

CHAPTER 10

POWER AND ENERGY

Electricity

Electricity plays a vital role in the socio-economic development and poverty reduction. It is considered as the driving force of all development activities. In Bangladesh, the performance of the power sector is yet to be satisfactory. Presently only 43 percent of the total population has access to electricity and per capita generation is only 165 kWh which are very low comparing with even other developing countries. Reduction of poverty to a moderate level calls for GDP growth rate at 7-8 percent and achieving this growth rate requires increased electricity supply which should be in the region of 1.5 times growth rate. Contribution of electricity in GDP and growth rate of electricity in last 6 years is presented below:

Table-10.1: Contribution of electricity in GDP and its growth rate

Contribution	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07 (provisional)
Contribution of electricity in GDP (%)	1.27	1.30	1.34	1.37	1.39	1.35
Growth rate of electricity (%)	7.78	7.29	9.19	8.58	7.45	4.52

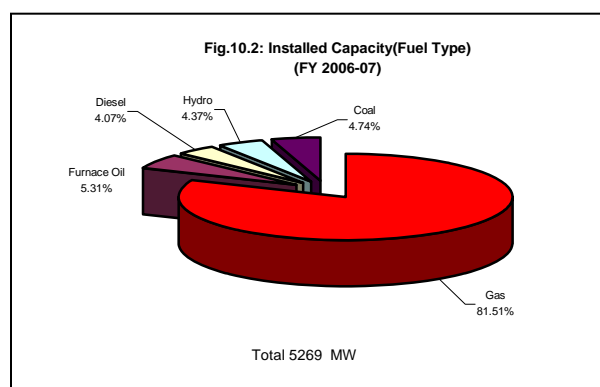
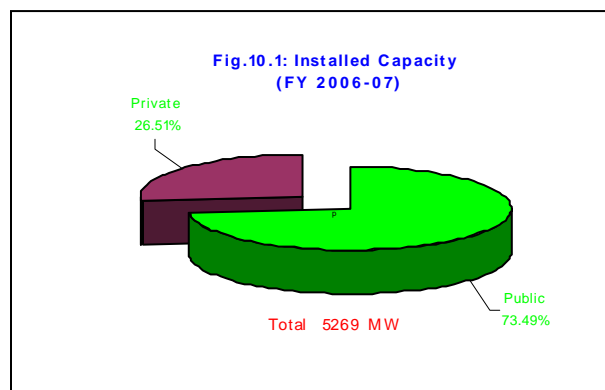
Source: Bangladesh Bureau of Statistics

The government is aware of the situation in this sector and has already taken steps to bring about improvement. The government's vision is to provide electricity to all by the year 2020.

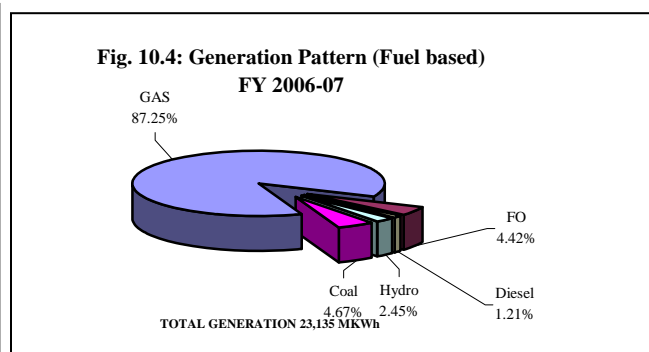
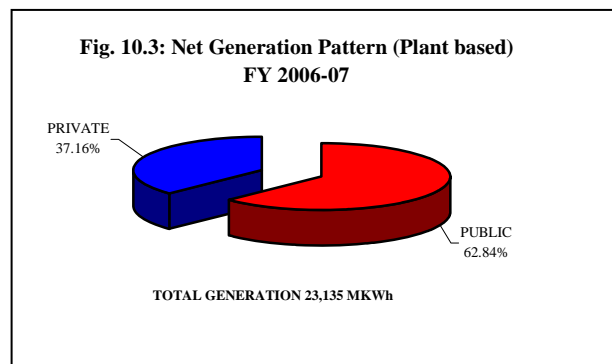
Generation capacity and Demand

In FY 2006-07 (June'07), the total installed generation capacity was 5269 MW with 3872 MW in public sector and 1397 MW in private sector. In the public sector, a good number of generation units have become very old and has been operating at a much-reduced capacity. As a result, their reliability and productivity are also poor. For the last few years, actual demand could not be supplied due to shortage of available generation capacity. Besides, due to shortage of gas supply some power plants can not reach their usual generation capacity. The water level of Kaptai Lake has also gone down which caused a huge reduction in the generation of Kaptai Hydroelectric power plant. In FY 2006-07, it was possible to supply 3784.8 MW of maximum demand (Public sector 2539.8 MW and IPP 1245 MW). The installed capacity by plant type and fuel type during FY 2006-07 are shown in figure 10.1 and 10.2.

Figure: 10.1 and 10.2: Power Installed Capacity by Plant and Fuel Capacity 2006-07



About 23,135 million-kilowatt hours (MKWh) net energy (14,538.5 MKWh in public sector and 8,596.5 MKWh in private sector) were generated during FY 2006-07. Of the total net energy generation 62.84 percent was generated in public sector and 37.16 percent in the private sector. Of the total net energy generation 87.25 percent was gas based, 2.45 percent hydro, 4.67 percent coal and 5.63 percent oil based. Net generation by plant type and fuel type is shown in Figure 10.3 and 10.4 below.



In FY 1995-96, the natural gas consumption was 1,06,593 million cubic feet for power generation under BPDB power plants, which increased to 1,46,261 million cubic feet in FY 2006-07.

Sale of Electricity by BPDB

Total electricity sale in PDB system was 21181.14 MKWh in FY 2006-07. The share of total PDB's sale was 24.75 percent to DESA, 10.34 percent to DESCO, 37.96 percent to REB, 6.05 percent WZPDC and 21.89 percent to BPDB's own retail consumers.

Maximum Generation

Due to shortage of available generation capacity, the actual demand could not be met in the last few years. So maximum generation of electricity could not tackle power crisis in the country. The installed capacity and maximum generation during period from FY 1995-96 to FY 2006-07 are shown in Table-10.2.

Table-10.2: Installed Capacity and Maximum Generation

Fiscal Year	Installed capacity (MW)	Maximum generation (MW)
1995-1996	2908	2087
1996-1997	2908	2114
1997-1998	3091	2136
1998-1999	3611	2449
1999-2000	3711	2665
2000-2001	4005	3033
2001-2002	4230	3218
2002-2003	4710	3458
2003-2004	4710	3622
2004-2005	5025	3751
2005-2006	5275	3812
2006-2007	5269	3785

Source: Bangladesh Power Development Board.

Power Development Program

According to the base forecast of Power System Master Plan drawn up in 2005, the maximum demand in 2008, 2012, and 2015 would be about 5,569 MW, 7,732 MW and 9,786 MW respectively. The demand is expected to be 13,993 MW in 2020. To meet the projected demand of electricity together with achieving reliable reserve margin, the government has undertaken a programme to build required numbers of power plants in phases by 2012. Table-10.3 shows planned power generation projects up to 2012.

