20	18.5
16	S & D Mohara	Rangunia Sub Station	1x5	3
<b>O &amp; M Circle, Chatta-Metro (South)</b>				
17	Dist. Divn. Patiya	Patiya	2x10/12	7.5
		Fishharbor	2x10	16
		Julda	2x16/20	3
		Shikalbaha	2x28/32	32
			1x16/20	7
		Dohazari	1x16/20	4.5
18	Dist. Divn. Cox's Bazar	Satkania	1x5	3.5
		Zilonza	2x16/20	32
		Chakaria	1x10/13	8
		Aziznagar	1x5/6.5	1.5
<b>O &amp; M Circle, Rangamati</b>				
19	Dist. Divn. Rangamati	Vedvedi (Rangamati)	2x5	3.5
		Majerbosti	1x10	4.5
		Kaptai	2x3	1
		Ghagra	1x6.65	3
		Kaptai (132/11)	1x20	6
		Chandraghona	33/0.4	2
20	Dist. Divn. Khagrachari	Khagrachari	3x1.667	6.7
		Dighinala	3x1.667	3.7
		Mohalchari	3x1.667	1.2
		Jalipara	3x1.667	2.8
		Ramghar	3x1.667	3.1
21	Dist. Divn. Bandarban	Adjacent to Office	1x5	4.5
		Kasing Ghata	3x1.667	3
<b>Sub Total</b>		<b>43</b>	<b>972/1159</b>	<b>723</b>

Sl. No.	Name of the Division	Name of the 33/11KV Sub-Station	Capacity (MVA)	Maximum Demand (MW)
<b>Comilla Zone</b>				
<b>O &amp; M Circle, Comilla</b>				
22	S & D-1, Comilla	Kotbari	2x10/13.33	19
		Kaliajori	2x10/13.33	19
23	Burichang E/S	Palpara	1x5	4.5
24	S & D-2, Comilla	Balutupa	2x10/13.33	18
		Chouddagram	1x3 1x5	5.5
25	S & D-3, Comilla	Jangalia	2x10/13.33	24
			1x16/20	
26	Daulatgonj E/S	Daulatgonj	1x10	8.5
			1x5	
27	S & D, Chandpur	Balur Math	2x10/13.33	14
		Puran Bazar	1x10/13.33	9
28	B.Baria E/S	Kalabagan	1x10/13.33	12
			1x10	
		Datiara	1x10/13.33 1x15/20	25
29	Ashugonj E/S	Kalabagan	1x10/13.33	18
			1x10	
30	Sarail E/S	Shabazpur	2x5	7
<b>O &amp; M Circle, Noakhali</b>				
31	Dist. Divn. Feni	Feni	3x10/13.33	28
32	Bosurhat E/S	Dagonbuyan	2x10/13.33	10
			1x10/13.33	
33	Majjdee E/S	Majjdee	2x10/13.33	18
		Datterhat	1x10/13.33	14
34	Chamuhani E/S	Chamuhani	2x10/13.33	14
35	S & D, Laxmipur	Laxmipur	2x10/13.33	9
<b>Sub Total</b>		<b>20</b>	<b>399/505</b>	<b>297</b>
<b>Central Zone, Mymensingh</b>				
<b>O &amp; M Circle, Mymensingh</b>				
36	S & D (N)	Akua	2x10/13.33	19.5
		Shambuganj	2X5/6.67	8
		Fulpur	2x5/6.67 + 1x2.5	12
		Gauripur	2x5/6.67	8
37	S & D (S)	Kewatkhali	3x10/13.33	30
		Batircal	2x10/13.3	15
		Trisal	2x5/6.67	8
38	S & D Goffargoan	Bhaluka	3x5/6.67	10
39	Netrokona E/S	Goffargoan	3x5/6.67	14
40	Bhairab E/S	Satpai Netrokona	2x10/13.33	13
41	Sherpur E/S	Bhairab	2x10/13.33	28
			1x10/13.33 1x16/20	
42	Dist. Divn. Kishoregonj	Sherpur	1x10/13.33	10
			1x16/20	
			Josodal	
		Mollapara	2x10/13.33	7
		Sararchar	1x5/6.67	8
<b>O &amp; M Circle, Tangail</b>				
43	S & D -1 Tangail	Batka	3x10/13.33	24
44	S & D -2 Tangail	Kachuadanga	2x10/13.33	23
45	S & D Bhuapur	Bhuapur	3x5	12
46	Gatail E/S	Ghatail	2x10/13.33	22
47	S & D Khalihati	Kalihati	3x5 & 1x10/13.33	16
48	S & D Shakipur	Shakipur	3x5	25
49	Jamalpur E/S	Bojrapur	1x10/13.33	4
		Shekhervita	2x10/13.33	12
50	Sharishabari E/S	Sharishabari	1x5	6
<b>Sub Total</b>		<b>24</b>	<b>394/506</b>	<b>360</b>

Sl. No.	Name of the Division	Name of the 33/11KV Sub-Station	Capacity (MVA)	Maximum Demand (MW)
<b>Sylhet Zone</b>				
<b>O &amp; M Circle, PDB, Sylhet</b>				
51	S & D 1	Ambarkhana	4x10/13.33	24
		Kumargaon	2x10/13.33	22
52	S & D 2	Upashahar	3x10/13.33 1x5	23
		Botessor	1x10/13.33 1x5	12
53	S & D 3	Boroikandi	2x10/13.33	19
54	S & D Sunamgonj	Sunamgonj	2x5 & 1x2.5	10
55	Derai E/S	Derai	1x5	4
<b>O &amp; M Circle, PDB, Moulvibazar</b>				
56	Dist.Divn. Sylhet	Chattak	1x10/13.33	10
		Jogonnanthpur	2x5	6
		Boteshor	-	4
57	Dist.Divn. Moulvibazar	Bajbari	2x10/13.33	12
58	S & D Hobigonj	Hobigonj	3x5	12
59	S & D, Kulaura	Kulaura	2x5	10
<b>Sub Total</b>		<b>13</b>	<b>213/263</b>	<b>168</b>
<b>Rajshahi Zone</b>				
<b>O &amp; M Circle, PDB, Rajshahi</b>				
60	S & D -1	Talaimari	3x10/13.33	16
61	S & D -2	Horogram	2x20/26.67	18.5
62	S & D -3	Shalbagan	2x10/13.33	16.5
		Airport	2x10/13.33	9
63	S & D -4	City Central	2x20/26.67	17
64	S & D -5	Katakali	2x10/13.33	8
65	Chapai Nowabgonj	Hujrapur	2x10/13.33	16.5
		Bot Talar Hat	2x10/13.33	8.5
66	Gomostapur	Rohanpur	1x5 & 1x10/13.33	9.75
67	Shibgonj	Shibgonj	1x5	3.8
68	Godagari	Godagari	3x1.667x3+1x5	8
69	Natore E/S	Horispur/Alaipur	2x10/13.33	10.5
<b>O &amp; M Circle, PDB, Pabna</b>				
70	S & D-1	Lashkarpur	2x10/13.33	14.5
71	S & D-2	Noorpur	1x10/13.33	18
		Satiani	2x10/13.33	
72	Ishurdi E/S	Joynagor	2x10/13.33	20.5
		Patillakhali	2x10/13.33	
73	Sirajgonj E/S	Bahirgola	2x10/13.33	20.5
		Raypur	2x10/13.33	
		Shahjadpur	1x10/13.33	5
<b>O &amp; M Circle, PDB, Bogra</b>				
74	S & D-1	Rahman Nagar	2x10/13.33	18
75	S & D-2	Shibbati	3x10/13.33	22
76	S & D-3	Puran Bogra	3x10/13.33	30
77	S & D Sherpur	Sherpur	1x10/13.33 & 2x5	15
78	S & D Dupchachia	Dupchachia	3x5/6.67	15
79	S & D Santahar	Kathaltoly	4x10/13.33	0
80	Joypurhat E/S	Joypurhat	2x10/13.33	12
81	Naogaon E/S	Kathaltoly	4x10/13.33	36
		Baludanga	2x10/13.33	0
<b>Sub Total</b>		<b>29</b>	<b>635/838</b>	<b>369</b>

Sl. No.	Name of the Division	Name of the 33/11KV Sub-Station	Capacity (MVA)	Maximum Demand (MW)
<b>Rangpur Zone</b>				
<b>O &amp; M Circle, Rangpur</b>				
82	S & D-1	Lalbag	2x10/13.33	24
83	S & D-2	Katkipara	2x16/20	23
		Golahat	1x10/13.33	12
84	Dist. Divn. Sayedpur	Niamotpur	2x10/13.33	20
		Gaibandha	2x10/13.33	24
85	Dist. Divn. Gaibandha	Gobindogonj	1x5+1x2.5 3x1.667	10.5
		Palashbari	1x2.5+1x5	4.5
86	Dist. Divn. Kurigram	Kurigram	2x5	8
87	Dist. Divn. Nilphamari	Nilphamari	1x5	13
			1x10	
88	Dist. Div. Rangpur	Domar	1x5 3x1.667	11
		Jaldhaka	1x5	5
		Patgram	1x2.5	6
			1x5	
89	Dist. Div. Lalmonirhat	Kaligonj	2x5 1x1.667	9
		Hatibandha	2x5	5
		Lalmonirhat	2x5	11
<b>O &amp; M Circle, Dinajpur</b>				
90	S & D-1	Fakirpara	2x10/13.33	17.5
		Parbatipur	1x6.67 1x5	5
		Setabganj	1x5/6.67	4.5
91	S & D-2	Balubari	2x10/13.33	16.5
		Phulbari	2x5	6
92	Dist. Div. Thakurgaon	Goalpara	2x10/13.33	12
		PS	2x6.25	4
93	Dist. Div. Panchagar	Panchagar	1x10/13.33	12
		Tetulia	1x5	5
<b>Sub Total</b>		<b>24</b>	<b>313/369</b>	<b>269</b>
<b>Total</b>		<b>153</b>	<b>2924/3638</b>	<b>2184</b>



A seminar titled 'Sustainable Energy Security: Options for Bangladesh' participated by energy reporters.

## DISTRIBUTION SUMMARY

Sl. No.	Particulars	South zone (Chittagong)	South zone (Comilla)	North Zone (Rajshahi)	North Zone (Rongpur)	Central Zone (Mymensingh)	Central Zone (Sylhet)	Total
1	33/11 kV Sub-station Capacity (MVA)	972/1159	399/505	635/838	313/369	394/506	213/263	2924/3638
2	Distribution Lines (k.m)	8,053	4059	5,824	6,298	9,438	5,262	38,934
3	Total no. of Consumers	7,13,972	4,08,076	5,81,934	3,57,335	5,43,874	2,75,164	28,80,355
4	Distribution System Loss (%)	9.36	10.42	12.03	14.41	15.99	15.38	11.89



Power purchase agreement between BPDB and USDK Green Energy Ltd. for purchasing power from Cox's Bazar 60 MW Wind Turbine Power Plant.

