Government of Bangladesh / ADB

ADB TA 4626-BAN: Corporatization of Bangladesh Power Development Board

Final Report – Main Document

21 July 2008

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Version: 1.0

FOREWORD

This report represents the work conducted by PA Consulting Group in association with HB Consultants Ltd under ADB TA 4626-BAN: Corporatization of Bangladesh Power Development Board. The PA team included Mike Crosetti (Team Leader/Corporate Restructuring & Governance Expert), Bernard Ivory (Financial Expert), Ed Hourihan (Commercial Expert), Ashit Ranjan (Human Resources Expert), Bruce Wickes (MIS Expert), and Nihad Kabir (Legal Expert). The HB team included Shawkat Ali Ferdousi (Corporate Restructuring & Governance Expert), Kazi Mostafa Alam (Financial Expert), Zakir Hossain (Human Resources Expert), Syed Arifuzzaman (MIS Expert), and Sheikh Fazle Noor Taposh (Legal Expert).

The team submitted a Draft Final Report in November, 2007. That report consolidated the analysis, findings and recommendations of the consultants since the inception of the project in March, 2006. The project continued for longer than the 12 months originally anticipated due to the numerous changes that took place in Bangladesh over this period, at one point resulting in a six month suspension of project activities.

The Government of Bangladesh provided comments on that report in January, 2008. This report addresses those comments as well as comments received separately from ADB.

The consultants gratefully acknowledge the guidance and support of the counterpart team from the Ministry of Power, Energy and Mineral Resources (MPEMR) and Bangladesh Power Development Board (BPDB) and its subsidiaries, in particular Dr. Fouzul Kabir Khan, Secretary (Power), MPEMR, and Mr. Delwar Hossain, Director (System Planning), as well as Mr. Pil-Bae Song of the Asian Development Bank and Mr. ANM Rizwan.

ABBREVIATIONS

ADP	Annual Development Plan
AGC	Automatic Generation Control
AoA	Articles of Association
APSCL	Ashuganj Power Station Company Limited
BAS	Bangladesh Accounting Standards
BB	Bangladesh Bank
BERC	Bangladesh Energy Regulatory Commission
BoD	Board of Directors
BOI	Board of Investment
BPDB	Bangladesh Power Development Board
BSTI	Bangladesh Standards Testing Institute
BTTB	Bangladesh Telegraph and Telephone Board
BWDB	Bangladesh Water Development Board
CCIE	Chief Controller of Import and Export
CE	Chief Engineer
CEO	Chief Executive Officer
CFO	Chief Financial Officer
CI	Controller of Insurance
CIFE	Chief Inspector of Factories and Establishment
DESA	Dhaka Electric Supply Authority
DESCO	Dhaka Electric Supply Company Limited
DFSCD	Department of Fire Service & Civil Defence
DOE	Department of Environment
DOEXP	Department of Explosives
DPDC	Dhaka Power Distribution Company Limited
EGCB	Electricity Generation Company of Bangladesh Limited
EP WAPDA	East Pakistan Water and Power Development Authority
EPMS	Employee Performance Management System
ERP	Enterprise Resource Planning
FERA	Foreign Exchange Regulation Act 1947
FFU	Fund Facilitation Unit
FMU	Financial Management Upgrade
FRRP	Financial Restructuring and Recovery Plan
FY	Financial Year
GM	General Manager
GOB	Government of Bangladesh
GPS	Ghorasal Power Station
G,T&D	Generation, transmission and distribution
HO	Head Office
HPSP	Health and Population Sector Program
IDCOL	Infrastructure Development Company Limited
IPPs	Independent Power Producers
IVVR	Identification, Verification, Valuation, Recording

IWTA	Inland Water Transport Authority
KPIs	Key Performance Indicators
kV	kilo Volt
kWh	kilo watt-hours
MD	Managing Director
MIS	Management Information System
MOA	Memorandum of Association
MOC	Ministry of Commerce
MOF	Ministry of Finance
MOHA	Ministry of Home Affairs
MPEMR	Ministry of Power, Energy and Mineral Resources
MVA	mega Volt-Ampere
MW	megawatts
NBR	National Board of Revenue
NLDC	National Load Dispatch Center
NWPGC	North West Power Generation Company Limited
NWZPDCL	North West Zone Power Distribution Company Limited
O&M	Operation and Maintenance
P&L	Profit and Loss
PBS	Palli Bidyut Samiti
PC	Planning Commission
PDB	Power Development Board (same as BPDB above)
PGCB	Power Grid Company of Bangladesh Limited
PKSF	Palli Karma Sahayak Foundation
PO	Presidential Order
POA	Power of Attorney
PPAs	Power Purchase Agreements
PSIFP	Power Sector Investment Funding Program
PSRB	Power Sector Reforms in Bangladesh
RAJUK	Rajdhani Unnayan Kartripakkha
RCE	Revenue to Current Expenditure
REB	Rural Electrification Board
RJSC	Registrar of Joint Stock Companies and Firms
RLIF	Revenue Loss Impact Factor
RPCL	Rural Power Company Limited
RTC	Regional Training Center
RTM	Registrar of Trade Marks
SAIDI	System Average Interruption Duration Index
SAIFI	System Average Interruption Frequency Index
SBC	Sadharan Bima Corporation
SCADA	Supervisory Control and Data Acquisition
SEC	Securities and Exchange Commission
SMU	Systems Management Unit
SWM	Sector Wide Management
TQM	Total Quality Management
VRS	Voluntary Retirement Scheme

WASA	Water and Sewerage Supply Authority
WDB	Water Development Board
WZPDCL	West Zone Power Distribution Company Limited
ZRS	Zonal Repairing Shop

EXECUTIVE SUMMARY

ES.1 Background & Objectives

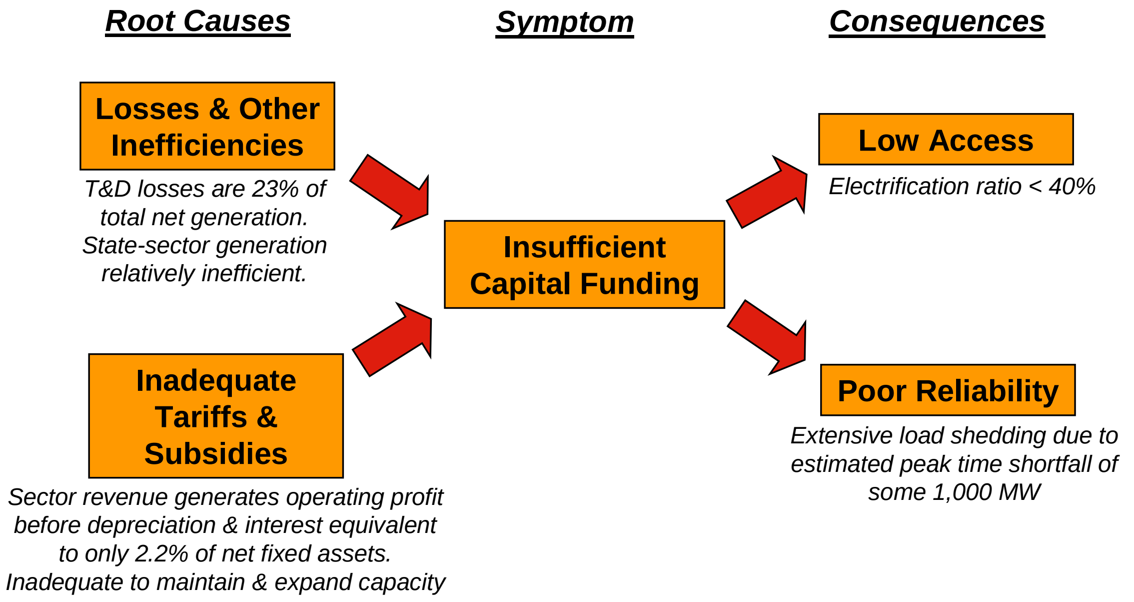
Despite economic growth averaging some 5.1% annually over the past 10 years, Bangladesh continues to face daunting problems in the power sector, notably:

- An electrification ratio of less than 40%.
- Extensive load shedding. Load shedding sometimes approaches 1,000 MW, equivalent to about 25% of total de-rated generation capacity in the country.

The electrification ratio can be improved by extending rural electrification, and load shedding can be reduced by adding and rehabilitating generation capacity, and where necessary, upgrading transmission and distribution capacity. However, these actions require capital investment, which is not available in sufficient quantities to make major progress in addressing these problems.

The lack of capital investment is a symptom of more fundamental problems within the sector. Specifically, tariffs and Government subsidies are inadequate to recover the cost of supply, and the overall cost of supply itself is high due to excessive losses and other inefficiencies. The current situation is summarized in Exhibit ES.1.

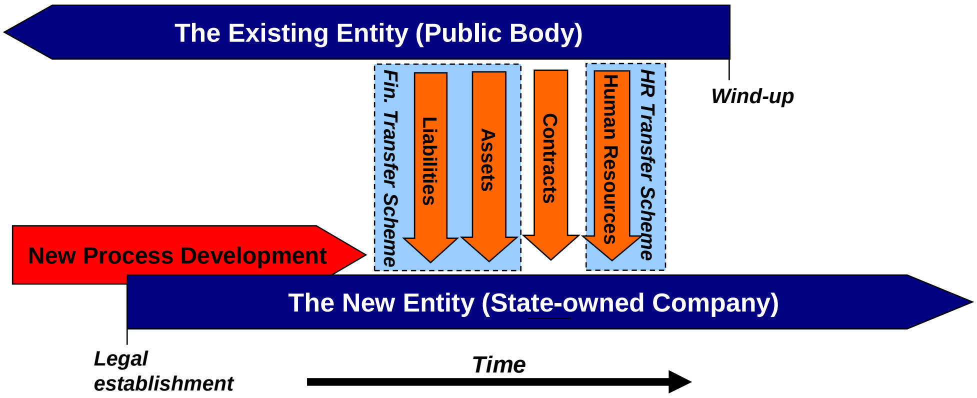
Exhibit ES.1: Fundamental Problems in the Bangladesh Power Sector



Through the 1994 Power Sector Reforms in Bangladesh, the 2000 Vision and Policy Statement, and the 2005 Power Sector Reform Roadmap, the Government of Bangladesh has defined a comprehensive approach to addressing these problems. As part of this approach, the Government has embarked on corporatization of the operating units of the Bangladesh Power Development Board (BPDB). The Government's corporatization effort aims to expand the autonomy of these units to operate on commercial and technical grounds while simultaneously introducing mechanisms to hold these companies accountable for their performance. Experience with unbundling and corporatization of BPDB operating units has demonstrated positive results such as lower losses and higher collections.

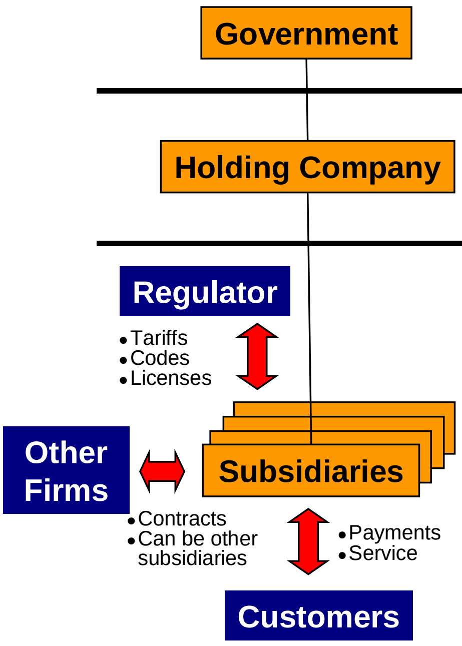
The corporatization process requires the creation of a new state-owned company in addition to the existing public body, as shown in Exhibit ES.2. Successful corporatization introduces new business processes that contribute to better governance, improved performance management and greater efficiency. Existing business processes need to be reviewed and if appropriate either re-designed or replaced entirely before the newly corporatized entity commences operations. Once these processes have been established and the new entity legally constituted, assets and liabilities may be transferred from the legacy entity, contracts assigned, and personnel recruited and/or transferred. It can then begin commercial operation.

Exhibit ES.2: The Corporatization Process



A *holding company* is a company that owns other companies. A *non-operating* holding company does not directly produce any goods or services for purchase by final consumers but instead leaves that up to its subsidiaries. This is not a trivial role. An effective non-operating holding company will actively drive performance in and seek to optimize investment across its subsidiaries by virtue of its powers as shareholder in those companies. Exhibit ES.3 depicts the principal functions and issues in a state-owned holding company structure.

Exhibit ES.3: Functions and Issues in a Holding Company Structure



LEVEL	ROLE	ISSUES
Government	***Shareholder*** • Appoints Board • Monitors Board performance against targets	• Appointment, removal & composition of Board • Performance improvement mechanisms • Owner's representative
Holding Company	***Holding Company*** • Shareholder of Subsidiaries • Insulates against government interference • Drives commercial performance	• Performance improvement mechanisms • Operating vs. non-operating • Planning, coordination, support and Single Buyer functions • Financial role • Corporate governance
Subsidiaries	***Subsidiary Companies*** • Conduct operations • Contract with other firms • Serve customers	• Autonomy and boundaries of authority & responsibility • Performance management mechanisms • Commercial arrangements with outside entities

This study aims to create the blueprint for corporatization of BPDB as a holding company. This blueprint covers the organizational, financial, legal, human resource, and information technology dimensions of the corporatization strategy. The report distinguishes between BPDB and the new successor holding company, referred to here as HoldCo. While corporatization of BPDB as a holding company can accelerate and expand the gains achieved through reform efforts, it is not a panacea. To be effective in the long term, corporatization must go hand-in-hand with tariff reform. Corporatized entities can improve reliability and increase access only if they are financially viable.

ES.2 Target Corporate Structure & Migration Plan

Five options are considered for the medium-term target structure of HoldCo:

1. No holding company, i.e. HoldCo is not established and all operating companies are owned directly by the Government.
2. An operating holding company, where HoldCo would continue to conduct the generation and distribution activities currently conducted by BPDB
3. A non-operating holding company that owns the single buyer
4. A non-operating holding company with the single buyer as a separate entity owned directly by the Government
5. Multiple holding companies, in which a separate Generation Holding Company and Distribution Holding Company are established.

These options were assessed against seven criteria:

1. *Financial coordination & optimization*. The structure helps ensure that HoldCo can optimally allocate whatever limited financial resources are available across generation, transmission and distribution parts of the business, with a long-term commercial view reflecting the Government's broader policy objectives for the sector.
2. *Autonomy*. HoldCo helps insulate state-owned power sector operations from Government interference. The Government will of course remain involved in the sector by virtue of its policy-making and funding roles, but HoldCo can take on commercial management of the sector. Greater autonomy must of course be accompanied by better performance management to ensure accountability, and HoldCo can focus on developing and applying performance management systems while providing operating entities with the latitude and incentives to make the best possible commercial decisions.
3. *G, T & D Differentiation*. A HoldCo structure must balance the unbundling of generation, transmission and distribution (G, T & D) operations to improve focus on specific elements of the value chain, with creating synergy between various parts of the business. Unbundling results in decentralization, where as creating synergy requires some degree of centralized control.
4. *HR Availability.* Qualified human resources are at a premium in Bangladesh. Any HoldCo design should minimize the number of personnel required in senior executive positions.

5. *Institutionalization of Accountability.* Many of the mechanisms to improve sector performance could be implemented on an ad hoc basis by Government. However, unless such mechanisms were enshrined in law, continued application would depend upon the disposition of the Secretary (Power) and other senior Government officials who happen to be in power at any given time. While such a law is unlikely, the design of HoldCo can help to institutionalize mechanisms to drive sector performance rather than relying on the personal vision and effectiveness of Government officials who change frequently. Perhaps the single most important mechanism is a system to impose accountability. The Articles and Memorandum of Association for HoldCo can stipulate the performance monitoring and associate functions to drive accountability across the entities it owns.

6. *Simplicity.* Any structural design that is adopted should avoid duplication of function, and minimize complexity to facilitate implementation.

7. *Compliance with laws, policies and contracts.* Finally, any HoldCo structure must comply with prevailing laws and policies, and accommodate existing contractual arrangements with other parties such as IPPs.

The first three criteria above represent impediments to improved sector performance explicitly identified in the 2000 Vision & Policy Statement. The last four represent other practical considerations.

Based on analysis of the five options against the seven criteria, the non-operating holding company with separate single buyer (Option 4) was identified as the most promising option, as summarized in Exhibit ES.4. Under this option the generation, transmission and distribution operations previously owned or conducted by BPDB are transferred to HoldCo as subsidiary companies once they meet certain conditions. The residual BPDB continues separately as the single buyer. (“Residual BPDB” refers to BPDB after establishment of HoldCo and corporatization of its remaining generation and distribution operations as HoldCo subsidiaries).

A principal benefit of this approach as opposed to creation of a single buyer subsidiary owned by HoldCo, or transfer of the single buyer function to HoldCo, is that assignment of PPAs is not on the critical path for operationalization of HoldCo. As single buyer, BPDB serves as counterparty to all power purchase agreements (PPAs) with independent power producers (IPPs). Assigning these PPAs to HoldCo or a new subsidiary would take substantial time and effort, and likely delay the start of HoldCo operations and resulting benefits. The residual BPDB could nonetheless be corporatized later as a Single Buyer Company as soon as the PPAs are assigned and Presidential Order 59 (PO 59) is amended to allow transfer of the system planning function to a successor company.

The non-operating holding company is also highly flexible and could be readily adapted to meet changes as the sector evolves. Examples of further evolution include the complete separation of generation from transmission and distribution, or the transfer of other power sector entities currently not under BPDB, such as DESCO, to HoldCo. Therefore, establishing HoldCo as a non-operating holding company with the separate single buyer serves as an achievable interim target and if successful provides a platform for addressing further changes in the power supply industry.

Exhibit ES.4: Evaluation of Structural Options for HoldCo

Option	**Financial Optimization & Coordination**	**Autonomy**	**Business focus**	**HR Availability**	**Institution-alization**	**Simplicity**	**Legal, Policy & Contractual Compatibility**
1. No Holding Company	○	○	○	⭘	×	●	⭘
2. Operating HoldCo	○	○	×	●	○	●	×
3. Non-Operating HoldCo that owns the Single Buyer	●	●	⭘	⭘	●	⭘	○
4. Non-Operating HoldCo with separate Single Buyer	⭘	⭘	⭘	⭘	⭘	⭘	●
5. Multiple HoldCos	○	⭘	●	○	⭘	○	⭘

Evaluation key:

●	Fully meets or directly supports the criterion
⭘	Partially meets or indirectly supports the criterion
○	Slightly meets or supports the criterion
×	Conflicts with the criterion

Two migration options were considered to reach this target structure from the existing BPDB structure.

- Migration Option 1: First create HoldCo as an operating holding company and transfer all people, assets, liabilities and contracts into it from BDPB, then transfer operations into subsidiaries and separate the Single Buyer. This makes the Operating Holding Company (Target Option 2 above) a transitional stage to reach the target of a Non-Operating Holding Company with the Single Buyer separate (Target Option 4 above).

- Migration Option 2: First create HoldCo as a non-operating holding company, and then transfer BPDB operations as they are corporatized to become subsidiaries of HoldCo. Residual BPDB remains the Single Buyer, which can later be corporatized once PPAs are assigned.

Both approaches result in a residual BPDB and a separate HoldCo.

Four criteria were identified as a basis for selecting between these two migration options:

1. *Speed*. The migration path should minimize dependencies on outside events, such as assignment of PPAs, amendment of PO 59, etc.

2. *Effectiveness*. The migration path should contribute to the development of a commercial culture within the new entity.

3. *Stakeholder Perceptions*. The migration path should demonstrate “quick wins” that can contribute to broad support for the restructuring effort.

4. *Operational Risk*. The migration path should minimize the likelihood of service disruptions.

Based on analysis of the two options against these four criteria, establishing a non-operating holding company from the outset (Migration Option 2) was identified as the most promising option. Exhibit ES.5 summarizes the evaluation of the two migration options, with green shading indicating reasons why an option meets a criterion, yellow indicating uncertainty whether the option would meet the criterion, and red indicating reasons the option does not fit the criterion.

Exhibit ES.6 shows the proposed migration from the current to the target corporate structure.

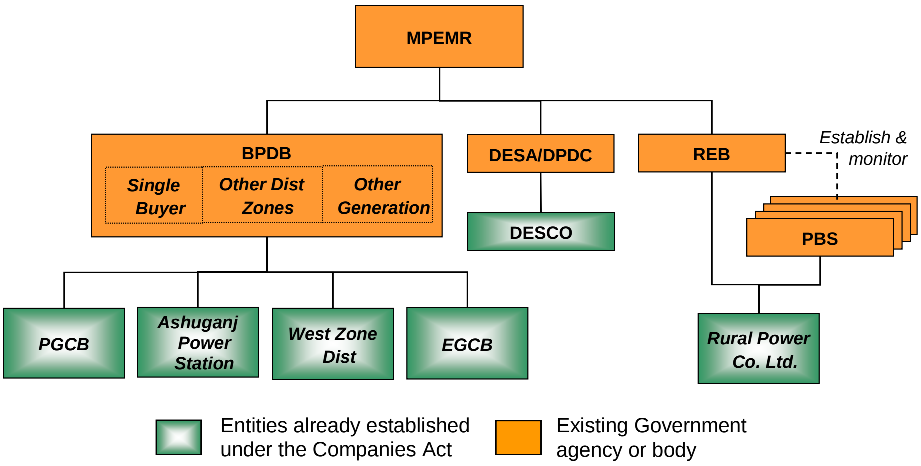
Exhibit ES.5: Evaluation Summary of Migration Options

Criterion	Non-Operating Holding Co. First	Operating Holding Company First
Minimize outside dependencies **(*speed*)**	🟩 1. PPAs remain with Residual BPDB, which still functions as Single Buyer	🟥 1. PPAs must be assigned
	🟩 2. Residual BPDB can remain Single Buyer	🟥 2. PO 59 must be amended
	🟩 3. HoldCo can be established with new accounting system & clean financials that comply with BAS. BPDB and its subsidiaries can update their accounting individually over time, and when ready can transfer.	🟥 3. HoldCo including all legacy BPDB operations must comply with Bangladesh Accounting Standards (BAS) per the Companies Act 1994
Promote commercial culture **(*effectiveness*)**	🟩 Facilitates desired culture because established on “greenfield” basis. People transfer to HoldCo at least in part on understanding & acceptance of new culture.	🟨 Depends on understanding & acceptance of new conditions of service, and commitment of ex-BPDB managers to new system
Demonstrate “quick wins” **(*stakeholder perceptions*)**	🟩 HoldCo and new subsidiaries, if structured with clean balance sheets and proper transfer prices, can demonstrate immediate benefits	🟥 HoldCo performance will be compromised by inclusion of loss-making operations
Minimize risk of service disruption **(*operational risk*)**	🟩 1. Operations are corporatized piecemeal, only when they are ready	🟨 • Possibility that new systems cannot be successfully rolled out company-wide. “Putting all the eggs in one basket”.
	🟨 2. BPDB employees may resist the change, potentially feeling that healthy operations are being established at expense of BPDB.	🟩 • BPDB employees less likely to resist as they will have option to transfer en masse

Exhibit ES.6: Proposed Migration to the Target HoldCo Structure

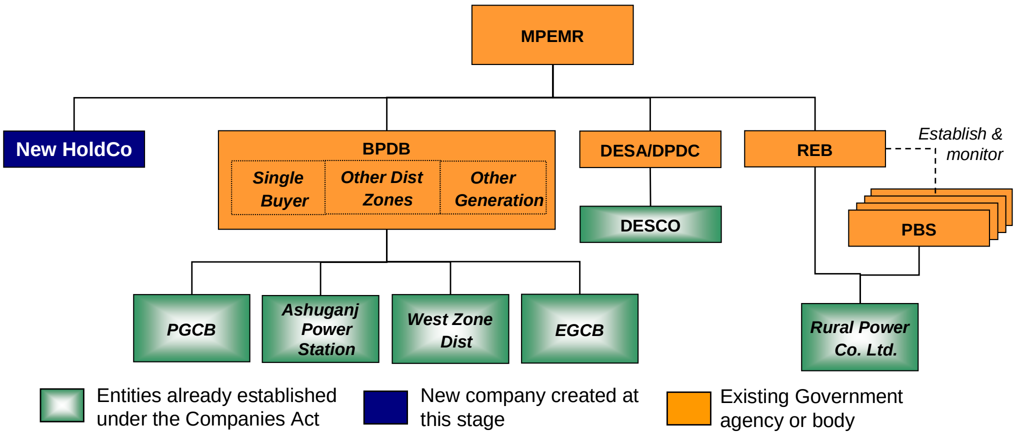
Stage 0: Current State Ownership Structure

- BPDB is a statutory corporation under MPEMR
- DESA is in process of being corporatized as the Dhaka Power Distribution Company Ltd. (DPDC)



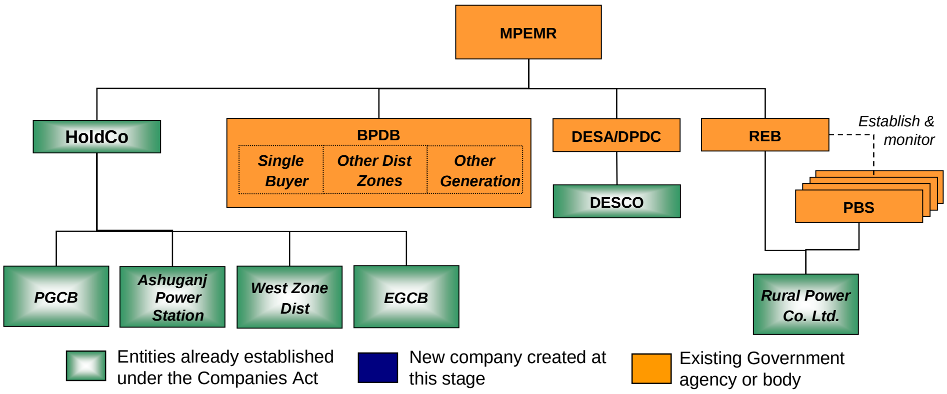
Stage 1: Create New Holding Company

- A new holding company (HoldCo) is established under the Companies Act 1994 as a **non-operating holding company**.
- HoldCo will be established with clean opening balance sheets, new conditions of service, as well as systems and processes that promote commercial discipline and enable efficient and effective function as a holding company.



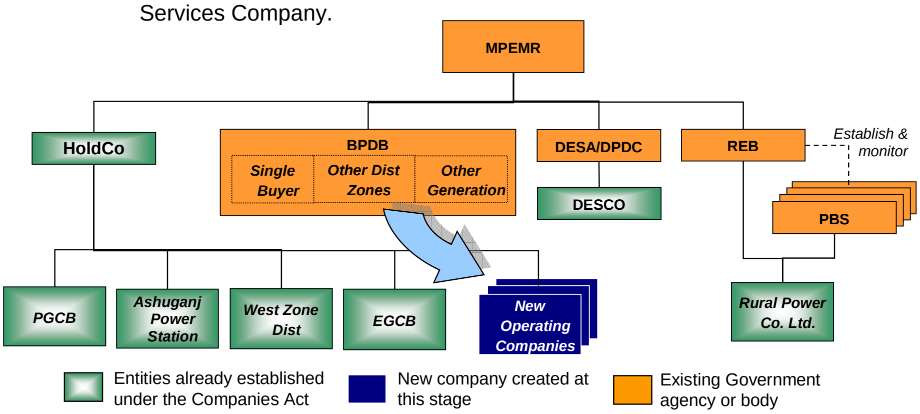
Stage 2: Transfer Existing BPDB Subsidiaries

- Existing BPDB subsidiaries are transferred to HoldCo when each is ready and transfer prerequisites are met.



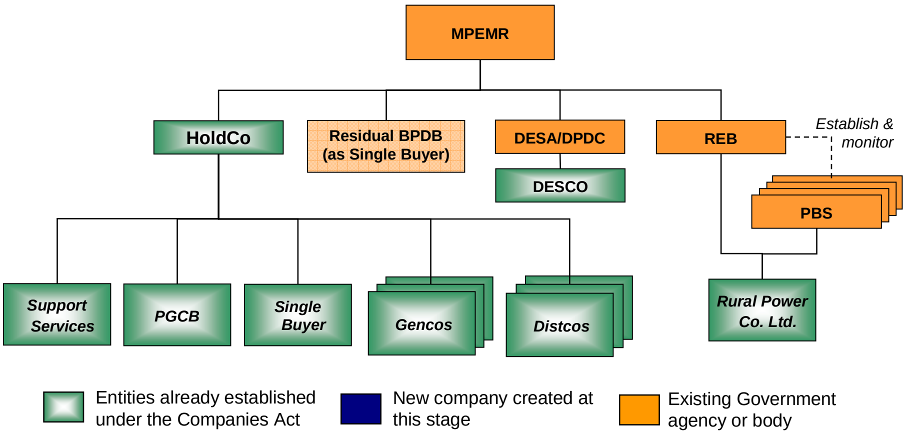
Stage 3: Create New Subsidiaries

- Existing core business operations of BPDB (distribution, single buyer, generation) will be corporatized as subsidiaries of HoldCo as they are ready.
- Non-core BPDB businesses will be either (i) spun-off (ii) incorporated into subsidiaries or (iii) corporatized as separate subsidiaries of HoldCo, e.g. a Services Company.



Stage 4: Holding Company Complete

- Once all operations of BPDB have been migrated to the new entities or otherwise disposed of, the residual BPDB will continue to function as the single buyer.



ES.3 Principal HoldCo Roles & Functions

HoldCo will be a non-operating holding company. Its Articles and Memorandum of Association developed under this study preclude direct involvement in generation, transmission or distribution. Its principal functions will be to drive performance in and seek to optimize the allocation of capital investment across its subsidiaries by virtue of its powers as shareholder. This latter function is particularly important given the constrained availability of funds for capital investment in the Bangladesh power sector.

HoldCo will perform these two functions through the following activities:

- Financial Planning entails review and understanding of the least-cost system plan prepared by the Single Buyer (BPDB), determining the availability of capital funding for the investments identified in the plan, and then allocating the available funds across the subsidiaries taking into account the dependency between various investments (e.g. distribution extension first requires new transmission and generation), and the individual contribution of these potential investments towards the Government's policy objectives for the sector, as reflected in HoldCo's performance contract.

- Performance Management. HoldCo will enter into a performance contract with the Government that transparently documents the measurable targets HoldCo is expected to achieve. These targets should align directly with the Government's policy objectives for the sector. It will also specify the resources Government commits to HoldCo in order to fulfil these responsibilities (e.g. capital funding and baseline tariff levels). The provisions of the Government-HoldCo performance contract will cascade down to individual HoldCo-Subsidiary performance contracts, and ultimately to individual employees throughout the Group (i.e. HoldCo and its subsidiaries together). Performance against targets will be monitored, reported and rewarded through an integrated performance management system covering all levels of the Group (building up from individual employee to HoldCo itself as a corporate entity). HoldCo will take remedial actions as appropriate to improve weak performance in subsidiaries, including provision of technical advice to subsidiaries and, if necessary, replacement of subsidiary management.

Each performance contract will reflect powers and restrictions stipulated in the relevant Articles and Memoranda of Association. Each will define the measurable targets for the entity, consistent with the authority it has been granted and the resources it will receive. It will also define how performance against these targets is to be measured and reported, and the rewards (or sanctions) that will accompany achievement (or failure). Employee performance management will follow an analogous process and rely on similar documentation.

Exhibit ES.7 shows the corresponding HoldCo value chain.

Exhibit ES.7: The HoldCo Value Chain

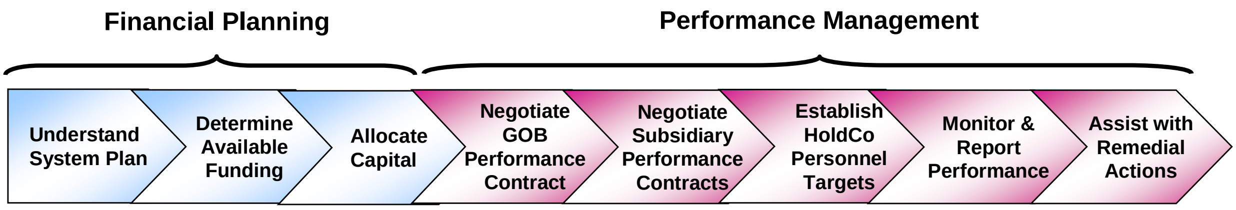


Exhibit ES.8 shows how HoldCo will implement these functions with respect to Government and its Subsidiary Companies (SubCos). HoldCo will have a business orientation, not an engineering orientation. It will not be directly involved in the physical production or delivery of electricity, but will hold its operating subsidiaries accountable for their annual performance. These roles are institutionalized through the Articles and Memorandum of Association for HoldCo.

Exhibit ES.8: Interaction between Government, HoldCo and SubCos

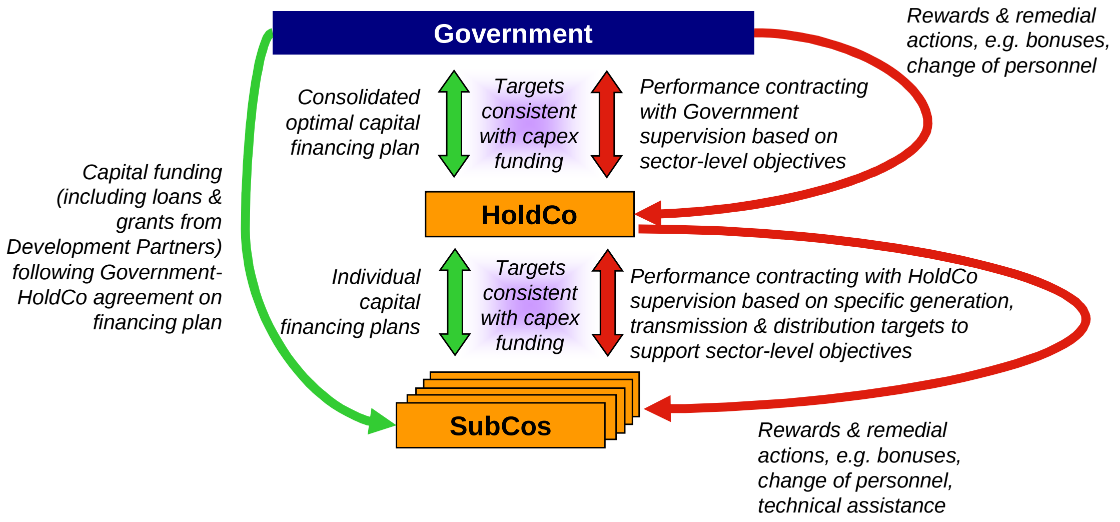


Exhibit ES.9 enumerates HoldCo's core functions as well as subsidiary support functions.

ES.4 HoldCo Organizational Structure

HoldCo should be organized internally around the work that it does. Exhibit ES.10 identifies the principal organizational units that will execute the various elements of its value chain. Based on this, Exhibit ES.11 depicts the proposed high-level organizational structure of HoldCo. In addition to these structural units, there will be various ad hoc teams that are constituted to perform work of a temporary or intermittent nature (e.g. annual preparation or updating of the Government-HoldCo performance contract). It is anticipated that HoldCo will require only 50 to 100 professional personnel.

An alternative organizational structure was proposed by BPDB personnel and is reviewed in this report. Key features and associated concerns for that proposal include:

- It splits performance monitoring into two departments, one for generation & transmission, the other for distribution. This could impede consistency of metrics, measurements and rewards, and, of greatest concern, could result in these departments attempting to control the subsidiaries they monitor. HoldCo is to impose accountability on its autonomous subsidiaries, not control them, and the risk of control increases by structuring HoldCo to mirror the operations of unbundled SubCos rather than providing an overarching performance monitoring function.
- It establishes O&M and Commercial divisions within each performance monitoring department, but these are operating functions. HoldCo is not involved in operations.
- It separates IT from performance monitoring, but the principal function of IT in HoldCo is to facilitate performance monitoring.
- It moves system planning review out of the financial planning department. This means there is no single unit responsible for preparation of the financial plan, which

integrates system planning considerations (the least-cost plan) with funding constraints (which determine feasibility).

Exhibit ES.9: HoldCo Functions

<table>
<tr><th>Near Term</th><th>Long Term</th></tr>
<tr><td>Financial Coordination – Capex Screening.
• Develop a coordination process for subsidiaries to provide inputs to system planner and to prepare capex plans in a standard format.
• Compile all government-financed capex plans from subsidiaries.
• Review plans against system plan and ensure consistency. Assess linkages & prerequisites for each capex proposal.
• Screen plans based on financial returns & other impacts on other key performance indicators (KPIs), as well as on dependency/linkage with other operations or investment.
• Present integrated plan to Power Division for review and forwarding to Planning Commission.
• Represent all operating companies in project public financing matters with Power Division & Planning Commission.
• Adjust capex plans based on final approval from Planning Commission.</td><td>Financial Coordination – Corporate Finance.
• Negotiate with Government through Power Division to secure block grant.
• Compile all government-financed capex plans from subsidiaries.
• Review plans against system plan and ensure consistency. Assess linkages/prerequisites for each capex proposal.
• Screen plans based on financial returns and dependency/linkage with other operations or investment.
• Determine how block grant to be allocated and delivered to subsidiaries (e.g. debt, equity) taking into account approved projects
• Consider introduction of a Group Treasury function</td></tr>
<tr><td colspan="2">Performance monitoring.
• Agree with Government on HoldCo KPIs.
• Develop/agree with Government on HoldCo performance contract.
• Agree with subsidiaries on subsidiary KPIs.
• Develop/agree with subsidiaries on their performance contracts.
• Define information requirements from subsidiaries and mode of delivery.
• Conduct internal audits of subsidiaries as appropriate.
• Report monitoring results to Government on agreed schedule.
• Review monitoring results with subsidiaries on agreed schedule.
• Take actions with respect to approval of subsidiary director bonus and/or replacement.</td></tr>
<tr><td colspan="2">Legal Compliance. HoldCo to ensure that subsidiaries are aware of and complying with all health, safety, environmental, labor, tax, establishment, accounting and industry regulations.</td></tr>
<tr><td colspan="2">Information Technology. HoldCo to:
• Define & establish system for delivery & reporting of subsidiary performance & compliance.
• Define & establish system for compilation and reporting of HoldCo performance & compliance.
• Establish IT Principles governing all subsidiaries.
• Monitor compliance/implementation of those principles, and report findings to HoldCo Board.
• Determine relative IT investment priorities among subsidiaries.
• Develop and support HoldCo IT systems.</td></tr>
<tr><td colspan="2">Human Resources. HoldCo to:
• Conduct search for subsidiary directors
• Define/negotiate terms & conditions of subsidiary director appointments.
• Establish HR management principles for subsidiaries.
• Monitor compliance/implementation of those principles, and report findings to HoldCo Board.
• Manage HoldCo personnel</td></tr>
<tr><td colspan="2">Stakeholder Management. (e.g. investor relations, public relations, advertising/branding, etc.)
No function anticipated.</td></tr>
</table>

Exhibit ES.10: Mapping of HoldCo's Value Chain to Organizational Units

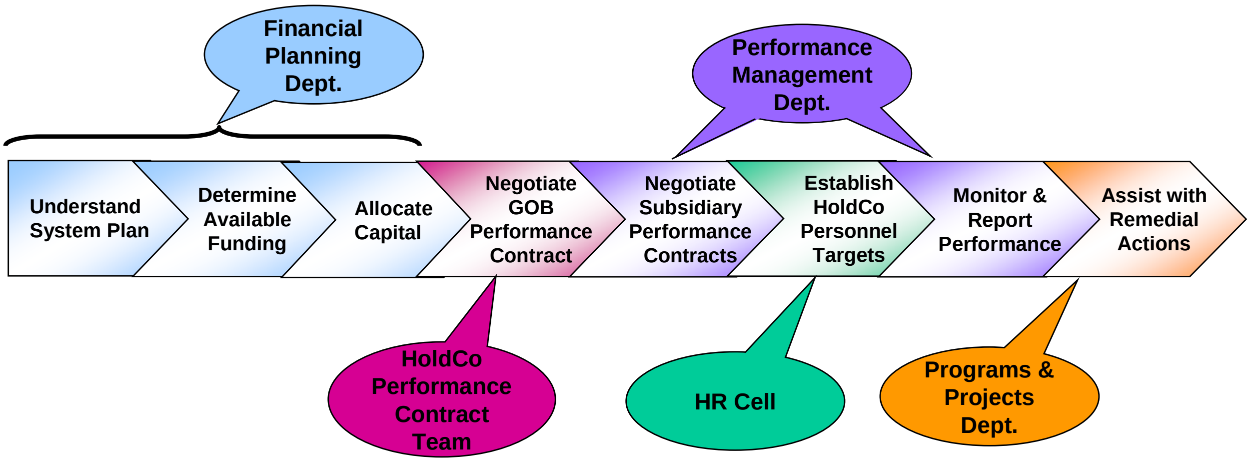
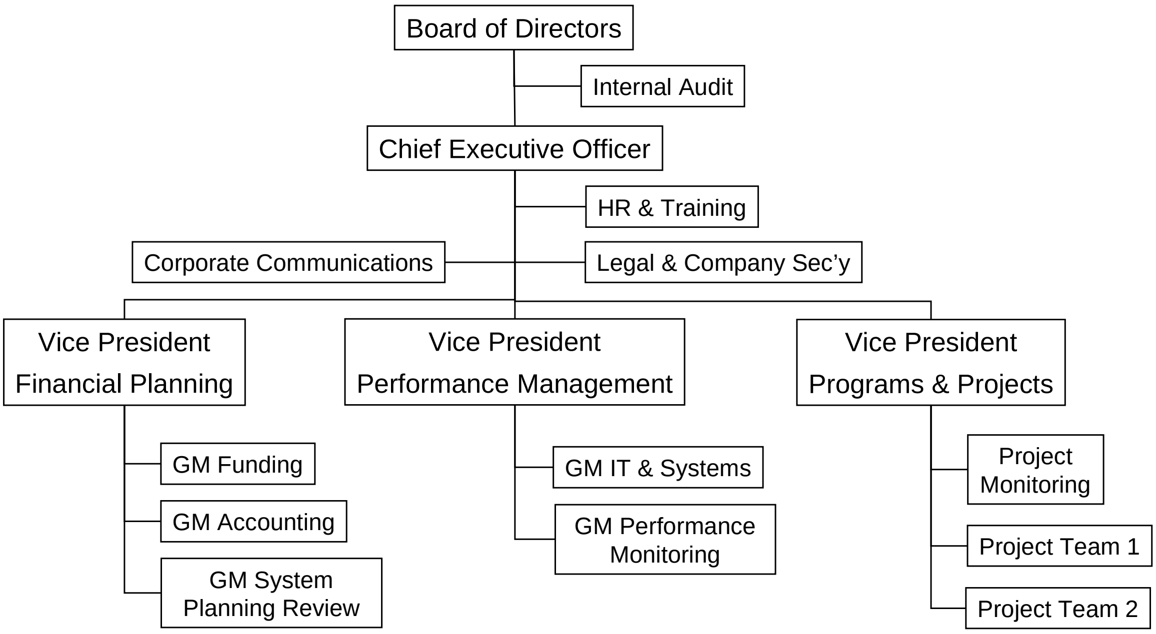


Exhibit ES.11: High-Level HoldCo Organizational Structure



ES.5 Implementation Plan

Establishing HoldCo entails the following major steps:

1. Incorporation of HoldCo and provision of capital. This can occur as soon as the Government approves the Articles and Memorandum of Association and subscribes the funds for initial capitalization of the company. It can probably occur within 2 months of the Government's decision to proceed with HoldCo.
2. Appointment of directors. The signatories to the Articles of Association (AoA) automatically become the first Board of Directors. However, this is only a temporary step until a new board can be established following the process outlined in the AoA. The Government may initiate this process by appointing a selection panel following the provisions of the AoA even if the AoA has not yet been executed. This is the initial critical path task in the establishment of HoldCo. It is expected that the "real" Board can be established within 3 to 5 months of the Government's decision to proceed with HoldCo.

3. Appointment of managing director (chief executive officer). This will be conducted by the Board of Directors. The process should be complete within 3 to 4 months of the Board taking up its duties.
4. Acquisition of premises and initial assets. This can be performed under the supervision of the managing director, in parallel with the employment of staff.
5. Employment of staff. A cascading recruitment process is envisioned in which each level of management vets the level of management below it. It is expected that Vice Presidents will be appointed within 4 to 6 months of the Board taking up its duties. Employment of staff should be complete within 7 to 12 months of the Board taking up its duties, and will follow open recruitment. As staff join, they can further define and document the new business processes to be performed in their respective areas.
6. Acquisition of shares in power companies. This may happen after a critical mass of personnel have been hired, most likely 5 to 8 months after the Board takes up its duties. The transfer of former BPDB subsidiaries to or the spin-off of remaining BPDB generation and distribution operations as subsidiaries of HoldCo should be contingent upon the subsidiary achieving the following conditions:
    - Profitability of the company is at or near the level projected in the FRRP.
    - The company's debt service and trade purchase payments are up to date
    - The ability to provide financial information in the detail necessary for consolidation in Group financial statements has been established
    - An adequate and effective management structure exists.

Overall, the establishment and operationalization of HoldCo will require some 10 to 17 months from the time the Government decides to proceed. This is consistent with the start date of 30 June 2009 assumed in the financial projections.

ES.6 The Future of BPDB

Out of the 13,649 employees reported for BPDB in 2007, 10,561 will be transferred to corporatized generation and distribution subsidiaries. Of the remaining 3,088 BPDB employees, 2,232 will be transferred to a Support Services company.

Of the remaining 856 employees, all of whom are from the BPDB Head Office, it is estimated that 268 will also be transferred to subsidiaries. The remaining 588 personnel in the BPDB Head Office will be responsible for the preparing remaining BPDB operations for corporatization and performing the single buyer function. Over time, as operations are corporatized, BPDB will be left with only the single buyer function.

The single buyer function currently employees about 238 personnel. Consequently, there could be as many as 351 excess personnel once corporatization of operating units is complete. However, it is not clear how much natural attrition will have occurred by that time, either through retirement or successful application to HoldCo. In any case, this number of employees can be maintained without compromising the financial viability of the HoldCo concept. Creation of HoldCo as proposed does not result in loss of employment or redundancy. This is consistent with Government policy that no one will lose his or her job as a result of power sector reform. (Given the limited number of employees involved and problems with recent Voluntary Retirement Schemes in Bangladesh, creation of a VRS to facilitate corporatization of BPDB is not recommended).

As noted above, BPDB should continue to serve as the single buyer until the PPAs are assigned to a corporatized successor, at which point all personnel should transferred on an as-is, where-is basis to the newly corporatized single buyer company.

The single buyer typically performs the following functions:

- ***System planning***. It forecasts demand growth and determines the least cost generation and transmission capacity additions to meet that growth. In the new funding mechanism proposed for the sector, BPDB will prepare its system plan as it does now, but then forward it to HoldCo for review and funding analysis.

- ***Procurement***. It procures new generation, typically on a competitive basis, to meet expected demand.

- ***Contracting***. It contracts with generators and distributors for the purchase and sale of bulk power. PPAs will have to be developed for each of the new

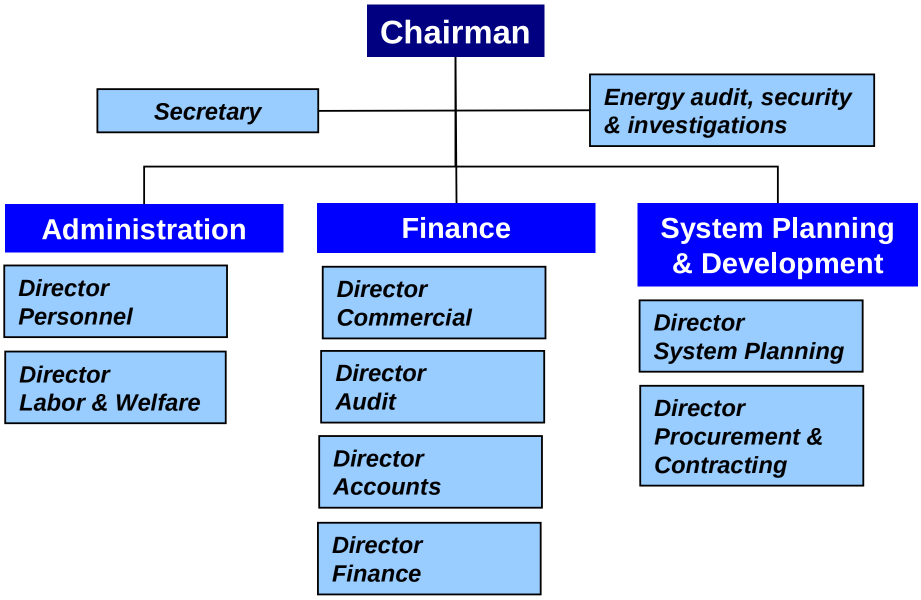
- ***Settlement***. It settles (i.e. invoices distributors and pays generators) monthly for bulk power transactions.