Table-10.3: Power Generation Projects up to 2012

Sl. No.	Generating Station/ Project	Capacity (MW)	Expected Commissioning Date
Under construction			
Public Sector			
1	Sylhet(Fenchuganj) 90 MW CCPP (2nd Phase)	35 GT 35 GT 35 ST	Oct/ 07 Jan/ 08 June/ 08
2	Siddhirganj 2x120 MW peaking power plant	240	FY 2009 (Dec/08)
Sub-Total		345	-
New Planned (Public Sector)			
3	Chandpur 150 MW CCPP (100 MW GT) and Associated Power Evacuation Facilities	100	FY 2010
4	Sikalbaha 150 MW Gas Turbine	150	FY 2010
5	Sylhet 150 MW CCPP (100 MW CT) and Associated Power Evacuation Facilities	100	FY 2010
6	Siddhirganj 2x150 MW Gas Turbine P/S (Including evacuation facilities)	300	FY 2010
7	Haripur 360 MW Combined Cycle Power Plant	360	FY 2011
8	Chandpur 150 MW CCPP (100 MW GT) and Associated Power Evacuation Facilities	100	FY 2010
9	Bhola 150 MW CCPP	150	FY 2010
10	Khulna 150 MW Peaking Power Plant	150	FY 2010
11	210 MW Siddhirganj Thermal Power Station (Unit #2)	210	FY 2011
12	Sirajganj 150 MW Gas Turbine	150	FY 2010
13	Kaptai Power Plant extension 2x50 MW (6th & 7th unit)	100	FY 2012
14	Sikalbaha 225 MW Combined Cycle Power plant	225	FY 2010
15	Sylhet 150 MW Gas Turbine	150	FY 2011
16	Bheramara 450 Combined Cycle Power Plant	450	FY 2011
17	Barapukuria 125 MW (3rd Unit) Coal fired TPS	125	FY 2011
18	Ghorashal 225 MW Combined Cycle Power Plant	225	FY 2012
19	Ashuganj 450 MW Combined Cycle Power Plant	450	FY 2012
Sub-total (Public Sector)		3840	-
Private Sector			
20	Baghabari (West Mont) CC: 40 MW ST ST addition to existing 90 MW	40	Dec'07
21	Sirajganj 450 MW Combined Cycle Power Plant	450	FY 2011
22	Meghnaghat 450 MW CC (Unit -2)	485	FY 2011
23	Meghnaghat 450 MW CC (Unit -3)	450	FY 2011
24	Bibiana 450 MW CC	450	FY 2011
25	Sirajganj 450 MW Combined Cycle Power Plant (Unit-2)	450	FY 2012
26	10-30 MW Small IPP (PDB 90 MW & REB 110 MW)	200	FY 2009
27	Rental Power Plant	250	FY 2009
Sub-total		2775	
GRAND TOTAL (FY 2006 - FY 2012)		6615	
Public Sector		3840	
Private Sector		2775	

Source: Power Division.

Transmission System

Power Grid Company of Bangladesh (PGCB)

PGCB was created under the restructuring process of power sector in Bangladesh with the objective of bringing corporate environment including increase in efficiency, establishment of accountability and dynamism in accomplishing its functions. PGCB is mainly concerned with the operation, maintenance and development of the transmission system all over the country. It is also responsible for expansion of the grid network like installation of new transmission line and grid substations.

Power generated in different power plants all over the country is transmitted in the entire grid system through its 230 kV and 132 kV transmission lines. In 1996 when PGCB was formed, the total lengths of 230 kV and 132 kV line were 838 ckt km and 4755 ckt km respectively which increased to 1144 ckt km and 4962 ckt km respectively in FY 2000-01. At present there is a network of 1466.5 ckt km of 230 kV line and 5577.6 ckt km of 132 kV line throughout the country.

The government decided to offload 25 percent of PGCB's shares through the Stock Exchanges under Direct Listing in order to bring about more accountability of the company's activities and to strengthen the capital market of the country. Accordingly PGCB was listed on October' 2006 at Dhaka Stock Exchange (DSE) and Chittagong Stock Exchange (CSE) and trading of shares started in October' 2006. Out of 25 percent shares, 5 percent shares have been kept reserve for allotment to the employees of the Company. The rest 20 percent shares have been fully sold through Stock Exchanges.

Steps taken to improve the Transmission System:

Power Grid Company of Bangladesh Ltd.(PGCB) has been formed to operate, maintain & develop the power transmission system. To improve the whole transmission system, the company so far completed the following transmission projects: (1) Comilla-Meghnaghat-Haripur 230 kV Transmission Line and Turn in and out of existing Ghorashal-Haripur 230 kV Line at Rampura in June' 2003, (2) Hasnabad-Aminbazar (Savar)-Tongi and Haripur-Meghnaghat 230 kV Transmission Line in June' 2006, (3) Rampura-Gulshan 132 kV Double ckt Cable Line, (4) Joydebpur-Kabirpur-Tangail 132 kV Double ckt Transmission Line, (5) Khulna Central-Khulna South Double ckt 132 kV Transmission Line, (6) Khulna 230/132 kV Substation, (7) Barapukuria 230 kV Substation, (8) Extension of Joydebpur 132/33 kV Substation with GIS Bay, (9) Barapukuria-Rangpur and Barapukuria-Sayedpur 132 kV Transmission Line. PGCB has also completed 'Natore-Rajshahi 132 kV Single ckt Line Project' in FY 2006-07 under PGCB's own finance.

Table 10.4 below shows the ongoing projects under PGCB with physical progress up to June 2007:

Table 10.4: Projects under implementation

SI No.	Name of the Project	Physical Target up to June-07 (%)	Physical Progress up to June-07 (%)	Financing Status
1	Ishurdi-Baghabari-Serajganj-Bogra 230 kV Transmission line. (Implementation Period : 2002-03 to 2007-08)	61.26	62.89	ADB, KfW, Suppliers Credit and Bangladesh Govt.
2	Khulna-Ishurdi and Bogra-Barapukuria 230 kV Transmission line. (Implementation Period : 2001-02 to 2007-08)	82.22	82.22	ADB, NDF, KfW, SIDA, Suppliers Credit, PGCB's own finance and Bangladesh Govt.
3	Second East-West Electrical Interconnector (Ashuganj-Jamuna Multipurpose Bridge-Serajganj 230 kV Transmission Line). (Implementation Period: 2002-03 to Dec' 07)	100.00	98.00	ADB & Bangladesh Govt.
4	Joydevpur-Kabirpur- Tangail 132 kV Transmission line. (Implementation Period: 2002-03 to 2006-07)	100.00	100.00	DANIDA Mixed Credit financing program & Bangladesh Govt.
5	National Load Despatch Centre (NLDC) (Implementation Period: 2003-04 to 2007-08)	28.88	26.70	ADB & Bangladesh Govt.
6	Shunt Compensation at Grid Substations by Capacitor Banks (Phase-1). (Implementation Period: 2005-06 to 2007-08)	10.00	4.50	ADB & Bangladesh Govt.
7	Construction and Extension of Grid Substations including Transmission line facilities (Phase-1). (Implementation Period : 2005-06 to 2008-09)	25.00	25.00	ADB, JBIC & Bangladesh Govt.
8	Three Transmission Line. (Implementation Period : 2006-07 to 2009-10)	2.91	2.10	ADB & Bangladesh Govt.
9	Meghnaghat-Aminbazar 400 kV Transmission Line (Phase-1). (Implementation Period: 2006-07 to 2008-09)	0.50	0.50	ADB & Bangladesh Govt.
10	Aminbazar-Old Airport 230 kV Transmission Line and Associated Sub-Stations. (Implementation Period : 2006-07 to 2009-10)	3.00	1.00	ADB & Bangladesh Govt.