## SYNOPSIS OF CHITTAGONG P.C. POLE MANUFACTURING PLANT

Details	FY1998	FY1999	FY2000	FY2001	FY2002	FY2003	FY2004	FY2005	FY2006	FY2007	FY2008	FY2009	FY2010	FY2011	FY2012	FY2013	FY2014
1. Nos. of poles manufactured																	
i) 33 kV poles a) 15 x 220	311	981	1,596	842	1,146	1,040	438	1,160	1,071	738	860	1,152	515	959	1,000	1,078	896
b) 15 x 190	524	163	298	716	676	723	564	1,256	1,901	600	582	499	1322	1929	1115	1110	1390
ii) 11 kV poles 12 x 190	1,581	3,334	4,397	5,471	5,913	9,697	10,185	7,055	6,680	7,884	7,678	3,075	9,698	7379	10000	7784	6387
iii) 0.4 kV poles 9 x 140	5,222	3,548	3,723	6,793	6,639	12,654	9,430	7,825	9,474	7,808	7,285	2,153	4,603	4743	1889	5075	7384
2. Cost per no. of pole (Tk.)																	
i) 33 kV poles a) 15 x 220	20,000	20,000	20,000	16,821	16,821	16,821	20,185	23,180	23,180	23,180	31,650	35,740	35,740	35,740	35,740	35,740	40897
b) 15 x 190	17,000	17,000	17,000	15,150	15,150	15,150	18,180	20,908	20,908	20,908	27,833	32,353	32,353	32,353	32,353	32,353	36374
ii) 11 kV poles 12 x 190	14,400	14,400	14,400	11,005	11,005	11,005	13,206	15,119	15,119	15,119	18,891	20,383	20,383	20,383	20,383	20,383	23295
iii) 0.4 kV poles 9 x 140	7,000	7,000	7,000	5,885	5,885	5,885	7,062	7,902	7,902	7,902	8,310	8,629	8,629	8,629	8,629	8,629	9885
3. Production Capacity (Nos.)																	
i) 33 kV poles a) 15 x 220	800	1,000	600	800	1,500	1,000	460	2,000	2,000	2,000	2,000	2,000	2,000	2,000	1000	1000	1000
b) 15 x 190	1,000	500	500	700	800	600	600	2,000	2,000	2,000	2,000	2,000	2,000	2,000	1500	1500	1500
ii) 11 kV poles 12 x 190	4,000	4,000	5,000	4,000	8,400	8,400	10,725	7,500	7,500	7,500	7,500	7,500	7,500	7,500	10000	10000	10000
iii) 0.4 kV poles 9 x 140	5,300	4,000	4,000	4,500	9,300	10,000	9,900	8,500	8,500	8,500	8,500	8,500	8,500	8,500	7500	7500	7500
4. Use of production capacity (%)	68.81	84.48	99.15	138.22	71.87	120.57	95.07	86.84	95.63	85.45	82.03	34.39	80.69	75.05	70.02	75.23	80.28

5. Specification of poles	Top Dia (mm)	Bottom Dia (mm)	Length (mm)	Wall Thickness (mm)	Av. Weight (Kg)	Design Load (Kg)	Pole Designation
i) 33 kV poles a) 15 x 220	220	420	15,000	55	2180	650	15 x 220x650
b) 15 x 190	190	390	15,000	50	1840	550	15 x 190x550
ii) 11 kV poles 12 x 190	190	350	12,000	50	1220	450	12 x 190x450
iii) 0.4 kV poles 9 x 140	140	260	9,000	40	500	250	9 x 140x250

## SYNOPSIS OF ARICHA P.C. POLE MANUFACTURING PLANT

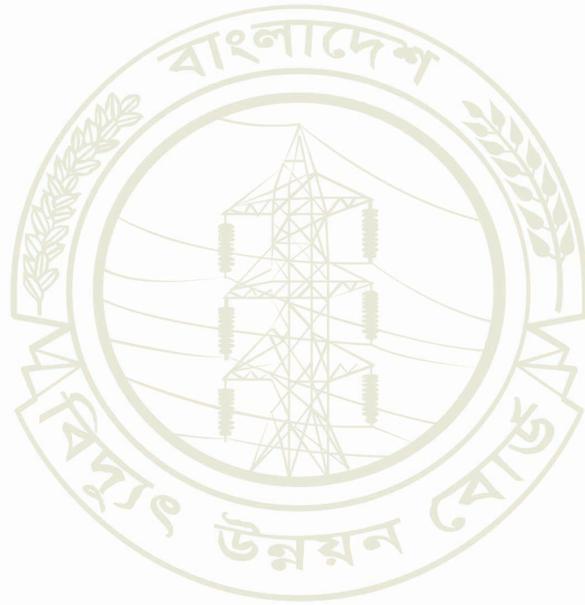
Details	FY1998	FY1999	FY2000	FY2001	FY2002	FY2003	FY2004	FY2005	FY2006	FY2007	FY2008	FY2009	FY2010	FY2011	FY2012	FY2013	FY2014
1. Nos. of poles manufactured																	
i) 33 kV poles 22.5x230	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
15x230	61	---	17	39	---	---	---	---	---	---	---	---	---	---	---	---	---
ii) 11 kV poles 12x230	751	240	720	1,450	3,449	4,007	3,508	2,722	1,338	2,238	1,583	929	1429	1630	1381	791	1425
11x230	4,300	3,416	3,674	5,090	6,884	5,162	5,170	6,673	3,790	3,852	729	836	1198	1037	1361	625	1545
iii) 0.4 kV poles 9 M	4,022	3,371	4,640	6,501	12,046	14,859	12,342	10,610	8,009	9,912	4,691	3286	3219	4261	6268	3141	5170
2. Cost per no. of pole (Tk.)																	
i) 33 kV poles 22.5 M	---	---	---	39,014	39,014	39,014	39,014	45,589	---	---	---	---	---	---	---	---	---
15 M	15,880	16,516	20,550	21,246	21,246	21,246	24,816	24,816	28,119	41,669	36,713	---	---	---	---	---	
ii) 11 kV poles 12 M	10,642	10,868	13,802	14,197	14,197	14,197	15,783	15,783	17,328	24,486	21,574	21,574	21,574	21,574	21,574	21,574	22512
11 M	9,400	9,634	12,385	12,652	12,652	12,652	13,910	13,910	15,313	21,066	18,560	18,560	18,560	18,560	18,560	18,560	19579
iii) 0.4 kV poles 9 M	4,501	4,669	6,072	6,262	6,262	6,262	6,694	6,694	7,074	9,558	8,421	8,421	8,421	8,421	8,421	8,421	9065
3. Production Capacity (Nos.)																	
i) 33 kV poles 22.5 M	---	---	---	25	25	25	25	25	---	---	---	---	---	---	---	---	---
15 M	300	100	300	300	340	200	200	200	---	---	---	---	---	---	---	---	---
ii) 11 kV poles 12 M	1,500	1,500	900	900	2,000	3,000	3,000	3,000	4,000	4,000	4,000	4,000	3000	3000	3000	3000	3000
11 M	4,000	4,000	4,000	4,000	8,000	5,000	5,000	5,775	5,000	5,000	5,000	5,000	2000	2000	2000	2000	2000
iii) 0.4 kV poles 9 M	4,200	4,400	4,800	4,800	9,660	11,000	11,000	11,000	11,000	11,000	11,000	11,000	5000	5000	5000	5000	5000
4. Use of production capacity (%)	91.34	70.27	90.51	130.80	111.90	120.14	105.10	100.03	65.68	80.01	35.01	25.26	58.46	69.28	90.10	70.6	81.4

5. Specification of poles	Top Dia (mm)	Bottom dia (mm)	Wall Thickness (mm)	Pole Weight (Kg)	Design Load (Kg)	Pole Designation
i) 33 kV poles 22.5 M	230	530	55	3092.86	587	---
15 M	230	430	55	1,719.78	500	15 x 230x500
ii) 11 kV poles 12 M	230	390	55	1,249.44	400	12x230x400
11 M	230	375	55	1,110.46	350	11 x230x350
iii) 0.4 kV poles 9 M	150	270	50	522.50	200	9x150x200



Adviser to the Hon'ble Prime Minister Dr. Tawfiq-e-Elahi Chowdhury BB and Hon'ble State Minister for Power, Energy & Mineral Resources Mr. Nasrul Hamid MP in a seminar titled 'Coal Power Generation in Bangladesh : World Best Practice'.

## Chapter-5



## Accounts, Finance and Audit

## ACCOUNTS, FINANCE AND AUDIT

Electricity (Power) plays a vital role in the economy of a developing country in many aspects. Day to day the demand of the electricity is growing up. To meet the growing demand of the electricity, BPDB has given high priority in the electricity generation. Beside own generation, BPDB also purchase electricity from the

Private Companies generally termed as IPP(Independent Power Producer) , Rental power plant and Public power plant to meet the growing demand. In the FY 2013-2014, Generation cost of BPDB's own plant and Electricity purchase from other sources are shown in 'Table -A' with compare to the preceding year

Table-A

Particulars	2013-14		2012-13		(Increase/Decrease)
	Amount (Crore Tk.)	Cost (Tk/kWh)	Amount (Crore Tk.)	Cost (Tk/kWh)	
i. BPDB's Generation	6,032.86	4.66	4,708.51	3.80	28.13%
ii. Purchase from IPP	4,463.38	4.96	3,750.15	4.07	19.02%
iii. Purchase from Rental	9,750.34	10.12	10,340.05	10.99	-5.70%
iv. Purchase from Public Plant	2,272.42	3.57	1,082.62	1.97	109.90%
v. Purchase from India	1,145.74	5.06	-	-	-
vi. Interest on budgetary support	617.71	0.15	452.92	0.12	36.38%
vii. Provision for Maintenance and Development fund	956.99	0.24	718.67	0.20	33.16%
<b>Total</b>	<b>25,239.44</b>	<b>6.28</b>	<b>21,052.92</b>	<b>5.77</b>	<b>19.89%</b>
<b>Energy Sales</b>	<b>18,637.06</b>		<b>16,170.62</b>		<b>15.25%</b>

It shows that BPDB's own generation cost and Energy purchase from IPP, public plant has increased by 28.13% , 19.02%, 109.90% respectively, and from Rental plant have decreased by 5.70% with compare to the FY 2012-2013. Chart-1 shows the comparative generation picture.

### Cost of Electricity Generation and Purchase

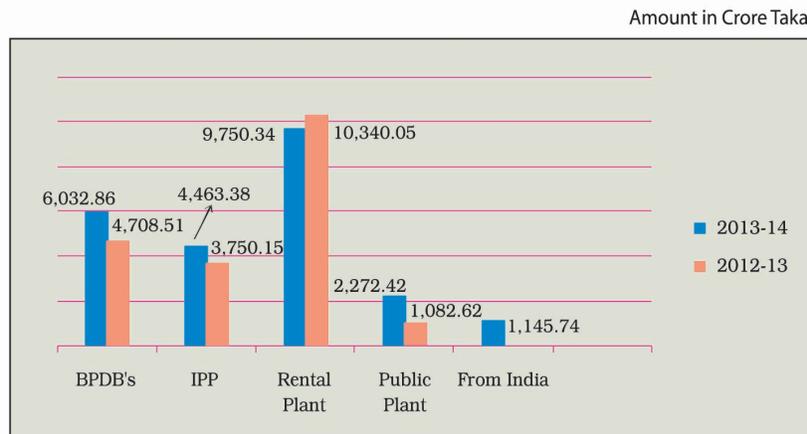


Chart-1

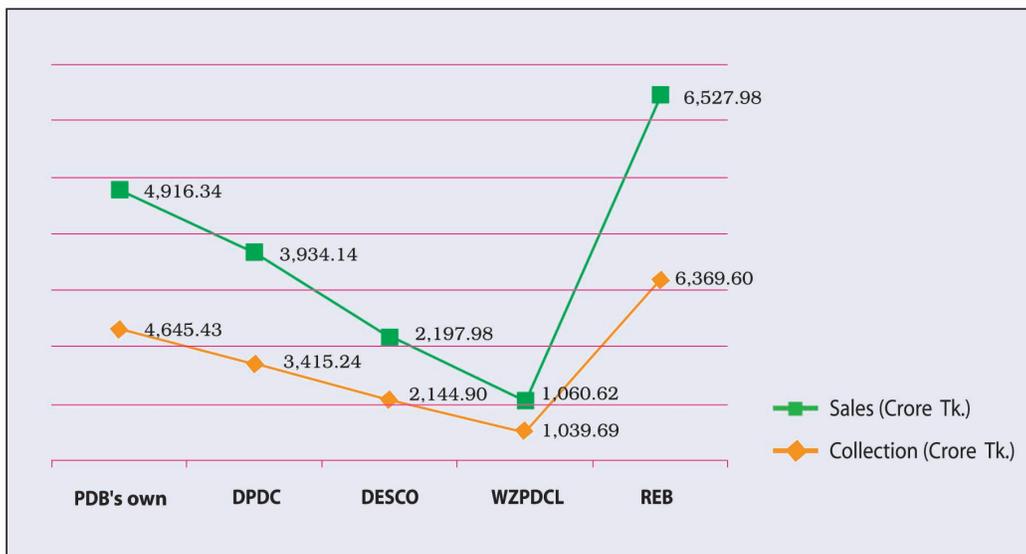
During the financial year 2013-2014 amount of sales to BPDB's own consumer DPDC, DESCO, WZPDCL, REB & PGCB and amount of collection against sales are given below :

**Table-B**

Particulars Sales	Sales (Crore Tk.)	Collection (Crore Tk.)	% of collection on sales	Previous years % of collection on sales	Increase/ (Decrease) in comparison to previous year
PDB's own Consumer	4,916.34	4,645.43	94.49%	94.91%	-0.42%
DPDC	3,934.14	3,415.24	86.81%	84.78%	2.03%
DESCO	2,197.98	2,144.90	97.59%	95.01%	2.58%
WZPDCL	1,060.62	1,039.69	98.03%	96.14%	1.89%
REB	6,527.98	6,369.60	97.57%	93.83%	3.74%
<b>Total</b>	<b>18,637.06</b>	<b>17,614.86</b>	<b>94.52%</b>	<b>92.48%</b>	<b>2.04%</b>

During the financial year 2013-2014 sales to BPDB's own consumer, DPDC, DESCO, WZPDCL and REB Taka 4,916.34 crores 3,934.14 Crores, 2,197.98 Crores, 1,060.62 Crores and 6,527.98 Crores respectively against which amount collected was 4,645.43 Crore, 3,415.24 Crore, 2,144.90 Crore, 1,039.69 Crore and 6,369.60 Crore which is only 94.49%,86.81%,97.59%, 98.03%and 97.57% of billed amount respectively.