BPDB currently conducts all of these functions except for procurement. While it participates in the procurement process for new independent power producers (IPPs), Power Cell leads this process on behalf of the Government of Bangladesh. BPDB employees participate with the Power Cell team for procurement and contracting.

Like HoldCo, the residual BPDB will not have an operating role for the physical delivery of power. It will fulfill purely planning and commercial functions. Though it may participate in monthly system operation coordination meetings with generators and PGCB, dispatch should remain solely under PGCB's National Load Dispatch Center (NLDC). The purpose of the monthly coordination meetings will be to share information on the monthly load forecast, plant operating costs, system constraints and scheduled maintenance so that the NLDC can establish a supply curve against which merit order dispatch can be conducted. The BPDB single buyer can contribute information on expected variable costs per the PPAs it holds, as well as take note of forecast plant availability.

BPDB's current structure should therefore be retained initially. As remaining operations of BPDB are corporatized, those branches of the organization will move to the subsidiaries. By the time the corporatization of subsidiaries is complete and BPDB performs only the single buyer function, all of the organizational units under Member Distribution and Member Generation will have been spun off to new operating companies along with all training, engineering, and logistics units to the Support Services company. (Organizational units under Member Transmission have already been spun off). The remaining organizational units under Administration and Finance will also slim down as personnel and in some cases, entire units, move to the new subsidiaries. Ultimately, BPDB as the single buyer will have on the order of 200 personnel and an organizational structure along the lines of that shown in Exhibit ES.11. The functions of each department would be much the same as in the existing BPDB.

Exhibit ES.11: Structure of Residual BPDB as Single Buyer



ES.7 Power System Reliability in the Corporatized Environment

Reliability of power supply remains a major concern for the Government and other stakeholders. These stakeholders seek to understand how corporatization (in particular the establishment of HoldCo and focusing of BPDB as single buyer) can contribute to improved power system reliability.

Reliability depends directly on two sets of activities: system control and operations, which are conducted on the short-term time scale of real time, hours, days and weeks, and planning procurement, construction and commissioning, which occurs over the longer term time scale of months and years.

This report presents several recommendations regarding planning and procurement that are intended to enhance system reliability in addition to other benefits. These recommendations include:

- Improved performance management among operating companies, supporting timely implementation of investment plans (Chapter 3)
- Creation of a financial planning function under HoldCo to optimize allocation of available capex funding (Chapters 3 and 8)
- In the longer term, introduction of new modalities for sector funding (Appendix K)

System control and operations, on the other hand, are not directly performed or affected by HoldCo or the residual BPDB functioning as single buyer. These entities provide commercial functions, not technical functions. They are not responsible for physical operation of the system. More generally, corporatization is about long-term management of the power sector, not short-term operational control of the grid system. Both are necessary for a successful sector, and they should be mutually reinforcing.

As noted above, system operations should be the responsibility of PGCB (which includes the NLDC). To perform this role, generators and distributors must follow the instructions of the NLDC. Certainly implementation of Automatic Generation Control (AGC), transmission SCADA and distribution automation systems can help centralize system control and ensure compliance with instructions. However, such technology is not essential for effective NLDC control. The fundamental requirement is that generators and distributors comply with NLDC instructions regardless of how those are delivered.

Normally the specifics of such compliance would be documented in a grid code, which ultimately would be enforced by a regulator. Although PGCB has developed a grid code, it has not been fully introduced and the BERC is not yet in a position to formally adopt the code and compel compliance.

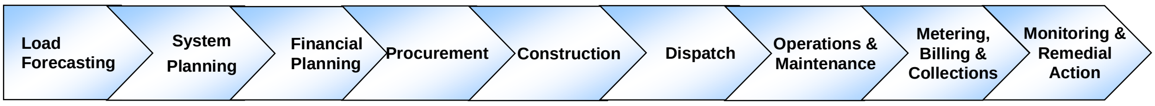
These observations and suggestions are consistent with the findings of the Fact Finding Committee convened by Power Division to investigate the grid failures resulting Cyclone Sidr on 16 November 2007. That report concluded that there were both technical as well as managerial reasons for the duration and extent of the system outages resulting from Cyclone Sidr. Technical causes included unreliability of telecommunications facilities, poor operator controls and displays, absence of AGC and inadequate number of self-starting units. (These inadequacies could perhaps be addressed through optimal capex allocation as envisioned under HoldCo). Managerial causes include lack of responsiveness by some generators to NLDC instructions, imprecise or unheeded load allocation commands to/by distributors, as well as poor internal processes and controls within NLDC itself (including absence of contingency plans and emergency training).

Therefore, until a grid code is formally adopted and enforced by the regulator, the Minister of Power, Energy and Mineral Resources, or the Secretary (Power) as appropriate, should establish a grid system operations committee, chaired by the head of system operation. The instruction establishing this committee should:

- Identify members of the committee as the heads of the all generators (including IPPs), distributors, and the single buyer (BPDB).
- Establish the sole authority of NLDC to control the real-time operation of the system, accountable for operational reliability.
- Mandate that that all entities connected to the transmission system must take timely action on instructions issued by the head of system operation regarding real-time operation of the system
- Compel members of the committee to participate in monthly system coordination meetings chaired by NLDC, and provide information requested by NLDC for planning system operations.
- Provide for NLDC to report member compliance to the Government authority issuing the instruction, and outline penalties for non-compliance

System operation is but one element of the electricity value chain. Exhibit ES.12 depicts the complete value chain.

Exhibit ES.12: The Electricity Value Chain



Ultimately, reliability of power supply depends upon execution of each element of this value chain. The table in Exhibit ES.13 shows how responsibilities for performance of each element of the chain may be allocated across the power sector entities described in this report. The exhibit also indicates the document(s) that govern the execution of each element of the chain. Not all of these documents have been prepared, but eventually the sector will require the development of and adherence to these documents to guide each of the sector entities in fulfilling its role.

Exhibit ES.13: Post-Corporatization Responsibilities across the Power Sector

Value Chain Element ***(Governing document)***	**Generation companies**	**PGCB (incl. NLDC)**	**Distribution companies**	**Residual BPDB (Single Buyer)**	**HoldCo**
Load forecasting ***(Grid Code)***	Prepare forecasts of their own availability and potential output for both operational and planning time scales	Prepares, ensures consistency of, and distributes day-, week- and month-ahead forecasts for system operations	Each prepares bottom-up forecast for own service area for both planning and operational time scales	For operational forecasts: receives forecasts from PGCB For planning forecasts: consolidates, checks & ensures consistency	-
System planning ***(Grid Code, Planning Code)***	Provides generation inputs to plan	Provides transmission inputs to plan	Plans local distribution systems	Formulates system least-cost plan	-
Financial planning ***(HoldCo MOA / AOA)***	Proposes capital requirements for plan implementation	Proposes capital requirements for plan implementation	Proposes capital requirements for plan implementation	Provides least-cost plan details to HoldCo	Optimizes capital allocation from Government across entities to best achieve performance contract targets
Procurement ***(Government procurement regulations, Tendering Code)***	Procures fuel & spares, and may procure new capacity as authorized separately by regulator & shareholder.	Procures transmission and grid sub-stations	Procures distribution line materials and sub stations	Works with Power Cell to procure new generation and serves as PPA counterparty	Establishes procurement authorization levels for subsidiaries via shareholder role
Construction ***(Grid Code, other codes & regulations)***	Constructs new generation	Constructs new transmission	Constructs new distribution	-	-
Dispatch ***(Grid Code)***	Follows system operator instructions	Performs system operator role through NLDC	Follows system operator instructions	Provides cost inputs to system operator per PPAs	-
Operations & Maintenance ***(Grid Code, AOA / MOA of entities, contracts & licenses)***	Operates & maintains generation	Operates & maintains transmission and NLDC	Operates & maintains distribution	-	-
Metering, Billing & Collections ***(Grid Code, Supply Code)***	Bills Single Buyer for power produced	Bills distributors for transmission services	Performs retail customer metering, billing & collections	Bills distributors & pays generators for bulk power supply	-

Value Chain Element *(Governing document)*	**Generation companies**	**PGCB (incl. NLDC)**	**Distribution companies**	**Residual BPDB (Single Buyer)**	**HoldCo**
Monitoring & Remedial Actions ***(Annual: HoldCo MOA / AOA Operational: Grid Code, contracts)***	Internal monitoring and performance management to meet SubCo-HoldCo performance contract	Internal monitoring and performance management to meet SubCo-HoldCo performance contract	Internal monitoring and performance management to meet SubCo-HoldCo performance contract	Depends on whether Single Buyer establishes performance contract with Government or becomes SubCo	Monitoring and performance management of SubCos in line with HoldCo-Government performance contract

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Appendices

Supplemental Appendices (bound separately)

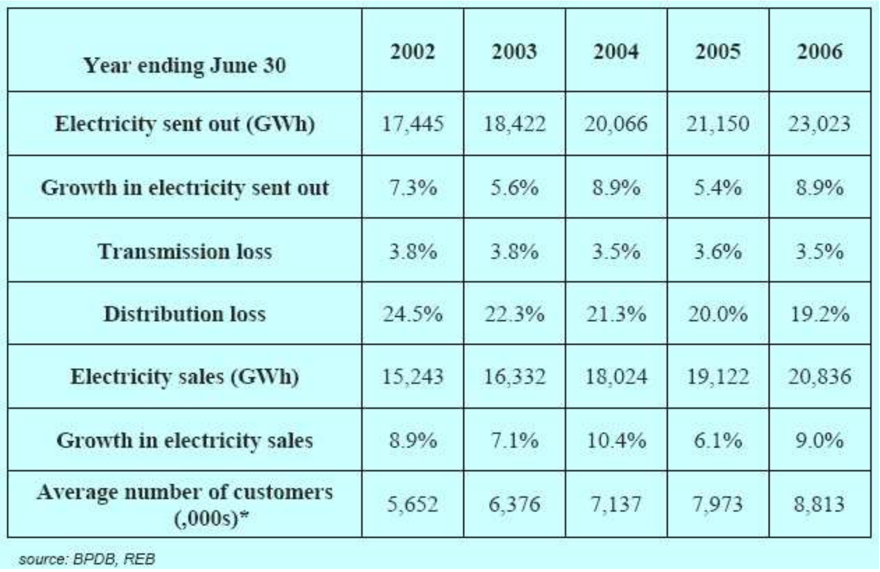
1. *INTRODUCTION*

1.1 BACKGROUND AND OBJECTIVES

1.1.1 Sector Overview

Exhibit 1.1 summarizes key electricity generation and consumption statistics for Bangladesh for the past several years.

Exhibit 1.1: Key Electricity Statistics



Year ending June 30	2002	2003	2004	2005	2006
Electricity sent out (GWh)	17,445	18,422	20,066	21,150	23,023
Growth in electricity sent out	7.3%	5.6%	8.9%	5.4%	8.9%
Transmission loss	3.8%	3.8%	3.5%	3.6%	3.5%
Distribution loss	24.5%	22.3%	21.3%	20.0%	19.2%
Electricity sales (GWh)	15,243	16,332	18,024	19,122	20,836
Growth in electricity sales	8.9%	7.1%	10.4%	6.1%	9.0%
Average number of customers (,000s)*	5,652	6,376	7,137	7,973	8,813

source: BPDB, REB

Despite economic growth averaging some 5.1% annually over the past 10 years, Bangladesh continues to face daunting problems in the power sector, notably:

- An electrification ratio of less than 40%.
- Extensive load shedding. Load shedding sometimes approaches 1,000 MW, equivalent to about 25% of total de-rated generation capacity in the country.

The electrification ratio can be improved by extending rural electrification, and load shedding can be reduced by adding and rehabilitating generation capacity, and where necessary, upgrading transmission and distribution capacity. However, these actions require capital investment, which is not available in sufficient quantities to make major progress in addressing these problems.

The lack of capital investment is but a symptom of more fundamental problems within the sector. Specifically, tariffs and Government subsidies are inadequate to recover the cost of supply. The average retail tariff is approximately US cents 5.1/kWh. Though IPPs such as Haripur and Meghnaghat produce power for as little as 2 US cents/kWh, IPPs represent only about one-third of total generation. The overall cost of supply is relatively high due to high technical losses and other inefficiencies in the sector. For example, some 23% of net generation is lost through the transmission and distribution system, and state-sector generation far less efficient than IPP generation.

The best way to obtain an overall picture of the sector's finances is to identify the total revenue earned from retail sales and deduct the out-of-pocket cash expenses incurred by all entities in the process. The difference indicates the sector's net funds available annually to reward owners and lenders, repay debt capital and contribute towards growth.

This simple but fundamental analysis shows that the Bangladesh power sector is insolvent. It generates insufficient cash to finance all the necessary major rehabilitation work and needed new generation capacity let alone service its long term debt capital.

Exhibit 1.2 summarizes the sector funds flows on revenue account for FY 2005. BPDB's expense includes the cost of power purchased from IPPs, which, as private parties, are outside the sector for the purpose of this analysis, which is based on revenue billed to consumers. The resulting surplus, i.e. operating profit before depreciation and before interest on long term debt capital (BDBI), was about Tk 4,100 million.

The book value of fixed assets in service in the sector is over Tk 180,000 million.[1] The 'cash' surplus of Tk 4,100 million is only 2.2 per cent of the value of fixed assets. Assuming an average depreciation rate of three per cent of cost and allowing a return to capital of 10 per cent of fixed assets in service,[2] the revenue requirement is Tk 85,000 million. Actual revenue at just under Tk 60,000 million leaves a shortfall of more than Tk 25,000 million.[3]

If efficiency could be improved and tariffs and/or subsidies increased, the sector would be able to self-finance a greater portion of its capital needs, and would be a creditworthy borrower with access to private capital[4]. Currently it relies solely on funding from the state budget, including funds provided by development partners.

Exhibit 1.2: Sector Cash Balance

Entity	Retail Revenue	Out-of-pocket Expense
	M Tk	
BPDB	16 985	42 838
DESCO	5 475	265
WZPDC	1 116	303
DESA	12 129	1 050
REB	23 246	6 733
PGCB		593
APS		3 071
	58 951	54 853
Surplus BDBI		4 098
	58 951	58 951

Exhibit 1.3 summarizes the fundamental problems of the Bangladesh power sector.

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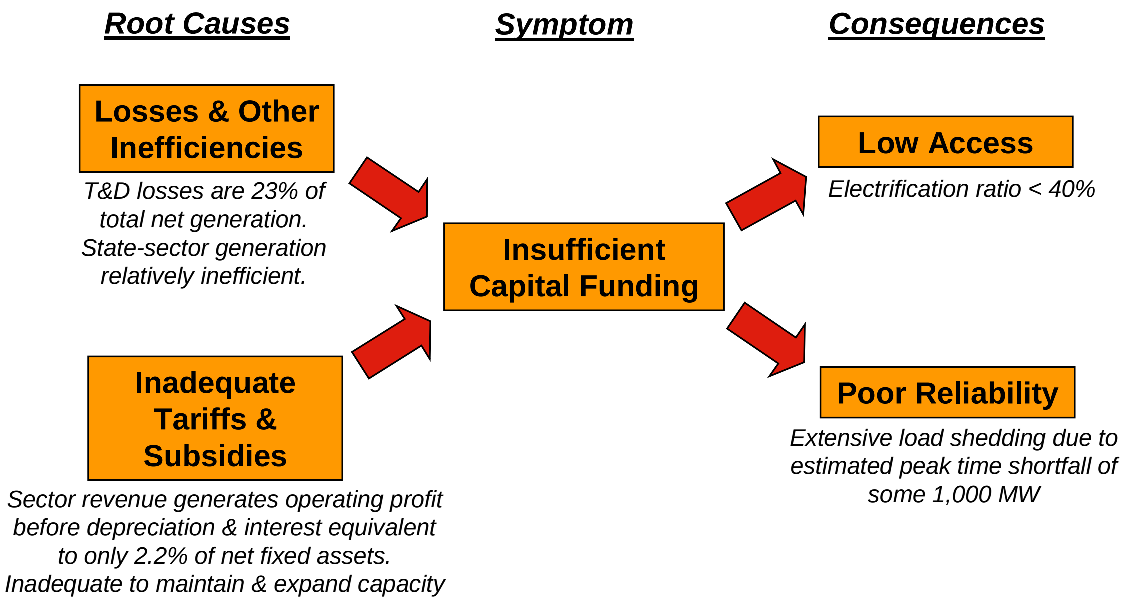
[1] The depreciated replacement cost may well be more than half as much again based on BPDB's asset values restated to 2005.

[2] This is the target return on net fixed assets used in the Financial Restructuring and Recovery Plan (FRRP) recently adopted by GOB. This metric is commonly used by multilateral lending agencies.

[3] The only direct Government subsidy to the sector is Tk 80 million to REB. The sector is indirectly subsidised to the extent of unpaid debt service, capital grants, and the like.

[4] Although IPPs represent 27% of total nameplate capacity of 4,680 MW and 33% of total generation, these plants have been constructed largely on the basis of sovereign guarantees and multilateral bank partial risk guarantees rather than on the basis of the fundamental commercial attractiveness of investing in the power sector.

Exhibit 1.3: Fundamental Problems in the Bangladesh Power Sector



T&D losses are 23% of total net generation. State-sector generation relatively inefficient.

Sector revenue generates operating profit before depreciation & interest equivalent to only 2.2% of net fixed assets. Inadequate to maintain & expand capacity

Electrification ratio < 40%

Extensive load shedding due to estimated peak time shortfall of some 1,000 MW

1.1.2 The Government Response

These have been chronic problems for Bangladesh. To simply increase tariffs without improving the efficiency of the sector would disregard the Government’s obligation to properly manage the sector, and would be politically untenable. Conversely, simply increasing efficiency without adjusting tariffs to ensure financial viability is unsustainable. ***To be effective in the long term, any restructuring (including corporatization) must go hand-in-hand with tariff reform.*** Hence, the Government vision for the sector contains three elements that implicitly recognizes the linkage between tariffs, access, quality of service and efficiency:

- To make electricity available to all
- To ensure reliable and quality supply of electricity
- To provide electricity at a reasonable price.

The Government has taken a comprehensive approach to achieve this vision. In 1994, the Government issued a policy statement titled Power Sector Reforms in Bangladesh (PSRB). The PSRB envisioned:

- Separation of regulation from operations
- Unbundling of generation, transmission and distribution
- Increased commercial orientation of the sector
- Greater private sector participation in the sector

The Government further defined the goals and means of sector reform in 2000 with its Vision and Policy Statement. Among other things, this statement called for:

- Corporatization of state-owned operating entities in the power sector, including BPDB

- Progressively adjusting tariffs to reflect cost of supply

More recently, the Government published Power Sector Reform Road Map in 2005, which laid out a three-year time-bound action plan to implement policy. A principal element of the Road Map was corporatization of BPDB as a holding company by June 2007. A number of other assignments have been conducted over recent years to support other Government objectives for the sector. These reports are summarized in Supplemental Appendix A.

1.1.3 Project Objectives

To assist the Government with the corporatization of BPDB as a holding company, this ADB technical assistance project aims to:

- Formulate a design and strategy for the holding company
    - Legal & commercial aspects
    - Accounting & financial management
    - Human resources management
    - Management Information System (MIS)

- Assist with the corporatization itself, including implementation planning, preparation of articles of association (AOA) and memorandum of association (MOA), etc.

The complete terms of reference for the Assignment are given in Appendix A along with a table of compliance.

1.2 KEY CONCEPTS

Over the years, Government policy in the sector has referred to three elements as noted above:

- Unbundling

- Corporatization

- Introduction of a holding company

Each of these concepts is discussed in turn.

1.2.1 Unbundling

Unbundling is the process of breaking up a single entity into smaller ones. There are two principal motivations to unbundle an entity:

- To improve business focus. Breaking an organization into smaller ones can help limit the span of control to what can be (cost) effectively managed. Consequently, unbundling is typically conducted on either a geographic basis, or along the value chain.

- To enhance accountability. Driving accountability is an essential aspect of power sector reform, especially in terms of improving efficiency. As shown in Exhibit 1.4, there are four elements that comprise accountability. Defining discrete pieces of a business through the unbundling process facilitates clear allocation of authority, target setting and performance measurement.

Exhibit 1.4: The Elements of Accountability

Empower	Set Expectations	Measure Performance	Reward or Sanction
• Grant authority • Provide resources	• Set targets commensurate with authority • Implement a system to measure performance	• Report performance against targets to relevant parties	• Commensurate with performance in terms of time and magnitude (effective incentives)

Supplemental Appendix B provides case studies of utility unbundling from other countries.

1.2.2 Corporatization

Corporatization, in this context, is the transfer of the role of a public body to a company established under the Companies Act 1994. The new company may remain fully state-owned, or could accommodate any degree of private sector ownership the Government may deem.

Corporatization enables:

- Improved accountability. Corporatization institutionalizes and helps make transparent authority, governance and accounting to drive commercial performance. Governance structures and processes are both stipulated by law, i.e. the Companies Act 1994, as well as by the Articles and Memorandum of Association. Such structures and processes are typically not adopted in a government setting.

- Creation of a new culture. More generally, corporatization facilitates a shift from bureaucratic to commercial orientation, and in the case of a utility, from an engineering mindset to a business mindset. This is reflected in the new language, behavior and processes adopted by personnel as the structural change takes place. Ideally, the culture should shift from entitlement-based to performance-based, where decisions are made to maximize profits rather than simply follow regulations.

- Commercial funding. A profitable company can tap private sources of capital. This is particularly important in Bangladesh, where the Government (in the Vision and Policy Statement) has explicitly recognized inadequate government funding as a major impediment to improved sector performance. Moreover, continued nearly exclusive reliance on Government funding only keeps the sector subservient to political, rather than commercial, interests, which has enabled abuse in the past.

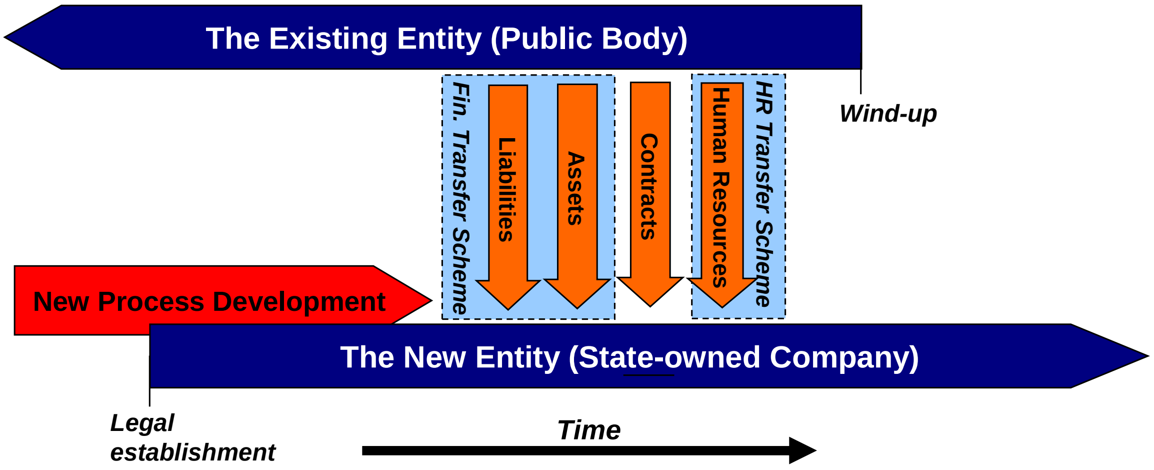
- Partial privatization. As indicated above, a company can be partially privatized to generate additional resources for government.

Specifically, corporatization is the process of moving people, relationships with outside parties, assets & liabilities from a public body to a state-owned company to undertake the functions previously performed by the public body. As shown in Exhibit 1.5, there are always two entities in the corporatization process that exist for some time in parallel. It is not possible to simply have an existing public entity become a company overnight, since it takes time and much legal work to transfer people, contracts, assets and liabilities to the new organization.

Moreover, if corporatization is to successfully achieve one of more of the above objectives, it necessarily entails the development of new work processes that will result in greater accountability, commercial orientation, etc. The design of new processes often begins before the formal establishment of the new company, and these processes are implemented as people, contracts assets and liabilities are transferred to the new company, culminating in the subsequent starts operations.

The transfer of assets and liabilities is frequently referred to as the *financial transfer scheme*. This will determine the opening balance sheet for the new entity. Contracts, of course, also need to be assigned from the legacy public body to the new entity. The transfer of people (and the acceptance of most likely new conditions of service within the new entity) is referred to as the *human resource transfer scheme*. These transfers need not necessarily happen in any particular order, but none the less must be planned in a comprehensive manner to ensure that linkages are taken into account (e.g. settlement of pension liabilities – a financial transfer scheme issue – as people are transferred.

Exhibit 1.5: The Corporatization Process



Finally, the process of corporatization need not take place only as a complete transfer of roles from one public entity to a single new company. Certainly that can be accommodated but many other arrangements are possible: the roles of a public body could be transferred to a number of new companies (e.g. as part of a process of unbundling), or only certain roles could be transferred to a new company, while the legacy public body retains only a subset of functions and continues to operate.

1.2.3 The Nature of a Holding Company

The Government has stipulated, and ADB agreed to support, the establishment of BPDB as a holding company. A *holding company* is a company that owns other companies, i.e. subsidiaries. A holding companies ownership is not passive, however. At a minimum, it:

- Provides strategic guidance and coordination for operations across the group, i.e. the holding company together with all its subsidiaries. The aim is for the Group as a whole to achieve better results than the companies would individually.

- Drive performance of the group companies to achieve shareholder objectives. It does this through authorities granted it as shareholder of the subsidiaries, namely:

    - It appoints subsidiaries' directors

    - It drives accountability by:

        - monitoring subsidiaries' performance

        - ensuring competent internal & external audits

        - reporting Group performance to HoldCo shareholders against agreed objectives, and takes action as appropriate in its role as shareholder of the subsidiaries to ensure targets are met.

In addition to this essential, defining function of owning subsidiaries, a holding company can itself perform services or operations other than to support the above functions. A holding company that only performs the core shareholding function is referred to as a *non-operating* holding company, whereas one that also conducts activities in addition to those supporting its core shareholding functions is referred to as an *operating* holding company.

The degree to which a holding company may function as an operating holding company depends on several factor, which may sometimes overlap:

- Regulatory requirements. Sometimes regulators or laws may require corporate ring-fencing between entities (e.g. that a competitive generation company and a monopoly distribution company should not be in the same company, or that one should not own the other), so that a holding company would own separate subsidiaries for these businesses and each would undertake operations of its own.

- Economics of centralization vs. decentralization. In some cases it may be advantageous to provide certain common services for all subsidiaries in the holding company, for example finance and accounting, or IT. The holding company would then "sell" these services to the subsidiaries.

- Feasible span of control / adequate business focus. Sometimes having a preponderance of operations in the holding company creates an unmanageable span of control or dilutes business focus. Too many business activities or too large a service territory under a single entity may inhibit timely decision making or impede effective management.

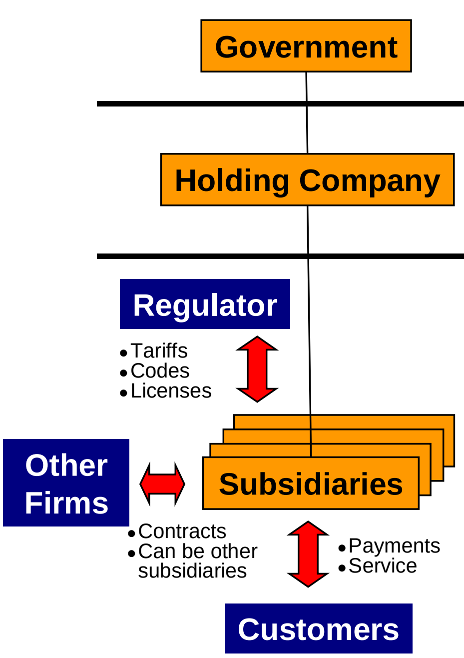
- Need for transparency. Shareholders or other stakeholders may want greater visibility of how various parts of the business perform. Establishing subsidiaries can create greater access to senior management, and provide a clearer picture of operational performance in specific business or geographical areas.

- Risk management. Establishing subsidiaries for specific business can help to insulate the risk of those activities from the broader operations of the group. The liability of shareholders is limited to their share capital, and by establishing a business as a subsidiary limits the potential risk to the rest of the group from events that could affect that particular part of the business.

- Liquidity and access to capital. A holding company can serve as a conduit for funds between various operating subsidiaries, and can function as a “bank” to the rest of the companies in the group, borrowing on the strength of its balance sheet. Alternatively, it may be possible to segregate subsidiaries by financial performance, so that at least some operations may be able to pursue private financing. In Bangladesh, by establishing DESCO and PGCB as financially-viable subsidiaries, they have been able to float shares and issue bonds. That would not have been possible if these operations had remained part of larger, loss-making operations.

Exhibit 1.6 depicts the roles and various issues that must be resolved at each level in setting up a state-owned holding company structure for a power utility. The following sections of this report propose solutions to address these issues in the establishment of a BPDB holding company.

Exhibit 1.6: Roles & Relationships in a Holding Company Structure



LEVEL	ROLE	ISSUES
Government	***Shareholder*** • Appoints Board • Monitors Board performance against targets	• Appointment, removal & composition of Board • Performance improvement mechanisms • Owner’s representative
Holding Company	***Holding Company*** • Shareholder of Subsidiaries • Insulates against government interference • Drives commercial performance	• Performance improvement mechanisms • Operating vs. non-operating • Planning, coordination, support and Single Buyer functions • Financial role • Corporate governance
Subsidiaries	***Subsidiary Companies*** • Conduct operations • Contract with other firms • Serve customers	• Autonomy and boundaries of authority & responsibility • Performance management mechanisms • Commercial arrangements with outside entities

1.3 PREVAILING INDUSTRY STRUCTURE

The Government of Bangladesh (GOB) plays a major role in supplying power. The state ownership structure of the industry is shown in Exhibit 1.7. The state is involved in the sector operations through the following entities:

- Ministry of Power, Energy and Mineral Resources (MPEMR). MPEMR sets sector policy and controls the statutory boards with operating responsibility (BPDB, REB, DESA) through its Power Division. The Power Cell is a separate unit established to manage the reform program and tenders for Independent Power Producers (IPPs).

- The Bangladesh Power Development Board (BDPB) is a statutory authority responsible directly or through its subsidiaries for state-owned power generation, transmission and urban distribution outside of Greater Dhaka. It also serves as the single buyer, functioning as off-taker for all IPPs and state generators.

- The Power Grid Company of Bangladesh (PGCB) is the subsidiary of BPDB responsible for system operation and transmission throughout Bangladesh.

- The Ashuganj Power Station Co. Ltd (APSCL) is a subsidiary of BPDB that owns and operates 724 MW of the 3,420 MW of capacity under BDPB. It is not considered as an IPP.

- The West Zone Power Distribution Company Ltd (WZPDCL) is responsible for distribution in the western part of the country, while the North West Zone Power Distribution Company Ltd (NWZPDCL) will take over distribution in the northwestern part of the country.

- The Electricity Generation Company of Bangladesh Ltd (EGCB) is a subsidiary of BPDB which will own the Siddhirganj and Haripur plants, and perhaps other generating assets of BPDB. The North West Power Generation Company Ltd (NWPGC) is another recently-established subsidiary will own and operate generating assets in that part of the country.

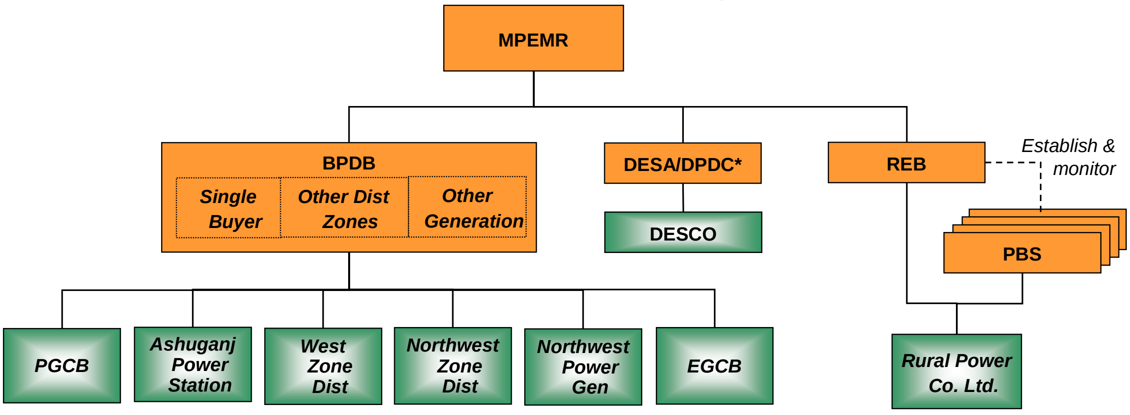
- The Dhaka Electric Supply Authority (DESA) is a statutory authority responsible for distribution in the greater Dhaka area. Some distribution areas of DESA were broken out and corporatized as the Dhaka Electric Supply Company Ltd. (DESCO). DESA itself is in the processes of being corporatized as the Dhaka Power Distribution Company Ltd. (DPDC).

- The Rural Electrification Board (REB) is responsible for rural electrification, either directly or through the establishment and monitoring of the 70 *Palli Bidyut Samiti* (PBS, or Rural Electrification Cooperatives).

- Rural Power Company Ltd (RPCL) is an IPP established as a joint venture between 5 of the PBS and REB.

Corporatization of other parts of BDPB as subsidiaries, such as the Central and South Zone distribution operations, is also underway.

Exhibit 1.7: State Ownership in the Bangladesh Power Sector



🟩 Entities already established under the Companies Act

🟧 Existing Government agency or body

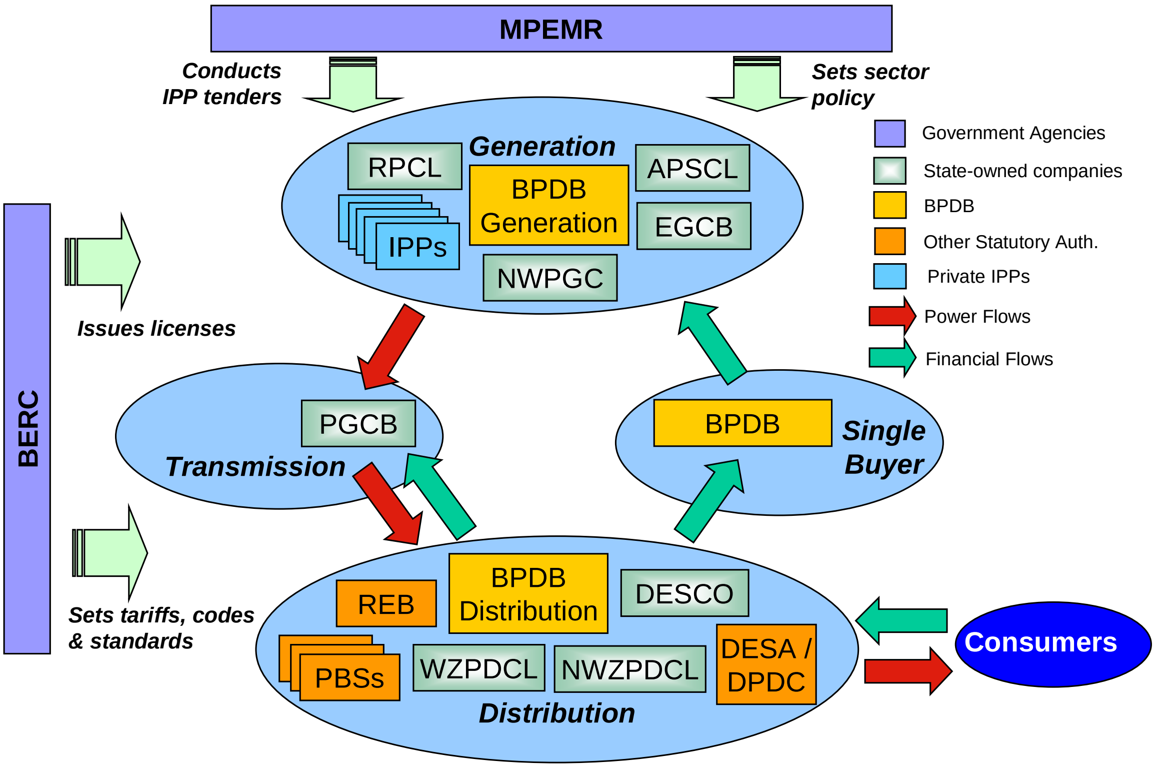
* DPDC, which has been established under the Companies Act, will be the corporatized successor to DESA

Power and financial flows are shown in Exhibit 1.8. BPDB plays a key role in the sector as the single buyer. This exhibit also shows the Bangladesh Energy Regulatory Commission (BERC), which was established under the Bangladesh Energy Regulatory Commission Act 2003 (BERC Act) to, among other things:

- Determine tariffs throughout the entire electricity value chain
- Prepare and issue licenses
- Establish codes and standards
- Resolve disputes between licensees, as well as between licensees and consumers

The Government nonetheless retains the authority to promulgate overall sector policy. In practice BERC has been slow to function effectively as a regulator. For example, although BERC was established 4 years ago and despite the chronically poor condition of the sector as described above, BERC did not issue its first retail tariff order until March 1, 2007. (That order raised tariffs 5 to 15% depending on the tariff class).

Exhibit 1.8: Industry Structure of the Bangladesh Power Sector



1.4 PREVAILING BPDB STRUCTURE AND STAFFING

BPDB is constituted under the leadership of a Chairman, assisted by five Members managing 2 non-technical formations, that of Administration and Finance, and 3 technical formations, that of Systems Planning & Development, Power Generation, and Power Distribution. The internal organization of BPDB is shown in Exhibit 1.9. Directors and Chief Engineers manage their respective departments and report to their respective

Members of the Board. They are responsible not only to their respective Member but to the Board as a whole including the Chairman.

Exhibit 1.9: Current Organizational Structure of BPDB

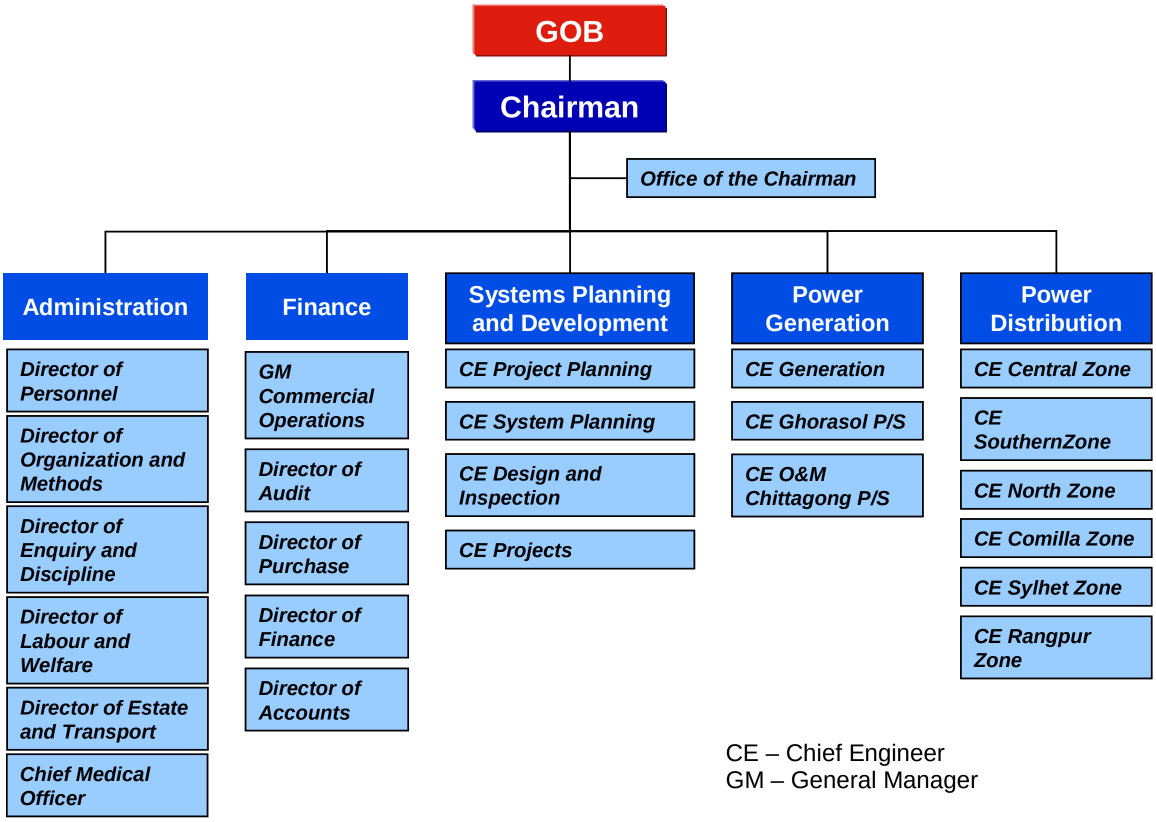


Exhibit 1.10 shows the number of sanctioned positions and actual number of employees for principal BPDB units and subsidiaries.

Exhibit 1.10: BPDB Personnel by Class

Staffing of Internal BPDB Units

UNIT	DIVISION	MANPOWER DISTRIBUTION		
		Sanctioned Post	**Existing Manpower**	**Vacant Post**
Head Office		2284	1588	696
	Total	**2284**	**1588**	**696**
Generation	CE Generation Dhaka (Tongi, Bheramara, Baghabari, Ranjpur, Fenchuganj, Barisal DPS, Barisal GT, Syidpur DPS, Syidpur GT, Thakurgaon DPS, Sylhet GT, Vhola DPS, Haripur, Shahzibazar)	1640	1164	476
	CE Chittagong (Chittagong, Karnaphuli, Barzmauntain, Sikalbaha)	1708	903	805
	CE Siddhirganj	660	435	225
	CE Ghorasal	1184	947	237
	CE Khulna	834	542	292
	CE Barapukuria	276	150	126
	Total	**6302**	**4141**	**2161**
Distribution	Central Zone	2182	1669	486
	North Zone	3385	2283	1102
	South Zone	4280	2468	1812
	Total	**9847**	**6420**	**3427**
Others	26 RAOs, 4 RTCs, Kaptai Academy, DTC, DD Store, Energy Authority	1900	1800	100
	Total	**1540**	**1500**	**100**
Grand Total		***19,973***	***13,649***	***6324***

Staffing of Principal BPDB Subsidiaries

Companies	**Sanctioned Post**	**Existing Manpower**	**Vacant Post**
APSCL	1047	878	169
EGCB	46	46	0
WZPDCL	4213	2841	1372
PGCB	2110	1868	242

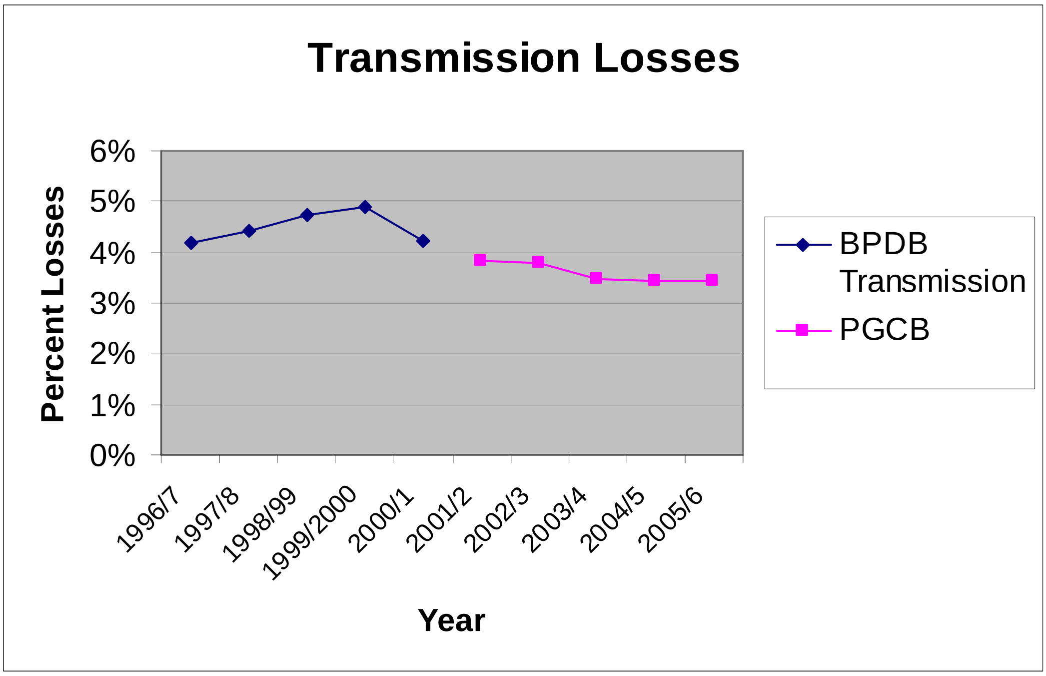
1.5 POWER SECTOR CORPORATIZATION EXPERIENCE IN BANGLADESH

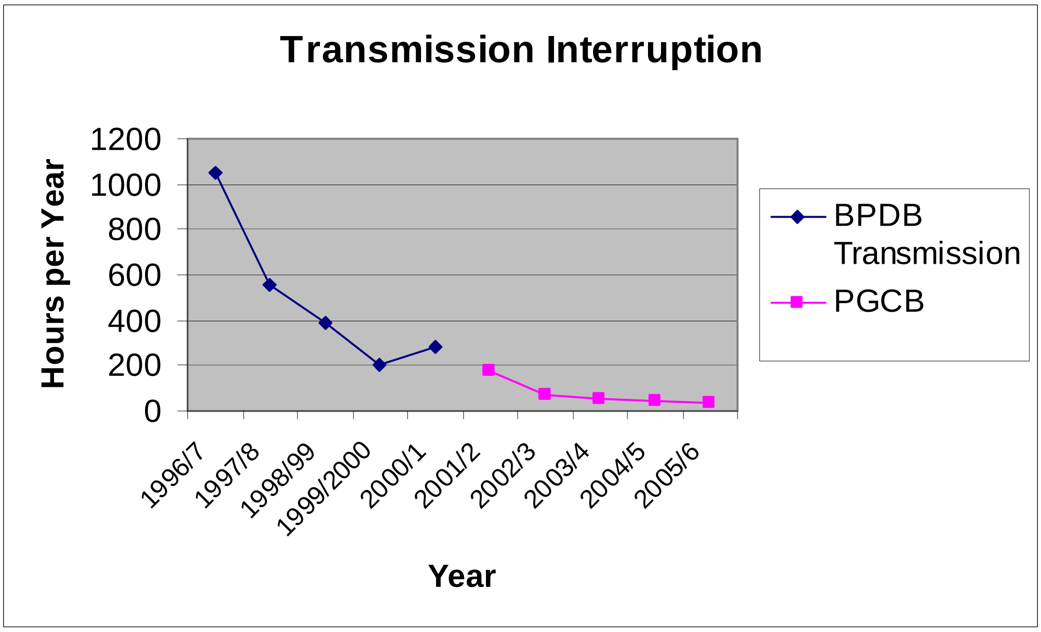
Although the concept of a holding company is new to the Bangladesh power sector, there is considerable experience with corporatization of power sector entities. PGCB and DESCO were legally incorporated in 1996, APSCL in 2000, and WZPDCL in 2003. These companies began functioning one to two years after incorporation. Companies incorporated more recently such as EGCB, NWPGC, and DPDC have yet to become commercially operational, or are at early stages of operation.