Source: Power Division

Distribution System

Bangladesh Power Development Board

Distribution System comprises of 33 kV, 11 kV and 0.4 kV lines. In FY 1995-96, the total distribution line in the BPDB system was 35,962 km, which has increased to 47,479 km in FY 2006-07. The number of consumers has also increased to 16,48,411 in FY 2006-07 from 11,56,672 of FY 1995-96.

System Loss and Distribution Loss

BPDB/GOB is committed to bring down the system loss to an acceptable limit. Various steps are being taken to reduce the system loss. In FY 2006-07, the system loss was 7.03 percent (on net generation), which is 0.83 percent lower than the previous year. Also the distribution loss in BPDB system came down to 16.58 percent in FY 2006-07 from 19.06 percent in the previous year. System loss (% of net generation) and Distribution loss (% of import) of BPDB are shown in Table-10.5.

Table -10.5: System loss of BPDB

Fiscal Year	System loss (% of net generation)	Distribution loss (%) excl. bulk
1995-96	17.0	29.09
1996-97	16.0	28.28
1997-98	16.5	29.82
1998-99	16.8	30.56
1999-00	15.4	27.73
2000-01	13.85	26.11
2001-02	12.62	24.50
2002-03	11.35	22.35
2003-04	10.16	21.33
2004-05	9.29	20.00
2005-06	7.86	19.06
2006-07	7.03	16.58

Source: Bangladesh Power Development Board

Dhaka Electric Supply Authority (DESA)

Dhaka Electric Supply Authority (DESA) was created by separating the former Dhaka Electric Supply from Bangladesh Power Development Board (BPDB) on March 06, 1990. DESA started its formal functioning since October 01, 1991. Initially DESA could not achieve the target but by now the situation has changed. System loss of the former Dhaka Electric Supply was 38.26 percent. Now DESA's system loss as of June 2007 is 20.68 percent.

Electricity Import and Revenue Collection

Import of electricity of DESA from BPDB was 2260 MKWH in the year of creation of DESA i.e. in FY 1991-92. Import has increased to 5283.894 MKWH in FY 2006-07. Average Revenue collection was 35 crore 56 lakh at the beginning of creation of DESA which has now increased to 144.961 crore in FY 2006-07. Year wise electricity import and revenue collection of DESA since its inception is presented in Table 10.6.

Table-10.6: Year wise Import, Revenue Collection and System loss of DESA

Fiscal Year	Total Electricity Import (MKWH)	Revenue Collection (Crore Taka)	System Loss (%)
1991-92 (9 months)	2259.885	320.08	35.55
1992-93	3356.390	467.03	31.20
1993-94	3696.357	474.16	31.33
1994-95	4162.396	584.09	30.00
1995-96	4550.851	599.79	29.47
1996-97	4935.532	708.36	27.29
1997-98	5418.941	793.48	27.89
1998-99	5946.635	809.63	24.84
1999-00	6504.047	1000.73	25.72
2000-01	7240.456	1141.05	25.68
2001-02	7833.191	1427.32	25.05
2002-03	8306.079	1591.86	23.05
2003-04	6144.932	1514.96	26.21
2004-05	5044.797	1253.03	21.94
2005-06	5300.971	1369.82	20.13
2006-07	5243.894	1739.54	20.68

Source: Dhaka Electric Supply Authority (DESA), Power Division

Accounts Receivable and Accounts Payable:

DESA collects about 90 percent of its billed amount in each month. Total 'Accounts Receivable' of DESA up to June 2007 since its creation is about Tk. 502.20 crore of which 'Accounts receivable' from government organisation, autonomous bodies and private consumers are Tk. 14.94 TK. 28.07 and TK. 459.19 crore respectively. On the other hand, the accounts payable grew significantly over the years since its creation in 1991. Table 10.7 shows year-wise Accounts Receivable and Accounts Payable of DESA.

Table-10.7: Year wise Accounts Receivable and Accounts Payable of DESA

(Crore Taka)

Fiscal Year	Accounts receivable (cumulative)	Accounts Payable
October 1991	213.10	107.18
June 1992	237.90	200.18
June 1993	300.10	288.59
June 1994	429.20	466.00
June 1995	508.60	658.07
June 1996	626.20	812.78
June 1997	792.80	1022.33
June 1998	998.10	1463.26
June 1999	1244.19	2120.51
June 2000	1396.51	2616.21
June 2001	1480.73	3058.30
June 2002	1540.14	3430.33
June 2003	1699.26	2923.20
June 2004	1592.46	3086.49
June 2005	689.31	2795.01
June 2006	809.89	3086.47
June 2007	493.934	2758.12

Source: Dhaka Electric Supply Authority (DESA), Power Division

Dhaka Electric Supply Company Ltd. (DESCO)

DESCO has undertaken a number of steps regarding collection of outstanding bills, prevention of power thefts and minimising system loss. These include, disconnecting illegal connections and filing cases against delinquent consumers. Development activities of DESCO include decentralisation of management activities, one point service, electronic bill payment system, spot metering and establishment of monitoring cell. Major commercial and technical development activities undertaken during the last fiscal year are summarised below.

Prepaid Metering

In continuation of the highly effective prepaid metering system during FY 2004-05, the second phase of the project for supply and installation of additional 5000 pre-paid meters in sectors 1, 3 and 7 of Uttara has been taken up. Moreover, in order to facilitate continuous supply of pre-paid meters in future, DESCO has set up a 'Manufacturing Unit' with the technical assistance of BRTC, Bangladesh University of Engineering and Technology (BUET). A technical assistance agreement has been signed with BRTC, BUET in this respect. The prepaid meter production unit at Mirpur has already started its operation with an initial output of 50 prepaid meters per day.

Bill Collection and System Loss

In order to strengthen its financial standing, DESCO is making by relentless efforts to maintain a healthy billing/collection ratio. Considering sales at Tk. 7381.0 million and collection at Tk.7705.9 million, the billing collection ratio works out at 104.40 percent in FY 2006-07 as against 99.11 percent in the previous year. The Collection/ Import (C.I.) ratio also improved from 83.06 percent to 90.37 percent this year.

System loss is the key indicator of any energy company, and is determined by the quantity of energy purchased and sold. The system loss works out to 13.44 percent in FY 2006-07 as against 16.20 percent in previous year.

Offloading of Shares

In the continuous process of Power Sector Reforms as well as to expedite privatization process the government decided to off-load 25 percent of DESCO's paid up capital for public subscription. Accordingly, DESCO off loaded its 25 percent share through Dhaka Stock Exchange Ltd.(DSE) and Chittagong Stock Exchange Ltd.(CSE) under the Direct Listing Regulations, 2006. Though it was required to sell the proposed shares within 01(one) year from the date of opening, all the shares were sold out within a month.