Chart-2 shows the comparative collection over sales.



**Chart-2**

A comparison of the Operating income and operating expenses for FY 2013-2014 and FY 2012-2013 is shown below:

**Table-C**

Head of Accounts	2013-2014	2012-2013	Amount increase/ (Decrease)	Percentage of increase/(Decrease)
<b>1. Operating Revenue</b>	<b>19,428.76</b>	<b>16,882.74</b>	<b>2,546.02</b>	<b>15.08%</b>
Sale of Electricity	18,637.05	16,170.62	2,466.43	15.25%
Other Operating Revenue	791.71	712.12	79.59	11.18%
<b>2. Operating Expenses</b>	<b>24,478.90</b>	<b>20,676.90</b>	<b>3,802.00</b>	<b>18.39%</b>
Fuel Cost	4,192.67	3,251.51	941.16	28.95%
Generation Expenses (Excluding fuel cost)	1,582.37	1,281.26	301.11	23.50%
Electricity purchase from IPP	4,463.38	3,750.15	713.23	19.02%
Electricity purchase from RENTAL	9,750.34	10,340.05	(589.71)	-5.70%
Electricity purchase from Public Plant	2,272.42	1,082.62	1,189.80	109.90%
Electricity purchase from India	1,145.74	-	-	-
Wheeling Charge to PGCB	184.90	162.69	22.21	13.65%
Distribution & Coml. Expenses	697.01	622.88	74.13	11.90%
General & Administrative Expenses	190.07	185.74	4.33	2.33%
<b>Operating (Loss)/Profit = (1-2)</b>	<b>(5,050.14)</b>	<b>(3,794.16)</b>	<b>1,255.98</b>	<b>33.10%</b>

Table-c shows that sale of electricity and Other Operating Revenue has increased by 15.25% and 11.18% respectively over FY 2012-13. The cost of fuel for generation and other generation expense has increased by 28.95% and 23.50% respectively over FY 2012-13. The total operating expenses has increased by 18.39%.

Table-C also shows that each component of the operating expenses have increased except Electricity purchase from Rental plant which is decreased by 5.70%. Operating Loss for the year 2013-14 has increased by 33.10%.

### COMPARATIVE STATEMENT OF BUDGET AND ACHIVEMENT FOR THE YEAR 2013-2014

Amount in Lac Taka

PARTICULARS	Budget/target	Achievement	Performance over Budget	Favorable/ Adverse
<b>REVENUE</b>				
Electricity Sales	1,887,050.00	1,863,705.58	98.76%	A
Other Operating Income	57,000.00	79,170.89	138.90%	F
<b>Total Operating Revenue</b>	<b>1,944,050.00</b>	<b>1,942,876.47</b>	<b>99.94%</b>	<b>A</b>
<b>Operating Expenses</b>				
Fuel Cost- Gas	90,918.00	92,359.57	101.59%	A
Diesel/Furnace oil Used for Generation	298,679.00	280,514.99	93.92%	F
Coal Used for Electricity Generation	44,381.00	46,392.06	104.53%	A
Electricity Purchase From IPP	443,140.00	446,337.91	100.72%	A
Electricity Purchase From Rental	978,486.00	975,033.94	99.65%	F
Electricity Purchase From Public Plant	253,739.00	227,241.58	89.56%	F
Electricity Purchase From India	120,214.90	114,574.03	95.31%	F
Maintenances & Development Expenses	76,370.00	95,698.59	125.31%	A
Depreciation	102,082.00	115,594.23	113.24%	A
Repair & Maintenance	44,408.00	46,788.15	105.36%	A
Personnel Expenses	71,178.83	65,557.31	92.10%	F
Office and Administrative Expenses	18,625.30	19,007.02	102.05%	A
Transmission charge paid to PGCB	17,728.00	18,489.57	104.30%	A
<b>Total Operating Expenses</b>	<b>2,559,950.03</b>	<b>2,543,588.95</b>	<b>99.36%</b>	<b>F</b>
<b>Operating Income / (Loss)</b>	<b>(615,900.03)</b>	<b>(600,712.48)</b>	<b>97.53%</b>	<b>F</b>
<b>Non - Operating Expenses :</b>				
Assets Insurance Fund	150.00	150.00	100.00%	
Financing and other Charges	88,691.00	17,567.19	19.81%	F
Interest on Budgetary Support From Govt.	6,094.00	61,770.74	1013.63%	A
Loss due to Exchange Rate Fluctuation	4,782.00	724.15	15.14%	F
<b>Net Non-Operating Expenses</b>	<b>99,717.00</b>	<b>80,212.08</b>	<b>80.44%</b>	<b>F</b>
<b>Net Income / ( Loss)</b>	<b>(715,617.03)</b>	<b>(680,924.56)</b>	<b>95.15%</b>	<b>F</b>

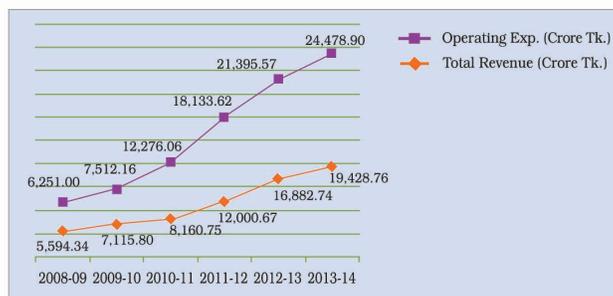
Net loss Tk 6,809,24,55,605 is covered by budgetary support from Govt. and other non-cash expenses like Depreciation.

From the above statement it is found that, the actual net loss for the FY 2013-2014 is Taka 6,809.25 Crore against the revised budgeted net Loss of Taka 7,156.17 Crore. which is less than budget provision by Taka 346.92 Crore. In analysis of the revised budget and actual expenditure it is observed that the govt. orders/decisions for controlling the cost have been reflected in BPDB's operation.

Utility Plant in Service acquired through project completion amounting to Taka 3,001.69 Crore has transferred to assets in operation during the FY 2013-2014. Depreciation has been charged @ 3.20% on the opening balance of utility plant in service except those of 820mw. project and transportation equipment on which depreciation has been charged @ 6.00% and 9.00% respectively on the basis of "Fixed Percentage" method & half of the normal rate on addition during the year.

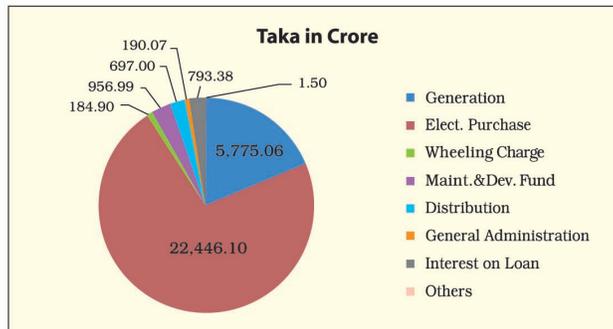
Chart-3 shows the trend analysis of revenue from sale of electricity with operating expense. It indicates that controlling of expenditure makes BPDB's financial position a few better over last two years.

**Year Wise Revenue To Operating Expenses**



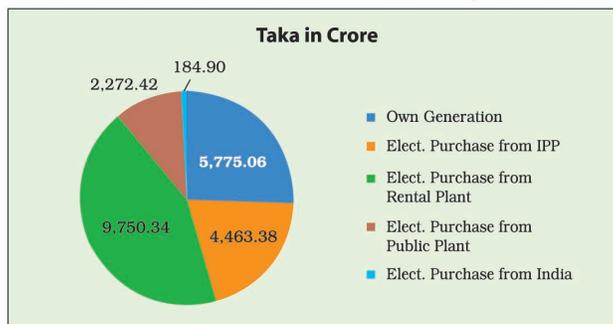
**Chart-3**

**Category Wise Total Expenses**



**Chart-4**

**BPDB's Own Generation and Electricity Purchase**



**Chart-5**

**BALANCE SHEET**  
**AS AT JUNE 30, 2014**

Figures In Taka

PROPERTY & ASSETS	NOTE	FY-2013-14	FY-2012-13
<b>FIXED ASSETS</b>			
UTILITY PLANT IN SERVICE	3	411,417,818,966	375,668,930,905
LESS : ACCUMULATED DEPRECIATION	4	183,567,644,632	171,836,698,059
<b>WRITTEN DOWN VALUE</b>	5	<b>227,850,174,334</b>	<b>203,832,232,846</b>
PROJECT- IN - PROGRESS	6	39,467,652,043	44,621,471,058
INVESTMENT IN SHARES	7	19,342,767,589	14,942,453,029
<b>TOTAL FIXED ASSETS</b>		<b>286,660,593,967</b>	<b>263,396,156,933</b>
<b>CURRENT ASSETS</b>			
INVESTMENT	7.01	26,415,766,137	17,533,153,651
CASH IN HAND & AT BANK	8	46,190,638,240	30,566,638,795
ACCOUNTS RECEIVABLE - TRADE	9	81,704,592,004	71,482,564,787
ACCOUNTS RECEIVABLE - OTHERS	10	13,798,882,549	19,207,151,793
PROVISION FOR BAD & DOUBTFUL DEBTS	11	(941,643,208)	(806,196,149)
ADVANCE TO CONTRACTORS & SUPPLIERS	12	7,761,839,632	16,439,831,590
ADVANCE TO EMPLOYEES	13	1,531,384,617	1,414,654,189
STOCK & STORES	14	12,951,278,318	12,015,225,816
SECURITY DEPOSIT TO OTHER UTILITY	15	92,210,167	2,788,084,252
INCOME TAX DEDUCTION AT SOURCE	16	1,673,296,063	1,057,305,934
<b>TOTAL CURRENT ASSETS</b>		<b>191,178,244,519</b>	<b>171,698,414,659</b>
<b>TOTAL PROPERTY &amp; ASSETS</b>		<b>477,838,838,486</b>	<b>435,094,571,592</b>

The annexed notes form an integral part of these Financial Statements.