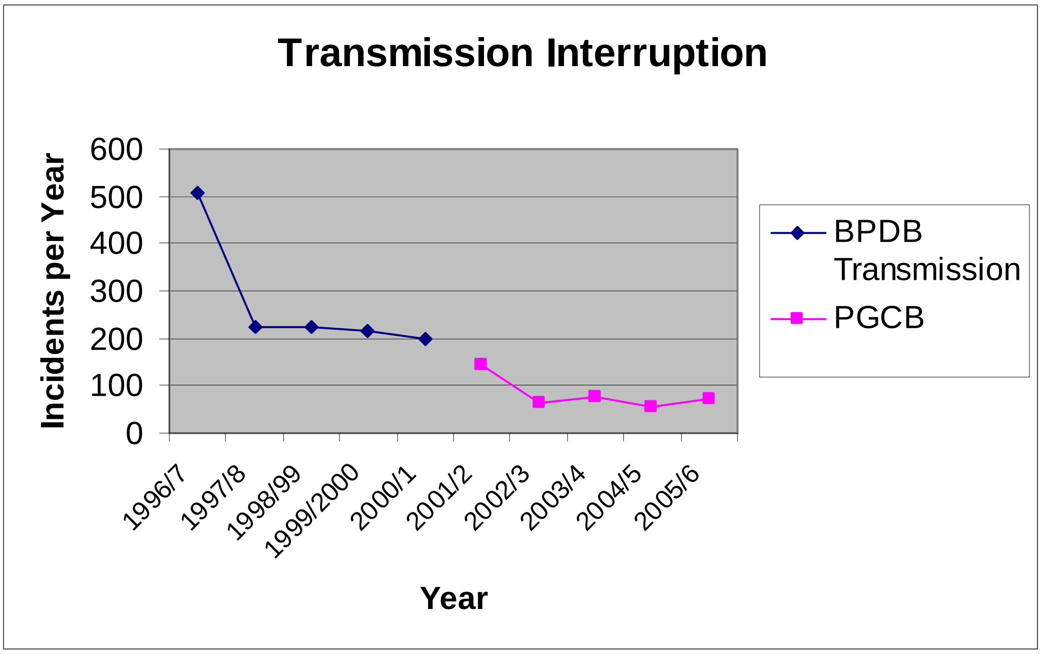
Experience with PGCB, DESCO and WZPDCL shows the benefits of corporatization. PGCB and DESCO, for example, have raised equity through minority listings on the Bangladesh Stock Exchange. Exhibit 1.11 shows the reductions in losses and improvements in service quality that have been achieved subsequent to corporatization.

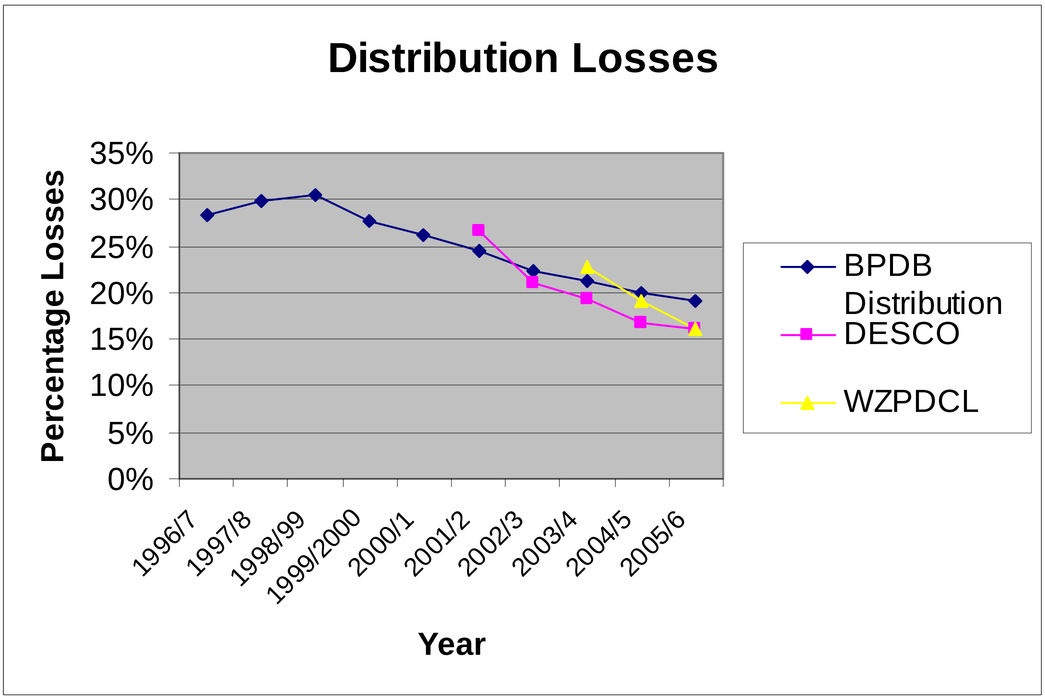
As described in Section 1.2.2, corporatization in itself does not create these benefits, but rather when properly carried out creates the environment in which such benefits can be realized. Corporatization is a necessary, but alone not sufficient, condition for improved power sector performance. The remainder of this report suggests how BPDB may be corporatized as a holding company to achieve further performance improvement.

Exhibit 1.11: Examples of Improved Performance Post-Corporatization






Transmission Interruption
Incidents per Year
600
500
400
300
200
100
0
1996/7
1997/8
1998/99
1999/2000
2000/1
2001/2
2002/3
2003/4
2004/5
2005/6
Year
BPDB Transmission
PGCB


Distribution Losses
Percentage Losses
35%
30%
25%
20%
15%
10%
5%
0%
1996/7
1997/8
1998/99
1999/2000
2000/1
2001/2
2002/3
2003/4
2004/5
2005/6
Year
BPDB Distribution
DESCO
WZPDCL

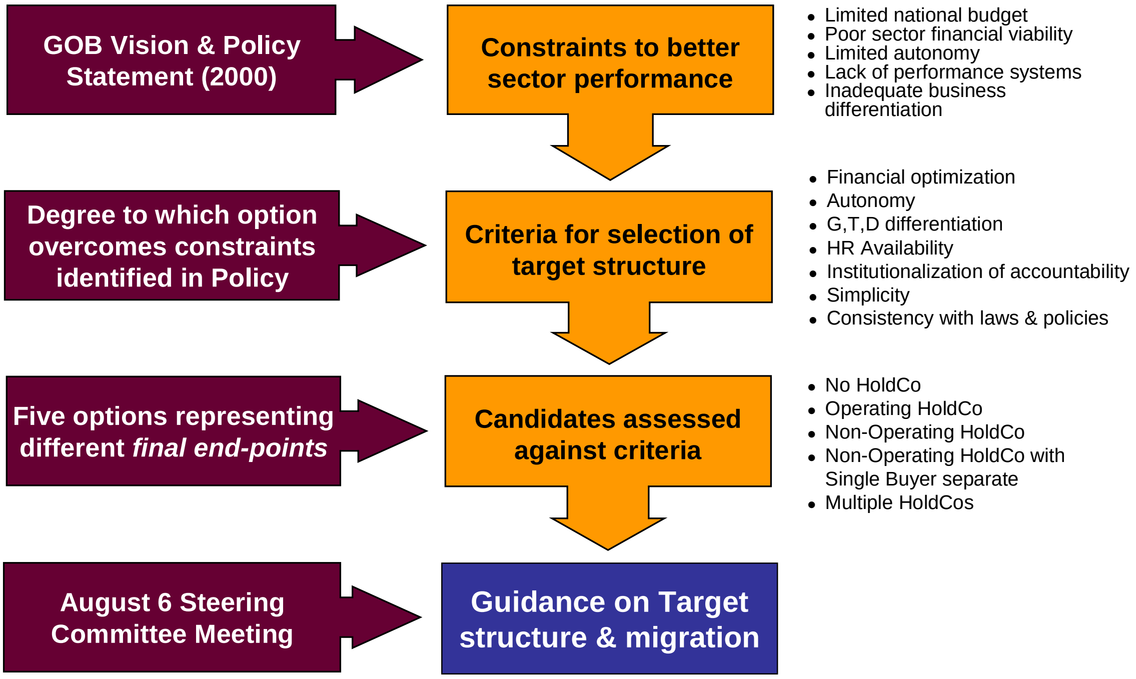
2. *STRUCTURE OF THE HOLDING COMPANY*

2.1 CRITERIA FOR SELECTING A TARGET STRUCTURE

The first step in establishing a power sector holding company is to determine its target corporate structure, i.e. the identification of the companies that make up the industry and the shareholding relationships between them. By defining this "destination" from the outset, the Government can then plan the restructuring journey to reach that destination accordingly.

There are many options for a target structure. It is therefore necessary to establish selection criteria by which these options can be compared and one ultimately selected. Exhibit 2.1 describes the overall process used to reach a proposed target structure for the holding company successor to BPDB. (For the remainder of this report, we refer to this new company as "HoldCo").

Exhibit 2.1: The Target Structure Selection Process



The Government's Vision and Policy Statement provides the starting point for the selection process. Among other things, the Vision and Policy Statement defines five principal constraints affecting performance of the power sector as follows:

- Scarcity of financial resources from the national budget prevents direct Government funding of all necessary capital expenditure. This is the ***limited national budget*** constraint.

- High losses and receivables, combined with prevailing tariffs, limit the attractiveness of domestic and foreign investment in the sector, i.e. private sector financial resources are scarce as well. This is the ***poor sector financial viability constraint***.

- Lack of autonomy and incentives for operating entities to perform better. This is the ***limited autonomy*** constraint.

- Lack of differentiation of responsibilities for generation, transmission and distribution, resulting in inadequate ability of management to focus on specific corrective measures in each industry segment. This is the ***lack of business focus*** constraint.

- Lack of appropriate accounting and operational performance management systems across generation, transmission and distribution. This is the ***lack of performance management systems*** constraint.

The introduction of HoldCo can address at least three of these constraints as follows:

- ***Financial coordination & optimization***. Given the scarcity of both public and private financing for the sector, HoldCo can help ensure that whatever limited financial resources are available are allocated optimally across generation, transmission and distribution parts of the business. Moreover, by establishing a HoldCo structure that facilitates a comprehensive and strategic view of funding needs across the sector from a commercial perspective in place of the Government's current project-by-project approach, the financial optimization role can enhance the operational autonomy discussed below.

- ***Autonomy***. HoldCo can insulate state-owned power sector operations from Government interference. HoldCo will assume the shareholder's authority for operating entities in the sector, and HoldCo's Articles and Memorandum of Association will prescribe how Government will exercise its shareholding authorities over HoldCo. This may involve requirements and conditions for selection of and decision-making by the HoldCo Board of Directors, the objects and role of the HoldCo, etc. The Government will of course remain involved in the sector by virtue of its policy-making and funding roles, but HoldCo can take on commercial management of the sector. In particular, greater autonomy must be accompanied by better performance management to ensure accountability, and HoldCo can focus on developing and applying performance management systems while providing operating entities with the latitude and incentives to make the best possible commercial decisions.

- ***G, T & D Differentiation***. A HoldCo structure must balance the unbundling of operations to improve focus on specific elements of the value chain, with creating synergy between various parts of the business. Unbundling results in decentralization, where as creating synergy requires some degree of centralized control. The way HoldCo is structured and the authorities it is granted will help determine how it can strike this balance, and promote effective business focus in generation, transmission and distribution segments.

The degrees to which the structure of HoldCo facilitates each of these three characteristics indicate the effectiveness of that HoldCo design in overcoming constraints to better performance described in the Government's Vision and Policy Statement. These parameters can therefore serve as criteria for evaluating target HoldCo designs.

In addition, any design of HoldCo must be feasible and sustainable. Three additional criteria have been identified accordingly:

- ***HR Availability.*** Qualified human resources are at a premium in Bangladesh. Any HoldCo design should minimize the number of personnel required in senior executive positions.

- ***Institutionalization of Accountability.*** Many of the mechanisms to improve sector performance could be implemented on an ad hoc basis by Government. However, unless such mechanisms were enshrined in law, continued application would depend upon the disposition of the Secretary (Power) and other senior Government officials who happen to be in power at any given time. While such a law is unlikely, the design of HoldCo can help to institutionalize mechanisms to drive sector performance rather than relying on the personal vision and effectiveness of Government officials who change frequently. Perhaps the single most important mechanism is a system to impose accountability, and the Articles and Memorandum of Association for HoldCo can stipulate the performance monitoring and associate functions to drive accountability across the entities it owns.

- ***Simplicity.*** Any structural design that is adopted should avoid duplication of function, and minimize complexity to facilitate implementation.

Finally, any HoldCo structure must comply with prevailing laws and policies, and accommodate existing contractual arrangements with other parties such as IPPs. Therefore, the seventh criterion for the selection of HoldCo's target structure is ***compliance with laws, policies and contracts***.

2.2 LEGAL CONSIDERATIONS

In assessing compliance with prevailing laws, Presidential Order 59 (PO 59) specifically designates BPDB as responsible for system planning & system operations. It is understood that a simple amendment was prepared to facilitate the transfer of the system operations function to PGCB. Since HoldCo will be a different entity from BPDB, if HoldCo were to take the system planning function a similar amendment would be required.

If HoldCo were to be an operating holding company and take on any activities that require a license per the BERC Act, it would of course need to apply and receive the necessary licenses. However, as with the amendment to PO 59 in the event of taking on the system planning function, this is a straightforward requirement.

Contractual issues, particularly with respect to power purchase agreements (PPAs) may pose more challenging issues. PPAs such as those for Haripur and Meghnaghat may be assigned only with mutual consent, though it is specifically anticipated that an IPP may assign to lenders or qualified operating company. BPDB may assign to any entity provided the Government provides the same guarantees.

Therefore, the process for BPDB to assign a PPA to a new Single Buyer (whether HoldCo or another new company performs this function) entails the following:

- The Government must decide whether it will extend the sovereign guarantee to the new Single Buyer company. This would likely require input and agreement of the Prime Minister's Office, MPEMR, the Ministry of Finance, the Ministry of Law, et al.

- Once the Government decides to extend the guarantees, it negotiates with the IPPs
- The IPPs in turn must obtain concurrence of their lenders
- The associated legal documents are drawn up, circulated and reviewed by all parties
- The new company prepares for operations
- Assignment of the PPA would follow signing by both parties, and the new company takes over the Single Buyer function.

These steps would require considerable time given the number of parties involved. Moreover, the process could be used by IPPs as a negotiation re-opener to secure additional concessions or benefits. While transfer of the single buyer function to a new company as part of the corporatization process should be considered, it should probably not be on the critical path for the overall restructuring effort. If it were, it could delay other changes of greater potential significance.

2.3 STRUCTURAL OPTIONS FOR BPDB CORPORATIZATION

Five options spanning the entire spectrum of HoldCo configurations have been identified. Given the numerous changes that have taken place in Bangladesh since the Terms of Reference for the assignment were originally agreed between the Government and ADB, options to forego a holding company altogether, and to create multiple holding companies have been defined. Each option is discussed in turn below, and evaluated against the criteria defined in the previous section.

The evaluation system is as follows:

●	Fully meets or directly supports the criterion
⭘	Partially meets or indirectly supports the criterion
○	Slightly meets or supports the criterion
✕	Conflicts with the criterion

Evaluation is conducted relatively between the options rather than against some absolute standard.

2.3.1 No Holding Company

This option is characterized by the following features:

- All existing BPDB subsidiaries are transferred to direct Government ownership.
- All existing BPDB operations are corporatized as companies directly owned by the Government.
- The remaining (residual) part of BPDB can continue as the Single Buyer, which can be corporatized later once PPAs can be assigned to the new entity.

The resulting structure is shown in Exhibit 2.2, and evaluation of this option against the seven criteria is shown in Exhibit 2.3.

Exhibit 2.2: The No Holding Company Option

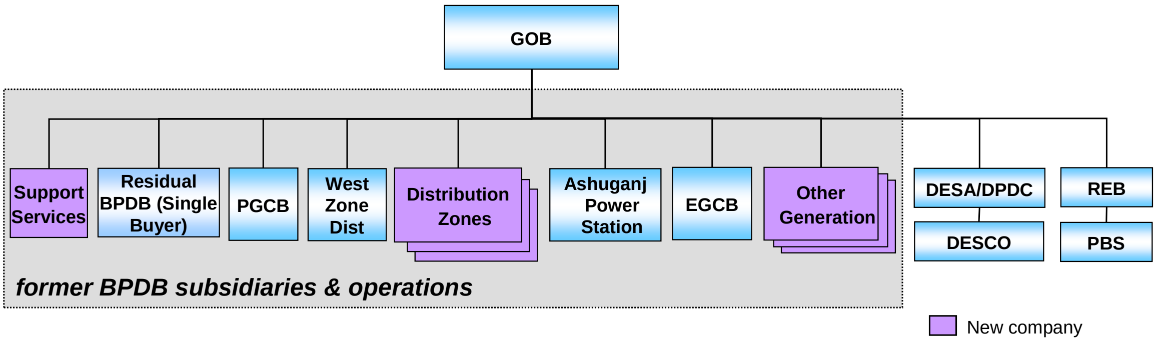


Exhibit 2.3: Evaluation of the No Holding Company Option

Option 1: No Holding Company		
Criterion	**Rating**	**Rationale**
Financial coordination & optimization	○	Depends upon Power Division, which may not have requisite financial, technical and commercial capacity to optimally coordinate and monitor a dozen companies on a continuous basis
Autonomy	○	Limited insulation against Government involvement in operations, as all companies are directly owned by Government.
Business focus	○	All functions fully unbundled, but strategic guidance on commercial matters depends on Power Division
HR Availability	◯	No need for holding company staff, but requires additional resources in Power Division to function properly
Institutionalization	×	Depends upon initiative of Power Division
Simplicity	●	No duplication in any function; least complex
Compatibility with Laws, Policies & Contracts	◯	Discrepancy from previous Government policy calling for corporatization of BPDB as Holding Company, but otherwise complies with objective to individually corporatize operations. Corporatization of BPDB's single buyer function is not on the critical path to achieve this structure, which is desirable.

This option expands the Government's commercial management responsibilities considerably, without any formalization of the requirements of that role. As such, this option could be viewed as increasing Government involvement in the sector.

2.3.2 Operating Holding Company

This option in effect represents continuation of the status quo. Under this option HoldCo is created, and all existing BPDB operations and subsidiaries are transferred to it. Presumably HoldCo business processes, internal organization, and employee conditions of service would differ from current BPDB practice and standards, but the corporate structure otherwise remains unchanged. Exhibit 2.4 depicts this option, and Exhibit 2.5 evaluates it against the seven criteria.

Exhibit 2.4: The Operating Holding Company Option

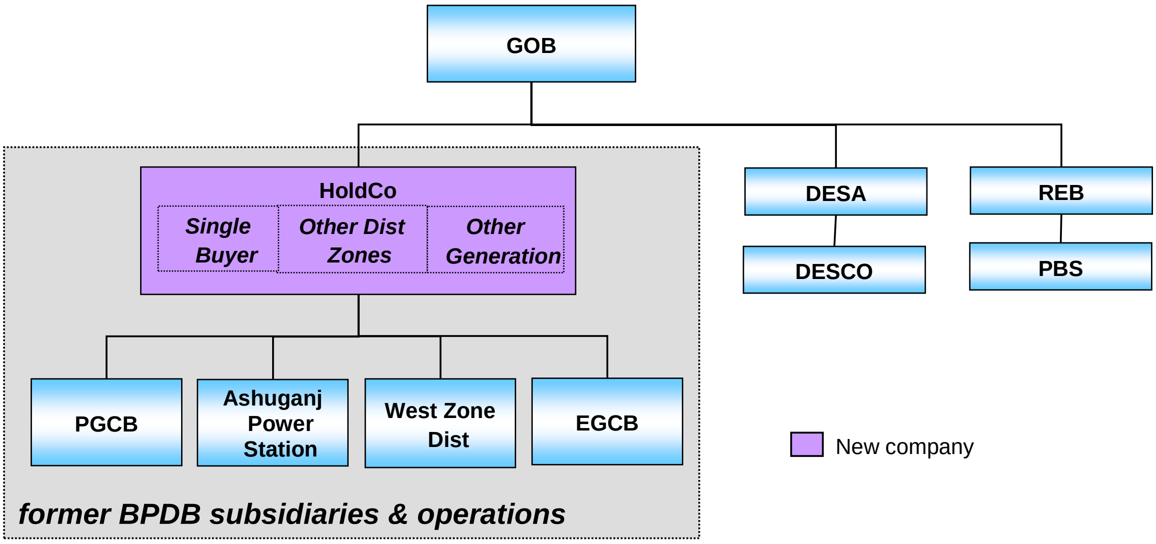


Exhibit 2.5: Evaluation of the Operating Holding Company Option

Option 2: Operating Holding Company		
Criterion	**Rating**	**Rationale**
Financial coordination & optimization	○	Since HoldCo would remain the single buyer, it will lose money until tariffs are rationalized. It will also have a vested interest to direct investment into its own operations, rather than subsidiaries. This arrangement potential creates a conflict of interest.
Autonomy	○	Does little to expand insulation against Government involvement in operations; maintains the status quo.
Business focus	×	Maintains the status quo with respect to differentiation of G,T,D functions.
HR Availability	●	No change from current staffing requirements
Institutionalization	○	Independent performance monitoring role formally defined for HoldCo with respect to its subsidiaries, but many operations remain in HoldCo itself.
Simplicity	●	HoldCo only fulfills functions that operating companies do not have. This essentially represents continuation of the status quo.
Compatibility with Laws, Policies & Contracts	×	Prevailing policies call for establishment of generation, distribution and single buyer functions as corporatized/separate entities. Single Buyer as part of HoldCo requires change in law (PO 59) and assignment of PPAs, which could compromise timeliness of the reform

The Operating Holding Company option does little to advance the objectives of the reform process. The Government notes in its Vision and Policy Statement that "…desirable results could not be achieved as DESA was created without addressing the fundamental institutional deficiencies." Similarly, this option replaces BPDB with a HoldCo design that does not address the basic problems of the sector.

2.3.3 Non-Operating Holding Company

Under this option:

- A non-operating holding company (HoldCo) is established.
- All existing BPDB subsidiaries are transferred to HoldCo.
- All existing BPDB operations are corporatized as subsidiaries of HoldCo.
- The Single Buyer is established as HoldCo subsidiary from the residual BPDB once PPAs can be assigned to the new entity.

Exhibit 2.6 depicts this target structure, and Exhibit 2.7 summarizes the evaluation of the option.

Exhibit 2.6: The Non-Operating Holding Company Option

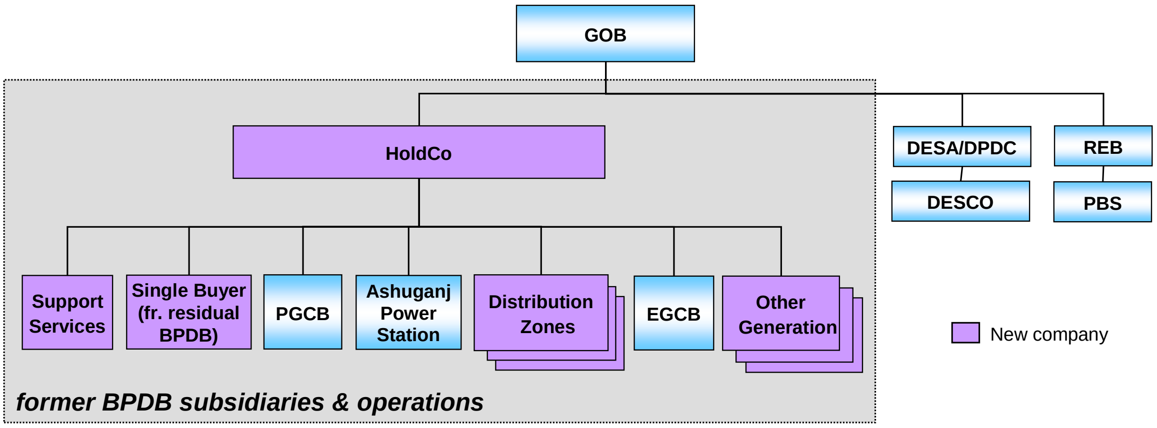


Exhibit 2.7: Evaluation of the Non-Operating Holding Company

Option 3: Non-Operating Holding Company

Criterion	Rating	Rationale
Financial coordination & optimization	●	Provides best coordination among all options, and facilitates optimization.
Autonomy	●	Provides a complete layer of corporate insulation between Government and operations
Business focus	⭘	Provides basic commercial support, strategic guidance and performance monitoring across all operating companies
HR Availability	⭘	Would require an additional Board and HoldCo staff
Institutionalization	●	Performance monitoring role formally defined for HoldCo
Simplicity	⭘	HoldCo only fulfills functions that operating companies do not have (no duplication), but would require some restructuring.
Compatibility with Laws, Policies & Contracts	○	Depends upon assignment of PPAs to new Single Buyer company, which will require IPP concurrence.

This option compares well with others, except for the dependence on corporatization of the Single Buyer, which requires assignment of the PPAs.

2.3.4 Non-Operating Holding Company with Separate Single Buyer

Under this option:

- A non-operating holding company (HoldCo) is established.
- All existing BPDB subsidiaries are transferred to HoldCo.
- All existing BPDB operations are corporatized as subsidiaries of HoldCo, except for the single buyer function.
- The residual BPDB organization remains, and continues to perform only the single buyer function. This residual BPDB can be corporatized as a new Single Buyer company directly owned by the Government once PPAs can be assigned.

Exhibit 2.8 depicts this target structure, and Exhibit 2.9 summarizes the evaluation.

Exhibit 2.8: The Non-Operating Holding Company with Single Buyer Separate

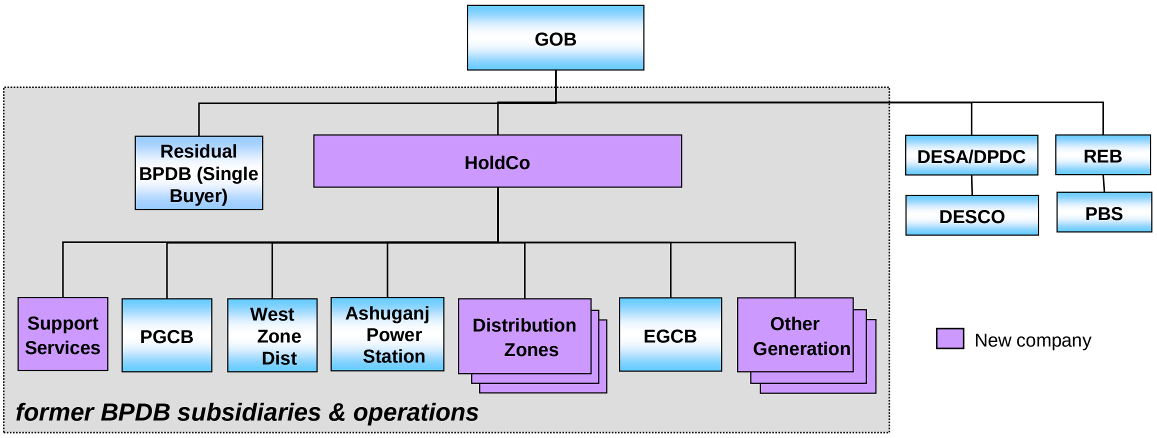


Exhibit 2.9: Evaluation of the Non-Operating Holding Company with Single Buyer Separate

Option 4: Non-Operating Holding Company with Single Buyer separate		
Criterion	**Rating**	**Rationale**
Financial optimization and coordination	○	Diminished by separation of Single Buyer, resulting in system planning and financial coordination by unaffiliated entities. Depends on Power Division to drive coordination.
Autonomy	○	Provides a layer of corporate insulation between Government and operations (except for Single Buyer)
Business focus	○	Provides basic commercial support, strategic guidance and performance monitoring across all operating companies
HR Availability	○	Would require an additional Board and HoldCo staff
Institutionalization	○	Performance monitoring role formally defined for HoldCo, but Single Buyer excluded
Simplicity	○	HoldCo only fulfills functions that operating companies do not have, but would require some restructuring
Compatibility with Laws, Policies & Contracts	●	Residual BPDB can function as Single Buyer, therefore can maintain PPAs without renegotiation.

This option seeks to achieve the benefits of the Non-Operating Holding Company Option without depending on assignment of PPAs to a new company. However, this benefit comes at the expense of financial optimization and autonomy.

2.3.5 Multiple Holding Companies

Under this option, separate non-operating holding companies are established for Generation and Distribution, which hold operating subsidiaries accordingly (including DESCO and DESA/DPDC). PGCB is moved to direct ownership by Government, and the residual BPDB would continue to serve as Single Buyer, which could later be corporatized as a directly Government-owned company once PPAs can be assigned. Exhibit 2.10 shows depicts this option and Exhibit 2.11 presents the evaluation.

Exhibit 2.10: The Multiple Holding Companies Option

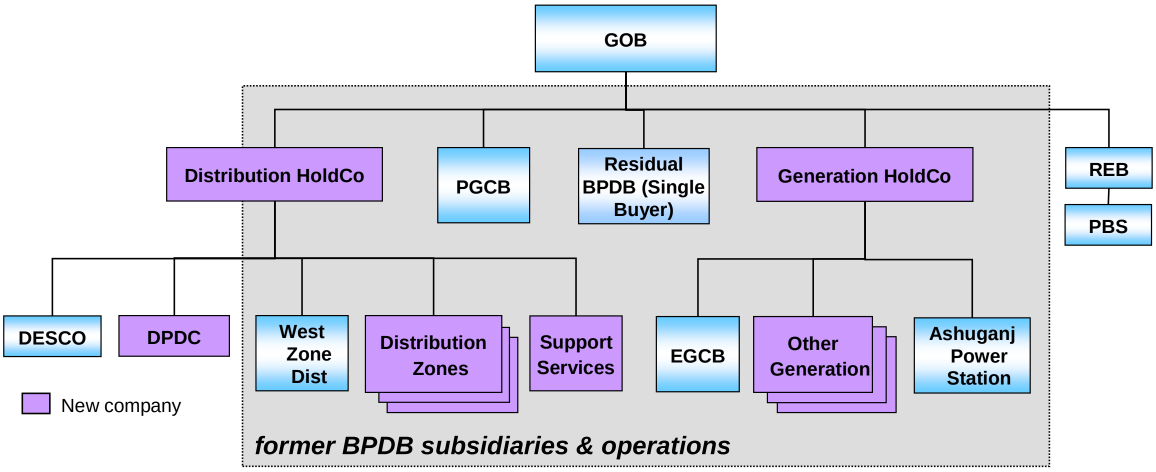


Exhibit 2.11: Evaluation of the Multiple Holding Companies Option

Option 5: Multiple Holding Companies with Single Buyer & PGCB Separate		
Criterion	**Rating**	**Rationale**
Financial optimization and coordination	○	No corporate coordination across sector. Requires greater coordination role by Power Division
Autonomy	◯	Provides a layer of corporate insulation between Government and operations, except for Single Buyer and PGCB
Business focus	●	Provides focused holding companies
HR availability	○	Requires boards and staffing for two holding companies, plus greater capacity within Power Division
Institutionalization	◯	Performance monitoring role formally defined for holding companies, except for PGCB and Single Buyer
Simplicity	○	Some duplication of compliance and support functions between the two holding companies. Establishing & communicating about two holding companies may be more difficult.
Compatibility with Laws, Policies & Contracts	◯	Single Buyer can maintain PPAs without renegotiation. However, not clear if multiple holding companies are compatible with government policy.

Specific generation and distribution problems faced in Bangladesh are not so sophisticated that separate holding companies will add much additional value. More is lost by the lack of financial coordination and optimization. As a practical matter, this would be far more difficult to implement.

2.3.6 Evaluation Summary and Target Structure

Exhibit 2.12 summarizes the results of the evaluations.

Exhibit 2.12: Evaluation Summary

Option	Financial Optimization & Coordination	Autonomy	Business focus	HR Availability	Institution-alization	Simplicity	Legal, Policy & Contractual Compatibility
1. No Holding Company	○	○	○	⭘	×	●	⭘
2. Operating HoldCo	○	○	×	●	○	●	×
3. Non-Operating HoldCo	●	●	⭘	⭘	●	⭘	○
4. Non-Operating HoldCo with separate Single Buyer	⭘	⭘	⭘	⭘	⭘	⭘	●
5. Multiple HoldCos	○	⭘	●	○	⭘	○	⭘

A number of observations result from this:

- Options 3, 4 and 5 all represent non-operating holding companies, and are consistent with the vision of a lean (~40 employees) HoldCo(s), with limited, well-defined functions and authority.
- Option 1 increases role of Government for coordination & driving performance without institutionalizing that role, contrary to policy objective of increasing autonomy & commercial orientation of the sector.
- Option 2 preserves the status quo.
- Options 3 and 4 enable the Government to still play a role in monitoring, planning and funding the sector, but provide a foundation for that role to shrink over time.
- Options 3 and 4 trade-off the difficulty of assigning PPAs with coordination and autonomy
- Option 5 over-complicates a small system, and also relies largely on the Government for coordination and optimal commercial planning. However, it may be suitable as a long-term target if the Government were to eventually introduce a competitive power market.
- Option 4 can serve as an intermediate step to either Option 3 or Option 5.

Based on the above considerations, the Government advised that corporatization of BPDB should aim for Option 4, a non-operating holding company with a separate single buyer, as an interim target. Option 3 or Option 5 can subsequently be selected as the ultimate long term target depending on plans to introduce competition and the initial operating experience gained with Option 4.

2.4 THE MIGRATION PATH

To reach the interim target of a non-operating holding company with the single buyer separate, there are two options for migration from the existing structure:

- Migration Option 1: First create HoldCo as an operating holding company and transfer all people, assets, liabilities and contracts into it, then transfer operations into subsidiaries and separate Single Buyer. This makes the Operating Holding Company (Target Option 2 above) a transitional stage to reach the interim target.
- Migration Option 2: First create non-operating holding company, then transfer BPDB operations as they are corporatized to become subsidiaries of HoldCo. Residual BPDB remains the Single Buyer, which can later be corporatized.

In both cases there is a Residual BPDB and HoldCo.

Four criteria were identified as a basis for selecting between these two migration options:

- ***Speed***. The migration path should minimize dependencies on outside events, such as assignment of PPAs, amendment of PO 59, etc.
- ***Effectiveness***. The migration path should contribute to the development of a commercial culture within the new entity.
- ***Stakeholder Perceptions***. The migration path should demonstrate “quick wins” that can be contribute to broad support for the restructuring effort.
- ***Operational Risk***. The migration path should minimize the likelihood of service disruptions.

Exhibit 2.13 evaluates these two migration options against these four criteria. Green indicates areas in which that option meets the criteria, yellow where there may be some question, and red where it does not meet the criteria. Based on this analysis, Migration Option 2, the establishment of a non-operating HoldCo first, appears the preferred approach. Exhibit 2.14 shows the stages by which this migration will take place.

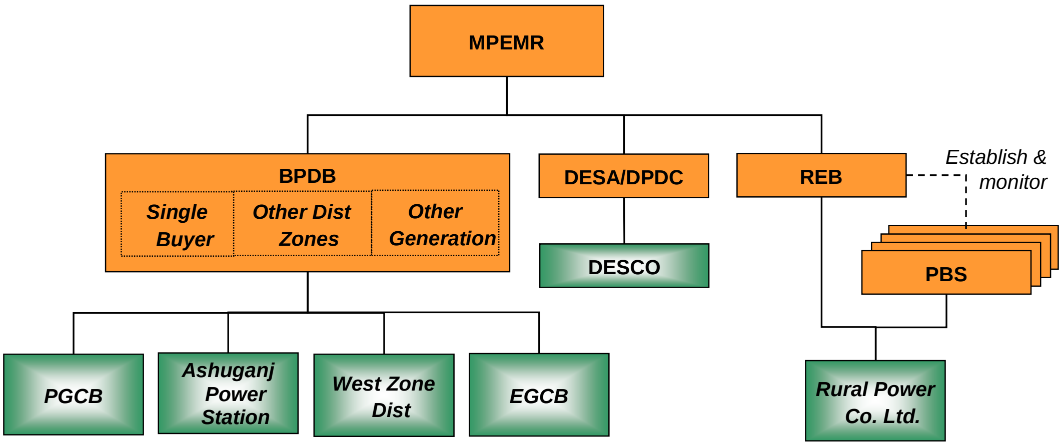
Exhibit 2.13: Evaluation of Migration Options

Criterion	Non-Operating Holding Co. First	Operating Holding Company First
Minimize outside dependencies **(*speed*)**	4. PPAs remain with Residual BPDB, i.e. still functions as Single Buyer	4. PPAs must be assigned
	5. Residual BPDB can remain Single Buyer	5. PO 59 must be amended
	6. HoldCo can be established with new accounting system & clean financials that comply with BAS	6. HoldCo including all legacy BPDB operations must comply with Bangladesh Accounting Standards (BAS) per the Companies Act 1994
Promote commercial culture **(*effectiveness*)**	Facilitates desired culture because established on "greenfield" basis. People transfer to HoldCo at least in part on understanding & acceptance of new culture.	Depends on understanding & acceptance of new conditions of service, and commitment of ex-BPDB managers to new system
Demonstrate "quick wins" **(*stakeholder perceptions*)**	HoldCo and new subsidiaries, if structured with clean balance sheets and proper transfer prices, can demonstrate immediate benefits	HoldCo performance will be compromised by inclusion of loss-making operations
Minimize risk of service disruption **(*operational risk*)**	3. Operations are corporatized piecemeal, only when they are ready	• Possibility that new systems cannot be successfully rolled out company-wide. Putting all eggs in one basket.
	4. BPDB employees may resist the change. View that healthy operations are being established at expense of BPDB.	• BPDB employees less likely to resist as they will have option to transfer en masse

Exhibit 2.14: Structural Evolution of HoldCo

Stage 0: Current State Ownership Structure

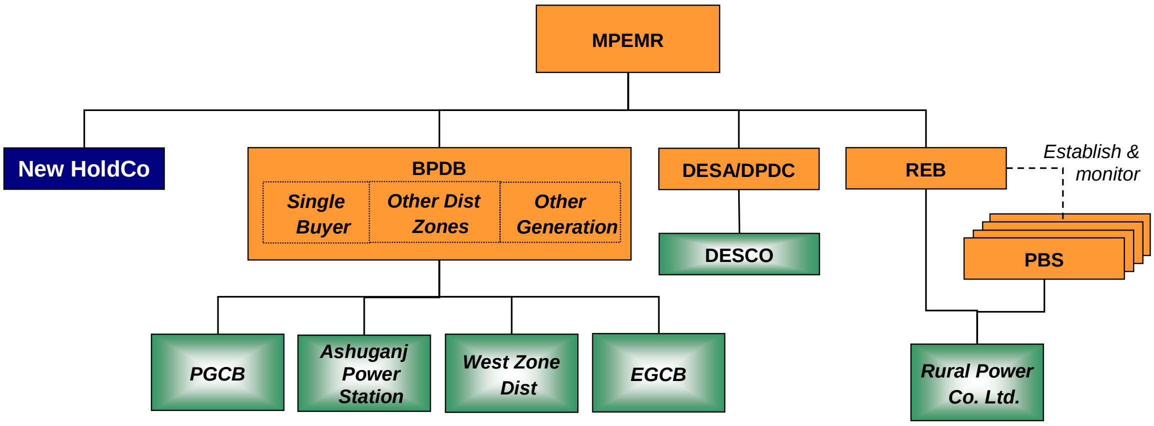
- BPDB is a statutory corporation under MPEMR
- DESA is in process of being corporatized as the Dhaka Power Distribution Company Ltd. (DPDC)



🟩 Entities already established under the Companies Act 🟧 Existing Government agency or body

Stage 1: Create New Holding Company

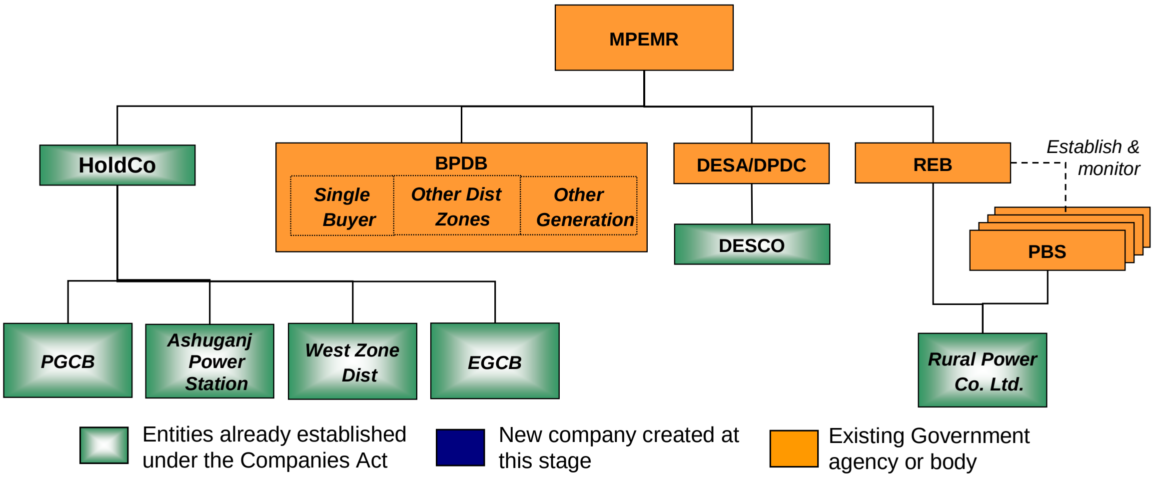
- A new holding company (HoldCo) is established under the Companies Act 1994 as a **non-operating holding company**.
- HoldCo will be established with clean opening balance sheets, new conditions of service, as well as systems and processes that promote commercial discipline and enable efficient and effective function as a holding company.



🟩 Entities already established under the Companies Act 🟦 New company created at this stage 🟧 Existing Government agency or body

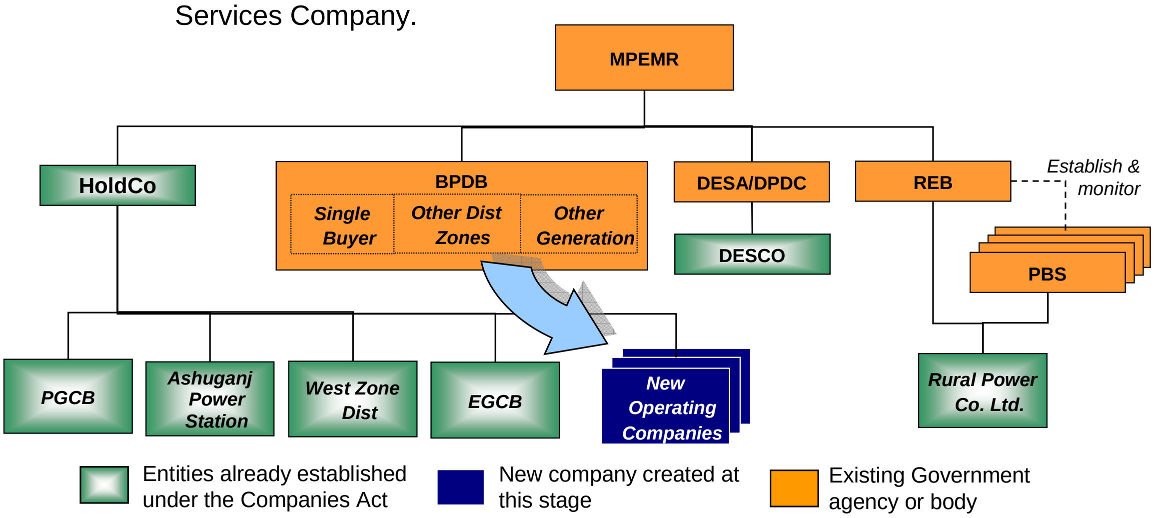
Stage 2: Transfer Existing BPDB Subsidiaries

- Existing BPDB subsidiaries are transferred to HoldCo when each is ready and transfer prerequisites are met.



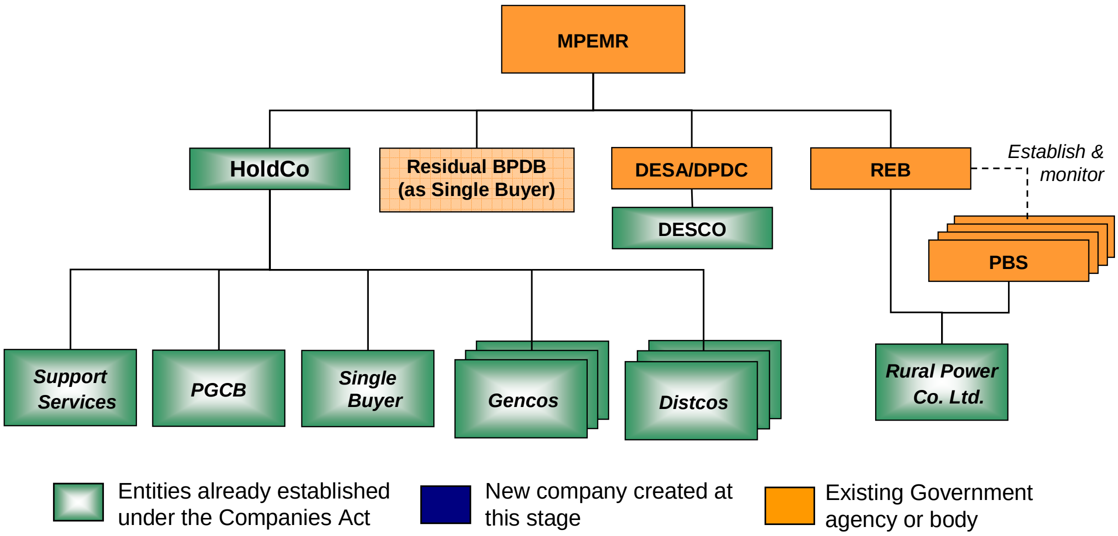
Stage 3: Create New Subsidiaries

- Existing core business operations of BPDB (distribution, single buyer, generation) will be corporatized as subsidiaries of HoldCo as they are ready.
- Non-core BPDB businesses will be either (i) spun-off (ii) incorporated into subsidiaries or (iii) corporatized as separate subsidiaries of HoldCo, e.g. a Services Company.



Stage 4: Holding Company Complete

- Once all operations of BPDB have been migrated to the new entities or otherwise disposed of, the residual BPDB will continue to function as the single buyer.



3. HOLDING COMPANY ROLES, FUNCTIONS AND ESTABLISHMENT

3.1 HOLDCO ACTIVITIES

Section 2.4 builds the case for HoldCo to function as a non-operating holding company. As defined in Section 1.2.3, a non-operating holding company performs the following two functions:

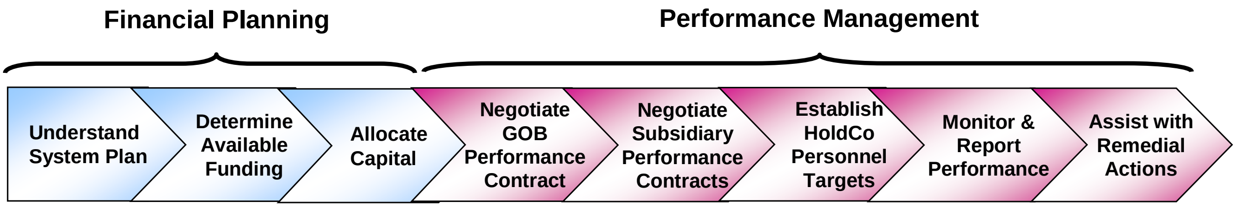
- Provides strategic guidance and coordination for operations across the Group, i.e. that the Group as a whole achieves better results than the companies would individually. ("Group" refers to the holding company together with all its subsidiaries). Since system planning is a single buyer function, and HoldCo will not serve as the single buyer, it will not coordinate via the system planning process. On the other hand, the scarcity of funding is a major constraint to better sector performance, and consequently a premium on financial planning, particularly allocation of capital expenditure (capex allocation). Given that the gap between the optimal investment requirements as determined by the system plan and the feasible investment determined by availability of funds is so large, capex allocation is arguably the most important planning function in the sector today. HoldCo's principal mechanism for financial optimization ad coordination will be capex allocation. The design and execution of this process is discussed further in Section 7.