Accounts Receivable

One of the indicators of sound financial management is efficient collection system of accounts receivable. The Company maintains a system of continuous monitoring of accounts receivable by way of monthly reports and analysis. The Accounts Receivable/Sales ratio works out to 27 percent this year, as against 30 percent in the previous year, indicating a reducing trend of outstanding.

Commercial and Technical Activities

Key commercial and technical activities conducted and the performances during FY 2001-02 to 2006-07 are summarised below in Table 10.8.

Table-10.8: Commercial and Technical Highlights of DESCO

Description	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07 (as on June 2007)	Increase/Decrease (7-2)
1	2	3	4	5	6	7	8
Commercial Activities							
Energy Import (MKWh)	673.09	855.79	1739.87	1842.89	2023.22	2191.46	(+) 1518.37
Energy Import (MTk.)	1354.51	1850.44	3775.52	3999.07	4390.39	4946.36	(+) 3591.85
Energy Sales (MKWh)	493.62	675.57	1405.03	1536.31	1695.55	1897.01	(+) 1403.39
Energy Sales (MTk.)	1470.03	2216.75	4902.32	5428.08	6280.06	7380.98	(+) 5910.95
System Loss (%)	26.66	21.06	19.24	16.64	16.20	13.44	(-) 13.22
Collection Ratio (%)	89.04	74.10	87.33	97.07	99.11	104.40	(+) 15.36
C I. Ratio (%)	65.30	58.50	70.93	80.92	83.06	90.37	(+) 27.07
Consumers	108182	205803	241964	259580	281960	347619	(+) 239437
Technical Activities							
33/11KV Sub-stations (No.)	6	13	13	13	16	19	(+) 13
Capacity of 33/11KV Sub-stations	200/280	425/593	425/593	430/602	620/868	680/952	(+) 480/672
Maximum Demand (MW)	149.90	315.24	351.82	377.25	397.60	451	(+) 301
33KV Overhead Line (KM)	17.20	73.70	76.70	76.70	76.70	76.70	(+) 59.5
33KV Underground Line (KM)	37.80	70.30	125.30	142.80	143.80	185.70	(+) 147.9
11KV Overhead Line (KM)	169	536	552	600	720	771.00	(+) 602
11KV Underground Line (KM)	43	205	205	238	262	291.85	(+) 248.85
LT Line	422	991	1030	1105	1250	1348	(+) 926
Distribution Transformer (No.)	1555	3369	3594	3785	4106	4316	(+) 2761
Power Factor (%)	96	96	96	96	96	96	0

Source: Dhaka Electric Supply Company Ltd (DESCO)

Substation Related and Other Development Activities

The major technical activities undertaken in FY 2006-07 are highlighted below:

- Accomplished augmentation of capacity of Kallyanpur 33/11 KV substation from 40/56 MVA to 50/70 MVA.
- The project of installation of a new 11 KV switching station at Paikpara has started.
- A project for construction of a 9-storeied office building at Agargaon substation premises has been taken up.
- Land acquisition process for construction of 02 (two) new 33/11 KV substations at areas under Civil Aviation Authority and Mohakhali DOHS has been taken up.
- The project titled “Strengthening DESCO’s Electric Distribution Network” at a total project cost of Tk. 288.52 crore financed by ADB has been approved by ECNEC. Initial activities for the implementation of the project have started.

- The project titled “Upgrading and Expanding Distribution System in Gulshan Circle” at a total project cost of Tk. 399.84 crore financed by ADB has been approved by ECNEC. Initial activities for the implementation of the project have started.

Rural Electrification Board (REB)

Rural Electrification programme has shown a remarkable progress since its inception. Rural Electrification Board by its 70 PBSs up to June, 2007 and by constructing 2,11,904 km distribution lines, has given a total of 73,24,338 connections in 46,720. villages, of which domestic connections stand at 62,17,054, irrigation 2,05,957, commercial 7,67,488, industrial 1,19,752 and others 14,087.

On going Projects under REB

Under the revised ADP for FY 2006-07, REB has been provided with an allocation of Tk 64,270.00 lakh (of which Tk.27,009.00 lakh in local currency and Tk.37,261.00 lakh in Project aid) for implementation of 16 projects (13 investment projects and 3 technical assistance projects).

In the remote areas where power can not be distributed in conventional way, REB has taken 2 renewable energy projects with a target to provide 22000 domestic connection through Solar Home Systems and till to date 4,220 domestic connections have been given. REB purchases electricity from PDB and sells to the consumers.

The Table 10.9 shows the statistics of purchase and sale of electricity of REB in FY 2006-07:

Table 10.9: Purchase and Sale of Electricity among the Consumers by REB

Year/month	MWH purchased	MWH sold/consumed					Average System loss of 70 PBS (%)	
		Domestic	Industry	Commercial	Agriculture	Others		Total
FY 2006-07								
July' 2006	752862	329378	262443	44028	13599	1239	650687	12.54
Aug' 2006	749173	324341	261535	44250	19335	1214	650683	12.43
Sept' 2006	687419	325160	234666	43696	11140	1219	615882	12.23
Oct' 2006	653834	289088	206377	40117	15745	1139	552467	12.27
Nov' 2006	621714	284530	229608	40516	14779	1184	570626	12.22
Dec' 2006	634053	239454	251732	35011	18952	1166	546319	12.23
Jan' 2007	689,054	260,114	216,017	38,507	109,510	1,165	625,313	12.09
Feb' 2007	646,136	217,703	203,564	31,722	141,515	1,114	595,618	12.13
Mar' 2007	791,467	205,686	252,656	41,145	177,570	1,098	678,155	14.32
April' 2007	771,644	250,999	235,344	36,852	161,152	1,136	685,483	12.09
May' 2007	757,183	284,394	263,820	44,821	50,209	1,184	644,428	12.29
June' 2007	712,655	315,956	252,912	45,631	11,738	1,223	627,460	12.09

Source: Rural Electrification Board (REB)

The Table 10.10 shows the payable amount of bill to PDB and receivable amount of bill from the consumers:

Accounts Receivable

Table 10.10: Accounts Receivable and Accounts Payable of Purchase and Sale of Electricity of REB

Fiscal Year	Accounts receivable (Months)	Accounts receivable (In Crore Tk.)	Aging of Accounts Payable (PDB Bill outstanding) (In Crore Tk.)
1994-95	2.14	50.36	0.69
1995-96	2.10	55.68	0.72
1996-97	2.49	74.26	0.71
1997-98	2.46	91.25	1.47
1998-99	2.49	127.14	3.57
1999-00	2.30	149.33	14.85
2000-01	2.23	186.41	55.04
2001-02	2.21	235.00	42.75
2002-03	1.92	268.72	42.34
2003-04	1.81	302.22	32.46
2004-05	1.85	344.66	9.02
2005-06	2.00	428.89	12.89
2006-07	1.72*	374.32*	12.64

Source: Rural Electrification Board (REB)

* The accounts receivable (month) is 1.38 and accounts receivable Tk. is 296.69 crore except 20% reimbursable from the government.