**A B SAHA & CO**  
Chartered Accountants

**MARHK & CO**  
Chartered Accountants

## BALANCE SHEET

AS AT JUNE 30, 2014

Figures In Taka

CAPITAL & LIABILITIES	NOTE	FY-2013-14	FY-2012-13
<b>AUTHORIZED CAPITAL</b>		<b>200,000,000,000</b>	<b>150,000,000,000</b>
<b>CAPITAL &amp; RESERVE</b>			
PAID UP CAPITAL	17	150,443,838,475	142,836,187,075
NET SURPLUS / (DEFICIT)	18	(340,758,443,613)	(272,141,562,044)
APPRAISAL SURPLUS	19	117,057,871,482	117,057,871,482
GOVERNMENT EQUITY AGAINST DESCO SHARE	19.01	2,244,887,760	-
GRANTS	20	4,964,052,860	4,914,854,860
DEPOSIT WORK FUND	21	2,337,193,475	2,192,949,412
LIQUIDITY DAMAGE RESERVE	22	72,053,500	72,053,500
MAINTANANCE & DEVELOPMENT FUND	23	23,346,890,745	13,777,031,701
ASSETS INSURANCE FUND	24	315,000,000	300,000,000
		<b>(39,976,655,318)</b>	<b>9,009,385,985</b>
<b>LONG TERM LIABILITIES</b>			
GOVERNMENT LOAN	25	62,476,911,262	59,078,357,877
BUDGETARY SUPPORT FROM GOVT AGAINST SUBSIDY (DIFFERENCE OF BUYING & SELLING RATE)	26	236,363,146,667	176,634,300,000
FOREIGN LOAN	27	22,840,558,402	15,927,500,078
		<b>321,680,616,331</b>	<b>251,640,157,955</b>
<b>DEPOSIT &amp; PROVISION FUND</b>			
SECURITY DEPOSIT (CONSUMERS)	28	3,973,342,252	3,683,769,674
GPF & CPF	29	4,961,372,437	4,272,923,529
GRATUITY & PENSION FUND	30	9,899,594,665	9,029,310,208
		<b>18,834,309,353</b>	<b>16,986,003,411</b>
<b>CURRENT LIABILITIES</b>			
ACCOUNTS PAYABLE	31	38,220,677,041	31,242,650,091
SECURITY DEPOSIT (CONTRACTORS & SUPPLIERS)	32	674,368,835	670,994,761
CURRENT PORTION OF LONG TERM LIABILITIES	33	3,537,936,276	4,245,941,546
DEBT SERVICING LIABILITIES ( PRINCIPAL) BPDB	34	50,521,214,593	46,919,409,797
DEBT SERVICING LIABILITIES ( PRINCIPAL)- PGCB	34.01	8,560,879,540	8,005,508,649
DEBT SERVICING LIABILITIES ( PRINCIPAL)- APSCL	34.02	5,872,071,918	5,361,669,458
DEBT SERVICING LIABILITIES ( PRINCIPAL)- WZPDCL	34.03	1,950,209,829	1,810,318,800
REIMBURSABLE PROJECT AID	35	1,061,757,527	861,757,527
DEBT SERVICING LIABILITIES (INTEREST)	36	50,588,784,807	48,400,232,191
INTEREST ON BUDGETARY SUPPORT FROM GOVT. (FUND)	37	15,776,475,914	9,599,401,572
OTHER LIABILITIES	38	536,181,341	340,078,148
		<b>177,300,557,621</b>	<b>157,457,962,540</b>
CLEARING ACCOUNTS	39	10,499	1,061,701
<b>TOTAL CAPITAL &amp; LIABILITIES</b>		<b>477,838,838,486</b>	<b>435,094,571,592</b>

The annexed notes form an integral part of these Financial Statements.

**A B SAHA & CO\***  
Chartered Accountants

**MARHK & CO**  
Chartered Accountants

**CONSOLIDATED INCOME STATEMENT**  
FOR THE YEAR ENDED JUNE 30, 2014

Figures In Taka

PARTICULARS	NOTE	FY 2013-14	FY 2012-13
<b>OPERATING REVENUE</b>			
ENERGY SALES	40	186,370,558,459	161,706,226,266
OTHER OPERATING INCOME	41	7,917,088,750	7,121,157,977
		<b>194,287,647,209</b>	<b>168,827,384,243</b>
<b>OPERATING EXPENSES</b>			
GENERATION EXPENSES	42	57,750,593,504	45,327,755,639
ELECTRICITY PURCHASE FROM IPP	43	44,633,791,377	37,501,494,313
ELECTRICITY PURCHASE FROM INDIA	43a	11,457,403,657	-
ELECTRICITY PURCHASE FROM RENTAL	44	97,503,394,182	103,400,499,161
ELECTRICITY PURCHASE FROM PUBLIC PLANT	45	22,724,157,873	10,826,169,556
TRANSMISSION EXPENSES FOR WHEELING CHARGE	46	1,848,957,263	1,626,857,661
DISTRIBUTION EXPENSES	47	6,970,036,001	6,228,820,661
CUSTOMER ACCOUNTS EXPENSES	48	-	-
GENERAL & ADMINISTRATIVE EXPENSES	49	1,900,701,427	1,857,434,874
		<b>244,789,035,282</b>	<b>206,769,031,865</b>
<b>OPERATING INCOME / (LOSS)</b>		<b>(50,501,388,074)</b>	<b>(37,941,647,622)</b>
ASSETS INSURANCE		15,000,000	15,000,000
MAINTANANCE & DEVELOPMENT	50	9,569,859,044	7,186,701,701
INTEREST EXPENSES FOR BUDGETARY SUPPORT FROM GOVT.	51	6,177,074,342	4,529,192,015
FINANCING & OTHER CHARGES	52	1,756,718,912	1,613,570,926
NET INCOME/ (LOSS) BEFORE EXCH. RATE FLUCTUATION		(68,020,040,371)	(51,286,112,264)
LOSS DUE TO EXCHANGE RATE FLUCTUATION	53	(72,415,234)	847,733,579
<b>NET INCOME / (LOSS) FOR THE YEAR</b>		<b>(68,092,455,605)</b>	<b>(50,438,378,685)</b>
<b>RETAINED EARNINGS</b>			
BALANCE AS AT JULY 01, 2013		(272,141,562,044)	(222,008,216,147)
PREVIOUS YEAR'S ADJUSTMENT	54	(524,425,965)	305,032,788
NET INCOME / (LOSS) FOR THE YEAR		(68,092,455,605)	(50,438,378,685)
<b>BALANCE AS AT JUNE 30, 2014</b>		<b>(340,758,443,613)</b>	<b>(272,141,562,044)</b>

The annexed notes form an integral part of these Financial Statements.

**A B SAHA & CO.**  
Chartered Accountants

**MARHK & CO.**  
Chartered Accountants

## CASH FLOW STATEMENT FOR THE YEAR 2013-2014

SL. No.	DESCRIPTION	AMOUNT	AMOUNT	AMOUNT
<b>CASH FLOW FROM OPERATING ACTIVITIES</b>				
<b>A</b>	<b>Total Receipts from BPDB Customer, REB &amp; Others</b>			
	Operating Revenue Note-40 & 41	<b>194,287,647,209</b>		
	Accounts Receivable-Trade-Opening-Note-9	71,482,564,787		
	Accounts Receivable-Trade-Closing-Note-9	(81,704,592,004)		
	Accounts Receivable-Others -Opening-Note-10	19,207,151,793		
	Accounts Receivable-Others -Closing-Note-10	(13,798,882,549)		
	Provision for Bad Debt-Opening-Note-12	(806,196,149)		
	Provision for Bad Debt-Closing-Note-12	941,643,208		
			<b>189,609,336,295</b>	
<b>B</b>	<b>Less Total Payment for Operating Expenses &amp; Others</b>			
	Operating Expenses net of Depreciation*01	231,044,936,882		
	Previous Year's Adjustments-Note-54	524,425,965		
	Interest Charges- Sh-52 (Code-675)	399,703,330		
	Liquidity Reserve-Opening- Note-22	72,053,500		
	Liquidity Reserve-Closing - Note-22	(72,053,500)		
	Accounts Payable-Opening -Note-30	31,242,650,091		
	Accounts Payable-Closing- Note-30	(38,220,677,041)		
	Security Deposit Contractor's-Opening -Note-31	670,994,761		
	Security Deposit Contractor's-Closing- Note-31	(674,368,835)		
	Other Liabilities-Opening-Note-38	340,078,148		
	Other Liabilities-Closing-Note-38	(536,181,341)		
	Advance to Contractors-Opening - Note-13	(16,439,831,590)		
	Advance to Contractors-Closing - Note-13	7,761,839,632		
	Advance to Employees-Opening- Note-14	(1,414,654,189)		
	Advance to Employees-Closing- Note-14	1,531,384,617		
	Stock & Stores-Opening- Note-15	(12,015,225,816)		
	Stock & Stores-Closing- Note-15	12,951,278,318		
	Clearing Account-Opening- Note-39	1,061,701		
	Clearing Account-Closing- Note-39	(10,499)		
	Deposits & Prepaid-Opening- Note-16	(3,845,390,187)		
	Deposits & Prepaid-Closing -Note-16	1,765,506,230		
			<b>215,087,520,177</b>	
<b>C</b>	<b>Reimbursable Project Aid- received-Sh-35</b>		<b>(200,000,000)</b>	
<b>D</b>	<b>Debt Service Liabilities-Interest Payment -Sh-36</b>		<b>261,387,562</b>	
<b>E</b>	<b>NET CASH OUTFLOW FROM OPERATING ACTIVITIES (A-B-C-D)</b>			<b>(25,539,571,445)</b>
<b>CASH FLOW FROM INVESTING ACTIVITIES</b>				
	Consumers Security Deposit -Note-27 (Closing-Opening)	289,572,578		
	Capital Expenditure-UPIS- Sh-3	(5,731,987,012)		
	Capital Expenditure-PIP*06( Net Cash)	(29,681,658,048)		
	Employees Contribution to GPF, CPF & Pension Fund-Note-28&29(Closing-Opening)	1,558,733,364		
	Encashment of FDR-Sh-07	7,006,588,466		
	Investment in FDR-Sh-07	(15,889,200,952)		
<b>F</b>	<b>NET CASH OUT FLOW FROM INVESTING ACTIVITIES</b>			<b>(42,447,951,604)</b>
<b>CASH FLOW FROM FINANCING ACTIVITIES</b>				
	Capital Contribution -Note-17 (Closing-Opening)	7,607,651,400		
	Grant-Note-20 (Closing- Opening)	49,198,000		
	Govt. Loan- Sh-24 (Loan Drawn during the Year)	6,861,098,685		
	Reimbursable Project Aid- received-Sh-35	200,000,000		
	Foreign Loan- Sh-26.Loan wise(Loan Drawn during the Year)	8,080,282,746		
	Deposit Work Fund -Note-21 (Closing- Opening)	144,244,063		
	Repayment of Govt. Loan-Sh-34	(100,000,000)		
	Refund of Govt. Loan- Sh-24	(30,952,400)		
	Refund of Equity to GOB			
<b>G</b>	<b>NET CASH INFLOW FROM FINANCING ACTIVITIES</b>			<b>22,611,522,494</b>
<b>H</b>	<b>NET CASH OUTFLOW (E+F+G)</b>			<b>(45,376,000,554)</b>
<b>I</b>	<b>CASH RECEIVED FROM GOVT. AS BUDGETARY SUPPORT</b>			<b>61,000,000,000</b>
<b>J</b>	<b>OPENING CASH IN HAND</b>			<b>30,566,638,795</b>
<b>K</b>	<b>CLOSING CASH IN HAND(H+I+J)</b>			<b>46,190,638,241</b>