- Drive performance of the Group to achieve shareholder objectives. It does this through authorities granted it as shareholder of the subsidiaries, namely:
    - It appoints subsidiaries' directors
    - It drives accountability by:
        - monitoring subsidiaries' performance
        - ensuring competent internal & external audits
        - reporting Group performance to HoldCo shareholders against agreed objectives, and takes action as appropriate in its role as shareholder of the subsidiaries to ensure targets are met.

To facilitate effective governance of the subsidiaries, the Articles and Memorandum of Association specifically prescribe means and objects to achieve greater accountability amongst the Group companies. These documents, along with other establishment issues, are discussed below in Section 3.2. In addition, one of the principal tools to help drive this accountability will be the use of *performance contracts* at all levels of the Group. These are discussed in Section 3.3.

Exhibit 3.1 depicts in further detail how HoldCo will execute the financial planning and performance management functions. This represents HoldCo's value chain. Each element is discussed below. Financial planning precedes performance management, since the resulting capex allocation determines the resources available to each subsidiary, and hence is an important input towards establishing what each subsidiary is accountable for.

Exhibit 3.1: The HoldCo Value Chain



Financial Planning Activities

- ***Understand System Plan.*** The Single Buyer (the residual BPDB, at least initially) will be responsible for the development of a system plan. Such plans are developed on the basis of minimizing the costs of developing and operating the power system subject to meeting demand at some level of reliability. System plans are therefore optimal, but because they do not take into account financing constraints, may not be feasible. Nonetheless, to determine which projects should receive financing when financing is scarce, it is essential to fully understand the dependencies implicit in the system plan. For example, investments in the least cost generation expansion plan might only make sense if accompanied by investments in transmission. The first step in financial planning is therefore to understand the optimal configuration of the system suggested by the system plan, and the inherent dependencies between various elements of the plan.

- ***Determine Available Funding.*** Regardless of what the system plan prescribes, what actually gets built will depend on which components of the plan are funded. During this activity, HoldCo will determine how much funding is available. Until funding of the sector is commercialized further, with the Government providing equity and debt to the Group untied to particular projects, HoldCo will need to assess how available funding is tied to specific projects. This is discussed further in Section 8.

- ***Allocate Capital.*** Once HoldCo understands the system plan and has determined how much funding is available (and for what projects, if any of it is tied), it will need to allocate the available capital amongst the subsidiaries. This would typically entail screening candidate projects on the basis of return on investment, taking into account any tied funding and technical dependencies between projects.

Performance Management Activities

- ***Negotiate GOB Performance Contract.*** Once HoldCo knows the capital resources the Group will receive, it will discuss, agree and document its performance targets with Government. (Though Government is the shareholder of HoldCo and therefore retains full authority over HoldCo, we describe this process as a “negotiation” as it is anticipated that Government and HoldCo will jointly agree on the targets). It is expected that this activity will take place during a relatively intensive period each year, rather than involve continuous activity. The resulting GOB-HoldCo performance contract will note the resources received, the measurable targets to be achieve, how performance will be monitored and reported, and the rewards or sanctions that will apply depending upon performance against target. The performance contract must include all of these elements to ensure accountability, as described in Section 1.2.1.

- ***Negotiate Subsidiary Performance Contracts.*** The terms of the GOB-HoldCo will flow down to the HoldCo-Subsidiary performance contracts, which will be structured and "negotiated" in a similar manner.

- ***Establish HoldCo Personnel Targets.*** Once HoldCo has fully documented the targets and resources granted each Group company, it will establish performance targets for its own personnel to align with relevant corporate targets.

- ***Monitor and Report Performance.*** Over the course of the year, HoldCo will monitor the performance of each subsidiary, itself, and the Group as a whole, and report these results to stakeholders on a regular basis as agreed with the Government.

- ***Assist with Remedial Actions.*** When performance of a subsidiary falls below target, HoldCo as shareholder must take action to help improve that performance. In the most extreme case, that action would include replacing the Board of the under-performing subsidiary. However, it is hoped that HoldCo can also take pre-emptive actions that will avoid such steps. In particular, HoldCo will have visibility over all operations of the Group. It may find that where one subsidiary is failing, another is improving. As a result, HoldCo can help mobilize and direct assistance to underperforming subsidiaries to help them improve.

In addition to the core activities described above, HoldCo will also need to perform supporting activities in the areas of:

- Legal services. Not only will HoldCo have its own legal issues to look after, but as part of its performance management mandate will ensure that subsidiaries are also in compliance with applicable regulations.

- Information Technology (IT). Section 9 discusses management information system (MIS) needs in detail. IT will provide the platform on which an MIS can be installed and maintained. An effective MIS will be key for timely and accurate performance monitoring and reporting.

- Human Resources (HR). HoldCo will need to manage its own HR, as described in detail in Sections 5, 6 and 7. In addition, it will have a policy function for the Group.

Another supporting function that could have been included is Stakeholder Management, e.g. investor relations, public relations, regulatory interaction, advertising/branding, etc. However, these functions are more appropriately lodged with the subsidiaries as they are responsible for interaction with all stakeholders except the Government shareholder, as suggested in Exhibit 1.6.

More generally, given that several subsidiaries have already been created under BPDB and some of these have already established their own supporting systems, it appears more practical for HoldCo to take strategic oversight of support functions across the Group companies, rather than deliver these services on a centralized basis.

Exhibit 3.2 summarizes the above discussion, and provides an overview of HoldCo functions. Details on the specific functions proposed for each activity area are provided elsewhere in the report. Unlike the other functions, the financial coordination role is expected to evolve over time as Government funding of the sector moves from project-based to corporate-based financing. In general, HoldCo will function more as a financial manager rather than as a utility performing technical functions, like BPDB currently.

Exhibit 3.2: HoldCo Functions

<table>
<tr><th>Near Term</th><th>Long Term</th></tr>
<tr><td>**Financial Coordination – Capex Screening**.
• Develop a coordination process for subsidiaries to provide inputs to system planner and to prepare capex plans in a standard format.
• Compile all government-financed capex plans from subsidiaries.
• Review plans against system plan and ensure consistency. Assess linkages & prerequisites for each capex proposal.
• Screen plans based on financial returns & other KPI impacts, as well as on dependency/linkage with other operations or investment.
• Present integrated plan to Power Division for review and forwarding to Planning Commission.
• Represent all operating companies in project public financing matters with Power Division & Planning Commission.
• Adjust capex plans based on final approval from Planning Commission.</td><td>**Financial Coordination – Corporate Finance**.
• Negotiate with Government through Power Division to secure block grant.
• Compile all government-financed capex plans from subsidiaries.
• Review plans against system plan and ensure consistency. Assess linkages/prerequisites for each capex proposal.
• Screen plans based on financial returns and dependency/linkage with other operations or investment.
• Determine how block grant to be allocated and delivered to subsidiaries (e.g. debt, equity) taking into account approved projects
• Consider introduction of a Group Treasury function</td></tr>
<tr><td colspan="2">**Performance monitoring**.
• Agree with Government on HoldCo KPIs.
• Develop/agree with Government on HoldCo performance contract.
• Agree with subsidiaries on subsidiary KPIs.
• Develop/agree with subsidiaries on their performance contracts.
• Define information requirements from subsidiaries and mode of delivery.
• Conduct internal audits of subsidiaries as appropriate.
• Report monitoring results to Government on agreed schedule.
• Review monitoring results with subsidiaries on agreed schedule.
• Take actions with respect to approval of subsidiary director bonus and/or replacement.</td></tr>
<tr><td colspan="2">**Legal Compliance**. HoldCo to ensure that subsidiaries are aware of and complying with all health, safety, environmental, labor, tax, establishment, accounting and industry regulations.</td></tr>
<tr><td colspan="2">**Information Technology**. HoldCo to:
• Define & establish system for delivery & reporting of subsidiary performance & compliance.
• Define & establish system for compilation and reporting of HoldCo performance & compliance.
• Establish IT Principles governing all subsidiaries.
• Monitor compliance/implementation of those principles, and report findings to HoldCo Board.
• Determine relative IT investment priorities among subsidiaries.
• Develop and support HoldCo IT systems.</td></tr>
<tr><td colspan="2">**Human Resources**. HoldCo to:
• Conduct search for subsidiary directors
• Define/negotiate terms & conditions of subsidiary director appointments.
• Establish HR management principles for subsidiaries.
• Monitor compliance/implementation of those principles, and report findings to HoldCo Board.
• Manage HoldCo personnel</td></tr>
<tr><td colspan="2">**Stakeholder Management.** (e.g. investor relations, public relations, advertising/branding, etc.)
No function anticipated.</td></tr>
</table>

It is also useful to highlight activities and functions that HoldCo will <u>not</u> undertake:

- It will not be directly involved in the physical deliver of power or party to the associated commercial transactions. It is a business organization functioning as a shareholder, not a technical organization functioning as an operator.
- As a corollary to the above, it will not be involved in generation dispatch or system operations, though it may participate as an observer in monthly system operation coordination meetings between generators, PGCB (including the National Load Dispatch Center, NLDC) and BPDB single buyer. NLDC should be responsible for system dispatch.
- It will not direct the day-to-day operations of its subsidiaries.
- It will not control or conduct the back-office operations of its subsidiaries, for example:
  - it will not recruit or manage personnel employed by the subsidiaries (except to the extent that it is permitted to supervise senior management in its role as shareholder, and to the extent that HoldCo personnel may sit on the boards of the subsidiaries)
  - It will not carry out accounting or provide IT systems for the subsidiaries.

3.2 HOLDCO ESTABLISHMENT

Establishing HoldCo entails the following major steps:

1. Incorporation of HoldCo and provision of capital
2. Appointment of directors
3. Appointment of managing director
4. Acquisition of premises and initial assets
5. Employment of staff
6. Acquisition of shares in power companies

Each of these steps is discussed below in turn, followed by a discussion of the need to assign contracts to HoldCo and treatment of Government obligations under loan agreements and sovereign guarantees.

There are little or no fixed assets, receivables, employment liabilities, or debt capital to be transferred to be transferred to HoldCo since it is a non-operating holding company. The valuation and transfer of such items, and the creation of corresponding opening balance sheets, are typically referred to as a *financial transfer scheme.* In the case of HoldCo, the financial transfer scheme consists simply of the initial capitalization of the company and the acquisition of shares in power companies as part of items (1) and (6) above.

3.2.1 Incorporation of HoldCo and Provision of Capital

Under prevailing law, the capital structure of HoldCo requires that it be formed as a public limited company[5]. A public limited company must have a minimum of 7 shareholders, and as such 7 subscribers to the memorandum and articles of association.

HoldCo is brought into legal existence on issuance of a certificate of incorporation by the Registrar of joint Stock Companies & Firms following lodgment of the completed memorandum and articles of association. These documents have been prepared taking into account the expected role and activities of HoldCo as described above.

The Memorandum of Association (MOA) describes the objects of HoldCo, i.e. its principal purposes and functions. The Articles of Association (AOA) on the other hand describe the shareholding and governance of the company. These documents have been prepared taking into account the expected role and activities of HoldCo as described above. Appendix B contains the proposed MOA, and Appendix C the proposed AOA. A list of other documentation, licenses, registrations, permits and approvals required to operationalize HoldCo is given in Appendix D. Appendix E provides responses to specific queries and comments received from BPDB pertaining to company establishment issues.

The capital of the company is to be Tk 150,000 million divided into 150 million shares of Tk 1,000 each (see Section 3.5.6). Apart from qualifying shares to be held by the directors (in trust for the Government), the remaining shares will be unallocated at time of incorporation.

Government will subscribe and pay for Tk 15 million initial capital to permit the company to commence operations and to tide it over until it receives dividend income from SubCos.

3.2.2 Appointment of Directors

The subscribers to the memorandum for the purposes of getting the company incorporated become the first directors of HoldCo. Since HoldCo is wholly state-owned, these subscribers, and hence the initial directors, will be Government officials.

This is only a temporary arrangement. HoldCo directors will be appointed on the basis of their professional qualifications, regardless of whether they come from Government or elsewhere. Therefore, while the process for incorporation is proceeding, Government is to appoint a Search committee the sole task of which is to prepare and maintain a long list of potential candidates from which nominees for the first elected Board (and subsequent additional or replacement directors) will be selected.

The Search committee will comprise representatives of the state and various prominent institutions or their nominees:

- a Government representative;
- the President of the Institution of Engineers;
- the Vice-Chancellor of BUET;
- the President of the Bangladesh Institute of Chartered Accountants; and

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[5] Securities and Exchange Commission Notification No. SEC/CMRRCD/2006-159/Admin-03/23 dated 8 February 2006

- the President of the Federation of Bangladesh Chamber of Commerce and Industries.

The committee should be assisted in its search and evaluation of candidates by professional executive search consultants.

Government will indicate its choice of future directors from the list provided to it by the Search committee. The initial directors will, as soon as practicable after receipt of the Government's choices, convene a special General Meeting at which they will elect the nominees and immediately following tender their resignations so that the number of directors remains within the limits in the Articles.

Those directors in turn will be responsible for electing a Chairman from among their number, and selecting and appointing a chief executive to be appointed to the position of Managing Director. They will be responsible on a continuing basis:

- Approving the appointment of the MD's immediate subordinates
- Appointing directors to subsidiary companies' (SubCos') boards
- Appointing new directors from the current long list–should any become necessary or desirable in the best interests of the company–to hold office until the General Meeting next following appointment, at which time their appointments will be subject to shareholder scrutiny and vote.

SubCos' boards will have similar responsibilities with respect to their companies, except that the appointment of new directors to SubCos will always be the responsibility of HoldCo's Board.

The articles provide a term of three years for each director, who may be re-elected for not more than three consecutive terms. They also provide that one third of their number shall retire each year in rotation.

Provided that directors are not employees of HoldCo or SubCos or employed by or have an interest in major suppliers they will be deemed to be 'independent' within the meaning of the Security and Exchange Commissions (SEC's) Notification regarding corporate governance.[6]

3.2.3 Appointment of Managing Director

Following a search with professional assistance for suitable candidates to be evaluated against job and man specifications, the Board will appoint a chief executive officer who will be a director of HoldCo *pari passu* with those named in the Memorandum or subsequently elected and carry the title of President and CEO. (The AOA, per standard convention, refers to the Managing Director (MD). This convention is used in the rest of this section).

The Board will enter into a suitable employment contract with the MD for a period not exceeding five years.

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[6] Notification dated 20th February, 2006: No. SEC/CMRRCD/2006-158/Admin/02-08.

Several of the existing BPDB subsidiaries have issued powers of attorney (POA) to their respective managing directors to enable them to carry out certain activities in the day-to-day running of the companies. POAs must be spelt out very carefully to give all necessary powers yet not to mislead third parties as to the extent and scope of the powers. In case such a POA include dealings with real property, it must contain in a schedule the specific description of the property, and be registered. Any revocation of a registered POA also has to be by way of a registered deed.

However, standard corporate practice is to provide the powers and authorities required by a managing director to run the day-to-day affairs of a company in the AOA of the company itself. The AOA presented in Appendix C for HoldCo take this approach:

- the control of the Company shall be vested in the Directors and the business of the Company shall be managed by the Directors.

- subject to overall control and supervision of the Board of Directors, the business and affairs of the Company shall be managed by the Managing Director who shall exercise such powers and responsibilities which may from time to time be delegated to him by the Directors.

The delegation of authority may be general in nature and made by a board resolution. In addition, the AOA spell out several authorities automatically delegated to the Managing Director. This approach removes the necessity of providing POAs to each succeeding managing director, and revoking them after the end of service of each managing director.

3.2.4 Acquisition of Premises and Initial Assets

The MD, in consultation with the Board, will secure suitable premises for HoldCo and its staff and other necessary assets, including office furniture and fittings, vehicles, computer services, etc.

3.2.5 Employment of Staff

The MD will be responsible for confirming the positions to be filled in HoldCo and for recommending to the Board suitable appointees to immediately subordinate positions The MD will be solely responsible for appointments to all other positions. Chapter 5 discusses transfer and recruitment of personnel in detail.

3.2.6 Acquisition of Shares in Power Companies

The MD will proceed as soon as possible to cause HoldCo to acquire the shares in all Government power companies that are to become subsidiary companies and to have HoldCo shares issued by way of consideration.

Ideally, he should ensure that the following conditions are met before any company is acquired:

- Profitability of the company is at or near the level projected in the FRRP
- The company’s debt service and trade purchase payments are up to date
- The ability to provide financial information in the detail necessary for consolidation in Group financial statements has been established
- An adequate and effective management structure exists.

As a practical matter it may be difficult to fulfill the first two conditions by the target date. The Government may wish to proceed with the transfer of subsidiaries to HoldCo before these conditions are met, but targets in the relevant Performance Contracts should be modified accordingly.

The principal steps in transferring investment assets to HoldCo are:

a. Establish present legal owners of SubCo shares

b. Establish transfer value of HoldCo shares to be issued in consideration of purchase:

  - Make transfers as at the day next after the date of the latest audited financial statements
  - the beneficial ownership of shares is unchanged by transfer and the simplest approach should be used, i.e., except for PGCB, net asset value as shown in the companies' latest audited financial statements–this avoids issues of goodwill/ill will, which latter may exist at present given the level of sector unprofitability
  - For PGCB shares market value should be used

c. Secure agreement of vendor's and purchaser's representatives; prepare and execute share transfers, pay stamp duty[7]

d. Check if any third party approvals are required or if the transaction has to be notified to any body; if so, comply accordingly[8]

e. Have the name of HoldCo entered in the registers of members of SubCos as a shareholder, following Board approval

f. Establish in HoldCo an asset (investment) register and record transactions in it

g. Within 60 days of appointment, prepare transfers of qualification shares to each proposed director of HoldCo together with accompanying declarations that the said shares are held in trust in favor of the owner; prepare also blank signed transfers from each director to be held for completion on his/her ceasing to be a director.

The shares of existing subsidiary companies of BPDB are to be transferred to HoldCo by following the procedures laid down in the relevant Articles of the Articles of Association of the companies concerned and Section 38 of the Companies Act, 1994. Exhibit 3.3 provides a detailed list of necessary actions and sequence for carrying them out.

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[7] The Stamp Act 1899 provides that an instrument of transfer of shares in a company shall be stamped with adhesive stamps to the amount of 1.5% of the value of the consideration for the transfer, unless the shares are of a company listed in a stock exchange, in which case no stamp duty is chargeable. The contracting parties may agree in the contract as to who will bear the expense of the stamp duty, and in the absence of such agreement, in the case of such a transfer the stamp duty would be borne by both parties equally. By an order made under Section 9 of the Stamp Act 1899 and published in the official Gazette, the Government may reduce or remit in the whole or in part the stamp duties on the instrument of transfer.

[8] Although the constitution of HoldCo prohibits the reduction of the Government's interest below 51 per cent, there is no such provision in existing SubCos.

To ensure that the shares in the existing qualifying subsidiaries of BPDB are registered in the name of HoldCo by 1 July 2009, the Company Secretary of BPDB should commence the transfer process as soon as financial statements for the preceding financial year are available

Review of the MOA and AOA of the existing BPDB subsidiaries listed below indicates that no amendments are required for the transfer of shares in the subsidiaries by BPDB to HoldCo:

- West Zone Power Distribution Company Limited
- Electricity Generation Company of Bangladesh Limited
- Ashuganj Power Station Company Limited
- Power Grid Company of Bangladesh Limited (PGCB)
- North West Zone Power Distribution Company Limited
- Dhaka Electric Supply Company Limited (DESCO) (This AOA was reviewed but is no longer considered as a candidate for transfer to HoldCo at this time).

However, several of the subsidiaries have articles in their respective AOA detailing the composition of the Board of Directors. These articles may need to be amended to provide for HoldCo to nominate [majority] directors on to the Board of each subsidiary, thereby providing shareholder control through Board composition. Currently, these articles typically provide for the Government to nominate all or a majority of directors, or for some directors to be selected from among designated fields of occupation or expertise. A list of these articles is given in Exhibit 3.4.

Exhibit 3.3: Steps for Transfer of SubCo Shares to HoldCo

1. An application is to be submitted to SubCo by the transferor or the transferee (HoldCo) for the registration of the transfer of shares in SubCo. (Section 38(1) CA 1994)
2. An instrument of transfer of shares in SubCo is to be submitted to SubCo at its registered office, which should contain the following: (Section 38 CA 1994)
    a. The instrument of transfer of shares should be in any of the following forms:
        i. Regulation 19, Schedule I, CA 1994; or
        ii. Form 117 (generally used in Bangladesh for transfer of shares); or
        iii. in any other similar form approved by the BoD.
    b. Stamp duty at the rate of 1.5% of the value of the consideration[9] (price) of the transfer of shares, as stated in the instrument of transfer of shares. The payment of stamp duty is generally evidenced by the affixation of adhesive stamps, cancelled[10] (by signature and name of the transferor, and lines, across the stamps), before or at the time of signing the instrument of transfer of shares.
    c. The instrument of transfer of shares should be completed and signed by the transferor and transferee.
    d. The original share certificates evidencing the shares to be transferred are to accompany the instrument of transfer of shares. (Section 38(3) CA 1994)
    e. Payment of a fee prescribed by the BoD for the transfer of shares in SubCo.
3. The transfer of shares is to be approved by a resolution passed at a meeting of the BoD, which is to observe and comply with the following:
    a. Verify completion of all formalities mentioned in paragraph 2 above.
    b. If SubCo is a private limited company, ensure that the transfer does not result in the number of shareholders of SubCo exceeding fifty (50) in number, which is the maximum number of shareholders allowed by the Companies Act, 1994 for a private company. (Section 2(q) CA 1994)
    c. Ensure that there is no violation of the AoA, dealing with transfers of shares in SubCo.
    d. Ensure that the transferor and transferee are competent to contract, e.g. neither is a minor or otherwise incapacitated from entering into contracts.
4. If the transfer of shares is compliant with applicable laws and the AoA, and approved by the BoD, SubCo shall enter the name of the transferee and details of the transfer, in the SubCo Register of Members and Register of Transfer of Shares. After entry of the name of the transferee in the Register of Members, the transferee becomes a shareholder of SubCo. (Section 32(2) CA 1994)
5. No filings are required with the RJSC, except that when the annual return of the SubCo is filed after the holding of its annual general meeting, the change in shareholding will be reflected in the annual return.
6. It may be noted that for the transfer of the shares held by a director of a company, the prior permission of lending banks is required, under the Bank Companies Act, 1991.

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[9] Article 62(a) Stamp Act 1899 (SA 1899), as amended by the Finance Act 1998.

[10] Section 12, SA 1899.

Exhibit 3.4: Subsidiary Articles Relating to Board Composition and Requiring Amendment

Subsidiary	Articles Requiring Amendment
Ashuganj Power Station Company Limited	No articles requiring amendment.
Dhaka Electric Supply Company Ltd (DESCO)	"73. Until otherwise determined by the Company in general meeting the number of Directors shall be 9 (nine), out of which 3 (three) from Shareholders of the Company, 3 (three) shall be person representing consumer or professional interest and 3 (three) from Ex-officio of DESCO, i.e. Managing Director, Director (Technical) and Director (Finance)."
Electricity Generation Company of Bangladesh Limited	No articles requiring amendment.
North West Zone Power Distribution Company Limited	"72. (i) Until otherwise determined by the Company in General Meeting the number of directors shall be not less then 4 (four) and not more than 12 (twelve) excluding the Managing Director. The Managing Director shall be the ex officio member of the Board of Directors. (ii) As long as the Government holds 100 percent/majority shares in the company, the Directors including the chairman of the Board shall be appointed by the Government. (iii) Any Director including the Chairman of the Board may be removed from office by the Company in General Meeting at the option of the Government; otherwise no Director be liable to rotation or retirement. (iv) Any vacancy in the office of Director shall be filled in from the nominees of the Government. (v) A Director need not be a member of the Company when nominated by the Government. 73.(v) The Government shall nominate a person from amongst the members of the Directors to act as Chairman of the Board who will preside over General Meetings. (vii) The Board of Directors shall be appointed by the members (Subscribers) in a general meeting as soon as majority shares in

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[11] The meaning of this provision is not clear. The Subscribers would have all the shares of the company. Who would sell what shares to whom for this article to come into operation?

	the Company are sold to the subscribers[11]. Until new Directors are so appointed by the subscribers (shareholders), the first Board of Directors of the Company shall be constituted as follows: ….”
Power Grid Company of Bangladesh Limited (PGCB)	“33. Until otherwise determined by the Company in General Meeting the number of Directors shall be not less than 4 (Four) and not more that (*sic*) 12 (Twelve) including ex-officio directors. Not more than 4 (Four) persons representing professional institutes, consumer associations and chamber bodies shall be appointed as Directors of the company. They may be the Head of such institutes, associations and bodies or properly nominated representatives. They shall have the right to vote in a Board Meeting. Not more than three Directors shall be serving or retired personnel of the government or its agencies other than ex-officio Directors. 34.(i) The Board of Directors shall be appointed by the Members. Till the time the new Directors are appointed the subscribers and the representatives of professional institute, consumer association and chamber body and the ex-officio directors shall be deemed to be Directors of the Company. … (iii) The Managing Director, and other Directors including Director (Finance) and Director (Technical) of the Company, nominated by the Government and they need not themselves hold any qualification shares in their own name. They shall be ex-officio members of the Board of Directors and shall have the right to vote in a Board Meeting.”
West Zone Power Distribution Company Limited	“72. Until otherwise determined by the Company in General Meeting the minimum 3 (three) and maximum 12 (twelve) number of Directors, out of which 6 (six) from Subscribers[12] of the Company, 3 (three) shall be person representing consumer or professional interest and 3 (three) from Ex-officio of WEST ZONE POWER DISTRIBUTION COMPANY LIMITED i.e. Managing Director, Director (Technical) and Director (Finance).”

An instruction[13] was issued by the Power Division, Ministry of Power, Energy and Mineral Resources on 15.11.07 in relation to the boards of directors of state-owned companies formed in the power sector. That instruction stipulates the following. All power sector companies were asked to amend their memoranda and articles of association to give effect to the instruction:

i) The Secretary, Power Division, would not be chairman of any board of directors. The Secretary to any other ministry/division, a retired secretary or an eminent citizen shall be the chairman of the board of directors.

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[12] The word “Shareholders” overwritten by hand.

[13] Memo No.BiJaKhoSho/BiBi/Pro:-2/2Bi-1/2007/668

ii) The necessary[14] number of representatives from shareholders will be included in the board of directors. Officials representing the Power Division will take part in the decision-making process of companies within their subject area.[15]

iii) No official of the Power Division or its agencies shall be on the board of directors of more than 2 companies.

iv) No executive officer other than the managing director of a company shall be permitted to be on the board of directors.

v) A person with expertise in the relevant subject (generation, transmission, distribution) shall be included in the board of directors.

vi) A consumer representative shall be included in the board of directors.

vii) A representative of the business community shall be included in the board of directors.

viii) An expert on financial matters shall be included in the Board of directors.

ix) In order to ensure the accountability of state-owned companies, the no-objection of the Power Division shall have to be obtained in matters concerning the appointment, extension of contract, removal etc of the chief executive officer (managing director).

x) No meeting of the board of directors will be held without the presence of a majority of members.

xi) The Director (Finance) and Director (Technical) of the companies, even though not members of the board, shall be present at all its meetings.

3.2.7 Assigning Contracts to HoldCo

Since HoldCo will not be an operating company, it will not be necessary to assign PPAs, fuel supply agreements, or other trading contracts from existing BPDB operations. The principal agreements necessary for the day-to-day operation and management of HoldCo may include:

- employment contracts with employees;
- service contracts for maintenance of offices, security etc;
- supply contracts for stores including stationary etc.
- supply arrangements and contracts for gas and other fuel for purposes other than generating electricity;

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[14] The number is not specified, and may be determined on a case to case basis.

[15] This provision is not clear. It may relate to the subject areas of generation, transmission and distribution.

- service contracts for technical support such as information systems;
- transport and travel service contracts;
- insurance contracts for employee and third party accident and injury.
- contracts for lease of premises.

These are largely expected to be new contracts, though in certain cases they could be assigned by BPDB to HoldCo.

3.2.8 Government Obligations under Loan Agreements and Sovereign Guarantees

The Government of Bangladesh has entered into several loan and other financing agreements with various multilateral and bilateral donors and lenders such as the World Bank and the ADB in respect of BPDB, its various plants and operations. Some of these loan agreements are specific to individual power stations. Some are accompanied by subsidiary loan agreements, whereby the Government has re-lent the borrowed funds to BPDB.

Standard terms in World Bank and ADB loan agreements provide, for example, that BPDB cannot sell, lease or otherwise dispose of any of its assets without the prior approval of the lender, be it World Bank or ADB. Moreover, BPDB is usually prohibited from assigning any rights or obligations under any subsidiary loan agreement in relation to any of the loan agreements, without the approval of the lender. Some of these loan agreements may have sovereign guarantees attached to them. They may also have terms and conditions prohibiting or restricting the amendment of the constitutional documents of BPDB and/or its restructuring.

These provisions would restrict the right of BPDB to transfer relevant assets as it is unbundled. Further, there may be similar clauses in any or all the other existing loan agreements to which the Government and/or BPDB are a party, and any transfer of assets or liabilities, or restructuring envisaged in this corporatization project could trigger off a default in such loan agreements, which in turn may trigger off cross-default clauses in any or all of these loan agreements. Each of these loan agreements would have to be reviewed for such express or implied bars on the envisaged restructuring, and transfers of assets and liabilities of BPDB.

It is expected that no loans or other financial obligations will be assigned to HoldCo, since HoldCo will be a non-operating company. Rather, existing BPDB loans and obligations will be transferred to the relevant operating company that is spun off from BPDB. In some cases it may not be possible to identify a single new operating company to which a given loan or obligation should be transferred. In such cases, the liability should be allocated among operating entities following a clear rationale, e.g. proportionally to the assets transferred. Even so, it is not expected that HoldCo will be involved in any such transfers. On the other hand, this will remain an issue for the establishment of new HoldCo subsidiaries from BPDB operations.

3.3 CORPORATE GOVERNANCE

3.3.1 Basic Requirements

Following several major enquiries and legislative decisions in various countries over the last 20 years the need for specific actions, policies and disclosures by companies in the interest of investors and participants in the capital markets has been well defined. The Bangladesh Enterprise Institute published in April 2004 *The Code of Corporate Governance for Bangladesh.* In December 2005 the SE Asian Association of Accountants published *Best Practices on Corporate Governance.* It incorporated ideas and contributions from member Institutes including the Institute of Chartered Accountants in Bangladesh. The OECD has also published a code of practice.

The minimum for companies' Codes of Corporate Governance in Bangladesh has been specified by the Securities & Exchange Commission.[16] The Notification sets out certain conditions that are to be included in each company's code on a 'comply or explain' basis. The principal requirements are:

- The size of boards of directors should lie between 5 and 20
- Independent directors should number at least 10 per cent of the total with a minimum of one
- The positions of Chairman and CEO should, preferably, not be held by the same person
- Chief Financial Officer (CFO), Head of Internal Audit and Company Secretary should have defined responsibilities; the CFO and Secretary should attend Board meetings.
- The Directors' Annual Report to shareholders should include statements concerning the fairness and the bases of the presentation of the company's affairs in the financial statements, the adequacy of the books of account and internal control processes; the ability of the company to meet its debts; disclosures on major plans, prospects and risks; three years' performance data; details of directors' shareholdings and meeting attendance; the voting interest of holders of per cent of shares or more; the reasons for not declaring a dividend; and explanations of non-compliance with conditions of the Notification.
- Audit and Risk Management committees should be established with specified minimum obligations, including reporting to the SEC of failure to rectify shortcomings or inadequacies relating to conflicts of interest, internal control systems; infringements of relevant laws; anything having a material impact on the company. The external and group internal auditors should report to this committee.[17]

External/statutory auditors should be barred from providing certain services, e.g., appraisal, IT systems, bookkeeping and internal audit.

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[16] Notification Dated the 20th February, 2006 No. SEC/CMRRCD/2006-158/Admin/02-08,

[17] We recommend that HoldCo should have one committee covering both audit and risk issues.

3.3.2 Additional Recommendations for HoldCo

Considering the nature and situation of the BPDB Group and the need to secure uniform policies and action on key issues such as capital works, funding, and the need to prepare consolidated accounts, certain other Board committees should be established:

- Finance & planning
- Information technology
- Human resources, nomination and remuneration
- Technical

The roles and responsibilities of the Board collectively, directors severally, and the committees established to assist the Board in its work need to be set out in manuals. Amongst other things, the extent to which the Board reserves to itself or limits the exercise of powers assigned to the MD in the Articles of Association need to be spelled out very clearly. The Board manual should also set out the desirable composition of the Board in terms of skills and resources, procedures for identifying candidate directors and the performance appraisal of directors collectively and severally.

A Code of Conduct should be prepared setting out the standards of corporate and personal behavior expected of all directors, employees and contractors with respect to customers, shareholders, Government, the environment and the public.

The roles of the Board committees are summarized below.

3.3.3 Finance & Planning

The Finance & Planning committee:

- Reviews the expected cost of meeting long term power demand projections prepared by Single Buyer and proposals for meeting them and recommends priorities where it is necessary to ration capital
- Reviews SubCos' financing plans and ensures that collectively they optimize the Group's cost of capital and average cost of borrowing
- Reviews Treasury proposals for managing finance and foreign exchange costs and short term financing arrangements
- Reviews the Group's business plan
- Makes appropriate recommendations to the Board

3.3.4 Audit & Risk Management

The Audit committee should also be responsible for oversight of risk management and compliance throughout the Group because at HoldCo level the Group's financial risks (e.g., exchange rate, interest rate, counterparty) will become increasingly more significant as the Group becomes progressively less reliant on Government and aid agencies for finance and should be managed with the other risks faced by the Group, e.g., major plant failure, public and personnel injury, fire and earthquake.

The Audit & Risk Management committee:

- Ensures that satisfactory arrangements exist for identifying, monitoring and mitigating financial and operational risks within the Group, including those associated with major contracts
- Ensures that satisfactory arrangements exist for measuring and reporting SubCo and group operational and financial performance
- Ensures that satisfactory arrangements exist for internal control and audit of the Group
- Receives the report and management letter of the external auditor and considers issues raised in it
- Ensures that satisfactory arrangements exist within the Group for monitoring compliance with all laws and regulations, including taxation, health and safety and environment
- Makes appropriate recommendations to the Board.

3.3.5 Information Technology

The Information Technology committee:

- Ensures that a long term group IT strategic plan is prepared and updated from time to time
- Reviews SubCos' IT plans and ensures that they are consistent with overall group IT strategy
- Ensures that group IT security plans are prepared and implemented
- Makes appropriate recommendations to the Board

3.3.6 Human Resources, Nomination and Remuneration

The Human Resources, Nomination and Remuneration committee:

- Ensures sound overall group health, safety, welfare, staff development and remuneration policies are prepared and ensures that they are implemented by SubCos
- Receives succession plans from HoldCo's and SubCos' management, identifies pending vacancies at Board and top management level throughout out the Group and assists in development of short lists of potential appointees
- Recommends on remuneration policies for directors and senior managers throughout the Group
- Makes appropriate recommendations to the Board

3.3.7 Technical

The Technical committee:

- Ensures that SubCos' proposals for meeting future power demand are technically sound and consistent with international best practice
- Approves performance standards for major items of equipment

- Reviews SubCos' asset management plans and ensures that they are economic, mutually consistent and support the Group's long term power supply strategy
- Makes appropriate recommendations to the Board

3.3.8 Delegation of Authority

The Articles of Association grant extensive powers to the MD to expedite the business of HoldCo. Since the Articles is a public and statutory document it may be relied upon by third parties doing business with the company as evidence of the MD's power to deal with them on HoldCo's behalf. However, the Board should consider what decisions should be reserved to itself.

The following are examples of matters decisions on which the Board should consider reserving to itself. Quantitative limits in them are purely illustrative.

- Appointment, termination and remuneration of the immediate subordinates of the MD of HoldCo
- Appointment, termination and remuneration of directors and chief executives of subsidiary companies
- Signing off major reports to Government
- Commitment of capex in excess of Tk 100 million per project
- Executing contracts in excess of Tk 500 million
- Capital raising in excess of Tk 100 million per occurrence
- Investment in new generation etc including contracts with IPPs
- Sale of shares in HoldCo or any of its SubCos
- Sale of any of SubCos' major plant items
- Amendment of the Articles or Memoranda of Association of any SubCos

3.4 CORPORATE PERFORMANCE MANAGEMENT

As discussed above in Section 3.1, HoldCo will have two principal functions: to help ensure optimal allocation of scarce capital across its subsidiaries, and to drive improved performance of those subsidiary operating companies. Proposed mechanisms for capital allocation are discussed in Section 8.3. This section describes HoldCo's performance management function.

The 2000 Vision and Policy Statement highlights the lack of effective operational performance evaluation as a major constraint to improved sector performance. While there has been some focus to help improve commercial viability through setting up targets at the corporate level, these targets have neither been derived systematically nor linked to individual performance. In some companies (e.g. DESCO, PGCB) bonuses are paid on achievement of corporate targets but the allocation of bonus amount is not linked to level of individual achievement. In BPDB, bonuses are paid against set targets on zonal basis under a Punishment and Reward Scheme. However, there has been no case of penalties in case of underachievement of targets.

Effective performance measurement and performance management systems are essential to create well-performing organizations, whether public or private. Since HoldCo will be the apex company of many power sector corporatized bodies, it is all the more important that it takes the lead in developing, implementing and promoting a performance-oriented culture across not only in its own business but in that of its subsidiaries as well.

Given that HoldCo will have sector-level objectives, the goal for the company should be to wield individual efforts into a common effort where, while each member of the organization (subsidiaries) contributes something different but in all they must all contribute to a common Goal or Vision for the sector. Such contributions must be mandated through performance contracts where targets for achievement are clearly laid out and are measured on a regular basis. Achievements must be rewarded and corrective actions taken in situations of non-performance.

3.4.1 The Performance Management Framework

Performance management is a systematic approach to performance improvement through an ongoing process of establishing strategic performance objectives; measuring performance; collecting, analyzing, reviewing, and reporting performance data; and using that data to drive performance improvement. Performance management aims to impose accountability, and therefore incorporates the elements of accountability shown in Exhibit 1.4.

Performance-based management has many benefits, including:

- It provides a structured approach to focusing on strategic performance objectives. In other words, performance management focuses on the achievement of results, not on the number of activities. It promotes a work culture that values results over bureaucratic processes, and encourages dynamism and initiative.

- It provides a mechanism for accurately reporting performance to upper management and stakeholders. Because all work is planned and done in accordance with the strategic performance objectives, the end result is an accurate picture of individual, program, and organizational performance.

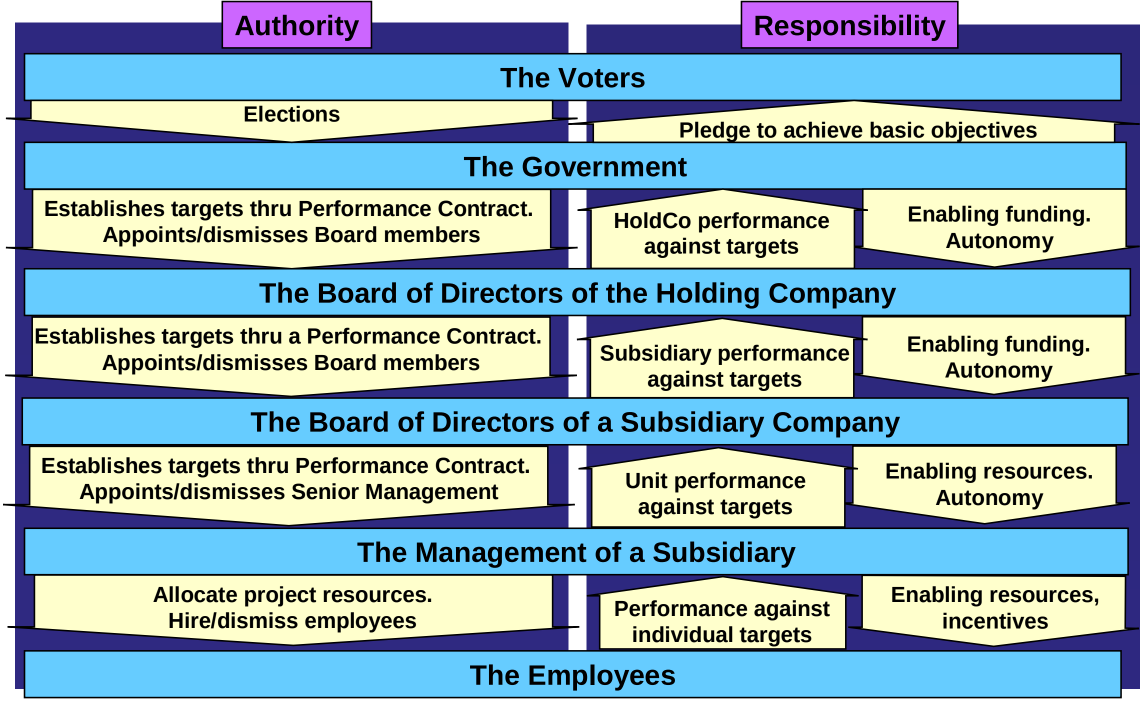
- It provides a mechanism for linking performance and budget expenditures. At the beginning of the cycle, performance management provides a framework for showing what goals will be accomplished and what resources will be necessary to accomplish those goals. At the end of the cycle, it shows what was actually accomplished and what resources actually were used to achieve those results.

- It provides an excellent framework for accountability. Performance management ensures accountability for results. In the performance management framework, all actions, decisions, expenditures, and results can be easily explained, justified, and reported.

- It shares responsibility for performance improvement. In the performance-based management process, performance improvement becomes a joint responsibility between the organization and its stakeholders/customers or between the individual and his/her management.

To be effective, a performance management framework should span all levels of the sector, just as accountability must cascade from the top to the bottom of the sector. Exhibit 3.5

Exhibit 3.5: The Cascade of Accountability



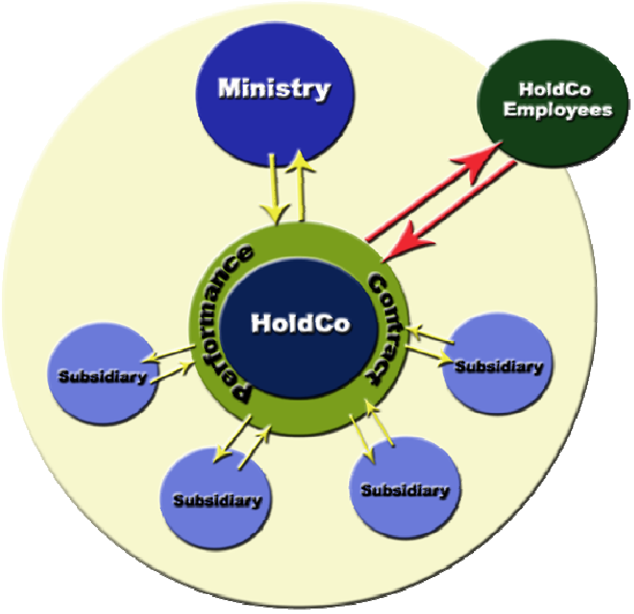
Therefore, HoldCo's performance management system will define the key relationships that will exist between HoldCo and the Government, HoldCo and its subsidiaries and HoldCo and its employees. Promoting this performance culture will enable sector-level gain in efficiencies and achievement of goals that the government has set for itself.

The framework is a three-step model where performance contracts are drawn between the following:

- The Government and HoldCo
- HoldCo and its subsidiaries
- HoldCo and its employees

The targets in these performance contracts must cascade down from the performance contract drawn between the Government and HoldCo to the employees of HoldCo in the end. In this way both the goals of the Government (sector level goals) and the goals laid down for the subsidiaries by HoldCo will be linked to the employees of HoldCo. In addition, HoldCo must influence and promote adoption of similar performance management framework in its subsidiaries. This framework is shown in Exhibit 3.6.

Exhibit 3.6: HoldCo's Performance Management Framework



Managing performance is one of the biggest challenges faced by organizations today. Often this is caused by a lack of clarity of performance expectations and unwillingness on the part of leaders to make to a commitment to strategically manage performance. Performance contracts provide a means to address this challenge.

A performance contract is a document that clearly lays down goals / targets for achievement within a specified timeframe (milestone). Such achievement or non-achievement is then reviewed and analyzed, and appropriate actions taken to either reward the achievement or set corrective actions for improvement. The aim of creating a performance contract as a document is to ensure it is always available for reference and review and it removes ambiguity and bias from the performance process / framework.

The Performance Contract prepared annually by the Board of Directors and "negotiated" with the shareholder. It shall contain:

- Objectives of company
- A summary of the nature and scope of commercial activities of the group
- Details of capital structure
- Accounting policies to be followed
- Operational and financial performance targets and measures to be met over the next five years
- Dividend policy and estimates
- Information to be reported
- Procedures for share subscriptions or purchases
- Assumptions regarding factors outside the control of HoldCo, including obligations of the Government, that will affect target performance, including (i) fuel prices, inflation, force majeure events, etc. (ii) availability/provision of financing, (iii) tariff levels, and (iv) subsidies.

- Other matters agreed with the shareholder

When the Performance Contract is agreed and signed by the parties it will constitute a statement of the targets against which a company's achievements will be judged and of the obligations Government has undertaken to meet. An example is given in Appendix F.

Exhibit 3.7 depicts the three steps for preparing a performance contract. Each is discussed in turn below.

Exhibit 3.7: Steps for Preparing a Performance Contract

SET GOALS (TARGETS)

The process for Performance Contract starts with setting performance expectations or Goals. Performance contracts should include Routine, Stretch and Development goals that incorporate expectations or specific actions to be taken.

Routine goals include actions that encompass performance expectations that are expected to be completed in the normal course of work, business or project.

Stretch goals include actions that challenge the skills, abilities and knowledge (competencies) and resources of an individual or collectively as group or company. Attempt must be at all times to make the Stretch Goals realistic and not unreasonable.

Development goals include actions that are directed at development and which enhance current and future value of the organization.

While devising goals it must be kept in mind that the goals are:

- Simple and specific – so that everyone in the company, from the top management to the field staff, can easily comprehend and relate to them, and work to achieve them. The targets should also not be unnecessarily complicated in their design or applicability.
- Measurable - so that all targets are objective and not subject to too much interpretation or discretion. The calculation of the achievement should be transparent and easily defined. The means by which the data will be compiled must be explicitly considered.

- Attainable – so that the target is within reach with a reasonable amount of stretch and time, and with the resources that have been made available. Targets should be such that they are do-able and acceptable to all concerned, especially the implementing agencies. It is not prudent to set targets that are beyond reach and unattainable in a reasonable timeframe.
- Relevant - so that they reflect the priorities of the sector, the company and its subsidiaries. Targets over which there is little or no, control would not be relevant, and one of the principles in setting targets is to pick areas where there is control, and the means to meet the targets.

SET MILESTONES

Milestones or dates for specific actions to be completed for each goal are critical to accept accountability. And, the overall contract should extend to a reasonable time in order to promote systematic accountability checks. It must be ensured that the timeframe is not too large as it would weaken the commitment to a goal. This dimension of timeliness, together with the four characteristics noted above, suggest that targets need to be SMART: Simple and specific, Measurable, Attainable, Relevant and Timely

SET ACCOUNTABILITY

Accountability sessions are important components of the contracting process and include reviewing progress, determining what additional resources may be needed, adjustments of the milestones and performance coaching. Schedule a final review to establish completion of the contract, negotiate a new contract and deliver any rewards associated with contract completion or set corrective actions to improve performance.

3.4.2 The Government – HoldCo Performance Contract

The performance contract between HoldCo and the Government is a two step process. On one hand the contact must represent a cumulative target of the subsidiaries and on the other it must also incorporate the goals that the Government has set for the power sector overall. It must also be noted here that many of the goals / targets set under this performance contract will be more long term and a minimum time frame of yearly reviews or updates should be set up.

The 2000 Vision and Policy Statement and the Three Year Roadmap for the Power Sector Reform updated in 2005 should serve as a guiding document for framing the goals at the sector level. These sector-level goals will cascade down to the subsidiaries and in turn to the employees of the HoldCo, hence they must be free from ambiguity; as noted previously, they should be SMART targets. In addition, the targets should indicate the baseline information against which performance is measured, and also the prioritizing of targets. These are detailed further below.