Box 10.1: Reforms and Efficiency Improvement measures:

The government has taken up a range of reform and restructuring programmes to bring efficiency in the power sector. Recently, the government has approved conversion of BPDB into a Holding Company. As part of the process of corporatising DESA a new company in the name of “Dhaka Power Distribution Company Limited” has been established in March 2007. On going reform programmes in power sector are briefly introduced below:

Generation

- ◆ Under the “Private Sector Power Generation Policy”, a power station having the capacity of generating 1230 MW electricity has been installed.
- ◆ Ashuganj Power Station has been converted into a corporatised entity.
- ◆ Electricity Generation Company of Bangladesh (EGCB) has been established to implement, own and operate the proposed 2x120 MW and 2x150 MW peaking power plants at Siddhirgonj and 360 MW Combined Cycle Power Plant at Haripur. Existing Power Plants at Siddhirganj and Haripur will be owned by EGCB in future.

Transmission

- ◆ Power Grid Company of Bangladesh Limited (PGCB) has been created in 1996. All the transmission assets (100%) including Load Dispatch Center (LDC) have been transferred from BPDB to PGCB.
- ◆ PGCB offloaded its 25 percent share to public through capital market in 2006.

Distribution

- ◆ Boundary of DESA redefined. All areas of DESA outside redefined boundary handed over to 8 PBSs
- ◆ DESCO was established in 1996 and is now functioning at Mirpur, Gulshan, Baridhara, Uttara and Tongi area of Dhaka by taking over assets from DESA. DESCO offloaded its 25 percent share to public through capital market.
- ◆ West Zone Power Distribution System of BPDB has been corporatised.
- ◆ Corporatisation of North West Zone Power Distribution system of BPDB is under process
- ◆ Corporatisation of South Zone Power Distribution system of BPDB is under process
- ◆ Programmes have been taken up to introduce pre-paid metering system at Chittagong, Sylhet, Sirajgang and Bogra under BPDB, at Lalbag under DESA and at Uttara under DESCO to increase revenue collection. ATM Card introduced for payment of Electricity Bill in Dhaka and Chittagong
- ◆ Steps have been taken to bring the people of remote areas of the country under electricity system through “Remote Area Power Supply System (RAPSS)” programme. This programme will be implemented in the private sector.

Future Plan

The government has prepared a Power System Master Plan to realise its vision. According to the plan, installed capacity will rise to 16,643 MW by the year 2020. During this period transmission and distribution line will reach 12,000 km and 4,77,558 km respectively. Future plan of the government up to 2020 is presented in Table 10.11.

Table 10.11: Future Plan of Power Sector Development

Sl. No.	Items	FY 2007 (Provisional)	FY 2009	FY 2012	FY 2020
1.	Installed Capacity, MW	5269	6,000	9,449	16,643
2.	Maximum Demand, MW	3,785 (actual gen)	6,066	7,732	13,993
3.	Net Generation, MkWh	23,267	31,028	39,647	72,222
4.	Transmission Line, km	7,044	9,077	9,653	12,000
5.	Grid Substation Capacity, MVA				
	(a) 230 KV & 230 KV	5,175	6,850	12,910	19,075
	(b) 132 KV	7,219	10,990	13,990	27,367
6.	Distribution Line (km)	2,71,142	3,14,000	3,45,530	4,77,558
7.	Number of Consumers (million)	10.33	10.60	12.75	20.77
8.	Number of Village Electrified	50,360	59,000	69,571	84,000
9.	Per Capita Generation, kWh	165	200	260	450
10.	Access to Electricity	43%	52%	65%	100%

Source: Bangladesh Power Development Board

Fuel and Mining Sector

Natural Gas

In Bangladesh natural gas is one of the important sources of energy that accounts for 73 percent of the commercial energy of the country. Till now 23 gas fields have been discovered in the country. As per Gas Sector Master Plan 2006, the estimated proven recoverable reserve (P1) of the 22 gas fields was 15.188 TCF. The reserve of Bangura gas field in Block 9 is being assessed. As of June 2007, total 7.054 TCF gas has already been produced leaving only 8.134 TCF recoverable gas. Moreover, 22 gas fields have reserves of 5.28 TCF under proven extractable category (P2) and 7.71 TCF under possible category (P3).

The total gas reserve and extractable gas and cumulative gas production up to June 2007 are shown in Table 10.12.

Table 10.12: Total Gas Reserve, Extractable Gas and Cumulative Production of Gas up to June 2007

In Billion Cubic Feet (BCF)				
Gas field	Proved Reserve (Recoverable)	Cumulative Production (Provisional) (upto June 2007)	Proved Remaining Reserve	Probable Reserve (Recoverable)
PRODUCING:				
BAKHRABAD	790.00	668.39	121.61	259.00
HABIGANJ	3,825.00	1,442.70	2382.30	27.00
JALALABAD	511.00	395.92	115.08	326.00
KAILASHTILLA	1,067.00	398.28	668.72	837.00
MEGHNA	72.00	35.83	36.17	48.00
NARSINGDI	165.00	74.28	90.72	50.00
RASHIDPUR	979.00	410.19	568.81	423.00
SYLHET	367.00	185.74	181.26	112.00
SANGU*	848.00	415.88	432.12	-
SALDA NADI	53.00	51.01	1.99	63.00
TITAS	4,000.00	2,709.55	1290.45	1128.00
BEANIBAZAR	170.00	47.08	122.92	-
FENCHUGANJ	60.00	43.40	16.60	223.00
FENI	52.00	18.50	33.50	77.00
MOULVIBAZAR	347.00	83.90	263.10	-
BIBIYANA	1,209.00	30.86	1178.14	1192.00
BANGURA**				
NOT IN PRODUCTION :				
BEGUMGANJ	10.00	0.00	10.00	23.00
KUTUBDIA*	-	0.00	0.00	46.00
SEMUTANG	121.80	0.00	121.80	-
SHAHBAZPUR	256.00	0.00	256.00	210.00
PRODUCTION SUSPENDED:				
CHHATAK	265.00	25.80	239.20	209.00
KAMTA	21.00	17.05	3.95	25.00
TOTAL	15,188.80	7,054.36	8,134.44	5,278.00

Source: Energy and Mineral Resources Division

* Offshore field

** The reserve of Bangura gas field in Block 9 is under evaluation, but production from Bangura gas field has been started since May 13, 2006 at the rate of about 70 mmcfd.

Presently, 73 wells in 17 gas fields are in production. The producing gas fields are: Titas (15 wells), Bakhrabad (4 wells), Habiganj (9 wells), Rashidpur (6 wells), Kailashtilla (5 wells), Sylhet (2 wells), Narsingdi (2 wells), Meghna (1 well), Saldanadi (2 wells), Fenchuganj (1 well), Sangu (6 wells), Jalalabad (4 wells), Beanibazar (2 wells), Feni (3 wells), Moulavibazar (4 wells) and Bangura (2 wells) and Bibiyana (5 wells). A total of 526.72 billion cubic feet (BCF) gas was produced in the fiscal

year 2005-2006, while in the fiscal year 2006-2007 total gas production was 562.13 BCF, i.e. gas production growth rate was 6.72 percent in FY 2006-2007.