**INCOME STATEMENT (GENERATION)**  
**FOR THE YEAR ENDED JUNE 30, 2014**

Figures In Taka

PARTICULARS	NOTE	FY 2013-14	FY 2012-13
<b>OPERATING REVENUE</b>			
ENERGY SALES ( BULK )	37	185,103,654,496	161,304,898,365
OTHER OPERATING INCOME	38	5,707,520,159	5,561,743,713
		<b>190,811,174,655</b>	<b>166,866,642,078</b>
<b>OPERATING EXPENSES</b>			
FUEL EXPENSES	39.1	41,926,662,531	32,515,116,163
PERSONNEL EXPENSES	39.2	2,985,014,841	2,577,070,081
OFFICE EXPENSES	39.3	334,322,002	264,422,292
REPAIRS & MAINTENANCE EXPENSES	39.4	3,432,170,229	2,969,395,692
DEPRECIATION	5	9,072,423,900	7,001,751,409
<b>SUB TOTAL OWN GENERATION EXPENSES</b>		<b>57,750,593,504</b>	<b>45,327,755,638</b>
ELECTRICITY PURCHASE FROM IPP	40	44,633,791,377	37,501,494,313
ELECTRICITY PURCHASE FROM INDIA	41	11,457,403,657	
ELECTRICITY PURCHASE FROM RENTAL	42	97,503,394,182	103,400,499,161
ELECTRICITY PURCHASE FROM PUBLIC PLANT	43	22,724,157,873	10,826,169,556
GENERAL & ADMINISTRATIVE EXPENSES	44	1,301,887,698	1,152,043,873
		235,371,228,290	198,207,962,541
<b>OPERATING INCOME / (LOSS)</b>		<b>(44,560,053,635)</b>	<b>(31,341,320,464)</b>
PROVISION FOR ASSETS INSURANCE FUND	45	12,000,000	12,000,000
MAINTANANCE & DEVELOPMENT EXPENSES	46	9,569,859,044	7,186,701,701
INTEREST ON BUDGETARY SUPPORT FROM GOVT.	47	6,177,074,342	4,529,192,015
FINANCING & OTHER CHARGES	48	1,197,302,657	1,109,940,826
NET INCOME/(LOSS) BEFORE EXCH. RATE FLUCTUATION		(61,516,289,677)	(44,179,155,006)
LOSS DUE TO EXCHANGE RATE FLUCTUATION	49	(66,850,603)	514,469,169
<b>NET INCOME / (LOSS) FOR THE YEAR</b>		<b>(61,583,140,280)</b>	<b>(43,664,685,837)</b>
<b>RETAINED EARNINGS</b>			
BALANCE AS AT JULY 01, 2013		(254,469,424,997)	(210,957,107,466)
PREVIOUS YEAR'S ADJUSTMENT	50	(538,993,790)	152,368,305
NET INCOME / (LOSS) FOR THE YEAR		(61,583,140,280)	(43,664,685,837)
<b>BALANCE AS AT JUNE 30. 2014</b>		<b>(316,591,559,068)</b>	<b>(254,469,424,997)</b>

The annexed notes form an integral part of these Financial Statements.

**A B SAHA & CO.**  
Chartered Accountants

**MARHK & CO.**  
Chartered Accountants

**INCOME STATEMENT (DISTRIBUTION)**  
FOR THE YEAR ENDED JUNE 30, 2014

Figures In Taka

PARTICULARS	NOTE	FY 2013-14	FY 2012-13
<b>OPERATING REVENUE</b>			
ENERGY SALES ( RETAIL)	40	49,163,210,511	42,561,855,266
OTHER OPERATING INCOME	41	2,209,568,593	1,559,414,264
		<b>51,372,779,104</b>	<b>44,121,269,530</b>
<b>OPERATING EXPENSES</b>			
POWER PURCHASE COST AS PER BST	42	47,896,306,549	42,160,527,365
TRANSMISSION EXPENSES FOR WHEELING CHARGE	43	1,848,957,263	1,626,857,661
		<b>49,745,263,812</b>	<b>43,787,385,026</b>
<b>SUB TOTAL ENERGY IMPORT COST</b>			
PERSONNEL EXPENSES	44	2,742,255,296	2,319,675,777
OFFICE EXPENSES	45	358,689,740	349,032,232
REPAIRS & MAINTENANCE EXPENSES	46	1,246,645,493	1,064,445,243
DEPRECIATION	5	2,486,998,414	2,386,926,189
PROVISION FOR BAD DEBTS	12	135,447,059	108,739,388
		<b>6,970,036,001</b>	<b>6,228,818,829</b>
<b>SUB TOTAL DISTRIBUTION EXPENSES</b>			
GENERAL & ADMINISTRATIVE EXPENSES	47	598,813,728	705,392,834
		<b>57,314,113,541</b>	<b>50,721,596,689</b>
<b>TOTAL OPERATION EXPENSES (B+C+D+E=F)</b>			
<b>OPERATING INCOME / (LOSS) (A-F)</b>			
		<b>(5,941,334,436)</b>	<b>(6,600,327,158)</b>
PROVISION FOR ASSETS INSURANCE FUND	23	3,000,000	3,000,000
FINANCING & OTHER CHARGES	48	559,416,255	503,630,100
<b>NET INCOME/(LOSS) BEFORE EXCH. RATE FLUCTUATION (G-H-I)</b>			
		<b>(6,503,750,691)</b>	<b>(7,106,957,258)</b>
LOSS DUE TO EXCHANGE RATE FLUCTUATION	49	(5,564,632)	333,264,410
<b>NET INCOME / (LOSS) FOR THE YEAR</b>			
		<b>(6,509,315,323)</b>	<b>(6,773,692,848)</b>
<b>RETAINED EARNINGS</b>			
BALANCE AS AT JULY 01, 2013		(17,672,137,044)	(11,051,108,679)
PREVIOUS YEAR'S ADJUSTMENT	50	14,567,826	152,664,483
NET INCOME / (LOSS) FOR THE YEAR		(6,509,315,323)	(6,773,692,848)
		<b>(24,166,884,542)</b>	<b>(17,672,137,044)</b>
<b>BALANCE AS AT JUNE 30, 2014</b>			

The annexed notes form an integral part of these Financial Statements.

**A B SAHA & CO.**  
Chartered Accountants

**MARHK & CO.**  
Chartered Accountants

**DISTRIBUTION ZONE WISE INCOME STATEMENT**  
**FOR THE YEAR ENDED JUNE 30, 2014**

Figures In Crore Taka

PARTICULARS	Chittagong	Comilla	Mymen- singh	Sylhet	Rajshahi	Rangpur	Total
<b>OPERATING REVENUE</b>							
ENERGY SALES (RETAIL)	2,028.05	579.82	618.76	395.80	811.77	482.13	4,916.32
OTHER OPERATING INCOME	81.40	28.57	32.38	19.59	34.84	24.17	220.96
<b>TOTAL REVENUE</b>	<b>2,109.45</b>	<b>608.39</b>	<b>651.13</b>	<b>415.40</b>	<b>846.61</b>	<b>506.30</b>	<b>5,137.28</b>
<b>OPERATING EXPENSES</b>							
POWER PURCHASE COST - AS PER BST	1,845.05	557.68	697.31	384.42	806.96	498.21	4,789.63
WHEELING CHARGE	70.88	21.55	27.01	14.89	31.26	19.30	184.90
<b>SUB TOTAL</b>	<b>1,915.93</b>	<b>579.23</b>	<b>724.33</b>	<b>399.32</b>	<b>838.22</b>	<b>517.51</b>	<b>4,974.53</b>
PERSONNEL EXPENSES	89.96	34.63	47.02	21.25	53.19	28.17	274.23
OFFICE EXPENSES	7.25	5.79	7.48	2.51	7.42	5.42	35.87
REPAIRS & MAINTENANCE EXPENSES	35.23	18.53	30.70	10.55	17.12	12.54	124.66
DEPRECIATION	102.66	29.10	33.33	25.41	37.11	21.09	248.70
PROVISION FOR BAD DEBTS	5.59	1.60	1.70	1.09	2.24	1.33	13.54
<b>SUB TOTAL</b>	<b>240.69</b>	<b>89.65</b>	<b>120.23</b>	<b>60.80</b>	<b>117.08</b>	<b>68.54</b>	<b>697.00</b>
GENERAL & ADMINISTRATIVE EXPENSES	24.70	7.06	7.54	4.82	9.89	5.87	59.88
<b>TOTAL OPERATION EXPENSES</b>	<b>2,181.33</b>	<b>675.94</b>	<b>852.09</b>	<b>464.94</b>	<b>965.19</b>	<b>591.92</b>	<b>5,731.41</b>
<b>OPERATING INCOME / (LOSS)</b>	<b>(71.88)</b>	<b>(67.55)</b>	<b>(200.96)</b>	<b>(49.54)</b>	<b>(118.58)</b>	<b>(85.62)</b>	<b>(594.13)</b>
PROVISION FOR ASSETS INSURANCE FUND (20%)	0.12	0.04	0.04	0.02	0.05	0.03	0.30
FINANCING & OTHER CHARGES	28.02	4.54	5.85	3.10	11.18	3.26	55.94
<b>NET INCOME / (LOSS) BEFORE EXCH. RATE FLUCTUATION</b>	<b>(100.02)</b>	<b>(72.13)</b>	<b>(206.85)</b>	<b>(52.67)</b>	<b>(129.80)</b>	<b>(88.91)</b>	<b>(650.38)</b>
GAIN/(LOSS) DUE TO EXCHANGE RATE FLUCTUATION	(0.23)	(0.07)	(0.07)	(0.04)	(0.09)	(0.05)	(0.56)
<b>NET INCOME / (LOSS) FOR THE YEAR</b>	<b>(100.25)</b>	<b>(72.19)</b>	<b>(206.92)</b>	<b>(52.71)</b>	<b>(129.89)</b>	<b>(88.96)</b>	<b>(650.93)</b>
<b>PERCENTAGE OF NET INCOME/(LOSS) ON SALES</b>	<b>(4.94)</b>	<b>(12.45)</b>	<b>(33.44)</b>	<b>(13.32)</b>	<b>(16.00)</b>	<b>(18.45)</b>	<b>(13.24)</b>

## INCOME STATEMENT AND BALANCE SHEET RATIOS

SL. No.	Particulars	2013-2014	2012-2013
<b>INCOME STATEMENT RATIOS</b>			
1	Rate of Return (Operating Income/Operating Fixed Assets)	- 12.27%	- 14.54%
2	Operating Income Ratio (Operating Income/Operating Revenue)	- 25.99%	- 22.69%
3	Operating Expenses to Operating Revenue	125.99%	122.47%
4	Fuel Expense over total Operating Expenses	17.13%	15.73%
5	Depreciation over total Operating Expenses	4.72%	4.60%
6	Depreciation and Fuel Expense over total Operating Expenses	21.85%	20.33%
<b>BALANCE SHEET RATIOS</b>			
7	Current Ratio	1:1.08	1 : 1.18
8	Quick Ratio	1:1.01	1 : 1.11
9	Debt/Equity Ratio	- 8.05:1	8.61 : 1

## CONSOLIDATED SCHEDULE OF EXPENSES

Head of Accounts	Generation Expenses	Distribution Expenses	Gen. & Admn. Expenses	Total Expenses 2013-2014	Total Expenses 2012-2013
<b>Fuel Consumption for Generation</b>					
Natural Gas	9,221,669,281	-	-	9,221,669,281	9,571,978,573
Liquid fuel	27,714,255,840	-	-	27,714,255,840	17,737,117,251
Coal	4,990,737,410	-	-	4,990,737,410	5,206,020,339
<b>Sub Total</b>	<b>41,926,662,531</b>	-	-	<b>41,926,662,531</b>	<b>32,515,116,163</b>
Personnel Expenses	2,985,014,841	2,742,255,296	1,210,593,262	6,937,863,399	6,127,019,326
Office & Other Expenses	334,322,002	358,689,740	282,047,283	975,059,025	870,732,712
Repairs & Maintenance	3,432,170,229	1,246,645,493	236,536,622	4,915,352,344	4,280,322,890
Depreciation	9,072,423,900	2,486,998,414	171,524,259	11,730,946,573	9,512,080,694
Bad debts	-	135,447,059	-	135,447,059	108,739,388
Wheeling Charge	-	1,848,957,263	-	1,848,957,263	1,626,857,661
<b>Sub Total</b>	<b>15,823,930,972</b>	<b>8,818,993,265</b>	<b>1,900,701,427</b>	<b>26,543,625,663</b>	<b>22,525,752,671</b>
<b>Electricity Purchase</b>					
From IPP & SIPP.	44,633,791,377	-	-	44,633,791,377	37,501,494,313
From Rental Plant	97,503,394,182	-	-	97,503,394,182	103,400,499,161
From Public Plant	22,724,157,873	-	-	22,724,157,873	10,826,169,556
From India	11,457,403,657	-	-	11,457,403,657	-
<b>Sub Total</b>	<b>176,318,747,089</b>	-	-	<b>176,318,747,089</b>	<b>151,728,163,030</b>
Financing & other charges	1,197,302,657	559,416,255	-	1,756,718,912	1,613,570,926
Interest on Budgetary Support	6,177,074,342	-	-	6,177,074,342	4,529,192,015
Maint. & Dev. Expenses	9,569,859,044	-	-	9,569,859,044	7,186,701,701
Provision for Assets Ins.	12,000,000	3,000,000	-	15,000,000	15,000,000
<b>Sub Total</b>	<b>16,956,236,043</b>	<b>562,416,255</b>	-	<b>17,518,652,298</b>	<b>13,344,464,642</b>
<b>Grand Total</b>	<b>251,025,576,635</b>	<b>9,381,409,520</b>	<b>1,900,701,427</b>	<b>262,307,687,581</b>	<b>220,113,496,507</b>