Exhibit 3.8 provides some examples of targets that could be used in the Performance Contract between HoldCo and the Government. A sample Performance Contract is provided in Appendix F.

Exhibit 3.8: Example of Targets for Government – HoldCo Performance Contract

The Policy Statement on Power Sector Reform states the following;

“Provide electricity service to the whole country by the year 2020”.

This can be then used to set up a yearly target for the HoldCo which can state:
- *‘Achieve electrification of 40,000 (or X number) household in the financial year 2008 – 2009’*

The above target in itself could lead to or be set in conjunction with other targets for the HoldCo such as the following:
- *‘Commission a 40 Km (or X Km) Transmission Line extension at 132 kV during the financial year 2008 – 2009’*
- *‘Ensure an overall plant availability factor of Y% during the year 2008-2009’*

There could be other financial targets like
- *Return on Capital Employed*
- *Debt Servicing ratio*

In addition, the performance contract would document corresponding Government commitments or assumption such as:
- *The Government will arrange debt funding of BDT X million for HoldCo and its subsidiaries to meet this target.*
- *‘The above targets assume an increase of Y% in the sales weighted tariff during 2008 - 2009’*

3.4.3 The HoldCo – Subsidiary Performance Contract

The performance contract between HoldCo and a subsidiary is linked directly to the subsidiary’s activities and must be more operational in nature. For each subsidiary a separate performance contract must be drawn up, which will be dependent on the nature of business of the subsidiary. Distribution, transmission and generation companies will each have a separate set of targets but they must also carry some targets that are drawn from or are derived from the sector-level targets which HoldCo has agreed with the Government. Such linkage is also to some extent based on the sector-level priorities. A note on this linkage is mentioned in another chapter later.

The nature of the targets in this performance contract may be more near-term and the goals / targets set under this performance contract should have a yearly timeframe with a six monthly review mechanism built in. Again, the performance contract process must be used as a guide for setting targets at all levels, and the targets must be SMART.

Some examples of targets to be laid down in the Performance Contract between the HoldCo and different types of subsidiaries are given in Exhibit 3.9. These Performance Contracts would utilize the same format as that between HoldCo and Government, as shown in Appendix F. A complete list of candidate key performance indicators (KPIs) are provided in Exhibit 3.10.

Exhibit 3.9: Examples of Targets for HoldCo – Subsidiary Performance Contracts

For ***Distribution Companies****, targets could include;*

- *Reduce Losses by 20% from existing level in year 2008 – 2009*
    - *Calculated as* $\text{Loss \%} = \frac{\text{Energy Input – Energy Sold}}{\text{Energy Input}} \times 100$
- *Improve Collection Efficiency by 20% from existing level in year 2008 - 09*
    - *Calculated as* $\text{CE \%} = \frac{\text{Total Billed – Total Collected}}{\text{Total Billed}} \times 100$
- *Improve Revenue to Current Expenditure Ratio by 20% in year 2008 -09*
    - *Calculated as* $\text{RCE Ratio} = \frac{\text{Revenue}}{\text{Current Expenditure}}$

Other targets related to SAIFI, SAIDI, Customers Serviced per Employee may also be set as targets for a Distribution Subsidiary

For ***Transmission Companies*** *targets could include;*

- *Improve SAIFI by 15% from existing level in year 2008 – 09*
    - *Calculated as* $\text{SAIFI} = \frac{\text{Total no. of customer interruptions}}{\text{Total no. of Customers Served}}$ *(Interruptions/Customer/Year)*
- *Improve SAIDI by 15% from existing level in year 2008 – 09*
    - *Calculated as* $\text{SAIDI} = \frac{\text{Sum of Customer Interruption Duration}}{\text{Total no. of Customers Served}}$ *X (Hrs/Customer/Year)*
- *Improve RLIF (Revenue Loss Impact Factor) by 10% in year 2008 – 09*
    - *Calculated as* $\text{RLIF} = \frac{\text{Actual Energy Transferred}}{\text{Total energy Available for Transfer}}$

Where, Actual Energy Transferred = Total Energy transferred (including wheeling) in a Year

And, Total Energy Available for Transfer = Actual energy transferred and the energy lost during outage (million Units)

Other targets related to Km of Lines serviced per Employee, MVA per Employee, Revenue to Current Expenditure Ratio may also be set as targets for a Transmission Subsidiary

For ***Generation Companies*** *targets could include;*

- *Plant Availability*
- *Generation Losses*
- *PLF*
- *Actual Vs Capacity Generation*
- *Per Employee Generation*
- *Outage %*

Exhibit 3.10: Sample KPIs by Value Chain Segment

Distribution	Transmission	Generation
• Losses (energy billed / incoming energy) • Collection ratio (collected/billed) • Cash generated from private sources as a % of all non-tariff cash funding (DESCO only; represents proceeds of IPO, bonds and any corporate borrowing) • Customers per employee • Operating cost of service (Total operating costs divided by kWh billed)	• Losses (energy transferred to distribution / energy injection from generation) • Transmission charge collection ratio • Cash generated from private sources as a % of all non-tariff cash funding (PGCB only; represents proceeds of IPO, bonds and any corporate borrowing) • Circuit-km per Employee • MVA of transformers per Employee • Operating cost of service (Total operating costs divided by kWh billed) • Transmission SAIDI (exclude interruptions due to generation outage) • Transmission SAIFI (exclude interruptions due to generation outage)	• Station Losses • Plant Availability • Plant Load Factor • MW capacity per Employee • Net MWh generated per Employee • Forced outage rate • Planned outage rate

3.4.4 The HoldCo – Employee Performance Contract

The HoldCo must set up a separate Employee Performance Management System (EPMS). It must form an integral part of the conditions of service guiding the employees' tenure with the company. Such EPMS must enhance the alignment of team and individual goals with the broader strategic goals of the company. While this Performance Management Framework lays down the guidelines for the overall efficiency in the sector by building a performance culture through Performance Contracts, the Performance Contracts for employees must be addressed through a separate EPMS where each individual employee is communicated in detail of what the process is about, why it is being implemented, and how it works.

Essentially the EPMS must be a three step process and must entail;

- A face to face meeting between the staff member and line manager to discuss the Individual Performance Contract
- Mid term Review of Performance
- Final Appraisal at end of term

In an EPMS the performance contract must cover elements of both quantitative and qualitative targets. The assessment process must cover both quantitative and qualitative elements of the work carried out to date and must be rated on a well defined rating scale. All increments or salary increases must be set as a percentage of salary, dependent on the performance level achieved against agreed targets at start of performance period.

At the end of each performance period and upon completion of the review, all employees must be advised in writing of salary increases, bonus payments, and promotions. It must also be set that continued non performance could lead to corrective actions which may also lead to termination in situations of no improvement.

It is also proposed to introduce Forced Ranking in the EPMS as a first step towards adopting a modern system. Forced Ranking eliminates bias in the administration of any employee performance system that may result on account of inter-personal dynamics within the organization. It also provides direct incentive for higher performance and motivates individual employees towards achievement of individual goals.

Forced ranking is a performance intervention, which can be defined as an evaluation method of forced distribution, where managers are required to distribute ratings for those personnel under evaluation into a pre-specified performance distribution ranking. A typical distribution would have four ratings: Failing to Meet Expectations, Meeting Expectations, Exceeding Expectations, and Greatly Exceeding Expectations. Forced ranking mandates that a certain number of employees will be assigned to each rating class, including Failing to Meet Expectations. The exact distribution may vary by unit depending on the performance of that unit. For example, units that are exceeding their organizational targets will allow for a higher percentage of employees in Exceeding/Greatly Exceeding Expectations, and a lower percentage in Failing to Meet Expectations when compared to units that are not meeting their organizational targets. Forced ranking has also been defined as a workforce-management tool based on the premise that in order to develop and thrive, a corporation must identify its best and worst performers, then nurture the former and rehabilitate and/or separate the latter.

The Employee Performance Management system is detailed in the proposed HoldCo Human Resource Manual presented in Supplemental Appendix C.

3.4.5 The Subsidiary – Employee Performance Contract

For the HoldCo to meet its targets, each Subsidiary must meet its own targets, which in turn is possible only if all or most of the units under each Subsidiary and their employees are able to meet their own targets. Thus, the targets for most activities must be set in such a way that if the units under the subsidiary achieve their targets, then the Subsidiary will also achieve their targets, ultimately leading to the HoldCo meeting its goals. Such a cascading of targets is an important element of the structure of the Performance Management Framework.

The system of cascading of targets links the various companies in the sector together and brings them under a common framework. It promotes the culture of performance to permeate across the sector and motivates different companies to achieve common goals. An example of cascading of targets is given below in Exhibit 3.11 and the linkages represented diagrammatically in Exhibit 3.12.

Exhibit 3.11: Examples of a Cascading Target

An example of this cascade can be:

"Provide electricity service to the whole country by the year 2020".

This can be then used to set up a yearly target for HoldCo which can state:

- *'Achieve electrification of 40,000 (or X number) household in the financial year 2008 – 2009'*

The above target in itself could lead to other targets for the Subsidiaries which could be as follows; (Assume 30,000 household electrification works goes to WZPDCL)

Target for WZPDCL

- *Ensure electrification of 30,000 households in 2008 – 09*

WZPDCL can then set target for its Procurement Division

- *Ensure procurement of all electrification items for 30,000 household by August 2008*

WZPDCL can also set target for its Project Implementation team

- *Complete all surveys and material requirement specification for additional 30,000 household electrification by April 2008*
- *Award contracts for electrification works for 30,000 households by August 2008*

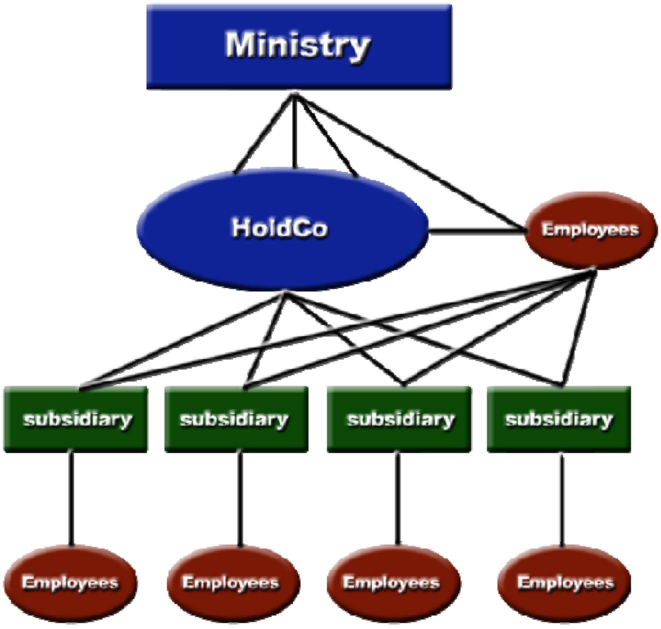
WZPDCL can also use this for setting targets for its Employees (Say the Project Manager for Project Implementation Team)

- *Ensure completion of 3,0000 household electrification by March 2009*

Similarly the HoldCo can set target for its employees which could be;

- *Secure capex funding for electrification of additional 40,000 households by July 2008*

Exhibit 3.12: Linkages in the Cascade of Targets



Another feature of the target setting is that the performance targets for various activities must generally be made more stringent from year to year. Such a *ratcheting* of targets will lead to progressively improved performance. However, for certain activities, once a specified minimum/maximum level is reached, ratcheting may not be possible (e.g. once overall losses in a unit are brought to the level of allowable technical losses; it may be difficult to lower them further without substantial capital investment). Thus, in setting targets at the various levels, the unique characteristics of each unit should be considered along with the principles of cascading and ratcheting.

3.4.6 Delivering Incentives

The Performance Management Framework aims to improve sectoral performance by increasing employee productivity and motivation. While most companies and government bodies currently have their own performance management systems to assess individual performance there is no system to monitor group performance or to link individual performance targets with unit and ultimately sector targets. The proposed Performance Management Framework provides a mechanism to monitor Sector Performance and link it to individual employee performance. HoldCo must lead application of this framework throughout the sector so as to improve the overall sector functioning and bring efficiencies in the system.

At a very basic level the overall mechanism of the Performance Management Framework is straightforward - set targets at the beginning of the year; measure achievement against the targets at the end of the year; and provide bonus/incentive payments based on how much of the targets have been realized. The Performance Management Framework creates a direct link between achieving targets/results and receiving rewards in the form of end-of-year incentive/bonus payments. It promotes a work culture that values results over bureaucratic processes, and encourages dynamism and initiative.

An important factor to consider is that performance is measured at two levels;

- At a company/organization level which is rewarded through bonus and,
- At an individual employee level which must be rewarded through increments and/or payouts towards variable pay.

While bonus ultimately is paid to a company to be distributed among employees it is the collective effort of the employees in the company which determines the company performance, whereas payments towards increments and/or variable pay determine the individual effort of an employee and his/her contributions. Both of these are linked in the Performance Management Framework.

In considering the structure of the incentive/bonus payouts to be made to employees, there were two main issues to consider:

1. The link between performance and reward must be strong enough to actually incentivize employees to work harder, perform better, and, in some cases, change their attitude or behavior. This means that, as far possible, the rewards should be targeted so that it is not the case that all receive the same payouts (as has been the practice for corporate entities in Bangladesh, e.g. a 2 months bonus across-the-board). Ideally, the bonus payouts should differ, and be tied to individual and overall company performance.

2. The overall well-being of the company must be kept in mind. Even if certain employees, units or subsidiaries perform well, if overall Group or company

performance declines substantially, then bonuses for all (even good performers) will be affected, perhaps even to the point that no bonuses are paid.

Supplemental Appendix D provides further details on how bonuses may be determined.

3.5 SUMMARY BUSINESS PLAN

The basis for an initial baseline can be derived from HoldCo's first business plan.

This business plan is drafted from the point of view of the first Board of HoldCo and is designed to help the directors to identify and to consider the main issues that confront them and to decide the priorities for the new company and group. The business plan will be amended or redrafted as appropriate by the Vice President Finance & Planning to reflect their decisions.

HoldCo's business plan sets out its strategic roles & functions within the Bangladesh power sector. It includes the major strategies to be followed over a planning period that corresponds with the power system planning period, i.e., 10 years, and indicates the amount and timing of investment requirements of the Group. It summarizes the expected means of financing them, including firm sources of funds and unsourced amounts for which sources need to be found. It sets out target performance criteria and objectives for the group.

3.5.1 Situation

Following receipt of the FRRP and subsequent Government decisions, HoldCo is to be incorporated in FY 2008 and is to acquire by 30 June 2009 the shares held by Government or its nominees in the following Government owned power utility entities:

- Ashuganj Power Station Co Ltd
- BPDB Power Generation Co Ltd[18]
- Electricity Generation Co of Bangladesh Ltd
- Power Grid Company of Bangladesh Ltd
- West Zone Power Distribution Co Ltd
- Central Zone Power Distribution Co Ltd
- North West Zone Power Distribution Co Ltd
- South Zone Power Distribution Co Ltd

The latter three companies are in the course of being established as going concerns.

DESCO has taken over part of DESA's business in the Greater Dhaka region and a new company, Dhaka Power Distribution Co Ltd, has been formed to take over the remainder. It is not Government's intention that these companies should become subsidiaries of HoldCo at the same time as BPDB's subsidiaries.

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[18] As surrogate for such other companies that may be established to acquire and operate the other generation assets of BPDB.

3.5.2 Issues Analysis

The role and functions of HoldCo have been discussed in Section 3.1. The starting point for the Business Plan is a SWOT analysis relative to these functions, the results of which are summarized below.

STRENGTHS

- The Group enjoys the support of Government and international aid agencies such as the World Bank and the ADB
- The group is a monopoly supplier of power in its zones
- It is inheriting subsidiary companies that in part reflect the financial and operational recovery and rehabilitation plan (FRRP)

WEAKNESSES

- The power sector as a whole, including HoldCo's areas of operations, is undercapitalized and does not generate sufficient cash to support growth and to service capital
- The tariff structure has been excessively politicized and current tariffs are inadequate to ensure the operational and financial viability of the entities in the sector
- The sector plant and infrastructure have not been maintained adequately and effective plant utilization is low
- The public holds the power sector in low esteem because of its chronic inability of meeting its needs
- While SingleBuyerCo remains outside the HoldCo group HoldCo will not itself have the capacity to identify future national needs for power and plan to meet them

OPPORTUNITIES

- The new corporate structure frees management from the restrictive controls pertaining to personnel and procurement that prevail in the Government sector
- Improved governance practices and improved credit ratings will enable additional funds to be secured for investment in the sector by various means including bond issues, share sales, joint ventures, etc

THREATS

- A large inventory of run down assets places system reliability and therefore income at risk and raises O&M costs
- Uncertainty about the availability and cost of primary fuels may delay power station commissioning and require continuation of load shedding
- If timely, soundly argued and documented tariff requests cannot be submitted to the Regulator, or if the Regulator is tardy in making satisfactory tariff orders, group revenue will be at risk resulting in difficulties in establishing both financial and operational standing in the community

Major issues to be resolved progressively by HoldCo and its subsidiaries include the following:

- Establishing group-wide policies on key issues such as:
    - Evaluating and financing capital works
    - Accounting and financial and operational reporting
    - Risk management
    - Incentive remuneration, retirement benefits
    - Health, safety and environmental protection
- Establishing a uniform basis reporting the value of fixed assets in service and providing for depreciation and major maintenance

3.5.3 Critical Success Factors

There are four factors critical to the success of the HoldCo group:

- Right people
- Right performance management
- Right policies and procedures
- Right, i.e. optimal, capital allocation.

The general nature of the strategies required to meet these critical factors are set out below.

RIGHT PEOPLE

HoldCo should ensure the highest level of direction and management of all companies in the group. It should employ capable professional staff to implement its policies.

As described in the AOA, a selection panel of eminent persons is to be appointed to prepare and submit to the shareholder a long list of candidates for initial election to HoldCo's Board. Those directors will be responsible for:

- Electing a Chairman from among their number
- Selecting and appointing a chief executive to be appointed to the position of Managing Director.

On a continuing basis the Board of HoldCo will be responsible for:

- Approving the appointment of the MD's immediate subordinates
- Appointing directors to subsidiary companies' (SubCos') boards
- Appointing new directors from the current long list–should any become necessary or desirable in the best interests of the company–to hold office until the General Meeting next following appointment, at which time their appointments will be subject to shareholder scrutiny and vote.

SubCos' boards will have similar responsibilities with respect to their companies, except that the appointment of new directors to SubCos will always be the responsibility of HoldCo's Board.

RIGHT PERFORMANCE MANAGEMENT

The Performance Management Framework has been described at length in the preceding section. It stipulates that the Group business plan, the strategies to put it into effect and the planned results should be agreed with the shareholder and the essential features incorporated in a Performance Contract between the Board and the shareholder. The business plan objectives become contract targets against which results will be regularly measured and reported and remedial action taken if necessary.

In like manner SubCos' business plans will be the basis for performance contracts between their boards and HoldCo.

Business plans should not be confined to managing assets, customers and money–they need to have regard to personnel and environmental issues as well as Government's objectives for the power sector. They should include finding and adopting innovative ways of working with the private sector to achieve Government's reform objectives.

RIGHT POLICIES AND PROCEDURES

People and plans need to be supported by sound policies and procedures in all important fields, including:

- Human resources management
- Health, safety and environmental protection
- Accounting and financial and operational reporting
- Information and communications technology
- Evaluating and financing capital works
- Risk management
- Procurement

RIGHT, I.E. OPTIMAL, CAPITAL ALLOCATION

The power system master plan sets out the least cost means of achieving Government's objectives for the power sector, the principal of which is to make electricity available to all by 2020. The plan will be updated from time to time to reflect changes in demand and implementation progress amongst other factors.

The power system master plan provides basic inputs to SubCos' long term physical and financial planning. An important role of HoldCo is to ensure that capital and other funds available for investment by the group are directed to the most effective projects. This will require stringent economic and financial evaluation of projects and the proposed means of financing them.

3.5.4 Key Performance Criteria

Meeting the goals of the business plan depends on two main factors in addition to having right people:

- Having funds available to meet the planned expenditures on planned works
    - Funds from operations and known capital sources
    - Government paying for each year's tranche of capital on time

  - Timely Government payments for uneconomic projects and subsidized supply
- Effective project planning and management.

The periodic SubCos' performance criteria to be developed include the following:

- SubCos' individual and joint cash generation as a percentage of plan
- SubCos' expenditure (less known overruns) on planned works as a percentage of planned expenditure
- Achievement of major milestones on time, eg, commissioning major new assets
- Capital receipts and loan drawdowns as a percentage of plan.

Other group operating performance measures are illustrated in Exhibits 3.13 and 3.14.

3.5.5 SubCos' Business Plans

Consolidated projections of SubCos' business plans prepared to implement the power system master plan and accompanying financial projections will indicate the extent to which the group will be able to finance its capital works and service its debt capital from operations year by year. They will also show committed and identified (but not committed) sources of debt capital and the unsourced amount of funds required.

SubCos' business plans may also identify non-financial constraints to meeting the plan objectives, e.g., lack of gas supplies at the place of a proposed power station.

Selected major items from SubCos' plans may be included or appended in HoldCo's, e.g., major additions or extensions to plant, new external financing arrangements.

3.5.6 HoldCo Financial & Operational Projections

Consolidated financial and operational projections for the Group have been prepared based on the projections in the FRRP. They indicate the impact of the group's strategies on financial and operational performance.

CAPITALISATION OF HOLDCO

The projected net asset value of the group on 1 July 2009 is Tk 106,000 million including PGCB shares valued at market price in June 2006. The authorized capital should provide for future expansion and fund raising as may be decided from time to time. The nominal capital of HoldCo is therefore recommended to be 150 million shares of Tk 1000/- each.

Shares should be issued paid up to the value of shares acquired and initial operating funds.

PERFORMANCE MEASURES

The performance measures for the group shown in 3.12 and 3.13 are selected from a more extensive range of targets used at the SubCo level. Where practical, projected measures have been taken from the FRRP.

Exhibit 3.13: Indicative Operational Performance Targets

Item	Unit	2010	2011	2012	2013	2014	2015
Total energy sent out	GWh	41 295	44 665	48 298	52 220	56 443	61 002
Retail sales	GWh	8 342	9 092	9 911	10 803	11 775	12 835
HV	%						
MV	%						
LV	%						
Customer connections	k						
Customers/FTE distribution employee	No./FTE						
Revenue yield							
Bulk - Single Buyer	Tk / kWh	1.38	1.49	1.43	1.37	1.29	1.21
Customers	Tk / kWh	5.58	5.77	5.85	5.73	5.69	5.47
System losses							
Transmission	% Sent out	3.4	3.4	3.3	3.3	3.2	3.2
Distribution	% Received	15.6	14.7	13.8	12.9	12	11.1
Generation plant factor	% Energy capacity						
Transmission outages	No						
Transmission outages	Av duration mins						
Distribution outages	No						
Distribution outages	Av duration mins						
System peak demand	MW						
Load shed at peak	%						
Capital works							
Expenditure	% budget						
Completed works	% on time by value						
Completed works	% budget						

Exhibit 3.14: Indicative Financial Performance Targets

Item	Unit	2010	2011	2012	2013	2014	2015
Profitability							
Operating Return on Av. Net Fixed Assets i/s	% BTBI	11.1%	11.0%	11.0%	11.0%	11.1%	11.1%
Return on Revenue	% BTBI	26%	27%	26%	26%	25%	24%
Net return on Equity	% ATAI	7.5%	9.1%	9.3%	9.2%	8.8%	8.5%
Productivity							
Revenue : Total Capital Employed	%	31%	34%	36%	37%	39%	39%
Return on Total Capital Employed	% BTBI	7.9%	8.9%	9.2%	9.3%	9.3%	9.2%
Liquidity							
Current assets : current liabilities	ratio	1.50	1.47	1.61	1.70	1.71	1.74
Trade debtors	Days' av revenue	49	45	49	50	50	51
Long Term Debt : Equity	ratio	2.4	2.3	2.1	2.0	1.8	1.7
LT Liabilities : (LT Liabilities + Equity)	%	71%	70%	68%	67%	65%	63%
Debt Service Cover	%	10%	11%	13%	13%	14%	14%
Selffinancing	% 3 yr CapEx						
Commercial financing	% Cap Ex						

*BTBI : **B**efore **T**ax, **B**efore **I**nterest*
*ATBI : **A**fter **T**ax, **B**efore **I**nterest*

INDICATIVE FINANCIAL PROJECTIONS

Government has adopted the recommendations of the FRRP; the following have therefore been assumed for the purpose of preparing indicative financial projections for the group:

- HoldCo will be in a position to acquire its first subsidiaries by 30 June 2009
- All prerequisites will be met by that date and all companies will exist by that date and will be taken over with effect from 1 July 2009.

Accordingly, the figures from Appendix G to the FRRP have been drawn on to prepare summary financial statements for FYs 2010-2015. The total equity shown in the balance sheets is divided between HoldCo's shareholders and the minority shareholders in PGCB. (Because the statements were prepared from the printed Appendix G of the FRRP some rounding errors have accumulated; they do not detract from the general financial situation portrayed.)

Major assumptions made in the FRRP (and therefore in the projections that follow) include:

- Financial reconstruction recommendations are implemented
- Macro economic parameters (inflation and exchange rates and fuel prices) as stated in FRRP Table 6-1
- Expansion of generation in line with the Power System Master Plan[19] as summarized in FRRP Table 6-4 and the energy balance in FRRP Table 6-2
- Sector CapEx and financing as set out in various tables
- O&M costs of each part of the sector also as set out in various tables
- Retail tariffs raised to give full cost recovery (or Government will make revenue up to full cost recovery if necessary) including a return of 10 per cent of net fixed assets in service. [20]

Consolidated income statements for the HoldCo group are in Exhibit 3.15. PGCB's wheeling income derived from DisCos has been offset against the corresponding expense in DisCos' income statements.

Consolidated balance sheets are in Exhibit 3.16. In like manner, amounts owing between PGCB and DisCos have been eliminated. The assumed goodwill paid on the acquisition of PGCB's shares at market value (being the difference between the value assigned to the shares allotted and 75 per cent of the net assets of the PGCB) is shown as a deduction from shareholders' equity. The amount of shareholders' equity attributable to the minority shareholders in PGCB is shown separately.

Consolidated cash flows of the Group are in Exhibit 3.17. An analysis of projected capex by SubCo is in Exhibit 3.18.[21]

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[19] *Power System Master Plan Update*, 2006, ADB TA 4379-BAN: Power Sector Development Program II,. Component B:

[20] The FRRP assumes that operating subsidies will not be required from Government after FY 2008.

[21] It is noted that the level of capex projected in the FRRP for SZDPC is some 40 per cent greater than that in the projections made by Soluziona in their corporatisation report.

Exhibit 3.15: Consolidated Income Statements

Item	2010	2011	2012	2013	2014	2015
Operating revenue						
Bulk power	45 551	53 129	54 963	56 645	57 663	58 458
Retail	46 523	52 419	57 991	61 907	67 039	70 229
Total energy revenue	92 074	105 548	112 954	118 552	124 702	128 687
Wheeling	6 624	7 780	8 374	8 831	9 296	9 778
Other	2 151	2 510	2 696	2 857	3 026	3 147
M Tk	100 849	115 838	124 024	130 240	137 024	141 612
Operating expense						
Fuel	18 787	21 028	21 115	22 573	23 178	25 202
Purchased power	27 151	30 772	34 487	36 755	40 363	42 054
Operating & maintenance	11 230	13 209	13 748	14 576	15 288	16 339
Personnel, admin & genrl	4 837	5 299	5 861	6 491	7 194	7 974
Depreciation	13 092	15 432	16 748	17 317	18 138	16 862
M Tk	75 097	85 740	91 959	97 712	104 161	108 431
Operating income	25 752	30 098	32 065	32 528	32 863	33 181
Net interest expense	11 117	11 419	11 551	11 394	11 221	11 074
Other finance expense	2 946	3 141	3 255	3 329	3 384	3 473
Net income *before tax*	11 689	15 538	17 259	17 805	18 258	18 634
Income tax	4 381	5 828	6 473	6 677	6 846	6 990
Net income *after tax*	7 308	9 710	10 786	11 128	11 412	11 644
Dividends	788	1 221	1 505	5 255	2 804	5 574
Retained income **M Tk**	6 520	8 489	9 281	5 873	8 608	6 070

Exhibit 3.16: Consolidated Balance Sheets

Item	2009 *OBS*	2010	2011	2012	2013	2014	2015
Working capital							
Cash	16 583	18 981	23 181	28 618	30 730	34 775	31 886
Other current assets	21 656	19 021	21 493	22 735	23 723	24 787	25 377
less Current liabilities	25 488	25 785	27 747	30 202	31 756	34 304	36 819
Net working capital	12 750	12 217	16 927	21 151	22 697	25 258	20 444
Fixed assets							
In service	208 149	257 861	291 306	292 800	297 690	295 974	301 523
Under construction	89 537	56 328	28 521	32 713	28 648	33 257	37 252
	297 686	314 189	319 827	325 513	326 338	329 231	338 775
Investments	28	28	28	28	28	28	28
Total Capital Employed **M Tk**	310 464	326 434	336 782	346 692	349 063	354 517	359 247
Financed by							
Long term liabilities & provisions	219 008	228 481	230 293	230 963	227 464	224 305	222 965
Shareholder's Equity							
Paid in capital	90 615	90 615	90 615	90 615	90 615	90 615	90 615
Retained income	-	5 654	13 511	21 902	26 852	34 475	39 493
less Share purchase premium	3 481	3 481	3 481	3 481	3 481	3 481	3 481
Shareholders' equity	87 134	92 788	100 645	109 036	113 986	121 608	126 626
Minority interest in PGCB	4 322	5 167	5 844	6 692	7 615	8 602	9 656
	91 456	97 955	106 489	115 728	121 601	130 210	136 282
Total Capital Employed **M Tk**	310 464	326 436	336 782	346 691	349 065	354 515	359 247

Exhibit 3.17: Consolidated Cash Flows

Item	2009 *OBS*	2010	2011	2012	2013	2014	2015
Operating cash flow		23 265	28 205	30 696	31 672	32 820	31 865
Change in noncash wkg capital		-158	-1 471	-671	-394	-421	-166
Change in provisions		676	708	761	824	891	971
Capital investment		-29 607	-21 069	-22 435	-18 141	-21 028	-26 407
Net financing flows		8 221	-2 169	-2 913	-11 848	-8 218	-9 151
Change in cash balances		2 397	4 204	5 438	2 113	4 044	-2 888
Cash balance **M Tk**	16 583	18 980	23 184	28 622	30 735	34 779	31 891

Exhibit 3.18: Expenditure on Capital Works

Subsidiary	2010	2011	2012	2013	2014	2015
Ashuganj Power Station Co Ltd						
BPDB Power Generation Co Ltd	8 687	3 612	5 761	3 944	6 291	11 109
Electricity Generating Co of Bangladesh Ltd	2 550					
PowerGrid Company of Bangladesh Ltd	6 550	8 814	7 676	8 021	8 382	8 759
West Zone Power Distribution Co Ltd	1 150	1 050	1 098	1 147	1 199	1 253
Central Zone Power Distribution Co Ltd	2 184	694	725	758	792	828
North Zone Power Distribution Co Ltd	594	932	974	1 018	1 063	1 111
South Zone Power Distribution Co Ltd	7 892	5 967	6 201	3 253	3 301	3 347
M Tk	29 607	21 069	22 435	18 141	21 028	26 407

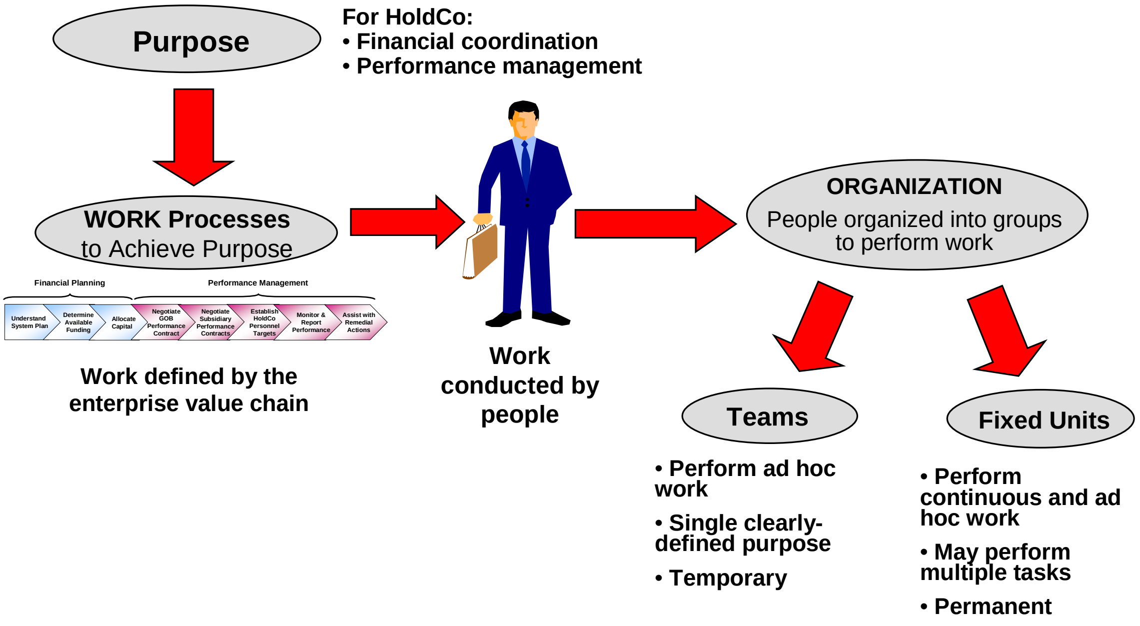
4. ORGANIZATIONAL DESIGN

4.1 ORGANIZATIONAL DESIGN PRINCIPLES

Organizational structure is the configuration of the hierarchical levels and specialized units and positions within an organization, and the formal rules governing these arrangements. This section describes some of the principles of organizational design that are relevant to HoldCo.

As shown in Exhibit 4.1, organizations should be structured around the work to be performed. The purpose of an organization defines its value chain and work processes. Organizational units can be designed around these processes as either ad hoc teams, or as permanent structural units depending on the nature of the work (e.g. on-going vs. temporary, single task vs. multiple tasks, etc.)

Exhibit 4.1: Work Processes Define Organizational Structure



By designing an organization in this manner, the resulting organization achieves the following characteristics:

- **Lean.** An organization should not be top or bottom heavy. By designing an organization around the work it does helps ensure optimal staffing levels since staffing inherently reflects only what is necessary to conduct the work.

- **Performance-focused.** Delineating organizational groups according to the work to be performed focuses the organization on performance. It facilitates the clear allocation of authority, minimizes hand-off of work between units, and enables the key performance indicators for various work processes to be readily mapped to organizational units. This helps build a performance culture at all individual and organizational levels.

- **Adaptable.** As the business environment changes, the work that is done changes. By designing the organization around work performed facilitates adaptation of the organization to changes in the business environment. Technological developments, shifts in customer needs and prevailing circumstances may over a period of time trigger changes in the design of the organization, which helps ensure effectiveness.

By designing the HoldCo organization in this manner, HoldCo can serve as a role model for organizational effectiveness and become a leader in the sector. In will enable it to focus on its core activities and deliver outstanding results for others to emulate.

4.2 ORGANIZATIONAL STRUCTURE

4.2.1 Overview of HoldCo's Organizational Structure

Exhibit 4.2 maps the HoldCo value chain to high-level organizational units as follows:

- ***Financial Planning Department*** is responsible for the financial planning function of HoldCo in its entirety. This includes activities for understanding the system plan, determining available funding, and allocating capital. Given the complexity of this task, the need to communicate with numerous stakeholders (e.g. Government, SubCos, development partners, private financial institutions, etc.) this will be a continuous activity and hence is structured as a fixed department.

- ***HoldCo Performance Contract Team.*** On the other hand, negotiation with the Government regarding the Government-HoldCo performance contract will occur during only a single, intensive period each year, and will draw upon many different parts of the organization for input. It is therefore structured as an ad hoc team.

- ***Performance Management Department*** is responsible for negotiating the HoldCo-SubCo performance contracts and then monitoring and reporting performance against those contracts. By making a single department responsible for both the negotiation of the performance contracts and the subsequent monitoring and reporting will help ensure that SubCo targets are SMART. Separating negotiating organizationally from monitoring would allow for the possibility that the monitoring unit could blame the negotiating unit for failing to establish targets that were measurable.

- ***HR Cell*** will take some of the outputs from the Performance Management Department to develop targets and implement the EPMS for HoldCo staff. However, since this is a relatively small supporting activity, it is relegated to a cell rather than a full-fledged department.

- ***Programs and Projects Department*** will provide remedial assistance to poorly performing SubCos. It will have a critical job during the early years of HoldCo in helping ensure the readiness of various BPDB operations to become HoldCo subsidiaries.

In addition to these units corresponding to elements of HoldCo's value chain, the CEO's office will also be supported by the following Cells or units:

- Legal and Company Secretary Cell

- Human Resource and Training
- Corporate Communications

Further there shall be an Internal Audit cell reporting directly to the Board of Directors.

Exhibit 4.2: Defining Key HoldCo Units Around Its Value Chain

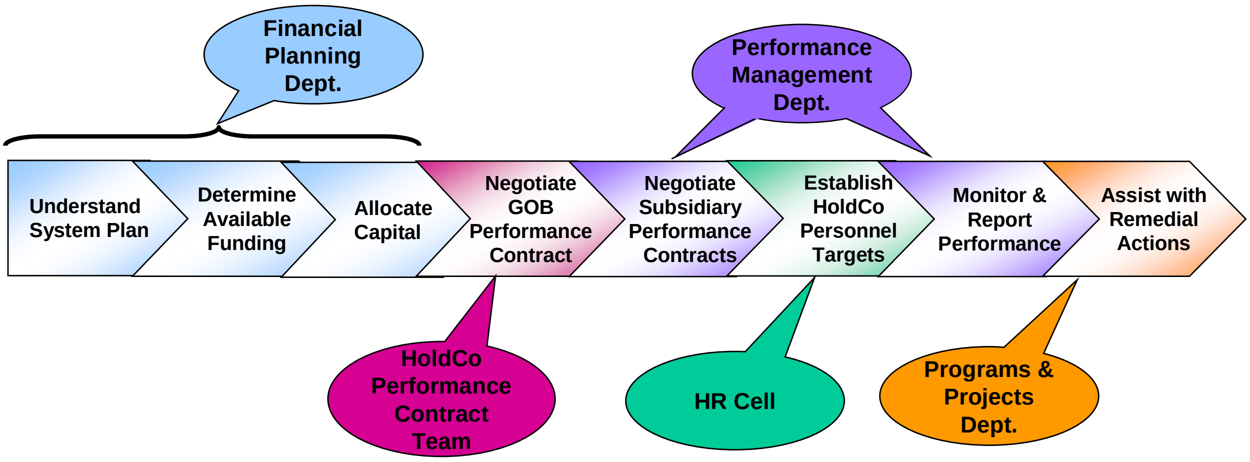
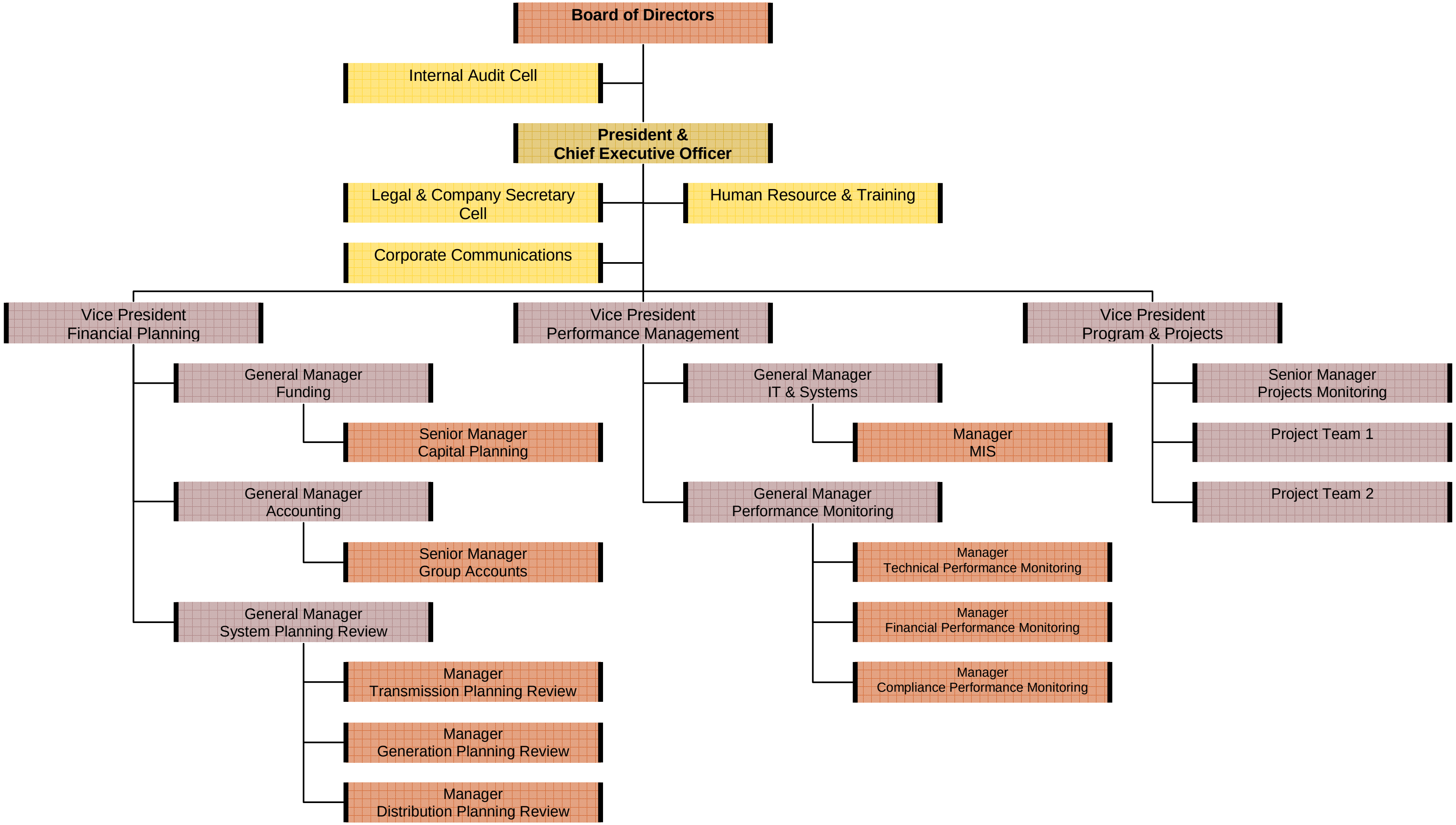


Exhibit 4.3 provides a complete picture of the entire HoldCo structure building out from this value chain analysis. This organizational structure has only been proposed down to the level of Manager. As senior managers are recruited and the organization starts to operate, it would be prudent for them to decide their down-the-line staff requirements based on the actual load of work. Nonetheless, the addition of staff should be based on the overall organization design principles described above.

The functions of each of these departments and cells are described in further detail in the following sections. In addition, the complete organogram of each of these departments and cells are also given.

Positions like that of Office Help, Peons, Drivers etc. should all be outsourced to a Facilities Management company to keep overall costs down and the organization lean. It will also help the HoldCo in focusing on the core and ensuring efficiency of such staffers through a contract with such Facilities company.

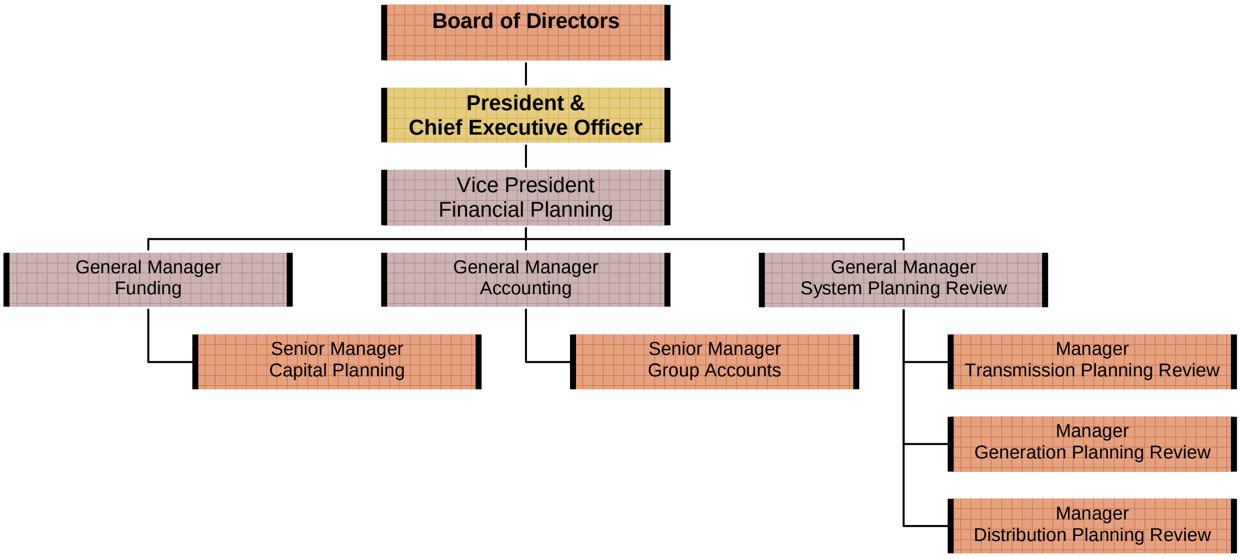
Exhibit 4.3: HoldCo Organizational Structure



4.2.2 Financial Planning Department

Exhibit 4.4 depicts the Financial Planning Department.

Exhibit 4.4: The Financial Planning Department



The Finance Planning Department will have the following distinct functions, each led by a General Manager:

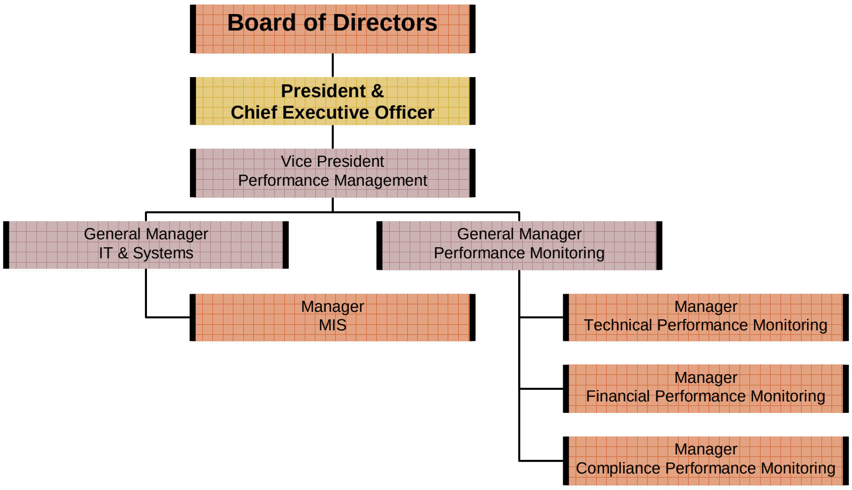
- Funding
    - Identify the financing requirements including Capex, loans, repayments etc. for the subsidiaries
    - Negotiate terms with subsidiaries for their financing requirements
    - Identify sources of funds and conduct negotiations with funding agencies on terms
    - Allocate available funds (e.g. on the basis of ranking projects by return on investment) to establish capex for each subsidiary
    - Treasury - Monitor net position and Deposit temporary surpluses
    - Banking & insurance including maintaining and managing banking relations
    - Negotiate to obtain best terms with local / International banks
    - Negotiate terms for insurance and obtain necessary guarantees
    - Insure the subsidiary and where applicable HoldCo assets
- Accounting

  - Group Accounts consolidation
  - Short and Medium term financial projections and cash flow budgets
  - HoldCo Finance and Accounts
  - Group Asset Management
- System Planning Review
  - Obtain and review the system plan
  - where appropriate, assist the system planner and/or SubCos with development of the plan(s)
  - Analyze the system plan and query SubCos to ensure consistency and understanding of dependencies
  - Provide project costs estimates and dependencies to General Manager (Funding)

4.2.3 Performance Management Department

Exhibit 4.5 depicts the Performance Management Department.