Year wise and sector wise gas consumption and demand are shown in Table 10.13 and 10.14 respectively.

Table 10.13: Sector and Yearwise Consumption of Natural Gas

In Billion Cubic Feet (BCF)

Fiscal Years	Production	Sectors									Total Sales
		Power	Fertilizer	Industry	Captive Power	Tea Estates	B. Fields (seasonal)	Commercial	Domestic	CNG	
1990-91	172.84	82.60	54.20	13.20		0.70	0.00	2.90	10.50	0	164.10
1991-92	188.48	88.10	61.60	13.40		0.70	0.20	2.90	11.60	0	178.50
1992-93	210.98	93.30	69.20	15.20		0.70	0.20	2.40	13.50	0	194.50
1993-94	223.76	97.30	74.50	20.26		0.70	1.10	2.87	15.40	0	212.13
1994-95	247.38	107.40	80.50	24.24		0.60	1.10	2.88	18.86	0	235.58
1995-96	365.51	110.90	90.98	27.31		0.72	0.99	3.00	20.71	0	254.61
1996-97	260.99	110.82	77.83	28.62		0.71	0.48	4.49	22.84	0	245.79
1997-98	282.02	123.55	80.07	32.32		0.74	0.39	4.61	24.89	0	266.57
1998-99	307.48	140.82	82.71	35.79		0.71	0.35	4.71	27.02	0	292.11
1999-00	332.35	147.62	83.31	41.52		0.64	0.35	3.85	29.56	0	306.85
2000-01	372.16	175.27	88.43	47.99		0.65	0.44	4.06	31.85	0	348.69
2001-02	391.53	190.03	78.78	53.56		0.72	0.53	4.25	36.74	0	364.61
2002-03	421.16	190.54	95.89	63.76		0.74	0.52	4.56	44.80	0.23	401.04
2003-04	454.59	199.40	92.80	46.49	32.03	0.80	0.12	4.83	49.22	1.94	427.66
2004-05	486.75	211.02	93.97	51.68	37.87	0.80	0.00	4.85	52.49	3.62	456.30
2005-06	526.72	222.72	88.58	63.44	49.02	0.76	0.00	5.24	57.13	6.71	493.61
2006-07	562.13	221.15	93.47	77.48	62.51	0.75	0.00	5.66	63.25	11.99	536.26

Source: Energy and Mineral Resources Division

Table-10.14: Sectorwise Demand for Natural Gas

(In Billion Cubic Feet)

Sector	2006-07 (Actual)	2007-08	2008-09	2009-10	2010-2011
Power	221.15	238.5	257.6	278.2	300.5
Captive	62.51	80.0	102.4	120.9	142.6
Fertilizer	93.47	94.0	94.0	94.0	94.0
Industry	77.48	93	111.6	133.9	160.7
Commercial	5.66	6.0	6.4	6.8	7.3
Brick Field (Seasonal)	0.00	0.0	0.0	0.0	0.0
Domestic	63.25	70.8	79.3	88.9	99.5
Tea-Estates	0.75	1.0	1.0	1.0	1.0
CNG	11.99	20.4	34.7	58.9	88.4
*System Loss	25.87	21.1	20.0	19.0	18.0
Total	562.13	624.9	707.0	801.0	911.9

Source: Energy and Mineral Resources Division

*Including own use.

In Bangladesh, it has become extremely important to explore and develop new gas fields to meet the increasing demand of gas. To intensify exploration activities, the whole country has been divided into 23 blocks. As a result, International Oil Companies have signed 10 Production Sharing Contracts

(PSCs) for 12 acreage blocks. Out of these, 02 PSCs have already expired. Currently, 08 PSCs are in force in 10 acreage blocks.

Table: 10.15 shows the Production Sharing Contracts (PSCs) signed with the International Oil Companies for exploration hydrocarbon.

Table 10.15: Production Sharing Contracts (PSCs) for hydrocarbon exploration

International Oil Company	Exploration Block	Area	Remarks
Chevron Bangladesh Limited.	13, 14	Sylhet, Moulvibazar	Gas Producing
Chevron Bangladesh Limited.	12	Sunamganj, Habiganj	Development Activities of gas field is on going.
Cairn Energy Sangu Field Limited/ Haliburton Energy Inc.	16	Bay of Bengal.	Gas Producing.
Tullow Bangladesh Limited/ Rexwood/ Okland	17, 18	Cox's Bazar, Bay of Bengal.	Exploration Activities is on going.
Tullow Bangladesh Limited/ Niko Exploration (Block-9) Limited/BAPEX	9	Gazipur, Narsingdi, Comilla & Chandpur.	Development Activities of gas field is on going & gas producing as long term testing.
Chevron Bangladesh Limited/ BAPEX	7	Barisal, Patuakhali, Pirojpur, Jhalakati, Barguna and Bay of Bengal.	Exploration Activities is on going.
Cairn Energy Exploration (Bangladesh) Limited/BAPEX	5	Khulna, Satkhira, Bagerhat, Bay of Bengal.	Exploration Activities is on going.
Cairn Energy Exploration (Bangladesh) Limited/BAPEX	10	Laxmipur, Noakhali, Bhola, Bay of Bengal.	Exploration Activities is on going.

Source: Energy and Mineral Resources Division

Meanwhile, Cairn Energy has discovered an offshore gas field called Sangu in Block 16. It has been producing gas since 1998 under production sharing contract and contributing to our national gas supply grid. In 2005, a separate agreement was signed with Cairn to further explore three ring- fenced prospects i.e. Hatia, Monpura and Magnama in block # 16. Chevron (the then Unocal) discovered two gas fields called Moulavibazar and Bibiyana in blocks 14 and 12 respectively. On successful completion of development activities, Chevron has been producing gas from Moulvibazar gas field since April 2005. The first phase development work of Bibiyana gas field has recently been completed and gas production started from 18th March 2007. Now the second phase development work of Bibiyana gas field is going on. Tullow also discovered Bangora-Lalmal gas field in block #9. Tullow is implementing development activities in Bangora-Lalmal gas field and simultaneously supplying gas to the national grid through Long Term Testing. The government has been making preparations for Bangladesh Offshore Bidding Round 2007 to be invited very soon.

To meet the increasing demand of gas, several important projects are being implemented such as- GOB funded Shahbazpur Gas Field Development Project, Operation Capability Strengthening project, Mubarakpur Oil/Gas Exploration Well Drilling Project, Gas Supply to Sylhet Combined Cycle Power Plant and Shahjalal Fertilizer Factory etc. and self financed projects like Reservoir Management Project, Installation of MSTE plant in Beanibazar and Kailashtilla gas fields, Installation of condensate fractionation plant in Rashidpur gas field, Drilling of new wells in Habiganj and Narsingdi gas fields, Drilling of new wells in Titas gas field, Redevelopment of Bakhrabad gas field (1st phase), Recompletion of Meghna well # 1. An opportunity has been created for expansion of gas network to the western & south-western zone of the country by implementing of ADB funded “Gas Transmission and Development Project (GTDP)”. Under GTDP, a total of 356 km gas transmission pipelines will be constructed to transport gas to the western & south-western region of the country. These pipelines are; (i) Monohardi-Dhanua, Elenga-East Bank of Jamuna gas transmission pipeline (51 km) (ii) West Bank of Jamuna Bridge-Nalka, Hatikumrul-Iswardi-Bheramara gas transmission pipeline (87 km), (iii) Bonpara-Rajshahi gas transmission pipeline (53 km) (iv) Bheramara-Khulna gas transmission pipeline (165 km). Moreover, 04 compressor stations will be installed at Muchai (01), Elenga (01) and Ashuganj (02) under GTDP project.