## PERSONNEL EXPENSES

Code No.	Head of Accounts	Generation Expenses	Distribution Expenses	Total General & Administrative Expenses	Total Expenses
0.20	Pay of Officers	210,141,668	155,174,119	178,304,135	543,619,923
0.21	Pay of Staff	427,963,656	543,792,496	200,614,098	1,172,370,250
0.22	Allowances of Officers	170,314,239	98,207,526	115,073,159	383,594,924
0.23	Allowances of Staff	400,554,300	464,500,139	162,331,545	1,027,385,984
0.24	Leave Encashment	14,765,017	21,476,031	14,206,959	50,448,008
0.25	Overtime Allowances (Single Rate)	70,254,455	82,707,013	31,757,158	184,718,626
25a	Overtime Allowances (Double Rate)	357,389,122	382,669,663	75,755,731	815,814,517
0.28	House Rent Expenses	-	217,400	150,000	367,400
0.29	Medical Expenses	4,419,398	2,918,866	3,247,910	10,586,174
0.31	Bonus for Officers	36,897,797	25,221,901	26,872,978	88,992,676
.31a	Bonus for Staff	64,144,610	81,717,412	30,855,955	176,717,977
.35b	Employees Electricity Rebate	122,436,313	146,802,704	59,041,090	328,280,106
0.50	Workmen Compensation	17,970	-	150	18,120
0.51	Gratuity	5,645,988	25	-	5,646,013
0.55	Employees Other Benefit & Welfare Expenses	2,179,165	3,503,901	8,124,878	13,807,944
0.56	Board's Contribution to CPF	2,953,589	-	-	2,953,589
0.57	Board's Contribution to Pension Fund	915,411,228	485,231,495	159,980,136	1,560,622,859
0.58	Leave Encashment on Retirement	12,611,368	19,692,296	17,844,262	50,147,926
0.59	L.Salary & Pension Cont. for Trans. Govt. Employees	-	665,988	68,855	734,843
0.63	Honorarium	65,051,358	66,512,458	68,277,964	199,841,780
0.63A	Honorarium	16,690,823	14,721,905	11,043,100	42,455,828
0.66	Wages for Hired Labour	82,196,464	100,649,797	25,031,133	207,877,394
0.66a	Computerization of Commercial Operation	2,976,312	23,767,623	22,010,066	48,754,001
0.66b	Service charge for collection of Electricity Bill by Mobile Phone Co.	-	22,104,539	-	22,104,539
0.67	Interest on GPF/CPF	-	-	2,000	2,000
	<b>Total Personnel Expenses</b>	<b>2,985,014,841</b>	<b>2,742,255,296</b>	<b>1,210,593,262</b>	<b>6,937,863,399</b>

## OFFICE & OTHER EXPENSES

Code No.	Head of Accounts	Generation Expenses	Distribution Expenses	Total General & Administrative Expenses	Total Expenses
0.26	Traveling Expenses/ Allowances(For Official)	48,289,162	83,765,499	51,413,349	183,468,010
.26a	Traveling Expenses (For Training)	10,674,398	3,416,425	14,684,330	28,775,153
0.27	Conveyance Charge	1,277,863	6,636,343	4,758,880	12,673,086
29a	Washing Expenses	182,497	215,967	413,161	811,625
0.30	Representation & Entertainment	235,332	-	4,408,029	4,643,361
0.32	Stationary & Printing	12,856,207	44,982,003	38,354,487	96,192,697
0.33	Taxes, Licence & Fees	35,519,364	22,219,251	28,450,041	86,188,656
0.34	Office Rent	360,562	5,295,573	2,148,859	7,804,994
0.35	Water Charges	9,978,058	158,098	3,208,371	13,344,527
.35a	Electric Charges (Own use)	136,501,673	120,706,927	36,253,323	293,461,924
.35c	Electricity Rebate - Freedom fighters	34,202	2,880,838	6,300	2,921,340
0.36	Uniforms & Liveries	10,275,265	12,554,696	2,833,408	25,663,369
0.37	Post & Telegram	1,909,584	714,349	1,669,022	4,292,955
.37a	Telephone, Telex & Fax	8,796,286	7,196,579	7,676,768	23,669,633
0.38	Advertising & Promotion	40,288,690	42,719,954	44,646,683	127,655,327
0.39	Audit Fee	10,060,421	79,000	1,106,280	11,245,701
.39a	Legal Expenses (Lawyer's Fees & Court Fees)	389,560	2,488,351	8,057,848	10,935,759
0.40	Books & Periodicals	749,313	536,201	963,622	2,249,136
0.52	Donation & Contributions	1,637,694	538,020	1,076,900	3,252,614
0.54	Training & Education	4,305,872	1,585,665	29,411,993	35,303,530
0.69	Miscellaneous Expenses	-	-	505,629	505,629
	<b>Total Office &amp; Other Expenses</b>	<b>334,322,002</b>	<b>358,689,740</b>	<b>282,047,283</b>	<b>975,059,025</b>



A meeting on large & medium scale under construction Power Plants in presence of Adviser to the Hon'ble Prime Minister Dr. Tawfiq-e-Elahi Chowdhury BB and Hon'ble State Minister for Power, Energy & Mineral Resources Mr. Nasrul Hamid MP

## REPAIR AND MAINTENANCE EXPENSES

Code No.	Head of Accounts	Generation Expenses	Distribution Expenses	Total General & Administrative Expenses	Total Expenses
0.42	Petrol/ Diesel & Lubricants Used for Transport	29,417,961	116,207,213	43,774,255	189,399,429
.42(a)	CNG Used for Vehicle	5,594,159	797,860	896,515	7,288,534
0.43	Petrol/ Diesel & Lubricants Used for Other Equipment	193,092,184	-	-	193,092,184
0.44	Store & Spares Used	235,272,854	92,918,760	12,781,009	340,972,623
0.44a	Store & Spares Used-Foreign	2,022,298	-	-	2,022,298
0.45	Custom Duties & Sale Tax	135,572,491	121,393,434	-	256,965,924
45a	Vat	197,831,028	134,053,835	-	331,884,863
0.46	Demurrage & Warfront	20,576,409	6,499,404	-	27,075,813
0.49	Freight & Handling	32,541,334	64,041,147	299,523	96,882,004
0.60	Insurance (For Goods & Property)	23,508,658	22,618	56,170	23,587,446
.60a	Insurance (For Transportation Equipment)	2,169,904	1,026,094	3,453,154	6,649,152
0.61	Bank Charge & Commission	31,538,246	118,913,007	2,505,546	152,956,799
0.64	Contractor's Fees	-	-	3,911,565	3,911,565
.64a	Contractor's Fees	-	-	17,330,533	17,330,533
0.65	Consultants Expenses	71,405,699	575,000	23,340,309	95,321,008
0.71	Structure & Improvement	68,991,045	56,375,563	60,203,729	185,570,337
0.72	Boiler Plant equipment	28,743,509	-	595,325	29,338,834
0.73	Engine & Engine Driven Generators	17,581,001	-	-	17,581,001
0.74	Generator	24,710,088	-	-	24,710,088
0.75	Prime Movers	9,171,483	-	-	9,171,483
0.76	Accessory elect. equipment	2,500,172	274,514	-	2,774,686
0.77	Reservoir, Dams & Waterways	1,774,848	-	-	1,774,848
0.79	Roads, Rail Roads & Bridges	103,519,000	-	-	103,519,000
0.81	Station Equipment	2,127,920,458	1,637,034	-	2,129,557,492
0.83	Poles & Fixtures	-	4,811,289	-	4,811,289
0.84	Overhead Conduct & Devices	3,382,402	212,404,538	700,227	216,487,167
0.86	Line Transformers	-	249,059,898	-	249,059,898
0.86a	Transformer Manufacturing	-	166,038	-	166,038
0.87	Street Lighting and Single Systems	-	20,260	-	20,260
0.88	Metters	-	5,933,728	-	5,933,728
0.89	Transportation Equipment's	23,300,200	52,411,444	56,598,122	132,309,766
0.91	Office furniture & Equipment	1,511,960	4,723,194	8,252,201	14,487,355
0.91a	Office furniture & Equipment (Computer, Monitor & Others)	44,000	2,199	24,300	70,499
0.93	Tools, Shop and Garage Equipments	-	1,813,702	1,442,294	3,255,996
0.95	Stores Equipment	34,963,144	557,980	371,845	35,892,969
0.96	Fire Fighting Equipment	3,513,695	5,740	-	3,519,435
	<b>Total Repair &amp; Maintenance Expenses</b>	<b>3,432,170,229</b>	<b>1,246,645,493</b>	<b>236,536,622</b>	<b>4,915,352,344</b>

## COMPARISON OF ELECTRICITY PURCHASE FROM IPP & SIPP WITH PREVIOUS YEAR

Particulars	Nature of Fuel	FY-2013-2014			FY-2012-2013		
		Unit kWh	Amount In Tk.	Cost/kWh	Unit kWh	Amount In Tk.	Cost/kWh
KPCL, Khulna	HFO	405,825,400	6,187,600,339	15.25	490,557,400	7,865,922,525	16.03
NEPC BD. (LTD), Haripur	HFO	509,346,000	10,108,984,436	19.85	455,373,000	9,198,379,100	20.20
RPCL 52MW Gazipur	HFO	171,626,772	3,519,675,572	20.51	105,517,813	1,693,993,602	16.05
RPCL 52MW Rawjan	HFO	115,668,460	1,873,288,026	16.20	27,184,620	330,402,954	12.15
Summit Meghnaghat	HFO	126,293,117	3,709,343,224	29.37	-	-	-
Raj Lanka Power Limited	HFO	87,769,440	1,475,838,769	16.81	-	-	-
Baraka Petenga Power Limited	HFO	55,164,672	790,818,376	14.34	-	-	-
Digital Power & Associates Ltd.	HFO	43,572,870	657,876,046	15.10	-	-	-
<b>Sub total- IPP, HFO</b>		<b>1,515,266,731</b>	<b>28,323,424,788</b>	<b>18.69</b>	<b>1,078,632,833</b>	<b>19,088,698,181</b>	<b>17.70</b>
WESTMONT BD. (LTD), Baghabari	Gas	-	-	-	171,746,880	425,414,614	2.48
RPC LTD. Mymensingh	Gas	1,206,405,586	3,662,007,082	3.04	1,229,449,136	3,969,945,595	3.23
AES, Haripur (PVT.) LTD.	Gas	2,530,932,000	3,842,597,273	1.52	2,526,738,000	3,933,099,828	1.56
AES Meghna Ghat BD. LTD.	Gas	2,776,088,200	6,301,997,207	2.27	3,467,490,190	8,079,598,176	2.33
Doren Power Generation & System Ltd.-Feni	Gas	135,314,640	349,548,463	2.58	129,459,052	344,998,334	2.66
Doren Power Generation & System Ltd.- Tangail	Gas	135,376,874	345,773,734	2.55	134,915,616	339,362,504	2.52
Rejent Power Ltd.	Gas	129,871,680	349,128,304	2.69	122,924,160	340,508,024	2.77
Summit Purbachal Power Ltd.-Jangalia	Gas	241,345,008	627,501,295	2.60	243,115,029	633,781,619	2.61
United Power Generation & Distribution	Gas	163,196,640	462,485,714	2.83	107,082,720	346,087,438	3.23
Regent Energy & Power Ltd.	Gas	11,027,036	9,708,863	0.88	-	-	-
Midland Power Company Ltd.	Gas	154,598,665	359,618,653	2.33	-	-	-
<b>Sub total- IPP &amp; SIPP, GAS</b>		<b>7,484,156,330</b>	<b>16,310,366,588</b>	<b>2.18</b>	<b>8,132,920,783</b>	<b>18,412,796,132</b>	<b>2.26</b>
<b>Total IPP &amp; SIPP</b>		<b>8,999,423,061</b>	<b>44,633,791,376</b>	<b>4.96</b>	<b>9,211,553,616</b>	<b>37,501,494,313</b>	<b>4.07</b>