Exhibit 4.5: The Performance Management Department



- IT & Systems
  - IT strategy and plans across HoldCo and Subsidiaries
  - MIS
  - Develop, manage and maintain data and reporting systems
  - Analyze and evaluate system requirements across HoldCo and Subsidiaries

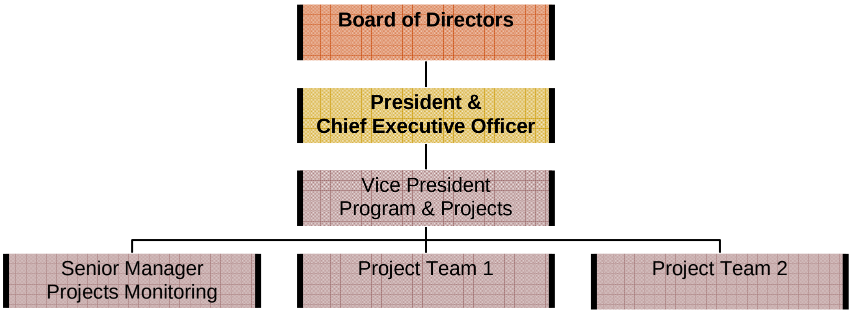
- Performance Monitoring
    - Set benchmarks
    - Prepare and negotiate HoldCo-SubCo performance contracts and evaluation criteria including promoting adoption of best practices.
    - Collect, collate and analyze data with regard to evaluating performance against set targets
    - Monitor performance of HoldCo and Subsidiaries on Performance Contracts drawn up
    - Ensure compliance across HoldCo and subsidiaries in meeting norms related to environment, human resources etc.
    - Audit performance contract related issues across subsidiaries
    - Group budget and expenditure monitoring against targets

4.2.4 Program and Projects Department

The Program and Projects Department will have few regular employees. Special Project teams will be formed either through deputation or secondment from either other departments within HoldCo, from the subsidiaries, or from subcontractors and consultants. These project teams will be staffed by specialists in different areas who will bring their expertise for the duration of the project. The regular employees of the department are likely to be power sector generalists with solid project management skills. Typically the Project Team will get disbanded on completion of the project and employees will return to their original employment.

Exhibit 4.6 depicts the Program and Projects Department.

Exhibit 4.6: The Program and Projects Department



- Projects Monitoring
    - Review, monitoring and implementation of multi lateral donors / government funded projects at HoldCo and Subsidiary level
    - Prepare project plan, terms of reference for new projects

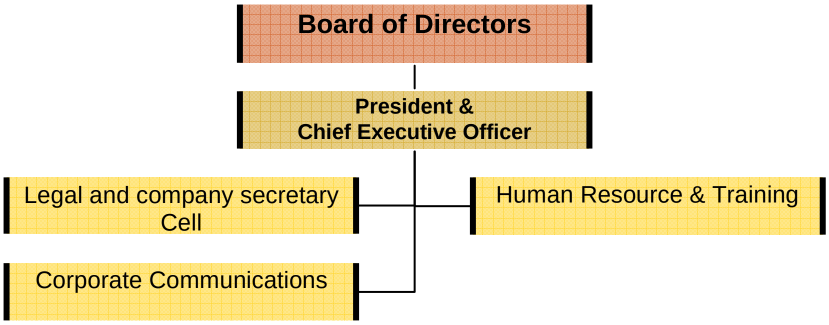
  - Identify, initiate and lead new efficiency improvement or remedial programs with subsidiaries
  - Develop and document key processes to ensure better coordination between the Subsidiaries and the HoldCo, and establish a respository of “best practice” knowledge for the sector.

4.2.5 President and CEO Office

The President and CEO’s office is supported by distinct cells / units. These units shall directly report to the CEO’s office independent of the other departments. These cells / units will usually be headed by a Manager / Senior Manager and are classified as support function and will generally have fewer staff down the line.

Exhibit 4.7 depicts the Office of the President and CEO.

Exhibit 4.7: The Office of the President and CEO



- Legal and Company Secretary Cell
  - Ensuring the Group's compliance with legal and regulatory requirements
  - Provide advice in relation to the Group's acquisitions, disposals and other corporate and contractual transactions, whether financial or otherwise
  - Providing legal support to the Subsidiaries
  - Maintaining Shareholder relations including register of shareholders and monitoring changes in share ownership
  - Represent the HoldCo at the Registrar of Companies
  - Arrange Annual General Meetings, prepare agendas, Minutes of the meeting and assist in the production of company annual reports
  - Developing and overseeing systems that ensure company’s compliance with all legal and statutory requirements
  - Monitor changes in relevant legislation and regulatory environment and take appropriate action

- Human Resource & Training
    - Design, develop and implement Human Resource Strategies consistent with the business objectives of the HoldCo.
    - Establish principles of HR management in SubCos
    - Recruitment, human resource planning, training and development, performance management, remuneration and staff benefits in HoldCo
    - Ensure compliance with all regulatory, legislative and contractual obligations as an employer in HoldCo and SubCos
    - Develop training and development strategy
    - Training needs analysis to determine organizational and individual training needs including preparation of annual training plans
    - Monitor, evaluate and modify training and development programs
- Corporate Communications
    - Create, implement and oversee communication programs that effectively describe and promote the organization and its objectives
    - Prepare presentations for effectively communicating company programs and policies to employees and other stakeholders
    - Liaison with and build relations with media and other bodies to manage the corporate image including preparation of publicity and press materials
    - Manage internal and external corporate events and ensure the event meets its intended objective
    - Provide corporate communications support to subsidiaries as and when required

4.2.6 Board of Directors Office

- Internal Audit
    - Advise on, formulate internal audit policy and monitor the achievements of the organizational objectives including identification, assessment and management of risks to those objectives
    - Ascertain the integrity and reliability of financial and other information provided to management and stakeholders, including those used in decision making for the HoldCo and the subsidiaries
    - Review Internal Audit report of the Subsidiaries and present relevant findings to the Board and management of HoldCo.

- Lead and manage a team of auditors to conduct regular audit and checks across the company
- Add value by acting as a facilitator in business risk management and carrying our value for money reviews, thereby assisting the management and the Board of the HoldCo in the effective discharge of their responsibilities.

4.3 AN ALTERNATIVE HOLDCO STRUCTURE

BPDB personnel also put forward an alternative HoldCo structure for consideration. This alternative is shown in Exhibit 4.8. The principal differences between the proposed structure presented in the preceding section and this alternative are as follows:

- In the alternative, performance monitoring is split into two departments, one for generation and transmission, the other distribution. There are three concerns with this approach:
  - ***Consistency of metrics and measurement***. The corporate performance management system requires consistent definition of performance metrics, and implementation of systems that can ensure timely and accurate compilation of this data across all subsidiaries. Splitting this function between two departments could result in unbalanced monitoring, with some subsidiaries receiving targets that are more difficult to meet or measure than other subsidiaries. A single department for performance monitoring is required to ensure uniform development of metrics and application of measurement systems.
  - ***Consistency of rewards***. The performance monitoring function of HoldCo will agree the performance contracts with the SubCos. Splitting this function between departments will complicate the development of a reward system that can objectively allocate rewards according to the contribution of subsidiaries towards achieving HoldCo targets agreed with the Government. If the function is split between departments, each department will seek a greater share of the reward “pool” for the subsidiaries it monitors. A single performance monitoring department is required to ensure that rewards are allocated uniformly and consistently across subsidiaries based on their individual contributions towards overall HoldCo targets agreed with Government.
  - ***Risk of subsidiary “capture”.*** This is the most serious concern. By creating separate departments along the value chain, these departments are likely to start controlling the entities they monitor. The HoldCo organization begins to look much like the existing BPDB, which is incompatible with the objective of promoting autonomy with accountability among operating subsidiaries. HoldCo is to impose accountability on SubCos, not control them, and the risk of control increases by structuring HoldCo to mirror the operations of unbundled SubCos rather than providing an overarching performance monitoring function. HoldCo senior management may well serve on the Boards of Directors of the SubCos, and Managing Directors of the SubCos would consequently report to them as a matter of corporate governance.

However, HoldCo senior management will not line manage personnel in the SubCos.

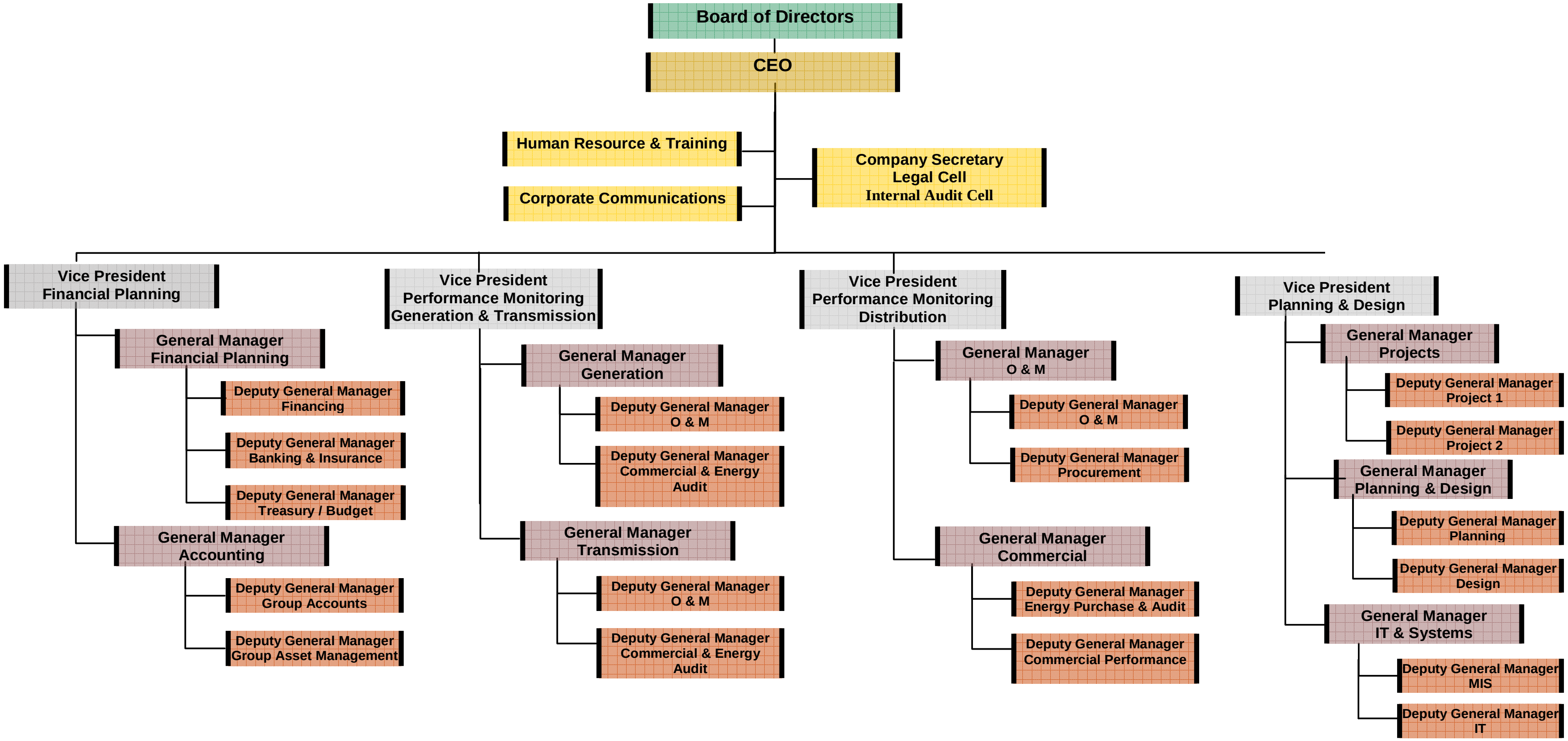
- Within each of these new departments, divisions are established for O&M and Commercial. But the HoldCo is not involved in operations. There is no need for O&M or Commercial divisions as these only replicate the structure of the operating companies. Rather, it is more appropriate to arrange these divisions according to their performance monitoring functions such as accounting/finance, technical, and other compliance (e.g. environmental). Accounting/finance monitoring and other compliance monitoring is likely to be largely the same across subsidiaries. An accountant can review the financial reporting of a distribution company as well as a generation company, and an environmental engineer needs to be familiar with overall environmental regulations than any particular value chain segment of the electricity industry. Performance monitoring of technical parameters will take place at a relatively high level. It is not necessary to have experts in generation or distribution, but rather generalists who can set up effective reporting systems within the subsidiaries.

- In the alternative, the system planning review is moved out of the Financial Planning Department, and clubbed with programs & projects in a new Planning and Design Department, which replaces the Program and Projects Department. This modification would be a concern because there would no longer be a single department responsible for preparation of the financial plan. The financial plan is based on the integration of system planning considerations (the optimal expansion plan) with funding constraints (which determines feasibility). This split would dilute accountability for sound financial planning and coordination across the Group.

- In the alternative, IT & Systems is moved out from the Performance Management Department and into the Planning & Design Department. The most important function of the IT & Systems division is provision of infrastructure to facilitate performance monitoring. Keeping it within the Performance Management Department ensures a user focus. There is no obvious reason for moving it to the Planning & Design Department other than it does not fit better anywhere else.

Overall, the alternative structure defeats the purpose of HoldCo, since HoldCo is intended to promote autonomy with accountability, not command and control the subsidiaries. It is supposed to drive performance of the operating companies, not be the operator. It provides optimal financial coordination, not system planning. In short, it is a model for better governance and commercial orientation of the sector, rather than a continuation of the status quo.

Exhibit 4.8: Alternative HoldCo Organizational Structure Proposed by BPDB Personnel



- Board of Directors
  - CEO
    - Human Resource & Training
    - Corporate Communications
    - Company Secretary
Legal Cell
Internal Audit Cell
    - Vice President Financial Planning
      - General Manager Financial Planning
        - Deputy General Manager Financing
        - Deputy General Manager Banking & Insurance
        - Deputy General Manager Treasury / Budget
      - General Manager Accounting
        - Deputy General Manager Group Accounts
        - Deputy General Manager Group Asset Management
    - Vice President Performance Monitoring Generation & Transmission
      - General Manager Generation
        - Deputy General Manager O & M
        - Deputy General Manager Commercial & Energy Audit
      - General Manager Transmission
        - Deputy General Manager O & M
        - Deputy General Manager Commercial & Energy Audit
    - Vice President Performance Monitoring Distribution
      - General Manager O & M
        - Deputy General Manager O & M
        - Deputy General Manager Procurement
      - General Manager Commercial
        - Deputy General Manager Energy Purchase & Audit
        - Deputy General Manager Commercial Performance
    - Vice President Planning & Design
      - General Manager Projects
        - Deputy General Manager Project 1
        - Deputy General Manager Project 2
      - General Manager Planning & Design
        - Deputy General Manager Planning
        - Deputy General Manager Design
      - General Manager IT & Systems
        - Deputy General Manager MIS
        - Deputy General Manager IT

4.4 GRADING STRUCTURE

A lean grading structure has been formulated to keep the organization hierarchy flat as much as possible while at the same time allowing staff enough growth within a reasonable time to keep them motivated to achieve the organizational goals.

In the prevailing system, most corporations in the power sector follow a twenty grade hierarchy which at times can become a hindrance to career growth. The proposed grading system reflects a reduction in the number of layers in the management hierarchy and also widens the span of command of senior roles. This will provide the staff with enough responsibility and authority to perform their roles better.

In line with the above, a fourteen grade structure for Line and Support staff has been formulated. The grades are laid down in the HoldCo Human Resource Manual presented as Supplemental Appendix C.

4.4.1 Grade Entry Points and Qualification Requirements

Entry point qualifications have been created as a reference and guideline for HoldCo to undertake fresh recruitment from the market. These indicative qualifications across each grade serve as means to define qualifications for new hires in the HoldCo organization. HoldCo requires highly trained employees and will likely need to seek qualified resources from the market to help build its human capital, since at least some of the functions of HoldCo are not currently performed by BPDB.

There could be situations where the required qualification may not be readily available in the market, or entry grade criteria are not met in cases of transfer of otherwise qualified staff from BPDB. In such situations the practical experience of the candidate must be taken into account in addition to his/her basic qualification. HoldCo management must exercise their wisdom whether to lower the qualification requirement in order to hire a particular individual who brings the relevant experience in the required field. The aim at all times must be on organizational capacity building.

The entry point qualification across each grade is mentioned in the HoldCo Human Resource Manual presented in Supplemental Appendix C.

4.4.2 Job Descriptions

Job descriptions for key positions are attached provided in Appendix G.

4.5 SALARY STRUCTURE

The proposed compensation and benefits for HoldCo are based on analysis of salary and benefit data from the following organizations:

- Bangladesh Power Development Board
- Power Grid Company of Bangladesh Ltd
- Dhaka Electric Supply Company Ltd
- Electricity Generation Company of Bangladesh Ltd

- West Zone Power Distribution Company Ltd
- Ashuganj Power Station Company Ltd

These HoldCo salary recommendations are therefore based on comparative remuneration data in the sector for similar sized organizations, and for positions with similar levels of accountability and responsibility within Bangladesh.

There is an underlying assumption that improvements in remuneration will contribute in a significant manner in improving overall levels of performance within the organization. Individuals should be compensated for real levels of improved performance within a normal (forty-hour) week. Longer hours of work do not equate with increased efficiency. If longer hours are required it should be because workload has increased short term. If workload increases long term, more staff is required.

Proper performance related rewards must not be diluted to make them appear more "equitable" to employees, attempt must be to reward good performance and set measures for improvement in situations of non-performance.

4.5.1 Principle of devising salary structure

The HoldCo salary structure should be set at a market competitive level to attract key skills and to reward the increased levels of performance that will be required. In order to develop a total rewards framework it is necessary to consider the following:

- Organizational values - what is the key focus and culture of BPC
- Individual needs and aspirations - ensuring the successful recruitment, reward and retention of staff in order to meet organizational goals
- Internal Relativities - ensuring similar positions within the organization are rewarded in similar ways
- External Relativities – ensuring that similar positions with other organizations in the market are rewarded in similar ways.

ORGANIZATIONAL VALUES

The key reasons for the creating the HoldCo are to:

- Provide strategic guidance and coordination across the sector, particularly through the allocation of funding
- Drive performance of the subsidiaries through its authority as shareholder of the subsidiaries, so as to meet objectives of the HoldCo shareholder, i.e. the Government.

The performance orientation in particular manifests itself through a culture of accountability, transparency and commercial thinking. These are values which are central to the creation of HoldCo and in ensuring effective change. It is important that these values are propagated not only within HoldCo but down the line to the subsidiaries. The compensation system must also build on these values.

INDIVIDUAL NEEDS AND ASPIRATIONS

HoldCo will face an immediate challenge in attracting personnel with the appropriate skills and capabilities. Its attractiveness as an employer will depend on the opportunities it as an organization can offer to potential applicants. As a performance-oriented organization it will need to attract the highest performers, to operate in possibly the most sophisticated commercial environment in the Bangladesh power sector. Remuneration and rewards will be key, together with job satisfaction and opportunity for development as individuals.

INTERNAL RELATIVITIES

An initial assessment of recommended positions has been carried out on the basis of:

- Level of knowledge required to do the job
- Amount of problem-solving required to do the job
- Level of accountability of the job holder

Most of the employees will have to bring a significant amount of not only years of experience but preferably cross-sectoral experience in their respective functional fields. For example it is assumed that some of the Vice Presidents of the HoldCo will hold Board of Director positions in the Subsidiaries which would mean that the Managing Directors of these Subsidiaries will report to them in the course of corporate governance. It is therefore important that they bring in experience by virtue of which they can contribute effectively to the operation of the Boards they sit on, hence a distinction in salary needs to be made because of additional job complexity.

EXTERNAL RELATIVITIES

Supplemental Appendix E presents approximate salary data collected from both private and public sector organizations within Bangladesh. Comparisons have been made to match positions as accurately as possible however this data is indicative only. Jobs have been matched on the basis of job scope, not necessarily job title.

The comparisons shown are on the basis that these are corporate structured institutions in the sector and have similar complexities in attracting and recruiting the right level of staff. However it is important to note that none of them face the complexity of operations of the new HoldCo, which must have a very strong strategic, managerial and commercial focus for the sector.

4.5.2 Proposed Salary by Level / Grade

HoldCo must provide market competitive salaries and benefits if it is to attract the correct caliber of staff, and it being one of the most complex entities in Bangladesh, must pay at a rate which is better if not the best in the market. HoldCo will be a sophisticated organization, and significantly more so than any other entity in the power sector and the pay structure should be reflective this.

The proposed salary structure along with principle assumptions are described in Supplemental Appendix F.

4.6 STAFFING PLAN

The staffing plan puts forward the expected number of employees required to fill out the organizational structure, consistent with the functions of the organization. As mentioned previously, drivers, peons, and other low-level workers can be contracted from an agency, and hence are not included in this analysis.

The HoldCo will not be a large organization by nature of its operations. It is there mainly to provide strategic and financial guidance to its subsidiaries and to monitor their performance, taking remedial action where appropriate. Most of its employees will be in the senior management category. It is anticipated that HoldCo will have between 50 to 100 professional staff.

The exact number of HoldCo staff must be determined by the Board of Directors in consultation with the President & CEO and where required the Vice Presidents of the HoldCo. It is therefore important that these senior positions are first filled in the HoldCo subsequent to which the future staffing needs of the organization in terms of people can be determined. The management cadre may determine that additional analysts or other professional staff are required. However, the principles of organization design must be maintained when assessing future manpower requirements, i.e. the organization must be lean and performance-focused. HoldCo must avoid evolving into a large, complex organization as this would defeat the purpose of its formation.

5. PERSONNEL TRANSFER AND RECRUITMENT

5.1 PRINCIPLES FOR STAFFING HOLDCO

Automatic transfer of employees from BPDB to HoldCo is not envisioned for the following reasons:

- HoldCo will be a lean, commercially-oriented and performance-driven organization. It will require a significant shift in culture and way of working to achieve its objectives compared to BPDB.
- BPDB does not currently perform the functions envisioned for HoldCo. HoldCo will be functionally different from any existing organization within the Bangladesh power sector. BPDB does not conduct integrated financial planning to optimize capital allocation, nor does it manage performance of its subsidiaries in the structured manner envisioned for HoldCo. BPDB maintains an engineering orientation, whereas HoldCo will aim for a business orientation.
- BPDB is a mammoth organization with around 1,588 employees at its Head office. Out of these, 458 employees are in Class I and Class II categories, whereas the HoldCo will have relatively small size (approximately 50 – 100 professional employees with low level support staff provided by contractors or agencies) in terms of number of employees. To select such small number of staff solely from the existing BPDB would be tedious and likely contentious, and could be subject to bias and undue influence.

Rather, it is proposed that HoldCo staff be hired afresh from the market. BPDB employees (or employees from the other power sector companies) are of course encouraged to apply. But selection should be based on the overall fit of a candidate with not only the specific requirements of the position, but also HoldCo's strategic direction, as articulated in its mandate, values, strategic planning and human resource planning.

The selection of staff should be based on the principle of **Merit** and **Fairness**. Merit will determine the applicants' competence and ability to do the job and refers to the closest possible match between the needs of the organization and the knowledge, skills, abilities, experience and personal attributes of a candidate. Fairness refers to a staffing process that is unbiased, impartial, just and honest and that treats all candidates consistently.

In assessing the skills and abilities necessary for HoldCo to meet its organizational objectives, the competencies listed below will help drive improved business performance. These personal qualities are required in the workplace to deal effectively with self, colleagues, and stakeholders. These competencies are in addition to the technical competencies noted in the job descriptions that are required to carry out specific work tasks, e.g. finance, accounting, planning, project management, etc.

These core competencies can be used for assessment, recruitment, performance, and managerial development purposes. The competencies will initially be applied at senior level management staff in HoldCo, but should be progressively cascaded down through the entire organization.

- ***Performance Focus***. Committed to exceeding targets and improving performance and does this by being creative and innovative. Links business plan goals and key result areas to fulfill stakeholder goals.

- ***Commercial Orientation***. Develops and implements innovative and robust business strategies which explore opportunities and display a thorough appreciation of the market and industry conditions, risks and anticipated stakeholder needs.

- ***Managing Change.*** Displays a positive attitude to change and persists in the face of ongoing obstacles and challenges by maintaining morale and enthusiasm.

- ***Teamwork.*** Leads, contributes to, and co-operates willingly with the team and promotes team spirit. Communicates needs clearly and effectively by clarifying responsibilities, goals and outcomes to be achieved.

- ***Leadership & Vision***. Actively promotes HoldCo's principles and the organization's strategies and goals internally and externally. Represents policies and decisions of HoldCo positively, and inspires others to adopt the principles and goals of the organization. Promotes and adopts the creation and implementation of innovative approaches, new ideas and methods. Able to consider requests to change plans and goals with an open mind, and to evaluate others' views logically.

5.2 TRANSFER AND RECRUITMENT PROCESSES

All positions including the President and CEO and down the line should be done through a competitive recruitment process. As mentioned above, no internal automatic transfer process from BPDB to HoldCo is envisioned. External help of an executive search company may be employed to identify potential candidates for different vacant positions as it will speed up the process and reduce the administrative burden. All recruitment must be done using the principles of Merit and Fairness and must incorporate the competencies framework as part of the evaluation criteria. As mentioned earlier, BPDB employees will be given due consideration during the selection process but they will have to apply for positions which are created within the HoldCo.

The recruitment process is designed to:

- Facilitate the appointment of suitable employees in the most efficient, transparent and effective manner
- Provide a systematic induction of qualified people and eliminate ad hoc recruitment
- Ensure that the most qualified, competent, and experienced people are hired for the job

The recruitment process has been detailed in the Human Resources Manual presented in Supplemental Appendix C. The process follows these steps:

- Vacancy Announcement

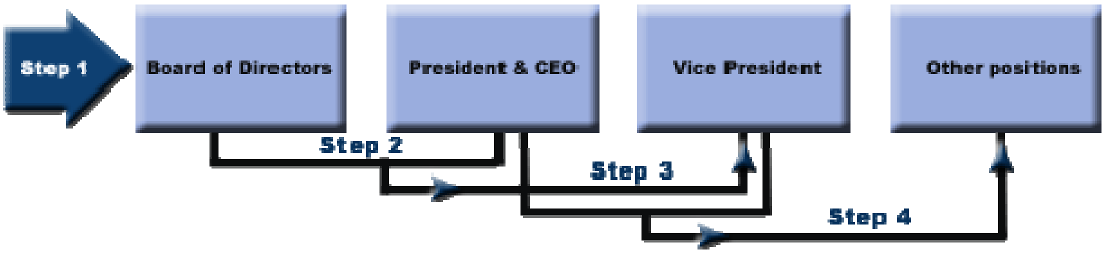
- Preliminary Screening

- Functional Screening
- Shortlist Announcements
- Interview and Selection
- Appointment letter
- Probation period

5.3 PERSONNEL TRANSFER & RECRUITMENT IMPLEMENTATION PLAN

A four-step, cascading process for recruitment should be undertaken to appoint key personnel in HoldCo as shown in Exhibit 5.1.

Exhibit 5.1: The Cascading Recruitment Process



To help speed up the process as well as help reduce the administrative burden generally associated with senior level recruitment, an external executive search company may be engaged, especially to identify and assist in hiring of senior level staff in the HoldCo.

The appointment of a Board of Directors as representatives of the shareholders of HoldCo is the first step in the organizational staffing. The Board will require the commercial skills and experience needed to oversee the strategic direction and monitor the performance of the Subsidiaries and the HoldCo. The process for appointment of Board members is described in the Articles of Association given in Appendix C. The initial Board should be designated within a month of Government's efforts to form the company.

Once the Board of Directors has been appointed the next step would be to conduct search for the President and CEO. The Board will constitute a selection committee that will be responsible for conducting interviews and making recommendations on suitable candidates. The Board will meet to consider the recommendations of the committee and make the appropriate choice and determine the terms and conditions of service for the incumbent and make an offer of appointment. The appointing authority shall be the Board of Directors. This process should be complete within 3 to 4 months of the Board taking up its duties.

The next step would be to appoint the Vice Presidents in the HoldCo. The Board of Directors will constitute another selection panel to select the Vice Presidents in the HoldCo. The President and CEO shall be a part of this selection committee and will make recommendations to the Board. The Board will then make appropriate choice and offer appointment to selected candidates as per rules. The appointing authority shall be the Board of Directors. This process could begin in parallel with the search for the President and CEO, but will not be finalized until the new President and CEO has had the opportunity to review and provide inputs on the candidates for Vice President. Therefore, it is expected this process will be complete within 4 to 6 months of the Board taking up its duties.

Once the President and CEO and the Vice Presidents have been inducted into the HoldCo they will go ahead with the recruitment of other members of the organization down the line. Such recruitment shall be based on the proposed organogram and will be guided by both the principles of organization design and the principle of staffing. Authority to recruit and appoint may be given to down the line staff through the written permission of the President and CEO for all positions below the rank of General Manager. For all positions up to the level of General Manager the President and CEO shall be the appointing authority. The Vice President will be the appointing authority for all positions below the level of a General Manager. This process can only begin once the President and CEO as well as the Vice Presidents have been appointed. It is expected this will be complete 7 to 12 months after the Board first takes up its duties.

5.4 SOCIAL IMPACTS

The creation of HoldCo is motivated by the goals of improving financial coordination within the Bangladesh power sector, and driving the performance of operating entities through greater accountability. As described in Chapter 2, HoldCo will be established as a non-operating holding company that owns the current and future operating companies created from BPDB. As discussed further in Section 10.1, the vast majority of BPDB personnel will be transferred to the new operating companies. Those remaining in the BPDB Head Office will remain with the residual BPDB, which at some point may be corporatized as a new Single Buyer Company. As part of that process, these employees may be offered a voluntary retirement scheme (VRS), but as also discussed in Section 10.1, given the limited number of employees that will be affected relative to total BPDB employees, these all employees could likely be absorbed in the successor entities. However, none of these employees will be directly affected by the creation of HoldCo.

Unlike many corporatization efforts in which existing organizations are made public companies thereby leading to direct impact on the workforce including retrenchment, the current effort of BPDB corporatization is to create a new company as a holding company and bring different power sector entities under the umbrella of this holding company as these entities become ready for changes. BPDB retains its single buyer role.

This effort effectively minimizes the direct social impact. None of the existing employees in the near term in BPDB will be affected. There will be no direct loss of employment or repositioning because of this effort. Further, it will provide the current employees with an opportunity to seek new jobs with the HoldCo through a competitive hiring process.

Establishment of HoldCo will have a positive impact. It will entail creation of higher-quality jobs. It will also help provide broader social benefits as these changes will contribute to meeting the Government’s aim of bringing efficiency in the sector and promoting social and economic growth in the country by making power available to all.

6.1 CONDITIONS OF SERVICE

The conditions of service lay down the general terms on which employees will be appointed to employment in HoldCo. The newly corporatized bodies of the power sector have adopted a system of hiring regular staff on contract. Generally these contracts vary in tenure from one year to three years. In some cases a newly corporatized company took employees on lien from the BPDB and retained on lien for a few years before an option was given to them to either remain with BPDB or transition to regular employment with the corporatized body. This was done to promote continued satisfactory performance among the employees.

It is proposed that this system of hiring on contract be done away with in HoldCo except when the employment is genuinely of a fixed duration, or except when it is for lower level support staff contracted through an agency. All other employees should be hired on a full time basis if the nature of employment is regular and permanent. Performance is not driven by the threat of losing one's job. Rather, the organization must build up a comprehensive performance management system which should drive performance with positive incentives, and this should be linked to an employment agreement which allows the organization to take action against continued non-performance. Regular employment provides security to the employees enabling them to take long-term view about their individual careers and helps the organization in building competencies over a sustained period of time.

Supplemental Appendix C, the Human Resources Manual, describes the conditions of service that govern the employment of all HoldCo personnel.

6.1.1 Categories of Staff

There will be the following categories of staff within the HoldCo.

- Regular Employees. Employees whose nature of job is regular and permanent, and the employee shall remain in employment until either superannuation from the services on attainment of superannuation age or on termination / resignation from services of the HoldCo before the attainment of superannuation.

- Contract Employees. "Contract Employee" means any person with requisite qualifications, experience and particular skills necessary to carry out responsibilities of the job for a fixed tenure or term as contained within certain terms and conditions laid down in his/her contract with the HoldCo. The employment in such cases will terminate on expiry of the contract duration unless specifically extended.

6.1.2 General Terms and Conditions of Service

All regular employees must be appointed through an appointment order which must be signed by the appropriate Appointing Authority. The appointment order must contain the following information. A sample appointment order is enclosed in Supplemental Appendix G:

- Date of start of services

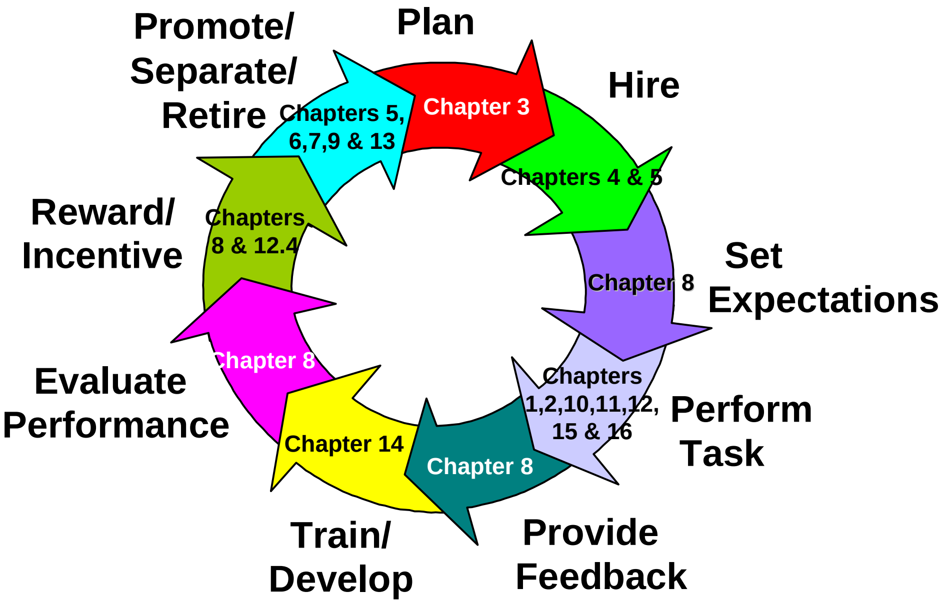
- Details about Designation and Grade
- Full salary details with reference to all components of salary and deductions thereof
- General guidelines on code of conduct
- Probation period
- Appraisal and confirmation cycle
- Bonus and Increment
- Place of posting and work timings
- Confidentiality

The appointment order requires the candidate to accept and abide by the HoldCo Human Resources Manual presented in Supplemental Appendix C.

6.2 THE HR MANAGEMENT CYCLE

The HR management cycle as shown in Exhibit 6.1 represents the entire range of HR management activities. The chapters indicated in the exhibit refer to the corresponding section of the HoldCo Human Resource Manual presented in Supplemental Appendix C. The Manual addresses all elements of the HR management cycle.

Exhibit 6.1: The HR Management Cycle



The Human Resource Cycle starts with planning of HR needs, and proceeds to hiring (recruitment or transfer) and the various elements of the EPMS. In addition, there are elements that govern the actual performance of tasks, as well as training and development.

This manual is ready to use and can be implemented in the new company right from the time it is formed or comes into existence. It details various processes under the Human Resource Management Cycle in depth and lists various levels of Authority and Accountability in the new company.

7. TRAINING NEEDS ASSESSMENT

This review of the training and development needs of the HoldCo is based upon the following review, data, analysis, and research:

- A review of the proposed organizational structure of the HoldCo
- The HoldCo staffing plan
- HoldCo roles and functions
- Review of the various training institutions under BPDB

7.1 THE CURRENT SITUATION

BPDB's current training and development program contains a number of separate initiatives. There are six (6) training institutes under the Training Directorate of BPDB which conduct various training programs for the power sector. These programs are mostly of short duration. The Training Directorate under the BPDB is responsible for design and delivery of various short and medium term courses in these institutes.

The programs conducted by the Training Directorate are heavily weighed in favor of technical programs though some management programs are conducted too, the latest being programs on total quality management (TQM) conducted by the Regional Training Center, Tongi.

Feedback on training programs and their applicability and response of the participants is mostly missing. Based on discussions and investigations conducted during the project it appears there is shortage of Trainers at these institutes.

7.1.1 Computer Training Center, Directorate of Training & Career Development, Dhaka

The Directorate of Training & Career Development office was created in the year of 1968 within the then East Pakistan Water and Power Development Authority (EP WAPDA).

With the increasing demand for computer literacy, initiative was taken to start computer training for the BPDB's personnel from this Directorate office. With this end in view a computer-training program was undertaken at the end of the year 1999 with a basic level course at the Directorate office. Initially training course on basic computer was conducted with only three or four PC computers. In 2006-2007, 230 personnel were trained on various courses of basic computer literacy at this training directorate. Courses available under the institute include training on Microsoft Word, Excel, Power Point, MS Project and Auto CAD

7.1.2 Engineering Academy, Kaptai

Engineering Academy Kaptai was established in 1964 by EP WAPDA. The main objective of the Academy is to conduct training for creating skilled manpower in the Water Development Board (WDB) and the Power Development Board (PDB). A committee formed with the officers from BPDB and WDB, runs the Management of the Academy, though administration of the Academy is controlled by BPDB. The institute runs courses on foundation or post-joining training for newly recruited officers, re-orientation course for officers having service experience of few years, and higher courses for officers having service experience of eight to ten years and seminars for senior officers.

7.1.3 Regional Training Center, BPDB, Tongi, Gazipur

The Regional Training Center (RTC), Tongi is one of the most important training installations under BPDB. The institute is within short periphery of the 80 MW Tongi Gas Turbine Power Plant, the Tongi 230/132/33KV Grid Sub-station and ZRS (Zonal Repairing Shop). RTC, Tongi has been playing a distinctive role in imparting technical as well as management, environment, occupational health related training to all sections of officers & staff of BPDB. RTC, Tongi has the best available opportunity to demonstrate the practical repairing & testing works of power & distribution transformers, calibration & testing of energy meters. TQM is the latest edition to the yearly training program of this training centre.

7.1.4 Regional Training Centre, Chittagong BPDB, Chittagong

Regional Training Centre, Chittagong was established in 1976. The first official activities of this Training Centre were started at Rahmatgong Sub-Station building premises in Chittagong. The main objective of this Training Centre is to conduct different training courses for both technical & and non technical officers/staffs of Chittagong, Comilla, Mymensingh and Sylhet region. To cope up with current needs, new courses like Total Quality Management, Training of Trainers. Fire Fighting Courses are conducted these days.

7.1.5 Ghorasal Training Centre, BPDB, Palash, Narsingdi

Ghorasal Training Centre is intended for training on power station operation and maintenance (O&M). It is located within the compound of the 950 MW Ghorasal Power Station (GPS). The Training Centre started in 1977 with an objective of training officers & staff of Ghorasal Power Station power station in O&M. Since then technical personnel at GPS as well as other power stations are being trained at this training centre.

7.1.6 Regional Training Centre BPDB, Rajshahi

Regional Training Centre, BPDB, Rajshahi was established in 1975 to train linemen serving under BPDB. It is located at two residential building of 33/11 KV Horogram (Mollapara) Sub-Station in Rajshahi. It has also been training helpers, security guards, linemen, foremen, and other support staff on technical & non-technical matters.

7.2 KEY ISSUES WITH THE CURRENT TRAINING REGIME

Current training programs administered by BPDB are characterized by the following:

- High Technical Orientation - The current programs at the various training institutes under PDB has very high technical orientation. As such development of management skills is limited at best.

- Quality of Course Content – There is no existing mechanism to check either the quality of the course content or the quality of delivery of the course.

- Training a Reward or Privilege - Training within BPDB has been viewed as a reward or privilege granted indiscriminately to assert power or position. Staff are frequently sent on training programs where their experience and role have no relevance to the area of training provided.

- Knowledge Capture - When training has been granted there has been no coordinated strategy to capture that learning by the BPDB. Therefore unless each individual has used his/her own initiative to disseminate the knowledge gained, the knowledge gets lost with the participant finishing his/her course. There is no organized repository of know-how available to all staff for reference.

- Post-Training Application - When new skills are gained there is no clear strategy to ensure training skills are practiced and improved upon. In many cases staffs do not have the opportunity to put training into effect at the local offices either because of lack of proper facilities or lack of initiative.

- Project Management Skills - Project Management skills and capabilities are limited. Individuals appear to be expected to gain skills and competencies as they carry out the job, rather than be given training in advance.

7.3 TRAINING RECOMMENDATIONS FOR HOLDCO

HoldCo functions focus on financial planning and coordination, and performance monitoring of the subsidiaries. It is therefore important that regular training and development is provided to the core staff to be able to perform their tasks responsibly and with effectively. The following programs are recommended

- Strategic Management fundamentals - including people management
- Financial Management
- Commercial Accounting
- IT Training including refinement of core computer skills
- Project Management

In addition to the above, twinning/internship arrangements should be made with similar organizations. A twinning arrangement would cover wider management aspects including health and safety, environmental, and human resource development and training, as well as financial planning. The company will "twin" with local key management, technical, and accounting staff in order to expose HoldCo staff to the relevant business practices, for utilities in a practical on the job training context. It could involve short term secondments between the organizations.

A specific training needs assessment can only be conducted once employees are in place and their job descriptions have been finalized. This will be the responsibility of the proposed Human Resource Cell. More broadly, it will cover all human resource management matters for HoldCo, including training and development and will cover technical, managerial, and competence based development as follows:

- Responsible for the design and implementation of a training and development strategy as part of the overall HR strategy and shall ensure that focuses on individual growth and organizational excellence.

- Develop a comprehensive Training and Development Plan that must be designed for every staff member within HoldCo, which will also form the basis for the review at the time of appraisal. It must also be linked to succession planning for the organization.

- Arrange twinning and internship to provide impetus to the training regime and provide experience/exposure to working operations.

8. FINANCIAL MANAGEMENT

8.1 OPENING BALANCE SHEET

Following receipt of the FRRP and subsequent Government decisions, HoldCo is to be incorporated in FY 2008 and is to acquire by 30 June 2009 the shares held by Government or its nominees in the following Government owned power utility companies:

- Ashuganj Power Station Co Ltd
- BPDB Power Generation Co Ltd (surrogate for all other BPDB power plants)
- Electricity Generation Co of Bangladesh Ltd
- Power Grid Company of Bangladesh Ltd
- West Zone Power Distribution Co Ltd
- Central Zone Power Distribution Co Ltd
- North West Zone Power Distribution Co Ltd
- South Zone Power Distribution Co Ltd

The latter three companies are in the course of being established as going concerns.

DESCO has taken over part of DESA's business in the Greater Dhaka region and a new company, Dhaka Power Distribution Co Ltd, has been formed to take over the remainder. It is not Government's intention that these companies should become subsidiaries of HoldCo at the same time as BPDB's subsidiaries, though HoldCo could acquire the controlling interest in them at some future time.

On the basis of the value of fixed assets used in the FRRP (a mixture of historic cost and cost restated prior to 2005) the net asset value of the above companies at 1 July 2009 is projected to be Tk 914,400 million. (Since the FRRP figures were prepared BPDB has adopted the IVVR values for fixed assets as at 30 June 2000. During this technical assistance fixed asset movements were updated to 30 June 2005 and values were restated to the same date.[22] These adjustments were not been taken into account in the FRRP projections, but have been incorporated here.)

For the purposes of HoldCo's financial projections the shares in the above companies other than PGCB have been valued at the projected net asset value at 1 July 2009. After excluding the minority shareholders' share of equity in PGCB[23] and valuing the remaining shares at market the total value of shares to be acquired is Tk 90,600 million.

HoldCo may purchase sundry items required for its offices from BPDB, or it may purchase new items. Either way, the amount to be spent is minor compared to the investment assets.

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[22] See Discussion Paper *Valuation of Fixed Assets & Investments* in Appendix H.
The total value of net fixed assets in service at 1 July 2005 was put at Tk 136,000 million. The restated IVVR value of the BPDB Group's fixed assets in service at the same date was Tk 193,465 million.

[23] 25 per cent. Since there is no basis for predicting the market value of PGCB shares in 2009 the existing premium is assumed to remain.

8.1.1 Working Capital

HoldCo’s working capital requirements are limited to the items mentioned above: purchase of initial assets and operating costs from commencement of business until dividends flow from SubCos.

The amount required will be minimized by recharging net operating costs to subsidiaries in proportion, say, to the value of investment in each. This should also ensure that the costs, although relatively small, are recovered in selling prices.

In the projections, it is assumed that Tk 15 million is subscribed by Government to cover capital expenditure and the first year’s operating expenses making the initial paid in capital of HoldCo Tk 90,615 million.

8.1.2 Loan Capital

The consideration for the subsidiary companies’ shares ultimately to be acquired by HoldCo should be satisfied by the issue of ordinary shares. The shares may be issued fully or partly paid. If the shares issued were deemed to be partly paid, future capital inputs agreed by Government and documented in the Performance Contract would be simply accomplished by paying up the shares in response to a call made by the Board.

It could be argued that the capital structure of HoldCo should be similar to that recommended for operating companies, viz, 60 per cent long term debt capital and 40 per cent equity. However, this raises issues of (a) interest rate and repayment term and (b) cash flow out of which to meet interest and principal repayments. While the FRRP projections indicate overall profitability of the sector and the possible extent of dividend payments experience suggests that delays in raising tariffs and securing other increases in sector cash flows may once again make debt servicing difficult or impossible.

There is no point in setting HoldCo up to fail as a result of recommending a high debt: equity ratio and there is no benefit to Government in receiving debt (bonds) instead of shares. The risk is that HoldCo will be forced to suspend debt service payments for lack of cash from subsidiaries, one of which has to find cash for dividends to minority shareholders.

SubCos should prepare capital investment plans and estimates of capital requirements, indicating clearly what portion they cannot finance internally or from capital markets and therefore need HoldCo’s assistance. HoldCo’s financial planning will take into account proposed capital contributions to be received through Government and may indicate the desirability of raising new debt or equity capital from the markets itself. It will do this only when it is assured of its, i.e., the Group’s, ability to service it.

8.1.3 Opening Balance Sheet

Based on the above considerations, the opening balance sheet as of 1 July 2009 shown in Exhibit 8.1.

8.2 FINANCIAL PROJECTIONS

The FRRP covers the sector excluding REB. The plan is supported by recommendations that include tariff reforms as well as balance sheet unbundling and restructuring and financial projections for 2006-2015 that are set out fully in Chapter 6.2 of the FRRP report. Major assumptions on which HoldCo's dividend stream depend include:

- Financial reconstruction recommendations are implemented
- Macro economic parameters (inflation and exchange rates and fuel prices) as stated in Table 6-1 of the FRRP
- Expansion of generation in line with the Power System Master Plan[24] as summarized in Table 6-4 and the energy balance in Table 6-2
- Sector CapEx and financing as set out in various tables
- O&M costs of each part of the sector also as set out in various tables
- Retail tariffs raised to give full cost recovery (or Government will make revenue up to full cost recovery if necessary) including a return of 10 per cent of net fixed assets in service.

The principal income of HoldCo is dividends from its subsidiaries. The FRRP includes financial projections and details of proposed dividend payments by the proposed subsidiaries of HoldCo.

Following Government guidance, the initial phase of restructuring leads to a holding company with a group of eight subsidiaries as set out in Section 8.1, Opening Balance Sheet. The Group initially excludes the two companies serving Greater Dhaka and the Single Buyer (the residual BPDB). The financial projections presented below take this into account.

In making financial projections for HoldCo the following other main assumptions are made:

- The opening balance sheet consists of shares in operating companies acquired from Government plus a small amount for fixed assets and working capital, all acquired in return for fully paid shares issued to Government[25]
- Net operating costs are recovered from subsidiaries
- Income tax is payable at 15% of net income before tax.

8.2.1 Dividend Policy

Dividends are paid by operating companies under the FRRP only if the following conditions are met by each company: it makes a profit; it has sufficient cash available; and has a debt/(debt + equity) ratio of less than 70 per cent.