LPG

The LPG Plant at Kailashtilla has been producing Liquefied Petroleum Gas (LPG) with production capacity of 5000 tons per annum from the NGL being extracted from Kailashtilla gas field. In addition, a programme for installation of NGL fractionation plant having the capacity of 110 tons/day at a cost of Taka 105 Crore (GOB fund) is under implementation at Kailashtilla under Turnkey EPC contract to produce petroleum products like LPG, MS, HSD, Kerosene by fractionating NGL extracted from the wet gas fields at Kailashtilla, Beanibazar and Jalalabad. After implementation of this project about 8,560 MT of LPG, 13,140 MT of petrol and 14,600 MT of diesel will be produced per year from this plant.

CNG

Vehicle conversion to Compressed Natural Gas (CNG) is well underway and promotion of this mode of fuel is being encouraged. Before using CNG, the uncontrolled emission of motor vehicles especially from two stroke three-wheeler baby taxi and diesel bus was the major cause of air pollution in urban areas specially Dhaka City. It had poor visibility due to air pollution in many areas of Dhaka city. Eye irritation, respiratory illness, cardio vascular diseases were common phenomenon to city dwellers. Natural gas of Bangladesh consists of typically more than 96 percent methane and practically contains no sulfur. By raising the use of CNG substantial improvement in air quality is observed in urban areas.

Government has been encouraging private sector participation for installation of CNG re-fuelling stations. To facilitate CNG use, about 165 CNG re-fuelling stations and 108 conversion workshops

have already been set-up in the country and 1,13,945 CNG vehicles run in the country as of June 2007. Among these CNG re-fuelling stations, 92 at Dhaka, 11 at Savar, 12 at Gazipur, 7 at Narayanganj, 5 at Comilla, 2 at Feni, 1 at Kishorgonj, 3 at Bogra, 6 at Sylhet, 25 at Chittagong and 1 at Pabna have been installed. Installation of 18 more CNG re-fueling stations in various regions of the country is underway.

Under ADB funded “Dhaka Clean Fuel Project” another 26 CNG re-fuelling stations will be installed within any convenient plakhe of the following 06 highways: i) Dhaka-Chittagong ii) Dhaka-Sylhet iii) Dhaka-Mymensingh iv) Dhaka-Aricha v) Dhaka-Sirajgonj-Bogra and vi) Dhaka-Mawa highway. For installation of 26 CNG filling stations by private entrepreneurs a loan agreement has been signed on 30 June 2007 with Dutch Bangla Bank Ltd. and another agreement with Southeast Bank was signed on 15th July 2007. Under this project, 100 CNG buses/chassis (CBU condition) will be handed over to private entrepreneurs through Commercial Bank/Leasing Company, 2,500 conversion kits and 3,000 cylinders out of 5,000 conversion kits and 6,000 cylinders have already been imported. Installation of a new CNG conversion workshop at Dhania is in progress and existing workshop at Joarshahara will also be upgraded and modernized under the same project. Efforts are continuing to convert more vehicles to CNG mode and installation of more re-fuelling stations are being planned to ensure supply of CNG to the converted vehicles. Accordingly, government has liberalised the conditions relating to importation of CNG conversion kits etc. so that private entrepreneurs could come forward at ease.

Activities surrounding the promotion of CNG are positive contribution to the economy of the country. Average CNG usage (approx.) is 25.50 MMCM per month which is equivalent to 30.60 million liters of Petrol/Octane. By using CNG, monthly savings in foreign currency worth US\$ 32.04 million i.e. yearly savings in foreign currency to the tune of US\$ 384.50 million oil import bills could be generated.

COAL

Barapukuria coal mine started commercial production in 2005 with the targeted capacity of 10.00 lakh metric tons per year. Out of this targeted production, about 7.00 lakh metric tons of coal per year will be used in the Barapukuria thermal power plant (2 x 125 MW) and remaining 3.00 lakh metric tons will be locally used particularly by the brickfields, steel mills, tea-estates and other industries and will have an impact of reducing deforestation. In FY 2005-06 and FY 2006-07 coal extracted from Barapukuria was in the region of 3.03 lakh metric tons and 3.88 lakh metric tons respectively. The extract coal was fully used in Barapukuria thermal power plant. However, It is expected that coal will be extracted with full targeted capacity within a very short period.

HARD ROCK

Commercial production of Madhyapara hard rock mine started in May, 2007 with the targeted capacity of 16.50 lakh metric tons per year (5,500 tons per day). Since its beginning in June 2007, about 90,000 MT hard rock was extracted from Madhyapara hard rock mine. The extracted hard rock will be used

for the various construction works like embankment construction and maintenance of bridges, roads, highways, railways, river training, high rise buildings and other construction works.

Fuel Demand and Supply System:

Bangladesh Petroleum Corporation (BPC) has completed development and expansion of fuel reserve system, by modernising and upgrading the fuel supply system conforming to international standard for international and domestic flights. Apart from this, BPC is responsible for development and expansion of fuel reserve system throughout the country. Currently, its total fuel stock capacity is 8.53 lakh metric tons.

The following two tables (Table- 10.16 and 10.17) present the information on import of refined and crude petroleum commodities by Bangladesh Petroleum Corporation during 1995-96 to 2006-07:

Table 10.16: Import of Crude Petroleum Commodities

Fiscal Year	Quantity (Metric Ton)	C & F Price (Million US Dollar)	Crore Tk.
1995-96	11,40,334	153.42	639.23
1996-97	12,39,699	203.69	875.31
1997-98	11,44,048	151.56	714.10
1998-99	9,55,874	98.10	473.72
1999-00	12,36,049	218.68	1110.96
2000-01	13,37,121	290.73	1598.60
2001-02	12,24,707	220.19	1277.78
2002-03	13,31,003	289.30	1693.03
2003-04	12,52,424	314.12	1848.43
2004-05	10,63,208	364.01	2261.98
2005-06	12,53,285	552.12	3750.69
2006-07 (Provisional)	11,68,349	853.76	4643.22

Source: Bangladesh Petroleum Corporation

Table 10.17: Import of Refinery Petroleum Commodities

(Quantity in Metric ton, Value in Crore Tk)

Fiscal Year	JP-1, Kerosene, Petrol, Bitumen and Diesel		Lubricating	
	Quantity	Value	Quantity	Value
1995-96	1466118	1125.07	39184	68.52
1996-97	1596567	1510.10	47638	64.98
1997-98	1734874	1275.04	39742	57.53
1998-99	2221872	1350.10	39961	45.62
1999-00	1823400	2021.23	50229	86.41
2000-01	2068913	2999.20	29918	69.34
2001-02	2072300	2535.62	15316	30.59
2002-03	2213899	3319.35	1911	5.10
2003-04	2262348	4015.81	6516	18.38
2004-05	2691750	7213.88	10189	38.14
2005-06	2380533	9382.77	5137	35.53
2006-07	2335744	10426.94	4276	25.05