## COMPARISON OF ELECTRICITY PURCHASE FROM PUBLIC PLANTS WITH PREVIOUS YEAR

Particulars	Nature of Fuel	FY-2013-2014			FY-2012-2013		
		Unit kWh	Amount In Tk.	Cost/kWh	Unit kWh	Amount In Tk.	Cost/kWh
APSC ( Except New 50 MW)	Gas	3,472,220,847	6,329,332,356	1.82	3,984,881,585	6,868,097,934	1.72
APSC ( New 50 MW)	Gas	254,047,644	487,877,995	1.92	291,127,302	618,468,760	2.12
SBU HARIPUR	Gas	49,260,242	124,278,681	2.52	278,999,789	608,918,185	2.18
EGCB Ltd. (210MW)	Gas	265,710,956	1,532,914,512	5.77	395,776,244	1,922,853,960	4.86
EGCB Ltd.(412MW)	Gas	1,017,325,483	1,540,342,877	1.15	-	-	-
NWPGCL Ltd. - SIRAJGONJ	Gas	952,291,751	2,609,653,419	2.74	531,486,163	807,830,717	1.52
<b>Sub Total - Public Plant, Gas</b>		<b>6,010,856,923</b>	<b>12,624,399,840</b>	<b>2.10</b>	<b>5,482,271,083</b>	<b>10,826,169,556</b>	<b>1.97</b>
NWPGCL Ltd - KHULNA	Diesel	357,673,985	10,099,749,033	28.24	-	-	-
<b>Sub Total - Public Plant, Diesel</b>		<b>357,673,985</b>	<b>10,099,749,033</b>	<b>28.24</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Total Public Plant</b>		<b>6,368,530,908</b>	<b>22,724,148,873</b>	<b>3.57</b>	<b>5,482,271,083</b>	<b>10,826,169,556</b>	<b>1.97</b>

## COMPARISON OF ELECTRICITY PURCHASE FROM INDIA WITH PREVIOUS YEAR

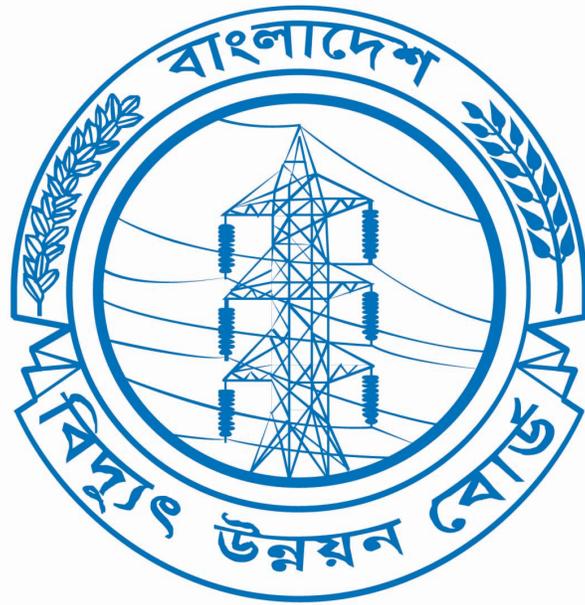
Particulars	Capacity MW	FY-2013-2014			FY-2012-2013		
		Unit kWh	Amount In Tk.	Cost/kWh	Unit kWh	Amount In Tk.	Cost/kWh
NVVN Ltd. - INDIA	250	1,256,087,486	4,803,956,319	3.82	-	-	-
PTC INDIA Ltd.	250	1,008,930,498	6,653,447,337	6.59	-	-	-
<b>Balance as at June 30, 2013</b>		<b>2,265,017,984</b>	<b>11,457,403,656</b>	<b>5.06</b>	<b>-</b>	<b>-</b>	<b>-</b>

### COMPARISON OF ELECTRICITY PURCHASE FROM RENTAL & QUICK RENTAL PLANTS WITH PREVIOUS YEAR

Particulars	Nature of Fuel	FY-2013-2014			FY-2012-2013		
		Unit Kwh	Amount In Tk.	Cost/kwh	Unit Kwh	Amount In Tk.	Cost/kwh
AGGREKO, INTERNATIONAL LTD.-GHORASAL	Gas	948,546,390	5,643,171,067	5.95	884,425,530	5,231,589,134	5.92
AGGREKO, INTERNATIONAL LTD.-B.BARIA	Gas	523,011,261	2,816,240,146	5.38	508,846,126	2,845,339,222	5.59
AGGREKO, INTERNATIONAL LTD.-80 MW	Gas	552,463,607	2,492,030,044	4.51	483,915,253	2,881,617,531	5.95
SHAHJIBAZAR POWER CO. LTD.	Gas	543,261,033	1,438,753,166	2.65	584,089,553	1,464,712,398	2.51
DESH CAMBRIDGE, KUMERGOAN	Gas	59,445,216	170,500,974	2.87	55,257,868	160,357,389	2.90
ENERGYPRIMA, KUMERGOAN	Gas	295,972,560	909,043,153	3.07	260,345,140	936,034,121	3.60
ENERGYPRIMA, SHAHJIBAZAR	Gas	303,108,888	973,135,616	3.21	302,390,748	990,311,066	3.27
ENERGYPRIMA, FENCHUGONJ	Gas	318,977,401	930,911,990	2.92	300,594,910	1,048,744,783	3.49
ENERGYPRIMA, BOGRA	Gas	112,952,801	349,373,461	3.09	102,139,695	344,462,371	3.37
MAX POWER LTD.-GHORASAL	Gas	465,419,364	2,701,530,864	5.80	552,962,175	3,103,686,680	5.61
UNITED ASHUGONJ POWER LTD.	Gas	347,537,148	1,657,665,937	4.77	322,221,385	1,922,445,035	5.97
BARKATULLAH ELECTRO DYNAMICS LTD.	Gas	338,817,206	780,994,387	2.31	278,776,127	655,036,231	2.35
PRECISION ENERGY LTD.	Gas	349,402,037	1,064,454,687	3.05	283,698,139	1,323,730,792	4.67
VENTURE ENERGY RESOURCES LTD.	Gas	45,404,181	188,717,856	4.16	180,325,870	735,282,106	4.08
GBB POWER LTD.	Gas	165,523,524	480,933,594	2.91	166,971,964	461,915,282	2.77
<b>Sub Total - Rental, Gas</b>		<b>5,369,842,616</b>	<b>22,597,456,942</b>	<b>4.21</b>	<b>5,266,960,483</b>	<b>24,105,264,141</b>	<b>4.58</b>
SUMMIT NARAYANGONJ POWER LTD.	HFO	555,630,912	8,764,417,269	15.77	526,067,928	8,823,683,817	16.77
KPCL -UNIT-2	HFO	550,334,801	9,073,899,786	16.49	463,511,424	8,053,598,427	17.38
KHANJAHAN ALI POWER LTD.	HFO	215,636,440	3,555,021,249	16.49	198,448,565	3,345,054,492	16.86
QUANTUM POWER NOWAPARA	HFO	-	-	-	89,385,883	2,297,396,401	25.70
IELCONSOURTIUM & ASSOCIATES	HFO	525,934,377	8,718,526,060	16.58	509,462,597	8,520,887,157	16.73
ENERGIS POWER CORPORATION LTD.	HFO	-	-	-	82,770,195	1,996,161,015	24.12
DUTCH BANGLA POWER & ASSOCIATES LTD.	HFO	535,047,432	8,776,890,419	16.40	476,301,024	7,847,214,067	16.48
ACRON INFRASTRUCTURE SERVICE LTD.	HFO	584,394,000	9,004,691,659	15.41	572,291,730	9,291,517,116	16.24
AMNURA(SINHA POWER GENERATION)	HFO	100,300,464	2,146,682,717	21.40	95,841,048	2,168,243,126	22.62
POWER PAC MUTIARA KERANIGONJ	HFO	484,178,256	8,116,076,445	16.76	349,580,064	6,420,285,449	18.37
NORTHERN POWER	HFO	143,492,435	2,676,988,233	18.66	109,141,143	2,299,534,198	21.07
<b>Sub Total - Rental, HFO</b>		<b>3,694,949,116</b>	<b>60,833,193,837</b>	<b>16.46</b>	<b>3,472,801,601</b>	<b>61,063,575,265</b>	<b>17.58</b>
AGGREKO, INTERNATIONAL LTD.-55 MW	Diesel	129,232,190	3,061,693,280	23.69	100,611,860	3,322,649,551	33.02
AGGREKO, KHULNA(3 YEARS) LIQUID FUEL	Diesel	27,914,730	562,560,035	20.15	85,370,910	1,584,252,063	18.56
DPA POWER GEN. INT. LTD.	Diesel	160,165,910	3,780,331,824	23.60	93,613,130	2,579,535,337	27.56
QUANTUM POWER 100 MW BHERAMARA	Diesel	-	-	-	105,928,598	3,710,305,985	35.03
DESH ENERGY100 MW SIDDIRGONJ	Diesel	189,620,760	5,206,469,955	27.46	218,668,920	5,272,637,722	24.11
R Z POWER LTD.	Diesel	61,352,685	1,461,688,308	23.82	65,090,977	1,762,279,097	27.07
AGGREKO, INTERNATIONAL LTD.-80 MW ASHUGONJ		-	-	-	-	-	-
<b>Sub Total - Rental, Diesel</b>		<b>568,286,275</b>	<b>14,072,743,402</b>	<b>24.76</b>	<b>669,284,395</b>	<b>18,231,659,755</b>	<b>27.24</b>
<b>Total Rental Plant</b>		<b>9,633,078,007</b>	<b>97,503,394,182</b>	<b>10.12</b>	<b>9,409,046,479</b>	<b>103,400,499,161</b>	<b>10.99</b>