The FRRP is otherwise silent on dividend policy. In the financial projections the average proportion of net profits distributed over the 10 years of projections by GenCos is 35 per cent and by DisCos 15 per cent. These proportions seem to reflect fairly the need for SubCos to retain funds to finance expansion, etc. PGCB does not meet the debt ratio condition during the projection period and as a result retains all its profits.

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[24] *Power System Master Plan Update*, 2006, ADB TA 4379-BAN: Power Sector Development Program II, Component B.

[25] The investment consists of the shares of companies other than PGCB at the net asset value shown in the FRRP plus the market value at June 2007 of 75 per cent of the shares in PGCB.

Since a proportion of projected profits is retained in the operating companies, it is appropriate for HoldCo to distribute all its profits to the shareholder and this is reflected in the financial projections for HoldCo.

The HoldCo Group's dividend policy should be agreed with Government and documented in the Performance Contract.

8.2.2 Financial Projections

Projected financial statements are presented in Exhibit 8.1. The balance sheet for 2009 is the opening balance sheet as at 1 July 2009. These projections are based on the FRRP (which was prepared in 2005), with subsequent incorporation of the above points. Changes that have occurred since the time the FRRP was prepared that are not specifically noted in the above points have not been reflected in these projections.

The projections allow for some small growth in operating costs over the period, all of which are recharged to SubCos.

HoldCo's profitability is low. It averages one per cent during FYs 2010-2012 and just over four per cent over the following three years. This reflects the projected dividend paying ability of SubCos.

Exhibit 8.1: HoldCo's Projected Financial Statements FYs 2010-2015

Item		2009 OBS	2010	2011	2012	2013	2014	2015
Income Statements								
Dividends received			788	1 221	1 505	5 255	2 804	5 574
Recharges			52	54	56	58	61	63
less								
Personnel & admin			50	52	55	57	60	62
Depreciation			2	1	1	1	1	1
Taxation			118	183	225	788	420	846
Net profit	**M Tk**		670	1 038	1 280	4 467	2 384	4 728
Balance Sheets								
Working capital		5	5	5	7	8	9	10
Fixed assets		10	10	10	8	7	6	5
Investments		90 600	90 600	90 600	90 600	90 600	90 600	90 600
Total Capital Employed	**M Tk**	90 615	90 615	90 615	90 615	90 615	90 615	90 615
Paid in capital		90 615	90 615	90 615	90 615	90 615	90 615	90 615
Retained profits								
Shareholders'Funds	**M Tk**	90 615	90 615	90 615	90 615	90 615	90 615	90 615
Cash Flows								
Funds from operations			672	1 039	1 281	4 468	2 385	4 729
Decrease in working capital								
Capital paid in		15						
Total funds available	**M Tk**	15	672	1 039	1 281	4 468	2 385	4 729
Increase in working capital		5			1	1	1	1
Dividends paid			670	1 038	1 280	4 467	2 384	4 728
Capital expenditure		10	2	1				
Total funds applied	**M Tk**	15	672	1 039	1 281	4 468	2 385	4 729

8.3 FINANCIAL MANAGEMENT PROCESSES

The principal financial management processes of HoldCo are:

- Planning and arranging Group finances (where not delegated to SubCo)
- Monitoring Group finances and financial results
- Protecting Group assets

Provision also needs to be made for accounting and budgetary control of HoldCo's own income and expenses, asset register, management reporting, filing financial returns, etc.

HoldCo's financial management structure should provide for the following functions:

- HoldCo financial accounting and consolidation of group financial statements
- Group financial and operational budgeting and performance reporting, monthly, quarterly and annually
- Group internal audit and risk management
- Group taxation, insurance, & compliance
- Oversight of group financial accounting systems
- Eventually, Group treasury operations.

The last two functions are expected to evolve as the working relationships between HoldCo and SubCos are developed and as the Group becomes progressively more reliant on its own ability to finance growth. Financial planning will involve close consultation with Government while the Group continues to remain dependent on it to fund the Group's cash deficits.

8.3.1 Planning and Arranging (where not delegated to SubCo) Group Finances

Planning and arranging Group finances – especially for new capital expenditure - is one of the principal functions of HoldCo. It is a function currently not performed in any systematic fashion across the Bangladesh power sector. Given the limited availability of capex funding for the sector relative to its needs, this is a critical function, necessary to optimize the allocation of these scarce financial resources.

HoldCo would prioritize capex projects proposed by the subsidiaries based on the overarching sector-level objectives laid out in its performance contract with the Government, and serve as the clearinghouse or coordinator between the SubCos and Government for securing these funds. This financial planning process entails the following activities:

- Establish procedures, including economic and financial evaluation analysis and criteria/thresholds, for approving capital investment proposals from SubCos

- Review and critique the system plan, including investments in generation, transmission and distribution. Determine linkages and dependencies between plan elements.

- Consolidate subsidiary projections and financing plans–capex, new loans, drawdowns, repayments – in light of the system plan.

- Solicit / identify sources of capex, including the Government and development partners, available to fund the system plan, and the terms of this funding.

- Screen and prioritize SubCos' capex proposals relative to the funds available, taking into account linkages and dependencies between all elements of the system plan, as well as relative contribution of each proposed capital project to achieving the overarching sector-level targets agreed in the performance contract between HoldCo and Government[26].

- Prepare a draft financial plan, describing which projects will be financed, by whom, and on what terms

- Present and drive consensus for the plan among Government, SubCos, and Development Partners.

- Facilitate implementation of the plan. The Government will naturally retain, at least initially, the role as principal financial conduit to the Group by lending and disbursing funds directly to the SubCos in accordance with the agreed plan. However, over time, the Government could increasingly begin to provide funds to HoldCo as debt and equity, in accordance with the agreed financial plan, and with full accountability for results per the performance contract. HoldCo would then on-lend or capitalize SubCos with the funds it receives.

Instead of vesting this function in HoldCo, it could be developed within Government. However, there are two principal problems with doing so:

- Government does not have the personnel. Execution of this function requires commercial and financial skills that Government does not currently have.

- Presumably, Government could try to hire such personnel and develop this function. But
    - This would be contrary to the objectives of reducing Government's role in the sector, increasing autonomy of operating companies, and promoting a more commercial orientation throughout the sector.
    - Government does not have, and is unlikely to ever have, a "performance contract" for personnel working within it. Consequently, it Government were to take on such a role, it would not be subject to the transparency or accountability that would apply if the role were vested with a corporatized entity subject to a

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[26] In fact, there may be iteration between the setting of targets in the Government-HoldCo performance contract, and agreement on the amount of capex to be provide to the Group, as the feasibility of achieving targets depends in part on the financial resources extended to the Group.

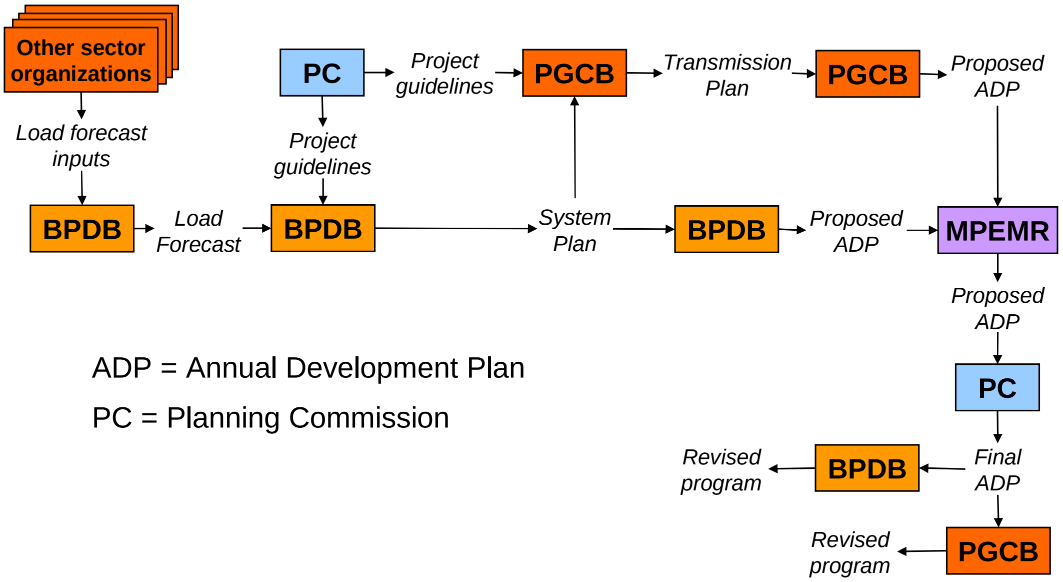
performance contract and other mechanisms of good corporate governance.

While the poor financial performance of the sector necessitates the Government's continued role in funding it (i.e. operating companies are unable to go to the international or domestic capital markets for funds), the Government's current modality of vetting funding on a project-by-project basis is incompatible with the fundamental objectives of power sector reform in Bangladesh, and provides continued opportunity for abuse of power and graft (as there is no transparent performance contract mechanism in place). The idea therefore is to transform Government's current role as a CFO for the sector to become the bank to the sector. ***The authority to allocate funds must coincide with accountability for performance.*** This transformation will happen in stages over time.

Currently, BPDB depends 100% on Government (including foreign sources) for capex financing; PGCB depends on Government for about 80%. The Planning Commission allocates capex budget to BPDB and PGCB on a line-item (project-by-project) basis. Disbursed but unspent budget must be returned to the Government at year end. This current process is shown in Exhibit 8.2.

Government can still discharge its fiduciary responsibility through a performance contract with HoldCo. And in the interests of moving towards greater commercial-orientation, capex financing should be provided as true corporate debt and equity, not as a "use it or lose it" project-based line-item budget.

Exhibit 8.2: Current BPDB Funding Process



ADP = Annual Development Plan

PC = Planning Commission

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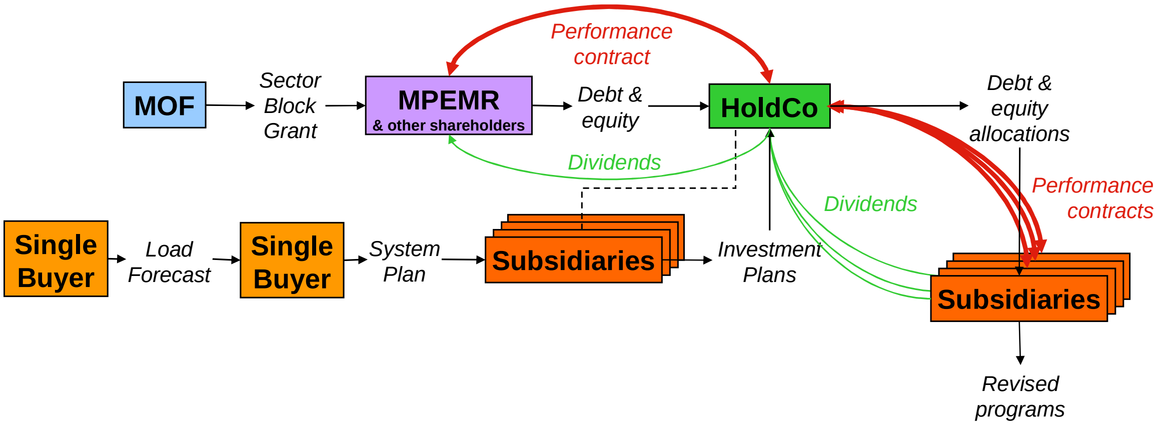
Exhibit 8.3 depicts how HoldCo might eventually function.

- SubCos develop investment plans corresponding to the system plan
- For portions they cannot finance from capital markets or out of cash flow, they request funding from HoldCo.

- HoldCo receives debt & equity from Government under terms of its performance contract.
- HoldCo prioritizes subsidiary funding requests, and allocates debt and equity to SubCos under terms of the HoldCo-SubCo performance contracts
- HoldCo coordinates sector development activities through the fund allocation process

Exhibit 8.3: Ultimate Vision for HoldCo Financial Planning and Funding



Appendix I describes these arrangements in further detail. Again, as discussed above, evolution towards these arrangements would happen over time, with the Government still providing funds directly to the subsidiaries, but according to a financing plan prepared by and agreed with HoldCo.

8.3.2 Monitoring Group Finances and Financial Results

- Update medium term financial projections and short term cash flow budget
- Monitor net position
- Act to deposit temporary surpluses or obtain temporary short term accommodation
- Prepare HoldCo consolidated Group financial statements including budgetary comparisons

8.3.3 Protecting Group assets

- Ensure adequate asset management records, plans and procedures exist
- Ensure that effective risk management identification, appraisal, mitigation and reporting procedures exist and are carried out
- Supervise group internal audit and risk management functions

8.4 DIVESTMENT OF OPERATIONS OR SUBSIDIARY COMPANIES

HoldCo may sell shares in a SubCo for various reasons, e.g., to raise capital, to secure a strategic alliance with a new shareholder, or to implement Government policy to make shares available for trading in the share market. It may sell more or less than a controlling interest or divest itself of its complete interest. As indicated in the draft Articles of Association, such divestiture requires shareholder (i.e. Government) approval.

The main financial criterion for divestment should be that the sum received for the sale of shares in a SubCo exceeds the net worth to HoldCo of the expected future cashflows. If it vacates a controlling interest it also needs to be clear that the independent company will continue to play its part in the development of the power sector and in meeting customer demand.

The divestment process for a controlling interest should include reports by independent investment advisers (with independent technical support, if necessary) on:

- the options for divestment, e.g., a public offering, a trade sale, a sale to a ‘cornerstone’ shareholder; and the costs and benefits of each option
- an appraisal of bids for the shares, should such be sought, and an opinion on the preferred bid
- the fairness of the consideration to the vendor, HoldCo – the aim should always be to maximize the return to the shareholder.

Sale of a minority interest should also be subject to independent reports on the fairness of the consideration. In either case, it may be desirable to make use of the resources and experience of the Privatization Commission.

The legal requirements for divestment of shares in subsidiaries HoldCo are similar to those described for the acquisition of shares in Section 3.2.6, Acquisition of Shares in Power Companies.

8.4.1 Non-Core Activities

Non-core activities of BPDB should not be transferred to HoldCo or one of its proposed subsidiaries unless there is a clear and demonstrable advantage in so doing. Advantage should be taken of the resources and experience of the Privatization Commission to facilitate the disposal of non-core activities in the event no such advantage exists.

Some non-core operations of BPDB lend themselves to incorporation as companies to operate as profit centers, either wholly or partially owned or completely divested as may be expedient. They include:

- Maintenance and minor construction works: civil, electrical, mechanical
- Technical training
- Pole manufacture
- Dhaka and Chittagong computer operations (if not taken over by a new distribution company–even then disposal to an IT facilities manager could well be investigated)

These could be placed in one (or more) “Services Company”. The migration described in Chapter 2 anticipates creation of such a subsidiary.

Some activities may be contracted out:

- Office cleaning
- Printing

- Security
- Clearing/logistics offices

BPDB should set up a small cell to identify candidates for divestment and recommend that Government include them among public industrial or commercial units to be notified to the Privatization Commission for privatization. If accepted, the Commission will in due course call upon BPDB to assist it to plan and execute the divestment of non-core activities.

BPDB's tasks may include assisting the Commission to:

- Define discrete non-core work/asset 'packages'
- Evaluate options for disposal, e.g., sell to employees, incorporate and sell shares, put up for tender
- For the clearing and logistics activities, prepare a specification of requirements and advising on tenders from qualified firms
- For the pole factories and printing works, prepare an Investment Memorandum that sets out the scope of the business including potential customers and competitors, the assets, staff, etc, and inviting expressions of interest from likely investors
- Execute the privatization plan.

9. MANAGEMENT INFORMATION SYSTEM NEEDS

This section reviews the present use of IT in BPDB and its subsidiaries and examines the expected functions of HoldCo to determine:

- the data to be collected from subsidiaries,
- the required IT application and support systems that the staff will use,
- the IT installation in HoldCo that will be necessary to support those systems and to produce the management reports that HoldCo staff will produce/receive to monitor and improve subsidiary performance and report to the Government
- the estimated implementation costs for the proposed IT installation,
- a proposed HoldCo organization structure to support the IT services to be provided,

An implementation plan is included setting out the steps for HoldCo to follow once the decision to proceed has been made.

9.1 CURRENT IT SYSTEMS IN BPDB

BPDB has more than 16 years experience with installing IT systems, principally in the areas of consumer billing and customer accounting. This section summarizes the IT systems currently employed in BPDB itself. The following section reviews the IT systems in BPDB subsidiaries.

9.1.1 The Current BPDB IT Structure

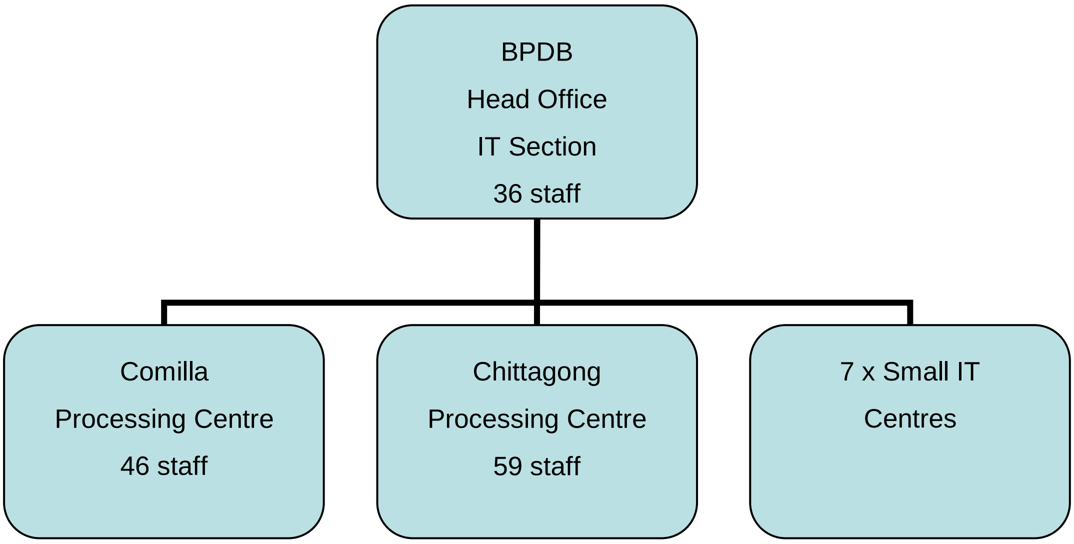
BPDB head office (HO) IT manages the development and maintenance of the systems using outsourced resources while the various data centers around the country perform the actual systems operation. In some cases outsourcing contracts have been let to IT organizations to provide operational support for some of the smaller centers.

Exhibit 9.1 describes the present structure of the BPDB IT operation including staff and consumer numbers being processed at each centre. The manager of the BPDB HO IT section reports to the BPDB General Manager Commercial as the focus for work to date has been within the Distribution Division of BPDB. The GM Commercial reports to Member Finance. Of these staff 16 BPDB officers have IT qualifications while the balance are BPDB-trained operational and administration staff.

An overall staff allocation is established at 85 full time equivalents. The present staff complement supplemented by contract and casual staff is approximately 140.

The HO IT expenditure, excluding salaries for the year to June 2007 was Tk 11 million. The budget for the current year is Tk 50 million to take into account the need to develop and update the present situation as covered in the Systems Development Plan as described in below. Note this development plan includes replacement of Chittagong and Comilla computers.

Exhibit 9.1: Current BPDB IT Structure



Consumers Billed by IT	Consumers Billed by IT	Consumers Billed by IT
250,000	450,000	500,000
		By Dec 07 200,000
		700,000

9.1.2 IT Hardware & Application Software for Billing & Collection

After an initial start in the early 1990's that computerized billing and collections for 30,000 BPDB consumers, the Financial Management Upgrade (FMU) project funded by ADB successfully installed a BPDB designed system in 2001. Since the completion of the FMU project, the continued rollout of this system has been managed by BPDB's Systems Management Unit (SMU). This system is now processing 1.4 million consumers from multiple locations. The last 200,000 consumers are expected to be transferred to this system by the end of 2007. Basically the same system is also used by DESA to process 0.5 million consumers.

The two major centers in Comilla and Chittagong use IBM midrange RS 6000 AIX based servers with associated peripheral equipment. These represent mid 1990's technology. The smaller centers use Intel Xeon PC based servers and peripheral equipment.

The package modified billing system was originally written based on an Oracle database to operate in the main centers. A PC based billing system written in Oracle has later been developed for the smaller centers with basically the same functionality as the system at the large centers. In 2001 application systems for finance, purchasing, asset management, cash management and loan accounting were also developed and tested but have not been implemented.

A number of enhancements have been added to the billing system since first installed such as:

- Adaption of the system to operate in a PC environment for the smaller processing centers,
- Prepaid meters have been installed for 20,000 consumers in Chittagong, Sylhet and Sirajganj,
- Remote meter reading for HT consumers,
- Option for consumers to make payments via Grameenphone,
- A data store of statistical data kept at HO for GM Commercial covering both consumer and load dispatch information as well as enquiry and reporting programs to access data,
- Development of office based LANs and a WAN linking 25 major offices,
- BPDB has installed approximately 850 PCs in distribution branch locations throughout the country,
- Development of a BPDB Web page containing static data relating to HR, daily generation and load shedding.

9.1.3 Other MIS Systems in BPDB

Other systems in BPDB HO are handled by manual methods supported by Excel spreadsheets. These include:

- Financial management including HO consolidation
- Payroll
- Human Resource Management
- Purchasing and creditors payments
- Stores
- Job Costing
- Meter management
- Asset management
- Budgeting
- Operational reporting

Extensive use is made of Excel spreadsheets to collect, analyze and report data.

BPDB HO Planning section uses WASP to assist in generation production planning to ascertain least cost options.

9.1.4 BPDB Systems Development Plan

The IT Section has had approved a Systems Development Plan for 2007/8 comprising 24 tasks that range from standard systems maintenance to hardware replacement and new application systems development.

The main features of this Plan include:

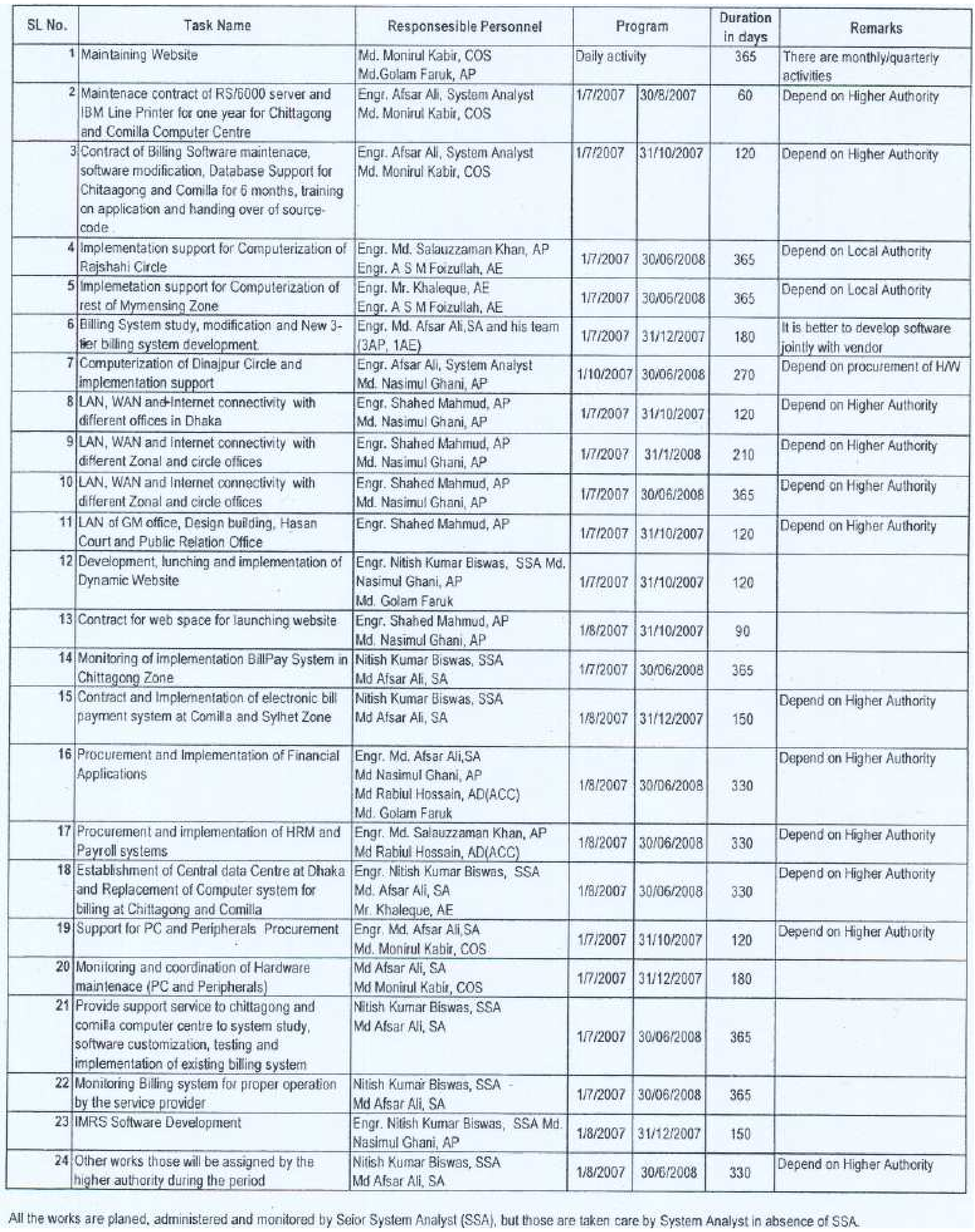
- Transferring the last consumers to the billing system
- Extension of WAN/LAN connectivity
- Provision of e-mail connectivity to 500 locations
- Major hardware upgrade at main data centers
- Procurement and implementation of a Financial System
- Procurement and implementation of a Human Resource System
- Development of an Integrated Management Reporting System (IMRS)

The systems development plan is shown in Exhibit 9.2.

9.1.5 Observations on Current BPDB IT Systems

- The HO IT section has concentrated their endeavors on successfully implementing the consumer billing system over the last five years. BPDB staff has been reluctant to change from their previous manual consumer ledger system and in some cases the manual system has continued to be run in parallel for 3 or 4 years before full confidence in the computer system has been reached.
- Following the implementation of the billing system and the deployment of 850 PCs used by some 2000 staff there is a reasonable level of computer competence within BPDB staff.
- Although other software such as financial, reporting and stores systems were procured as part of the FMU project these have not been implemented in BPDB.
- The mainframe servers in Chittagong and Comilla are reaching the end of their economic life and replacements will need to be considered. The version of Oracle software that underpins the present systems is out of date and no longer supported by the supplier.
- A Chart of Accounts has been approved for use throughout BPDB but is still to be implemented.
- A process for Identification, Verification, Valuation, Recording (IVVR) of assets and store stock was carried out as at 30 June 2000. This work has verified and valued the assets as at that time. Programs have been written and tested for a comprehensive asset and stock management system and completed in 2005 based upon 2000 data but implementation has stalled.

Exhibit 9.2: BPDB Systems Development Plan



SL No.	Task Name	Responsesible Personnel	Program		Duration in days	Remarks
1	Maintaining Website	Md. Monirul Kabir, COS Md.Golam Faruk, AP	Daily activity		365	There are monthly/quarterly activities
2	Maintenace contract of RS/6000 server and IBM Line Printer for one year for Chittagong and Comilla Computer Centre	Engr. Afsar Ali, System Analyst Md. Monirul Kabir, COS	1/7/2007	30/8/2007	60	Depend on Higher Authority
3	Contract of Billing Software maintenace, software modification, Database Support for Chitaagong and Comilla for 6 months, training on application and handing over of source-code .	Engr. Afsar Ali, System Analyst Md. Monirul Kabir, COS	1/7/2007	31/10/2007	120	Depend on Higher Authority
4	Implementation support for Computerization of Rajshahi Circle	Engr. Md. Salauzzaman Khan, AP Engr. A S M Foizullah, AE	1/7/2007	30/06/2008	365	Depend on Local Authority
5	Implemetation support for Computerization of rest of Mymensing Zone	Engr. Mr. Khaleque, AE Engr. A S M Foizullah, AE	1/7/2007	30/06/2008	365	Depend on Local Authority
6	Billing System study, modification and New 3-tier billing system development.	Engr. Md. Afsar Ali,SA and his team (3AP, 1AE)	1/7/2007	31/12/2007	180	It is better to develop software jointly with vendor
7	Computerization of Dinajpur Circle and implementation support	Engr. Afsar Ali, System Analyst Md. Nasimul Ghani, AP	1/10/2007	30/06/2008	270	Depend on procurement of H/W
8	LAN, WAN and Internet connectivity with different offices in Dhaka	Engr. Shahed Mahmud, AP Md. Nasimul Ghani, AP	1/7/2007	31/10/2007	120	Depend on Higher Authority
9	LAN, WAN and Internet connectivity with different Zonal and circle offices	Engr. Shahed Mahmud, AP Md. Nasimul Ghani, AP	1/7/2007	31/1/2008	210	Depend on Higher Authority
10	LAN, WAN and Internet connectivity with different Zonal and circle offices	Engr. Shahed Mahmud, AP Md. Nasimul Ghani, AP	1/7/2007	30/06/2008	365	Depend on Higher Authority
11	LAN of GM office, Design building, Hasan Court and Public Relation Office	Engr. Shahed Mahmud, AP	1/7/2007	31/10/2007	120	Depend on Higher Authority
12	Development, lunching and implementation of Dynamic Website	Engr. Nitish Kumar Biswas, SSA Md. Nasimul Ghani, AP Md. Golam Faruk	1/7/2007	31/10/2007	120	
13	Contract for web space for launching website	Engr. Shahed Mahmud, AP Md. Nasimul Ghani, AP	1/8/2007	31/10/2007	90	
14	Monitoring of implementation BillPay System in Chittagong Zone	Nitish Kumar Biswas, SSA Md Afsar Ali, SA	1/7/2007	30/06/2008	365	
15	Contract and Implementation of electronic bill payment system at Comilla and Sylhet Zone	Nitish Kumar Biswas, SSA Md Afsar Ali, SA	1/8/2007	31/12/2007	150	Depend on Higher Authority
16	Procurement and Implementation of Financial Applications	Engr. Md. Afsar Ali,SA Md Nasimul Ghani, AP Md Rabiul Hossain, AD(ACC) Md. Golam Faruk	1/8/2007	30/06/2008	330	Depend on Higher Authority
17	Procurement and implementation of HRM and Payroll systems	Engr. Md. Salauzzaman Khan, AP Md Rabiul Hossain, AD(ACC)	1/8/2007	30/06/2008	330	Depend on Higher Authority
18	Establishment of Central data Centre at Dhaka and Replacement of Computer system for billing at Chittagong and Comilla	Engr. Nitish Kumar Biswas, SSA Md. Afsar Ali, SA Mr. Khaleque, AE	1/8/2007	30/06/2008	330	Depend on Higher Authority
19	Support for PC and Peripherals Procurement	Engr. Md. Afsar Ali,SA Md. Monirul Kabir, COS	1/7/2007	31/10/2007	120	Depend on Higher Authority
20	Monitoring and coordination of Hardware maintenace (PC and Peripherals)	Md Afsar Ali, SA Md Monirul Kabir, COS	1/7/2007	31/12/2007	180	
21	Provide support service to chittagong and comilla computer centre to system study, software customization, testing and implementation of existing billing system	Nitish Kumar Biswas, SSA Md Afsar Ali, SA	1/7/2007	30/06/2008	365	
22	Monitoring Billing system for proper operation by the service provider	Nitish Kumar Biswas, SSA - Md Afsar Ali, SA	1/7/2007	30/06/2008	365	
23	IMRS Software Development	Engr. Nitish Kumar Biswas, SSA Md. Nasimul Ghani, AP	1/8/2007	31/12/2007	150	
24	Other works those will be assigned by the higher authority during the period	Nitish Kumar Biswas, SSA Md Afsar Ali, SA	1/8/2007	30/6/2008	330	Depend on Higher Authority

All the works are planed, administered and monitored by Seior System Analyst (SSA), but those are taken care by System Analyst in absence of SSA.

- BPDB has had a number of instances of IT projects being started but not completing because of capital, resource or management reasons which indicates the lack of proper IT governance and an agreed IT strategic plan that is part of the overall business plan.

- In some districts of BPDB the total meter reading, billing and collection functions have been outsourced.

- The IT Section has managed to retain staff so today has a number of staff that both understand the systems as well as BPDB business processes.
- The HO IT section handles all IT expenditure for BPDB. Any IT project needs to get HO IT approval before commitment.
- The HO IT section approves any staff recruitment for any IT role in BPDB.
- IT section believes the implementation of the customer billing system and processes has been responsible for reducing BPDB's system loss to approximately 18% and bringing average outstanding debtors to less than 3 months for the 25% of total generation that is being distributed though BPDB distribution zone.
- When 100% of the distribution is taken into account the average outstanding increases. For example DESA, as a bulk customer to BPDB, is outstanding approximately 33 months.

9.2 CURRENT IT SYSTEMS IN BPDB SUBSIDIARIES

Further details of the IT systems in the BPDB subsidiaries are given in Appendix J.

9.2.1 West Zone Power Distribution Company Ltd

West Zone distribution has a mixture of billing systems. Some divisions still use the PC version of the BPDB system that was implemented during West Zone formation. They have their own PC hardware and software but rely on outsourcing to obtain system support and operation of the system. Other divisions have their own PC hardware and software that is operated by their own contracted temporary staff. Still other divisions have their own PC hardware while software and operation is outsourced.

West Zone inherited at inception the existing system of monthly reporting of selling and distribution activities called "Commercial Operating Statistics" that is still used.

West Zone has recently gone to tender for an integrated solution for billing and financial systems although they also tendered unsuccessfully in 2004

West Zone has two engineers that oversee IT operation but is also advertising for recruitment of dedicated program and systems support staff at the moment. West Zone has had no formal assistance from HO IT since incorporation.

The "Tally" package used within West Zone HO for preparation of monthly accounts but only manual systems are used within divisions.

9.2.2 Power Grid Company of Bangladesh (PGCB)

This company operates independently from BPDB and has a software system based on spreadsheets that handle its own financial reporting needs. They have one staff member with an IT responsibility to provide technical support for the desktops installed for administrative and spreadsheet purposes.

PGCB compiles and sends daily load dispatch reports to BDPB via spreadsheets..

PGCB use the CYME package software for technical analysis and transmission planning to determine least cost generation options for dispatch.

PGCB has recently acquired a package solution ‘Open Sesame” to maintain General Ledger, asset management, accounts receivable, accounts payable. This system may also be used for stores in the future.

PGCB maintains a SCADA system to supervise and control transmission and collect and analyze technical data.

PGCB owns fiber optic cabling running through its HT lines that could be used for telecommunications in the future. Bangladesh Telecom is considering leasing these lines to enable diverse routing for their network.

9.2.3 Electricity Generation Company of Bangladesh Ltd (EGCB)

The generation subsidiaries have limited IT systems. No IT staff are employed. Daily and monthly reports are produced using Excel.

EGCB have recently introduced a general ledger software package “Nikash”.

9.2.4 Ashuganj Power Station Company Ltd (APSCL)

Ashuganj has recruited a Deputy Manager for IT and has recently implemented the “Tally” system for use in general ledger processing. All reports are prepared using spreadsheets..

9.3 IMPLICATIONS OF HOLDCO FUNCTIONS FOR IT/MIS

9.3.1 Introduction

As outlined in Chapter 3, HoldCo will be a small organization based in Dhaka that employs highly trained staff for the purpose of financial planning across the Group, driving and monitoring the performance of SubCos, and reporting on a regular basis to Power Division.

Exhibit 9.3 shows again the HoldCo Value Chain will be as follows and require the performance of the associated business functions.

Exhibit 9.3: The HoldCo Value Chain

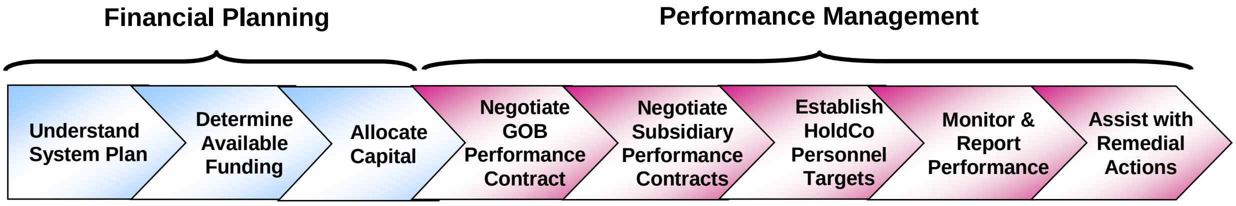


Exhibit 9.4 summarizes IT system requirements to support these activities.

Exhibit 9.4: Map of HoldCo Functions & Required Support Systems

HoldCo Business Function	IT Support System
System Planning. Collect, comment & maintain system planning information. Relate Plan to available finance	Document Storage and Retrieval system. Administrative systems such as Excel
Capex allocation. Compile, prioritize and monitor all subsidiary Capex plans.	Capex Management System to compile subsidiary Capex requirements and monitor progress.
Manage HoldCo Finances. Manage HoldCo financial performance against budget. Consolidate Group financial statements.	General Ledger System to record and report financial transactions against budget and provide reports. Consolidation System to process and report subsidiary P&L and Balance Sheet information.
Performance Monitoring. Monitor subsidiary financial and non-financial performance against targets in subsidiary performance contracts	Information Management System that will collect and store electronic and printed data from subsidiaries in a data repository. MIS reporting system that reports financial and non-financial data from subsidiaries for the purpose of measuring their performance against their performance contract key performance indicators (KPIs). Web page to communicate up-to-date HoldCo information to various stakeholders including the public.
Legal Compliance. Ensure subsidiaries are complying with all legal requirements for Health, Safety, Environmental, Labor, Tax, Establishment, Accounting and Industry regulations.	Compliance Recording System to collect and report data to ensure subsidiaries are complying with all legal requirements.
Information Systems Compliance. Establish group guidelines for the use of IT and monitor subsidiary IT development and performance.	Subsidiary Information Technology Systems Development Plan to collect and report data that subsidiary is following guidelines.
Human Resource Compliance. Establish group guidelines for HR management and monitor subsidiary performance against those guidelines. Manage and pay own staff.	HR management system to collect and report data that subsidiary is following HR guidelines. HR and payroll systems for HoldCo staff.
Remedial Action. Form project teams with subsidiaries to improve performance in identified areas.	Project management tools to manage projects against project objectives and budget

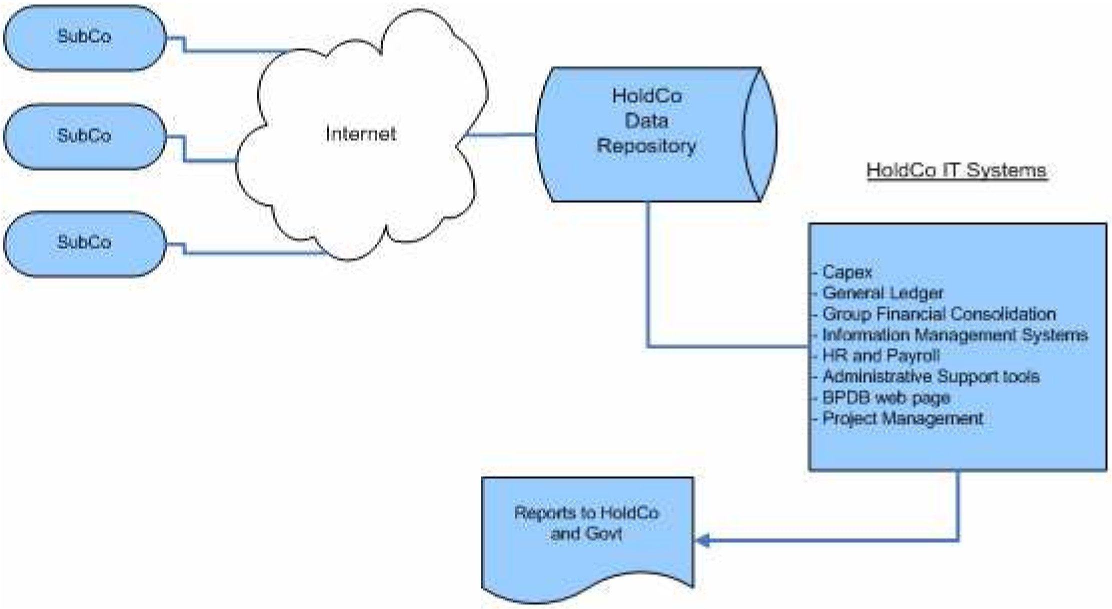
To undertake its functions HoldCo staff will need to be supported by fast, reliable IT processes. There should be a clear association between the business objective of management and the information available to management.

HoldCo staff will need to collect electronic data and printed material at regular intervals from each subsidiary, store it, analyze, take action and prepare reports based on the data for presentation to the Ministry, Power Division and its own executives. These functions should be supported by IT processes to assist the productivity of staff. The collected information should be stored in a secure data storage environment that permits users to extract data according to their authorization levels and format reports as required via a HoldCo intranet.

HoldCo staff will require access to a secure IT system on their own desk that can be accessed throughout the day. Printed data will be accessed from a central information store, though over time this should be entirely digitized and available through a document management system. The individual terminal will need to be connected to a secure HoldCo Intranet that stores collected data and allows interchange of data and messages between all staff in a fast secure and managed environment. The network will also require access to the Internet to allow staff to interrogate other sources of data and to communicate via e-mail with colleagues in Dhaka, Bangladesh and worldwide.

Exhibit 9.5 shows how the subsidiaries will interact with HoldCo and the IT systems which it will use to support its business functions.

Exhibit 9.5: HoldCo Systems Overview



9.3.2 Application Systems

The following are descriptions of the IT application systems that will be needed to support HoldCo staff in performing their responsibilities:

GENERAL LEDGER SYSTEM

- This system needs to perform two functions. The first is to account for the cashflows and expense transactions through HoldCo via a chart of accounts to provide monthly expense and budget comparison reporting for HoldCo itself.

- The second is to enable financial consolidation of all subsidiary reports to produce a consolidated Profit and Loss (P&L) and Balance Sheet on a monthly basis. The P&L should include comparisons with the budget.

CAPEX MANAGEMENT SYSTEM

- HoldCo requires system support to compile all government- and aid-financed capex plans from its subsidiaries, store relevant supporting documentation, review the capex plans against the enterprise system plan, assess priorities and compile an integrated plan for Power Division and Planning Commission review.

- HoldCo must keep track of loan applications, loan receipts, disbursements and re-payments. This information will also be required for audit purposes.

MANAGEMENT INFORMATION SYSTEM (MIS)

- HoldCo needs to collect and store financial and non-financial management information from each subsidiary that will be in electronic and printed form in a data repository that can be accessed by authorized staff via the HoldCo Intranet for the purpose of measuring subsidiary performance against targets and reporting to Power Division. This system will use document management and report generation techniques and be based on secure database software. The system will collect data that support the Key Performance Indicators that HoldCo will monitor for each subsidiary. The system will need to produce regular formatted reports for circulation to HoldCo and Ministry staff and it will also need to allow ad hoc enquiry to drill down to understand supporting details and allow staff to generate additional reports using a report generator.

LEGAL COMPLIANCE SYSTEM

- This system will be a subsystem of the IMS for the purpose of collecting and storing data from each subsidiary that ensures they have complied with all legal requirements for Health, Safety, Environmental, Labor, Tax, Establishment, Accounting and Industry regulations.

HUMAN RESOURCES

- Establish group guidelines for HR management and monitor subsidiary performance against those guidelines.

- HoldCo will have its own staff but will still need to keep HR information and produce and store payroll data in a small HR system.

- HoldCo will need a performance management system to measure the effective performance of its own staff on a bi-annual basis.

PROJECT MANAGEMENT

- Utilize project management software to manage identified performance improvement projects against project objectives and time and cost budgets.

ADMINISTRATIVE SUPPORT TOOLS

- HoldCo staff will need access to a range of individual IT tools to assist their productivity. Products such as Word Processing, Excel, PowerPoint and Internet require to be made available. HoldCo will need to establish an internal Local Area Network (LAN) or Intranet to connect all users to a server which will act as a gateway to the internet via an internet service provider (ISP). The system will need to include security to manage access, eliminate attacks by computer viruses and Spam e-mails.

WEB PAGE

- HoldCo needs to establish a Web page that provides access to static data about the group and available in the public domain. The web page can also be used for electronic collection of regular financial and non financial data from subsidiaries as a front end to the MIS system above. The following are to be considered while developing the webpage :
    - simple but impressive page ensuring smart interfaces that are easy to navigate.
    - Enable access from all interested parties including the public
    - Regular update of current information
    - Easy search facilities
    - News grouped in a logical manner
    - Security of access to prevent abuse

9.3.3 Data Required from Subsidiaries

HoldCo needs to have access to necessary data on a regular basis from each subsidiary to enable it to perform its functions to drive and monitor subsidiary performance as well as to inform Power Division of subsidiary performance. HoldCo must not get involved in the day-to-day management activities of its subsidiaries or take over the role of subsidiary management by collecting too broad a range of subsidiary data. On the other hand it needs to collect enough data to effectively carry out its business functions.

Another benefit from requesting regular selected data from subsidiaries is that it will encourage the subsidiaries to understand the data being collected knowing that it is also being reviewed by HoldCo.

Appendix M suggests a listing of data requirements from each subsidiary type and the frequency that the data will need to be submitted. These data items can be added or deleted as experience dictates. Once these data items have been agreed they should be included in the Performance Contract for each subsidiary. All these data items are currently reported by these subsidiaries either to BPDB or to Power Division, except system average interruption duration index and frequency index (SAIDI/SAIFI) for distribution companies, which is not kept at the moment.

GENERATION

The following are items that each subsidiary generating company will be required to report to HoldCo. A single report that summarizes all the generation under that subsidiary will be required from Ashuganj, EGCB and all other generation companies developed as subsidiaries.

- Operational data on a monthly basis including:
    - MW of output per staff member
    - Progress of maintenance plan for the year
    - Notification of any metering disputes with other parties
    - Progress of capital investment projects compared to plan
    - Staff numbers and payroll costs
    - Work related accidents causing injury
    - Plant operating hours since inception
    - Plant operating hours since last overhaul
    - Unplanned outage of any unit
    - Planned outage of any unit
    - Average operating cost of generation
    - Heat rate
    - Generation dispatched and station use

- Financial results on a quarterly/monthly basis including:
    - % return on net assets
    - Energy billed, collected and overdue
    - Financial statements (balance sheet, income statement, cash flow statement)
    - Net profit for the month and year to date compared to budget

- Annual data
    - Audited Profit & Loss and Balance Sheet
    - Internal and external audit reports
    - Financial Budget for new year
    - Capital projects investment plan approved and planned
    - Maintenance program
    - IT Development Plan

In addition, each generation company should provide HoldCo the following operational data on a daily basis. The purpose of this data is not for HoldCo to become involved in the day-to-day operation of the subsidiary, but to have a complete record of subsidiary operations in case of queries from stakeholders about operating issues:

- The daily, weekly, monthly ahead forecast they supply to PGCB each day.
- Details of any major system problems experience during the day

TRANSMISSION

The following are items that the transmission company will be required to provide to HoldCo:

- Operational data monthly
  - SAIDI and SAIFI statistics
  - Expansion, maintenance and IT projects progress compared to plan
  - Notification of metering disputes with other parties
  - Staff numbers and payroll costs
  - Work related accidents causing injury

- Financial results on a quarterly/monthly basis
  - Net Profit for the month and year to date compared to budget
  - Wheeling charges billed, collected and outstanding compared to plan

- Annual data
  - Audited Profit & Loss and Balance Sheet
  - Financial Budget for new year
  - Internal and External audit reports
  - Capital projects investment plan
  - Maintenance program
  - IT Development Plan

In addition, PGCB should provide HoldCo the following operational data on a daily basis. The purpose of this data is not for HoldCo to become involved in the day-to-day operation of the subsidiary, but to have a complete record of subsidiary operations in case of queries from stakeholders about operating issues:

- Grid availability/operations problems
- Peak demand
- Loadshedding / Unsupplied demand
- Days, weeks, months ahead forecast
- Daily transmission compared to load schedule
- Plant dispatch
- Export units to each distribution company

DISTRIBUTION

The following are the areas of reporting that the distribution subsidiary companies will be required to provide to HoldCo:

- Operational data monthly
  - Total energy imported
  - Energy delivered, total and by tariff class
  - System loss compared to forecast
  - Number of disconnections
  - Expansion, maintenance and IT projects progress compared to plan
  - New connections this month
  - Connection waitlist at end of month
  - SAIDI/SAIFI statistics
  - Number of customers per employee
  - Number of customer complaints received during the month
  - Average time to resolve complaints
  - Staff numbers and payroll costs
  - Work related accidents causing injury

- Financial data monthly
  - Total energy billed
  - Total receivables collected
  - Collection ratio
  - Collection/Import ratio (CGR)
  - Net Profit for the month and year to date compared to budget
  - Accounts receivable at month end by customer category
  - This months collections compared to last months billing
  - Receivable amount by equivalent month

- Annual data
  - Audited Profit & Loss and Balance Sheet
  - Internal and external audit reports
  - Financial Budget for new year
  - Capital projects investment plan
  - Maintenance program
  - IT Development Plan

In addition, each distribution company should provide HoldCo load shedding data on a daily basis. The purpose of this data is not for HoldCo to become involved in the day-to-day operation of the subsidiary, but to have a complete record of subsidiary operations in case of queries from stakeholders about operating issues:

9.3.4 HoldCo Reporting Formats

HoldCo will need to develop MIS reports to monitor the performance of SubCos against their performance contract targets.