Source: Bangladesh Petroleum Corporation

BPC's Financial Loss in Marketing Imported Finished Products and Refined Products:

BPC incurred a loss of Tk. 7.61 crores during FY 2002-03 FY from marketing of imported POL products. Such loss resulted from lower local sales price (transfer price) against higher purchase cost not commensurating each other. Despite that in FY 2002-03 BPC contributed Tk.2766.13 crores to the national exchequer as import duty and tax. During FY 2003-04 BPC incurred an annual trade deficit of Tk. 958.93 crore against contribution of Tk. 3087.28 crore to the national exchequer as import duty and tax. During FY 2004-05 BPC incurred loss Tk. 2386.73 crore while its contribution to national exchequers was Tk. 2745.77 crore. BPC incurred a loss of Tk. 3167.11 crore in FY 2005-06 while it deposited Tk. 2649.06 crore to the national exchequer during the same period and in 2006-07 the loss of BPC stood at Tk. 3003.6 crore.

Bangladesh Energy Regulatory Commission (BERC)

Considering the long term development of energy and gas sector, Bangladesh Energy Regulatory Commission (BERC) has been established as an independent and impartial organization with the responsibility to create an atmosphere conducive to private investment in the generation of electricity, and transmission, transportation, storage and marketing of energy and to ensure transparency in the management, operation and tariff determination in this sector; to protect consumer's interest and to promote a competitive market. The Commission started functioning with effect from April 2004. At present, the Commission comprises of a chairman, 2 members and 14 officers and staff.

Bangladesh Energy Regulatory Commission Act 2003 authorises BERC to issue licenses for generation of electricity and transmission, transportation and marketing of electricity, gas resources and petroleum products. The Commission also determines tariff in accordance with the policy and methodology in consultation with the government of Bangladesh.

During FY 2006-07, the commission earned TK. 2.31 crore, which includes TK.1.00 crore as government. grant. The Commission has issued total 47. electricity generation licenses which includes 34 Waiver Licenses, 10 Captive Power Generation Licenses, 2 Small Power Plant Licenses and 1 Distribution of Electricity Licenses. It may be mentioned that till date BERC has issued total 62 licenses, with the production capacity of 311.17 MW electricity.

Bangladesh Petroleum Institute:

In view of the smooth running, well managing and expanding the participation of Oil, Gas and Mineral Sector in poverty alleviation and to achieve industrial development in the coming years, Bangladesh Petroleum Institute (BPI) was started in 1981 under the Ministry of Energy and Mineral Resources. Government decided to build BPI as a well organised and a high technology based training institute capable of doing R&D, Data management and providing Post Graduate Diploma Education for the oil, gas and mineral sector. As per the BPI act 2004, a Governing Board has been constituted with 10

members chaired by the Secretary, Energy and Mineral Resources Division. All activities of BPI are being carried out according to the directives of its governing board and till date 19 meeting were held.

Right from its inception, BPI has been working to identify the potential areas of finding oil and gas by doing photo-geology, log interpretation, seismic geological and geophysical interpretation modeling and different other studies and have prepared 24 research/technical reports, so far. From its inception, BPI has organized 253 training courses, seminar and workshops where a total of 4719 participants from different tiers have participated.

Hydrocarbon Unit

In view of the recent developments in the petroleum sector including the arrival of foreign operating companies under Production Sharing Contracts (PSCs) and increasing commercial role of State Owned Enterprises, the Energy and Mineral Resources Division assumed new responsibilities. To perform these responsibilities, the Energy and Mineral Resources Division implemented a project titled “Strengthening of the Hydrocarbon Unit (HCU) starting from July 1999 under the Royal Norwegian grant and technical support by the Norwegian Petroleum Directorate (NPD). The first phase of the project was completed in June 2005. Subsequently Phase-II of the project titled “Strengthening of the Hydrocarbon Unit” started functioning from April 2006 under Norwegian Grant being administered by the Asian Development Bank (ADB). The Phase-II project is expected to be completed by December 2010.

In Bangladesh, 23 gas fields have been discovered till now and the estimated proven recoverable reserve (PI) of the gas field was 15.19 TCF and 5.28 TFC under probable category (P2). As of June 2007 total 7.13 TFC gas has already been produced leaving only 8.06 TFC recoverable reserve. A mini-data bank has been established in the HCU to maintain Hydrocarbon related data. Monthly report on Gas Production and Reserve, Annual Gas Production and Consumption are being published regularly from this data bank. Gas reserve, undeveloped gas resources and gas production related database has been established in the mini-data bank of HCU. This database also handles some selected data of the energy sector like PSC related cultural data, Production data, Resource data etc. As Technical Arm of the Energy and Mineral Resources Division, HCU is actively participating in formulating National Energy Policy, Coal Policy, Gas etc. The unit is also providing information-based technical opinion on various related issues. HCU is also preparing report on the prospect of bio-diesel production and its utilisation in our country.

Geological Survey of Bangladesh (GSB)

Geological Survey of Bangladesh (GSB) is entrusted with the tasks of exploration, discovery and evaluation of mineral deposits, and research in different disciplines of geosciences. To strengthen the mineral exploration and evaluation activities, the department is implementing various development projects. Important outcomes of these project are the discovery of coal deposits at Barapukuria and Dighipara of Dinajpur district and Khalashpir of Rangpur district. Besides these, glass sand, white clay, limestone, peat and gravel deposits have been discovered in different plakhes of the country. At present GSB is implementing the following 3 (Three) projects:

1. “Geoscientific Activities for Mineral Investigation (2004-08)” at a project cost of Tk.350.00 lakh under revenue budget. During FY 2006-07, the allocation was Tk.88.00 lakh and the expenditure was Tk.79.76 lakh. Under this Project 6 (six) programs including one drill hole have been completed during FY 2006-07.
2. “Geological exploration for identification of mineral resources and the area vulnerable to natural hazards in the coastal parts of Bangladesh (2006-09)” at a project cost of Tk.1670.00 lakh. During FY 2006-07 the allocation stood at Tk.172.00 lakh against which Tk.102.26 lakh was spent for procuring some instrument. Intensive fieldwork will be done in FY 2007-08 under this project.
3. “Modernisation of drilling equipment and accessories to the Geological Survey of Bangladesh for investigation of mineral resources (2005-08)” at a project cost of Tk. 952.57 lakh. During FY 2006-07 there was an allocation of Tk.861.00 lakh against which the expenditure stood at Tk.0.50 lakh. The project was designed to purchase new drilling machinery but it was not possible to purchase the equipment in FY 2006-07 as there were no responsive bidders.

Beside these, Geological Survey of Bangladesh (GSB) has produced this year several comprehensive reports on urban geology, coastal and marine geology, groundwater quality and resource assessment specially arsenic contamination, geo-hazard analysis, sub soil/geo-technique studies for land development required by private companies and also contributed to the coal policy and energy policy of Bangladesh