**GENERATION COST SHEET (BPDB'S OWN POWER PLANT) FOR THE YEAR 2013-2014**

Sl. No.	Generating Plant under Power Station	Capacity	Plant Factor	Net Generation kWh	Variable Cost				Fixed Cost		Total Generation Cost	Generation Cost Tk/kWh
					Fuel Cost Tk	Fuel cost Tk/kWh	Variable O & M	Variable O & M Tk/kWh	Total Fixed Cost	Fixed Cost Tk/kWh		
1	2	3	4	5	6	7=(6/5)	8	9=8/5	10	11=10/5	12=6+8+10	13=12/5
1	KARNAFULI HYDRO POWER STATION	230	29%	588,029,315	-	-	25,382,112	0.04	852,535,677	1.45	877,917,789	1.49
	<b>Total Water</b>	<b>230</b>	<b>29%</b>	<b>588,029,315</b>	<b>-</b>	<b>-</b>	<b>25,382,112</b>	<b>0.04</b>	<b>852,535,677</b>	<b>1.45</b>	<b>877,917,789</b>	<b>1.49</b>
2	WIND BASE POWER STATION, KUTUBDIA	-	-	104,610	-	-	156,537	1.50	2,505,421	23.95	2,661,958	25.45
	<b>Total Wind</b>	<b>0</b>	<b>-</b>	<b>104,610</b>	<b>-</b>	<b>-</b>	<b>156,537</b>	<b>1.50</b>	<b>2,505,421</b>	<b>23.95</b>	<b>2,661,958</b>	<b>25.45</b>
3	BAGHABARI POWER STATION	171	82%	1,232,983,600	1,275,110,409	1.03	498,544,925	0.40	457,565,523	0.37	2,231,220,857	1.81
4	GHORASHAL POWER STATION	950	44%	3,685,689,728	3,532,942,096	0.96	356,934,437	0.10	2,918,894,941	0.79	6,808,771,474	1.85
5	CHITTAGONG POWER STATION, RAWZAN	420	14%	515,179,283	536,556,991	1.04	283,675,584	0.55	1,021,978,848	1.98	1,842,211,423	3.58
6	SHIKALBAHA POWER STATION	210	17%	312,676,453	369,086,790	1.18	139,339,805	0.45	759,127,895	2.43	1,267,554,490	4.05
7	KUMERGOAN GT POWER SYLHET	20	67%	116,531,150	139,388,209	1.20	18,012,014	0.15	38,167,799	0.33	195,568,021	1.68
8	SYLHET 150 MG PEAKING POWER PLANT	150	69%	901,284,038	875,175,194	0.97	4,221,317	0.00	286,912,854	0.32	1,166,309,365	1.29
9	FENCHUGANJ 2x 90 MW CCPP (1st & 2nd unit)	180	71%	1,114,731,670	899,197,338	0.81	117,997,509	0.11	779,147,029	0.70	1,796,341,876	1.61
10	SHAHJIBAZAR POWER STATION	117	41%	422,461,555	460,309,682	1.09	194,383,459	0.46	330,153,470	0.78	984,846,611	2.33
11	TONGI POWER STATION	109	12%	115,096,258	141,414,258	1.23	528,806,435	4.59	286,436,891	2.49	956,657,584	8.31
12	SIDDIRGONJ POWER STATION	210	29%	538,224,912	502,844,070	0.93	194,635,328	0.36	901,004,505	1.67	1,598,483,903	2.97
13	CHADPUR PEAKING POWER PLANT	163	49%	696,080,009	479,289,727	0.69	43,295,745	0.06	449,157,758	0.65	971,743,231	1.40
14	SBU Haripur ( cost of BPDB's book)	--	-	-	-	-	-	-	176,479,628	-	176,479,628	-
	<b>Total Gas</b>	<b>2,700</b>	<b>41%</b>	<b>9,650,938,656</b>	<b>9,211,314,764</b>	<b>0.95</b>	<b>2,379,846,560</b>	<b>0.25</b>	<b>8,405,027,140</b>	<b>0.87</b>	<b>19,996,188,464</b>	<b>2.07</b>
15	BARAPUKURIA POWER STATION	250	47%	1,038,329,351	4,993,760,990	4.81	303,321,056	0.29	1,249,406,254	1.20	6,546,488,300	6.30
	<b>Total Coal</b>	<b>250</b>	<b>47%</b>	<b>1,038,329,351</b>	<b>4,993,760,990</b>	<b>4.81</b>	<b>303,321,056</b>	<b>0.29</b>	<b>1,249,406,254</b>	<b>1.20</b>	<b>6,546,488,300</b>	<b>6.30</b>
16	KHULNA POWER STATION	170	6%	90,121,122	2,062,228,945	22.88	44,899,821	0.50	387,476,913	4.30	2,494,605,679	27.68
17	BAGHABARI 50 PEAKING POWER PLANT	50	29%	128,190,590	1,902,950,777	14.84	2,630,395	0.02	333,394,147	2.60	2,238,975,318	17.47
18	BERA PEAKING POWER PLANT	71	30%	186,428,168	2,824,565,355	15.15	1,713,407	0.01	332,202,616	1.78	3,158,481,378	16.94
19	HATHAZARI PEACKING POWER PLANT	100	22%	192,076,577	2,706,941,343	14.09	6,799,381	0.04	616,160,417	3.21	3,329,901,140	17.34
20	DOHAZARI PEACKING POWER PLANT	100	24%	206,919,533	2,844,059,384	13.74	5,855,741	0.03	631,629,240	3.05	3,481,544,365	16.83
21	FARIDPUR PEACKING POWER PLANT	50	31%	134,608,320	2,022,298,705	15.02	78,869,586	0.59	255,115,576	1.90	2,356,283,866	17.50
22	GOPALGONJ PEACKING POWER PLANT	100	31%	273,962,240	4,121,113,869	15.04	113,759,257	0.42	494,178,825	1.80	4,729,051,951	17.26
23	DAUDKANDI PEACKING POWER PLANT	50	27%	117,748,362	1,727,100,334	14.67	3,463,704	0.03	406,467,764	3.45	2,137,031,801	18.15
24	SHANTAHAR 50MW POWER PLANT	50	20%	86,466,292	1,221,825,879	14.13	1,650,196	0.02	255,923,197	2.96	1,479,399,272	17.11
25	KATAKHALI 50MW POWER PLANT	50	22%	96,438,974	1,346,193,502	13.96	9,853,653	0.10	252,777,620	2.62	1,608,824,775	16.68
	<b>Sub Total, HFO</b>	<b>791</b>	<b>22%</b>	<b>1,512,960,178</b>	<b>22,779,278,093</b>	<b>15.06</b>	<b>269,495,140</b>	<b>0.18</b>	<b>3,965,326,313</b>	<b>2.62</b>	<b>27,014,099,546</b>	<b>17.86</b>
26	BHERAMARA POWER STATION	60	14%	72,582,358	2,243,338,354	30.91	114,360,777	1.58	233,361,541	3.22	2,591,060,672	35.70
27	BARISHAL GAS TURBINE POWER STATION	40	11%	37,857,483	1,290,703,365	34.09	186,727,658	4.93	68,397,713	1.81	1,545,828,735	40.83
28	BARISHAL DIESEL POWER STATION	-	-	(3,000)	-	-	14,181,018	-	35,726,110	-	49,907,128	-
29	BHOLA DIESEL POWER STATION	-	-	-	23,890	-	1,209,721	-	17,579,523	-	18,813,134	-
30	SAYEDPUR GAS TURBINE POWER STATION	20	15%	26,169,430	766,395,476	29.29	107,212,296	4.10	56,159,170	2.15	929,766,943	35.53
31	RANGPUR GAS TURBINE POWER STATION	20	11%	19,460,588	596,036,672	30.63	25,758,626	1.32	36,435,302	1.87	658,230,599	33.82
32	SAYEDPUR DIESEL GENERATOR	-	-	-	-	-	-	-	422,080	-	422,080	-
33	THAKURGOAN DIESEL GENERATOR	-	-	-	-	-	-	-	-	-	-	-
34	KUTUBDIA DIESEL GENERATOR	1.5	1%	90,200	2,375,070	26.33	254,182	2.82	5,160,981	57.22	7,790,233	86.37
35	SANDIP DIESEL GENERATOR	2.64	1%	343,537	8,785,810	25.57	2,357,382	6.86	4,865,819	14.16	16,009,011	46.60
36	HATIYA DIESEL GENERATOR	2.2	6%	1,246,267	33,764,943	27.09	1,033,284	0.83	11,490,308	9.22	46,288,535	37.14
37	DGD, Dhaka	-	-	-	885,106	-	873,888	-	25,411,392	-	27,170,386	-
	<b>Sub Total, Diesel</b>	<b>146</b>	<b>12%</b>	<b>157,746,863</b>	<b>4,942,308,686</b>	<b>31.33</b>	<b>453,968,831</b>	<b>2.88</b>	<b>495,009,939</b>	<b>3.14</b>	<b>5,891,287,456</b>	<b>37.35</b>
	<b>Grand Total</b>	<b>4,117</b>	<b>36%</b>	<b>12,948,108,973</b>	<b>41,926,662,533</b>	<b>3.24</b>	<b>3,432,170,236</b>	<b>0.27</b>	<b>14,969,810,744</b>	<b>1.16</b>	<b>60,328,643,513</b>	<b>4.66</b>





# PRIMARY GRID SYSTEM OF BANGLADESH

AS ON JUNE 2014

Directorate of System Planning, BPDB

## LEGEND :

400 KV LINE

230 KV LINE

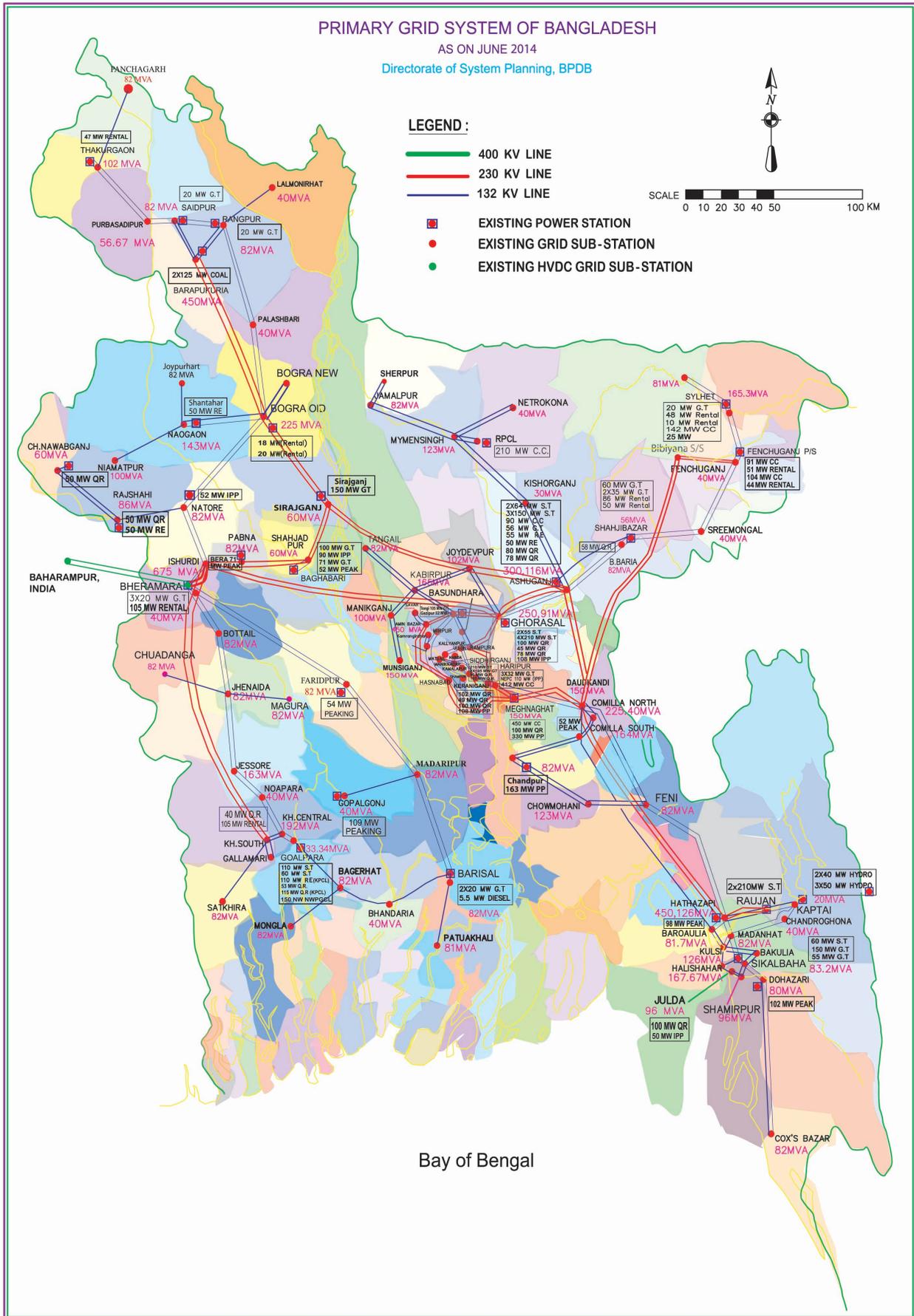
132 KV LINE

EXISTING POWER STATION

EXISTING GRID SUB-STATION

EXISTING HVDC GRID SUB-STATION

SCALE 0 10 20 30 40 50 100 KM





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