Appendix K shows an example of a monthly report for the Ashuganj generation, Power Grid transmission and West Zone distribution subsidiaries. These formats should evolve or be developed further once HoldCo is formed and management appointed. Each subsidiary will produce the report within an agreed timetable at the end of the month.

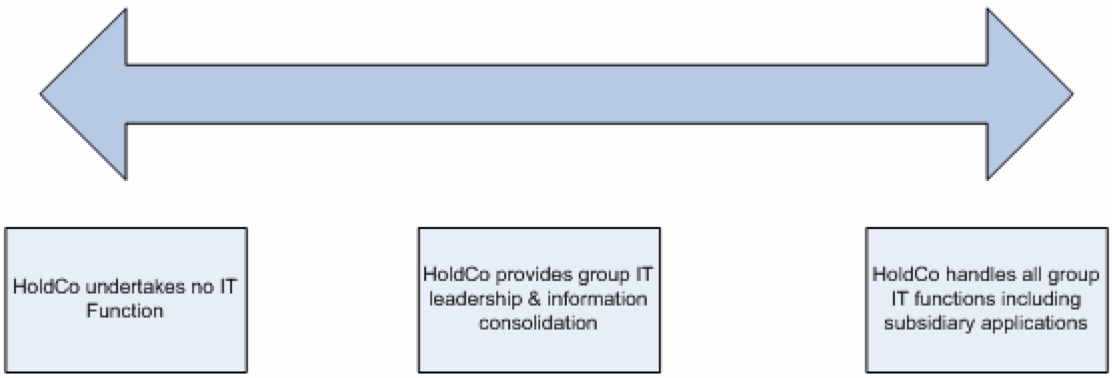
9.4 OPTIONS FOR IT DELIVERY

9.4.1 IT Support Options

HoldCo has a number of options to obtain the functionality defined by the above requirements. The options range from HoldCo centrally providing all IT services for the entire Group, to leaving IT to the subsidiaries and allowing each HoldCo department to look after its own internal IT needs on an ad hoc basis. In the middle, HoldCo could play a leadership role, and implement systems to facilitate data consolidation while allowing subsidiaries to continue to develop and utilize their own systems. This spectrum is shown in Exhibit 9.6.

In the course of the assignment, the consultants investigated how other Bangladesh holding companies were addressing IT needs. PetroBangla was the only example found of relevance. Currently, PetroBangla subsidiaries each have their own IT application systems and IT staff. PetroBangla HO has a small IT function that manages the provision of IT services to the HO staff through a local area network and internet connectivity. Subsidiaries send daily and monthly data to HO for collection, analysis and reporting to HO executives and MPEMR. A project is underway to implement a common stores system at all locations and a project is planned to develop common General Ledger and HR systems that will be installed in all subsidiaries.

Exhibit 9.6: Options for IT Delivery



PetroBangla offers one model of how HoldCo could evolve its IT function within the spectrum of options.

At one end of the spectrum, for HoldCo to establish a central IT function would require development and implementation of what would effectively serve as an enterprise resource planning (ERP) system. This would be costly and disruptive for both HoldCo and its subsidiaries. Moreover, the principal challenges faced by HoldCo and the sector more generally are not going to be solved through implementation of an ERP. This would be a distraction to the fundamental issues that HoldCo and its subsidiaries must focus on. The subsidiaries already have legacy systems that perform their functions adequately, hence this would be something of a ill-afforded luxury.

At the other end of the spectrum, for HoldCo to treat IT on an ad hoc basis, leaving it for organic development, would make it more difficult (or impossible) to integrate in the future. It would complicate HoldCo's function of ensuring time and accurate data collection for performance monitoring, and would fail its obligation to guide subsidiaries towards the best performance possible.

The preferred approach is for HoldCo to provide some centralized guidance on matters such as overall Group IT strategy, including IT principles and policies. While specific standards and applications can be left to the subsidiaries, HoldCo can at least ensure that each subsidiary follows an approach that will yield long-term benefits to the Group while not interfering with the day-to-day operational IT requirements of the subsidiaries.

Since HoldCo's own needs are not particularly large but are highly specialized, and since there is not a well-developed IT outsourcing industry in Bangladesh, HoldCo should not consider outsourcing all of its own IT needs but rather develop its own in-house capacity with outsourcing for only specific development functions. As part of this function it will also provide strategic IT leadership for the Group.

Strategic leadership can be exercised through an IT Development plan that could be agreed with senior HoldCo and SubCo management on an annual basis. Such plans could include:

- A statement of the Group's key business objectives that IT can assist achieving

- A description of the present IT systems installed in the organization
- A description of the present network environment
- A description of the present IT organization structure
- A list of proposed IT initiatives stating how they will assist the Group to meet its corporate and business goals. These initiatives should cover enhancements to existing systems, development of new systems, expansion of the HO networks and the Wide Area Network.
- The plan should cover a rolling 3 year period and include estimated cost, staff who will participate in the initiative and expected timeframe
- Details of training requirements for staff to use the systems
- Policies on data security
- Architecture design and implementation principles, including technology architecture, data architecture and application architecture.

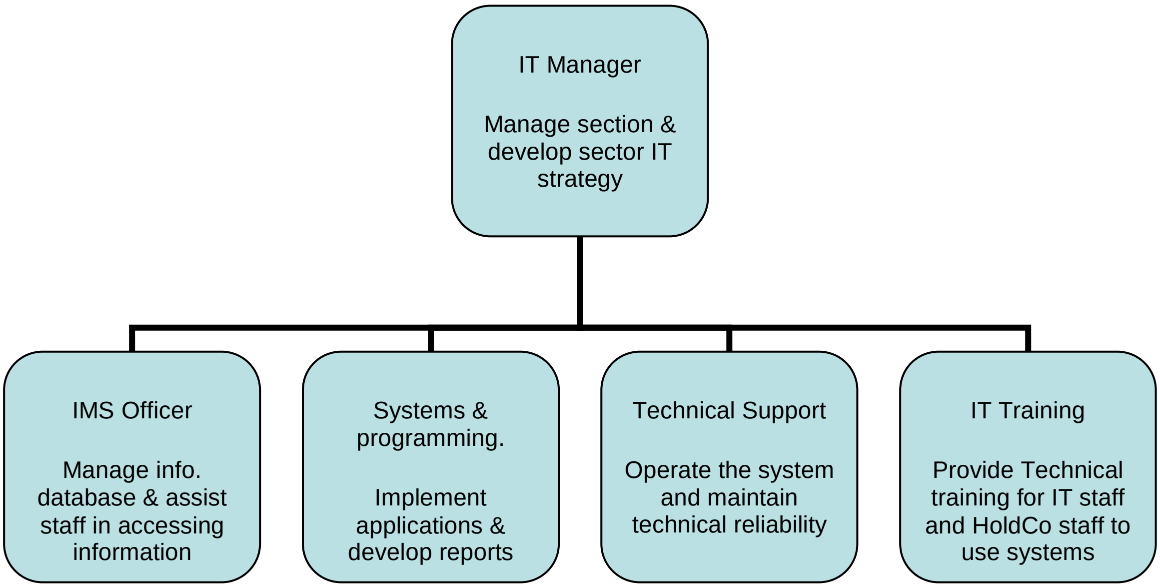
The rest of this section describes the resources HoldCo needs to carry out these functions.

9.4.2 Personnel Requirements

HoldCo will need a range of IT and management skills to support the proposed group IT strategy development, IT systems and MIS reporting functions. As the provision of IT services to support HoldCo staff will be vital for the success of the business IT will need to be led by a skilled IT practitioner and manager who can participate with the senior management group of HoldCo on an equal basis. In this section we describe the organization structure that will be needed and the roles to be undertaken by the participants. In the next section we indicate the training needed to enable the participants to make best use of these systems.

The HoldCo IT section will need to be organized as shown in Exhibit 9.7.

Exhibit 9.7: Proposed HoldCo IT Organizational Structure



HoldCo has a number of options to provide this support structure: it can employ the full complement of staff; it can recruit for key positions; it can engage from the outsourcing market; it can transfer from the present BPDB HO IT resource.

The roles of **IT Manager and MIS Officer** are roles that should be filled by HoldCo executives who would fully participate in the overall management decision making of HoldCo.

The **systems and programming** function could be outsourced to commercial IT organizations in Dhaka based upon a complete specification of requirements. The proposed systems could be based on packages adapted to the HoldCo specification or specifically developed for HoldCo.

The **technical support function** will require competent engineers on site to attend to security issues related to staff access to the systems, provide a HelpDesk response to hardware or software problems and undertake system back-ups on a regular basis. Given that HoldCo is not a large organization, this could probably be covered by one or two HoldCo IT staff.

ROLE FOR IT MANAGER

Major roles for this position will be to provide IT leadership to HoldCo and the Group; lead IT strategy in the subsidiary companies and manage the HoldCo IT section in the collection, storage and reporting of subsidiary information. The IT Manager will be a member of the senior management team and play a leading role in driving the strategy of HoldCo.

ROLE FOR MIS OFFICER

Major roles for this position will be to manage and understand HoldCo’s database of electronic and printed information, ensure its accuracy and secure it against damage, understand the subsidiaries business processes and assist staff to access data for reporting purposes.

ROLE FOR SYSTEMS & PROGRAMMING

Major roles will be to analyze needs, develop and maintain systems for HoldCo, select, implement and maintain application package software.

ROLE FOR TECHNICAL SUPPORT

Major roles will be to implement and maintain new hardware at HoldCo premises; provide day to day supervision of the network and systems, provide a Help Desk to assist users resolve system faults and handle any bulk data input.

ROLE FOR IT TRAINING

This role will be delivered in conjunction with the HR function. It will ensure all staff are competent to use the available systems to undertake their own business processes. A four terminal training room has been included in the configuration to enable live training to be undertaken to best simulate the real working conditions.

9.4.3 Training

When HoldCo staff are given IT tools it is important to ensure they are properly trained to use them at an individual level. HoldCo executives will need to develop their own computer literacy skills. A series of training courses will be provided for all initial staff and new recruits during their induction phase to ensure they understand the data that is maintained by the system and how to access and manipulate it. PA recommends that a training centre is established with four screens and keyboards that can be dedicated to the training function. This facility can be used for both IT and general in house training. IT training will be coordinated by HR.

Essential training will include:

A. BASIC TRAINING REQUIREMENTS

- Access and password security
- General hardware awareness of PC, printer and scanner
- Data security and back up
- Courses for:

  - Using e-mail
  - Accessing the Internet
  - Using Excel
  - Accessing and storing data in the repository
  - Using PowerPoint
  - Using Word Processing

B. FUNCTION SPECIFIC TRAINING

- Application system specific training in accordance with work needs.

9.4.4 IT Infrastructure

Exhibit 9.8 shows a draft network layout plan for an installation for the HoldCo building that will need to be revised when the actual site has been chosen and planned staff numbers are finalized. This draft allows for a secure server room and 32 user screens supported by printer and a scanner for every five user screens. Provision has been made for the inclusion of 5 laptop computers for off site executive use.

The overall specification includes:

- Allow for 32 users on two floors
- Allow a printer every 5 users
- Include 1 x high speed printer for bigger print runs
- Include scanners every 5 users

- Include an computer enabled overhead projector
- Include a server to manage all devices
- Plan a LAN to connect all devices
- Include a central data store
- Provide auto backup to another secure device
- Provide access to an ISP
- Provide a Firewall for security against virus
- Allow password control for all users
- Allow 4 x PCs for senior management to user
- Include 4 x ports to enable PCs to plug into the office network
- Design system so it can be expanded to 60 users

Once HoldCo is formed a revised version of these specifications can be used as part of a tender document to select a vendor for this equipment and supporting services.

9.5 IT IMPLEMENTATION COSTS

Exhibit 9.9 estimates the costs involved in implementing the hardware, network connectivity, systems software and building costs for wiring and server room air conditioning. It does not cover application software development. The number of items will need to be adjusted in accordance with the staffing numbers employed by HoldCo and the physical requirements of the building that HoldCo will use.

Exhibit 9.8: Indicative IT Configuration for HoldCo

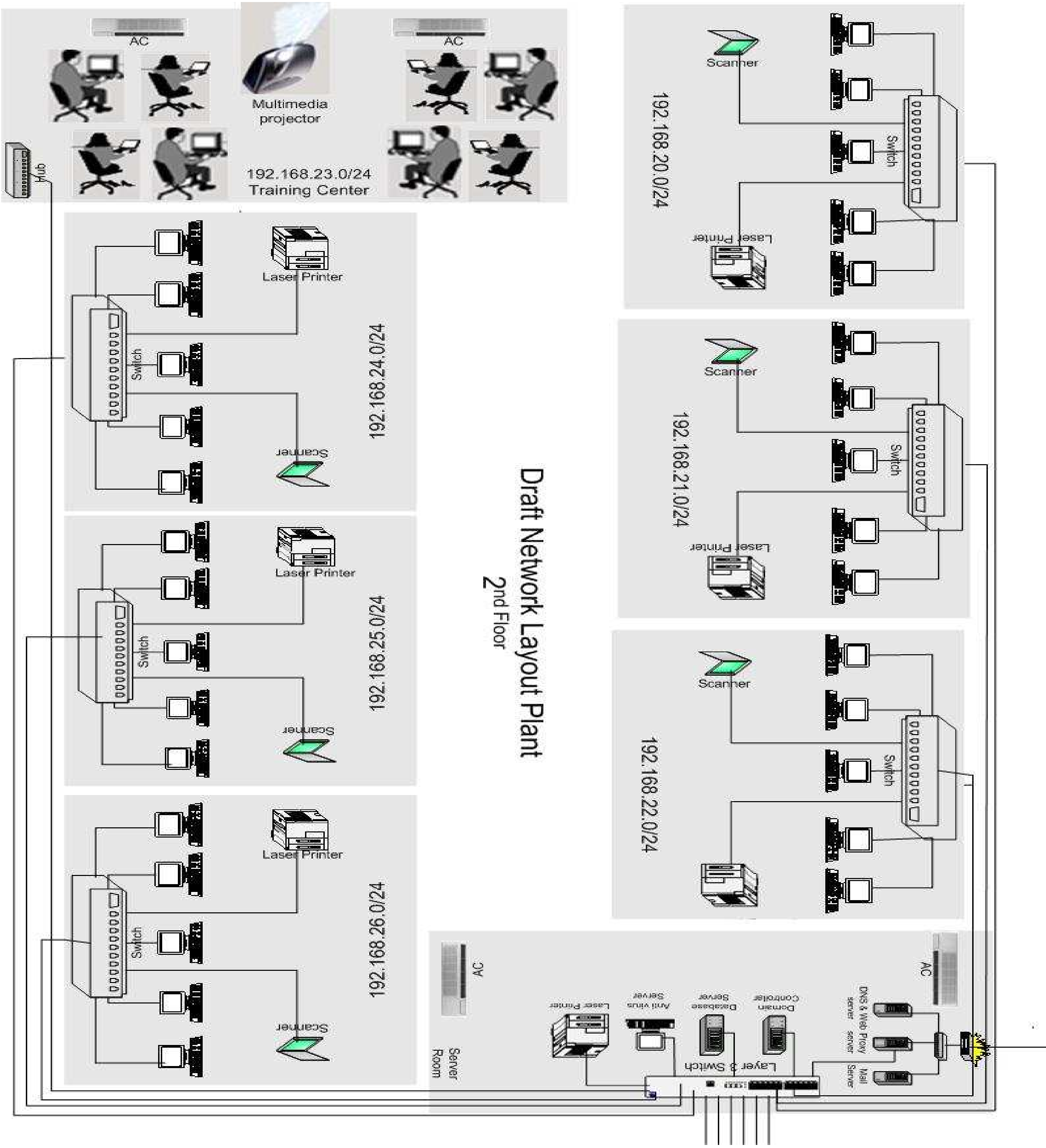
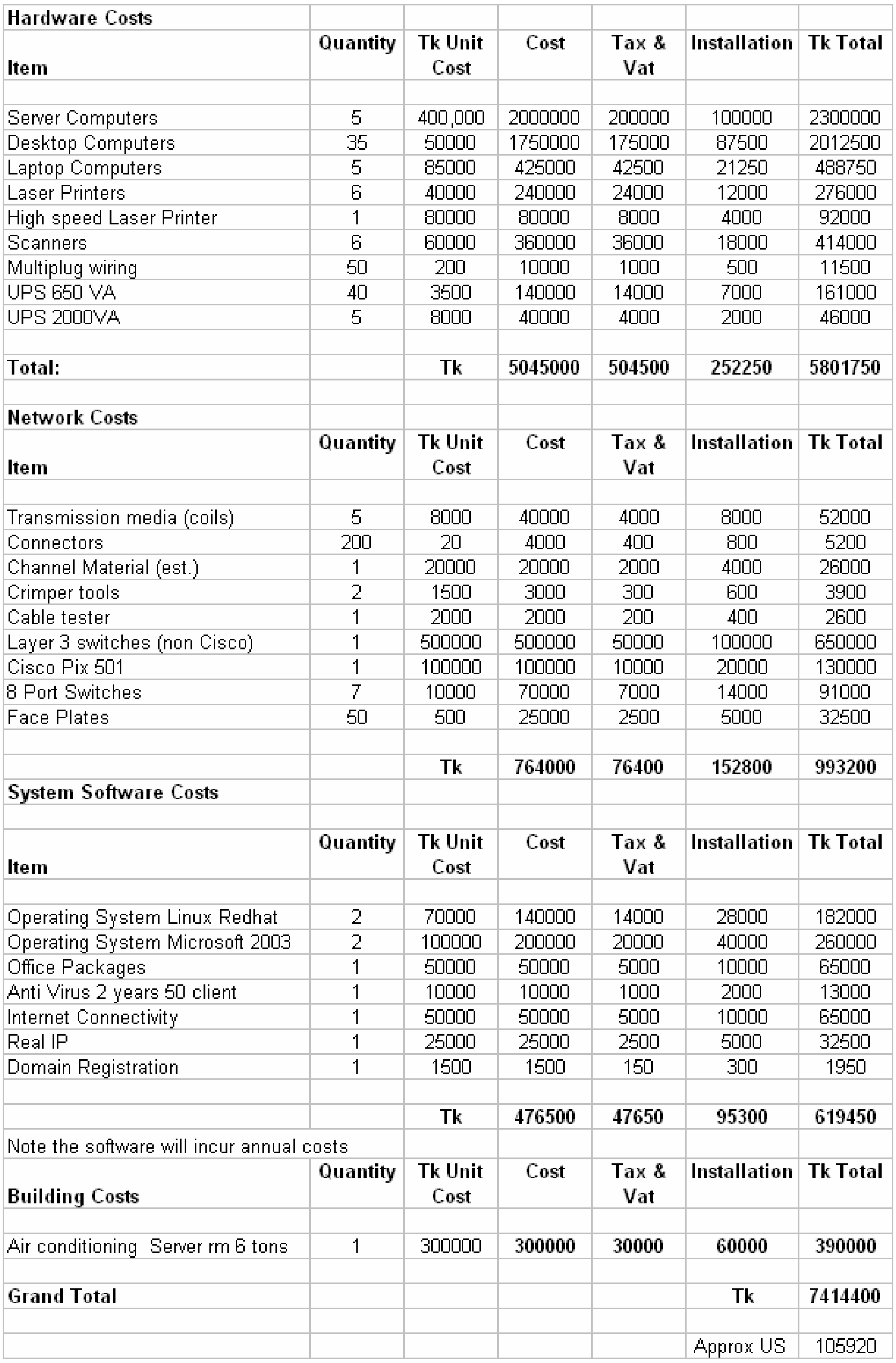


Exhibit 9.9: Estimated IT Infrastructure Cost for HoldCo



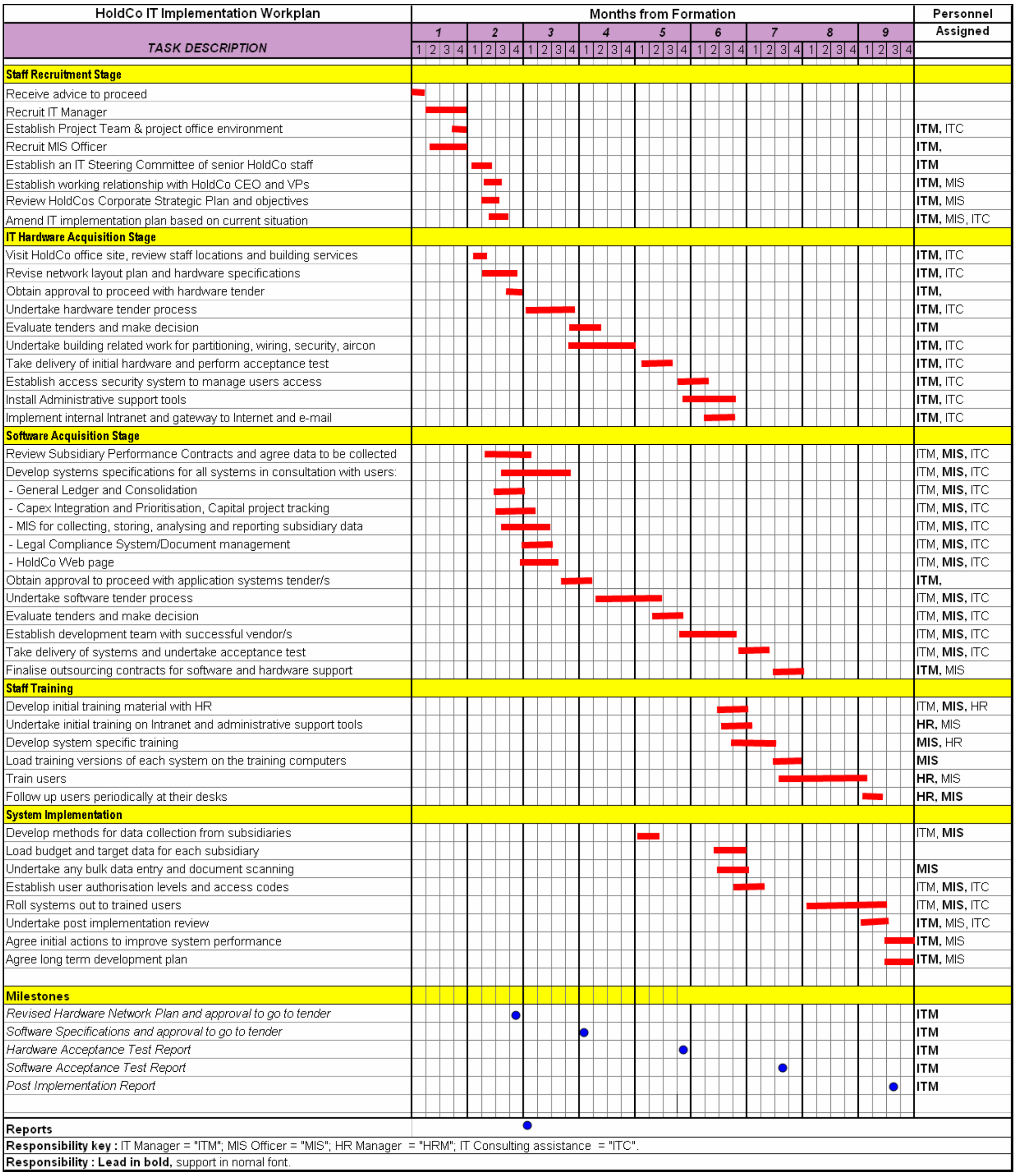
Hardware Costs						
Item	**Quantity**	**Tk Unit Cost**	**Cost**	**Tax & Vat**	**Installation**	**Tk Total**
Server Computers	5	400,000	2000000	200000	100000	2300000
Desktop Computers	35	50000	1750000	175000	87500	2012500
Laptop Computers	5	85000	425000	42500	21250	488750
Laser Printers	6	40000	240000	24000	12000	276000
High speed Laser Printer	1	80000	80000	8000	4000	92000
Scanners	6	60000	360000	36000	18000	414000
Multiplug wiring	50	200	10000	1000	500	11500
UPS 650 VA	40	3500	140000	14000	7000	161000
UPS 2000VA	5	8000	40000	4000	2000	46000
Total:		**Tk**	**5045000**	**504500**	**252250**	**5801750**
Network Costs						
Item	**Quantity**	**Tk Unit Cost**	**Cost**	**Tax & Vat**	**Installation**	**Tk Total**
Transmission media (coils)	5	8000	40000	4000	8000	52000
Connectors	200	20	4000	400	800	5200
Channel Material (est.)	1	20000	20000	2000	4000	26000
Crimper tools	2	1500	3000	300	600	3900
Cable tester	1	2000	2000	200	400	2600
Layer 3 switches (non Cisco)	1	500000	500000	50000	100000	650000
Cisco Pix 501	1	100000	100000	10000	20000	130000
8 Port Switches	7	10000	70000	7000	14000	91000
Face Plates	50	500	25000	2500	5000	32500
		Tk	**764000**	**76400**	**152800**	**993200**
System Software Costs						
Item	**Quantity**	**Tk Unit Cost**	**Cost**	**Tax & Vat**	**Installation**	**Tk Total**
Operating System Linux Redhat	2	70000	140000	14000	28000	182000
Operating System Microsoft 2003	2	100000	200000	20000	40000	260000
Office Packages	1	50000	50000	5000	10000	65000
Anti Virus 2 years 50 client	1	10000	10000	1000	2000	13000
Internet Connectivity	1	50000	50000	5000	10000	65000
Real IP	1	25000	25000	2500	5000	32500
Domain Registration	1	1500	1500	150	300	1950
		Tk	**476500**	**47650**	**95300**	**619450**
Note the software will incur annual costs						
Building Costs	**Quantity**	**Tk Unit Cost**	**Cost**	**Tax & Vat**	**Installation**	**Tk Total**
Air conditioning Server rm 6 tons	1	300000	**300000**	**30000**	**60000**	**390000**
Grand Total					**Tk**	**7414400**
					Approx US	105920

9.6 IMPLEMENTATION PLAN

Once HoldCo has been formed and senior staff engaged the Implementation Plan in Exhibit 9.10 should be reviewed, updated by the IT Manager, agreed by the senior management team and a project to manage the implementation established.

Supplementary local consulting expertise should be engaged to assist the IT Manager and MIS Officer during the development and implementation stages.

Exhibit 9.10: HoldCo IT Implementation Plan



HoldCo IT Implementation Workplan *TASK DESCRIPTION*	Personnel Assigned
Staff Recruitment Stage	
Receive advice to proceed	
Recruit IT Manager	
Establish Project Team & project office environment	**ITM,** ITC
Recruit MIS Officer	**ITM,**
Establish an IT Steering Committee of senior HoldCo staff	**ITM**
Establish working relationship with HoldCo CEO and VPs	**ITM,** MIS
Review HoldCos Corporate Strategic Plan and objectives	**ITM,** MIS
Amend IT implementation plan based on current situation	**ITM,** MIS, ITC
IT Hardware Acquisition Stage	
Visit HoldCo office site, review staff locations and building services	**ITM,** ITC
Revise network layout plan and hardware specifications	**ITM,** ITC
Obtain approval to proceed with hardware tender	**ITM,**
Undertake hardware tender process	**ITM,** ITC
Evaluate tenders and make decision	**ITM**
Undertake building related work for partitioning, wiring, security, aircon	**ITM,** ITC
Take delivery of initial hardware and perform acceptance test	**ITM,** ITC
Establish access security system to manage users access	**ITM,** ITC
Install Administrative support tools	**ITM,** ITC
Implement internal Intranet and gateway to Internet and e-mail	**ITM,** ITC
Software Acquisition Stage	
Review Subsidiary Performance Contracts and agree data to be collected	ITM, **MIS,** ITC
Develop systems specifications for all systems in consultation with users:	ITM, **MIS,** ITC
- General Ledger and Consolidation	ITM, **MIS,** ITC
- Capex Integration and Prioritisation, Capital project tracking	ITM, **MIS,** ITC
- MIS for collecting, storing, analysing and reporting subsidiary data	ITM, **MIS,** ITC
- Legal Compliance System/Document management	ITM, **MIS,** ITC
- HoldCo Web page	ITM, **MIS,** ITC
Obtain approval to proceed with application systems tender/s	**ITM,**
Undertake software tender process	ITM, **MIS,** ITC
Evaluate tenders and make decision	ITM, **MIS,** ITC
Establish development team with successful vendor/s	ITM, **MIS,** ITC
Take delivery of systems and undertake acceptance test	ITM, **MIS,** ITC
Finalise outsourcing contracts for software and hardware support	**ITM,** MIS
Staff Training	
Develop initial training material with HR	ITM, **MIS,** HR
Undertake initial training on Intranet and administrative support tools	**HR,** MIS
Develop system specific training	**MIS,** HR
Load training versions of each system on the training computers	**MIS**
Train users	**HR,** MIS
Follow up users periodically at their desks	**HR, MIS**
System Implementation	
Develop methods for data collection from subsidiaries	ITM, **MIS**
Load budget and target data for each subsidiary	
Undertake any bulk data entry and document scanning	**MIS**
Establish user authorisation levels and access codes	ITM, **MIS,** ITC
Roll systems out to trained users	ITM, **MIS,** ITC
Undertake post implementation review	**ITM,** MIS, ITC
Agree initial actions to improve system performance	**ITM,** MIS
Agree long term development plan	**ITM,** MIS
Milestones	
Revised Hardware Network Plan and approval to go to tender	**ITM**
Software Specifications and approval to go to tender	**ITM**
Hardware Acceptance Test Report	**ITM**
Software Acceptance Test Report	**ITM**
Post Implementation Report	**ITM**
Reports	

Responsibility key : IT Manager = "ITM"; MIS Officer = "MIS"; HR Manager = "HRM"; IT Consulting assistance = "ITC".

Responsibility : Lead in bold, support in nomal font.

10. THE FUTURE OF BPDB

The foregoing chapters describe the structure and internal processes of HoldCo as the corporatized successor to BPDB for the holding company function. However, this is just one of several functions currently held by BPDB. This chapter describes BPDB's evolution and continuing role in the Bangladesh power sector after HoldCo is established.

10.1 THE IMPACT OF CORPORATIZATION ON BPDB STAFFING

Exhibits 1.9 and 1.10 show the current structure and distribution of manpower within BPDB. In particular, Exhibit 1.10 shows the distribution of manpower according to the Head Office (1,588 employees), Generation (4,141 employees), Distribution (6,420 employees) and Others (1,500 employees).

As described in Chapter 2, the Generation employees will be transferred eventually to generation subsidiaries, while the Distribution employees will be transferred to the Central, North or South Zone subsidiary companies. Employees of Others will be transferred to the Support Services company, as described in Section 8.7.1. These categories represent some 88% of current BPDB employees. Consequently, the vast majority of current BPDB employees will be unaffected by the creation of HoldCo as they are to be redeployed anyway into newly corporatized subsidiaries without loss of seniority or benefits per the Government's power sector reform policies.

The remaining 1,588 employees are based in the BPDB Head Office. Exhibit 10.1 shows the distribution of employees by unit in the BPDB Head Office or associated field office. Many of these personnel will be transferred to the Support Services (especially for training or engineering services) or to Generation subsidiaries. These are shaded in solid blue, and represent a total of 732 personnel. In addition, there are some units from which a portion of the personnel could be transferred to Support Services and other subsidiaries, with the balance retained in BPDB. These are shaded in the diagonal blue pattern. Assuming that half of the personnel from these units go to the subsidiaries would account for another 268 personnel.

Of the 588 personnel remaining in BPDB, some would be well-qualified to apply for positions in HoldCo, e.g. personnel from the Total Quality Management (TQM) Promotion Office and the Program Directorate would be good candidates for the Program & Projects Department and the Financial Planning Department respectively. However, most of the remaining staff are required to (i) help prepare the remaining BPDB operations to become subsidiary companies, and (ii) to perform the single buyer function.

As noted in Section 2.4, this residual BPDB may be eventually corporatized as the single buyer company once the prevailing PPAs have been assigned to the new entity. That process would largely follow the same process as outlined in this report for the creation of HoldCo. (The term "residual BPDB" refers to BPDB after HoldCo has been established and generation and distribution operations have been corporatized).

The single buyer function, and hence the related personnel, would be required for as long as Bangladesh maintains that industry structure. Personnel from units required for the single buyer function are shaded gold in Exhibit 10.1. These account for 104 personnel. Personnel remaining from the units with the diagonal blue shading would also be required to support the single buyer function. Assuming retention of half of these 268 personnel would leave the single buyer function with a total of 238 personnel.

In contrast, the need to prepare remaining BPDB operations for corporatization as subsidiary companies is temporary. Eventually, perhaps over the next few years, the remaining subsidiaries will be created and operationalized. The maximum number of Head Office personnel potentially affected by this would be the remaining quarter of personnel in the units with diagonal blue shading, plus all of those in the unshaded units. These currently account for 351 personnel.

It is unclear exactly how many personnel would actually be affected by this. The expected rate of attrition and retirement of personnel in these units, as well as the success of personnel from these units transferring to subsidiaries is unknown. Provided BPDB does not hire new personnel, it would be safe to assume that less than 200 would be affected.

This number could be retained within one or more of the successor companies without significantly compromising the financial performance of those companies. More generally, these changes should be implemented within the context of a communications plan, as described in Supplemental Appendix H.

One of the most recent major VRS schemes in Bangladesh was conducted in the middle of 2007 as part of the Biman restructuring. Out of some 5,000 employees, management set a target of VRS uptake of approximately 1,600. In fact, 2,267 employees submitted applications, which management then screened down to 1,877. While this initially appeared to be a successful VRS program, hundreds of employees are now suing the company to get their jobs back, asserting that they were coerced into taking the VRS packages. Introducing a VRS scheme in the wake of this experience could result in more problems than it solves, and would need to be carefully considered. Given the limited number of employees who potentially could be eligible for such a program as part of the corporatization of BPDB, it may be best to simply absorb them into successor companies, with retraining as required.

Exhibit 10.1: Composition of BPDB Head Office

No.	Name of the Office	Set up	Current Staffing	Vacant Post
1.	Central Secretariat, Wapda Bhaban, Motijheel, Dhaka.	113	105	8
2.	Personnel Directorate, Wapda Bhaban, Motijheel, Dhaka.	77	55	22
3.	Estate & Transport Directorate, Dhaka.	161	121	40
4.	Security & Enquiry Directorate, Dhaka.	81	53	28
5.	Public Relation Directorate, Dhaka.	30	24	6
6.	Labor & Welfare Directorate, Dhaka.	43	28	15
7.	Enquiry & Discipline Directorate, Dhaka.	31	19	12
8.	Purchase Directorate, Dhaka.	48	40	8
9.	Chief Medical Officer, Dhaka.	14	7	7
10.	Press, Dhaka.	58	32	26
11.	Organization and Management (O&M) Directorate, Dhaka.	28	19	9
12.	Training Directorate, Dhaka.	38	30	8
13.	Trusties Board, Dhaka.	12	10	2
14.	Contract & Advisor, Administration, Dhaka.	21	15	6
15.	Accounts Directorate, Dhaka.	94	55	39

16.	Finance Directorate, Dhaka.	83	58	25
17.	Audit Directorate, Dhaka.	82	52	30
18.	Central Overhead Accounting Cell (COAC), Dhaka.	48	26	22
19.	Regional Accounts Officer (P&CO), Dhaka.	39	22	17
20.	Energy Auditing unit, Dhaka.	24	20	4
21.	Design & Inspection-1, Dhaka.	32	27	5
22.	Design & Inspection-2, Dhaka.	52	39	13
23.	Design & Inspection-3, Dhaka.	38	24	14
24.	System Planning Directorate, Dhaka.	44	21	23
25.	Chief Engineer (P&D), Dhaka.	13	9	4
26.	TQM Promotion Officer, Dhaka.	8	7	1
27.	Controller, Accounts & Finance Directorate, Dhaka.	90	62	28
28.	Strategic Business Unit (SBU) Directorate, Dhaka.	33	17	16
29.	Program Directorate, Dhaka.	35	24	11
30.	General Manager (Commercial), Dhaka.	55	39	16
31.	Repair, Rehabilitation and Augmentation of Grid Substations (RRAGS) (East), Dhaka. (NB, this project is now complete)	24	14	10
32.	Chief Engineer (Project), Dhaka.	25	14	11
33.	Project Planning Directorate, Dhaka.	40	30	10
34.	Sylhet 90 MW CC (2nd Unit) Project, Dhaka.	16	7	9
35.	Chief Engineer (Service), Dhaka.	23	11	12
36.	Clearance & Movement, Dhaka.	18	13	5
37.	Deputy Director, Generation, Diesel, Dhaka	70	29	41
38.	450 MW Thermal Power Station Construction Project, Dhaka	15	5	10
39.	Central Equipment Repair Shop (CERS), Tongi	152	111	41
40.	GM, Training, Dhaka.	8	3	5
41.	Chief Engineer, Civil Works, Dhaka.	18	13	5
42.	Director, Civil Works Directorate, Dhaka.	16	8	8
43.	Civil Construction Division-1, Dhaka.	102	63	39
44.	Civil Construction Division-2, Dhaka.	60	39	21
	Sub Total A	**2112**	**1420**	**692**
Attached Field Offices				
45.	Regional Training Centre, Tongi, Gazipur.	25	16	9
46.	XEN, PC Pole Construction Plant, Aricha, Manikganj.	53	42	11
47.	XEN, Regional Civil Construction Unit, Chittagong.	48	20	28
48.	Chittagong PC pole Construction Plant, HaliSahar, Chittagong.	46	27	19
	Sub Total B	**172**	**105**	**67**
	Manpower finished project (C)		**63**	
	Grand Total (A+B+C)	**2284**	**1588**	**696**

10.2 FUNCTION AND STRUCTURE OF BPDB AS THE SINGLE BUYER

The most important function of the residual BPDB is that of single buyer. As the name suggests, as single buyer is the sole offtaker (purchaser) of all bulk power produced by generators. Conversely, it is the sole seller of bulk power to distribution/supply companies.

As noted in Section 2, transferring the single buyer function from BPDB to another entity (even a corporatized successor) will require assigning the PPAs. This should not be on the critical path for any restructuring program as it could result in lengthy delays. Hence, BPDB should continue to serve as the single buyer until the PPAs are assigned to a corporatized successor, at which point all personnel should transferred on an as-is, where-is basis to the new corporatized entity.

The single buyer typically performs the following functions:

- ***System planning***. It forecasts demand growth and determines the least cost generation and transmission capacity additions to meet that growth. In the new funding mechanism proposed for the sector, BPDB will prepare its system plan as it does now, but then forward it to HoldCo for review and funding analysis.

- ***Procurement***. It procures new generation, typically on a competitive basis, to meet expected demand.

- ***Contracting***. It contracts with generators and distributors for the purchase and sale of bulk power. PPAs will have to be developed for each of the new

- ***Settlement***. It settles (i.e. invoices distributors and pays generators) monthly for bulk power transactions.

BPDB currently conducts all of these functions except for procurement. While it participates in the procurement process for new independent power producers (IPPs), Power Cell leads this process on behalf of the Government of Bangladesh. BPDB employees from participate with the Power Cell team for procurement and contracting.

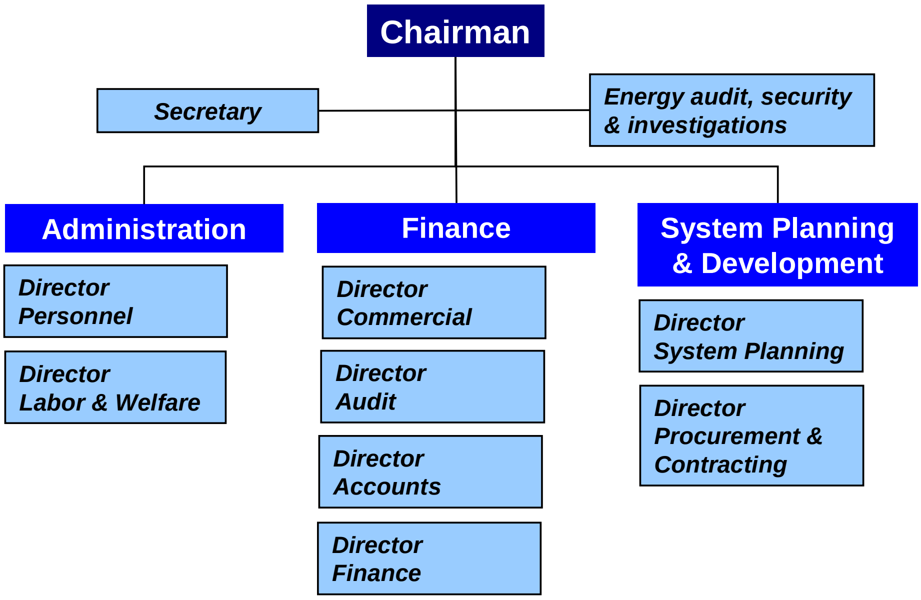
Frequently the single buyer is kept separate from the transmission or generation companies to prevent the potential for self-dealing, i.e. the conflict of interest that would occur if an entity were responsible for both identifying least-cost investment and benefiting from it. The structure envisioned here follows that approach.

The residual BPDB will not have an operating role for the physical delivery of power. It will fulfill purely planning and commercial functions. Though it may participate in monthly system operation coordination meetings with generators and PGCB, dispatch will remain solely under PGCB's National Load Dispatch Center (NLDC). The purpose of the monthly coordination meetings will be to share information on the monthly load forecast, plant operating costs, system constraints and scheduled maintenance so that the NLDC can establish a supply curve against which merit order dispatch can be conducted. The BPDB single buyer can contribute information on expected variable costs per the PPAs it holds, as well as take note of forecast plant availability.

Following the organizational design principles presented in Section 4.1, the structure of the BPDB Single Buyer should follow its value chain. The existing structure of BPDB follows the electricity value chain, at least at a high-level. The structure shown in Exhibit

1.9 should therefore be retained initially. As remaining operations of BPDB are corporatized, those branches of the organization will move to the subsidiaries. By the time the corporatization of subsidiaries is complete and BPDB performs only the single buyer function, all of the organizational units under Member Distribution and Member Generation will have been spun off along with all training, engineering, and logistics units to the Support Services company. The remaining organizational units under Administration and Finance will slim down as personnel and in some cases, entire units, move to the new subsidiaries. Ultimately, BPDB as the single buyer will have on the order of 200 personnel and an organizational structure along the lines of that shown in Exhibit 10.2.

Exhibit 10.2: Structure of Residual BPDB as Single Buyer



The functions of each department would be much the same as in the existing BPDB.

Chairman

- Secretary would perform the usual corporate secretarial functions
- Energy Audit, Security & Investigations will check metering, billing and collections

Administration

- Personnel would handle the HR management cycle as shown in Exhibit 6.1
- Labor & Welfare would administer employee benefits

Finance

- Commercial would handle billing & collections, implementing the terms of the contracts
- Audit would supervise audits

- Accounts would keep the books

- Finance would forecast future financial performance, especially cash flow needs, and would help assess the modality for future generation additions, i.e. as IPP or under state-owned generation company.

System Planning & Development

- System Planning will create the system plan

- Procurement & Contracting will prepare and supervise contracting for all generation, and will support Power Cell for procurement of new IPPs.

10.3 POWER SYSTEM RELIABILITY IN THE CORPORATIZED ENVIRONMENT

Reliability of power supply remains a major concern for the Government and other stakeholders. These stakeholders seek to understand how corporatization (in particular the establishment of HoldCo and focusing of BPDB as single buyer) can contribute to improved power system reliability.

Reliability depends directly on two sets of activities:

- ***System control and operations***. In the short term (real time, hours, days and weeks), system reliability depends upon the monitoring and management of system operation. This includes dispatch scheduling, control of voltage, frequency and stability, load shedding and restoration, feeder control, real-time balancing of connected load and generation, system protection, etc.

- ***Planning, procurement, construction and commissioning***. In the longer term (months and years), system reliability depends on preparation of a feasible least-cost plan and the subsequent procurement, construction and commissioning of generation, transmission and distribution capacity according to that plan, as well as acquisition of consumable items like fuel, on a timely basis.

This report presents several recommendations regarding planning and procurement that are intended to enhance system reliability in addition to other benefits. These recommendations include:

- Improved performance management among operating companies, supporting timely implementation of investment plans (Chapter 3)

- Creation of a financial planning function under HoldCo to optimize allocation of available capex funding (Chapters 3 and 8)

- In the longer term, introduction of new modalities for sector funding (Appendix K)

System control and operations, on the other hand, are not directly performed or affected by HoldCo or the residual BPDB functioning as single buyer. These entities provide commercial functions, not technical functions. They are not responsible for physical operation of the system. More generally, corporatization is about long-term management of the power sector, not short-term operational control of the grid system. Both are necessary for a successful sector, and they should be mutually reinforcing.

System operations should be the responsibility of PGCB (which includes the NLDC). It must fulfill this responsibility by actively coordinating grid users, including generators and distributors as well as any large consumers connected directly to the transmission system. Standard international practice suggests that NLDC should convene monthly coordination meetings attended by all generators (including IPPs), PGCB transmission, all distributors and large direct consumers, as well as the single buyer. These meetings would review planned maintenance, the operational load forecast, and cost inputs for merit order dispatch. This would enable NLDC to prepare supply curves for each dispatch period over the coming month, incorporating any dispatch constraints, as a basis for dispatch scheduling on a merit order basis to the extent it is possible.

In addition, generators and distributors must follow the instructions of the NLDC. Certainly implementation of Automatic Generation Control (AGC), transmission SCADA and distribution automation systems can help centralize system control and ensure compliance with instructions. However, such technology is not essential for effective NLDC control. The fundamental requirement is that generators and distributors comply with NLDC instructions regardless of how those are delivered.

Normally the specifics of such compliance would be documented in a grid code, which ultimately would be enforced by a regulator. Although PGCB had developed a grid code, it has not been fully introduced and the BERC is not yet in a position to formally adopt the code and compel compliance.

These suggestions are consistent with the findings of the Fact Finding Committee convened by Power Division to investigate the grid failures resulting Cyclone Sidr on 16 November 2007[27]. That report concluded that there were both technical as well as managerial reasons for the duration and extent of the system outages resulting from Cyclone Sidr. Technical causes included unreliability of telecommunications facilities, poor operator controls and displays, absence of AGC and inadequate number of self-starting units. Managerial causes include lack of responsiveness by some generators to NLDC instructions, imprecise or unheeded load allocation commands to/by distributors, as well as poor internal processes and controls within NLDC itself (including absence of contingency plans and emergency training).

Therefore, until a grid code is formally adopted and enforced by the regulator, the Minister of Power, Energy and Mineral Resources, or the Secretary (Power) as appropriate, should establish a grid system operations committee, chaired by the head of system operation. The instruction establishing this committee should:

- Identify members of the committee as the heads of the all generators (including IPPs), distributors, and the single buyer (BPDB).

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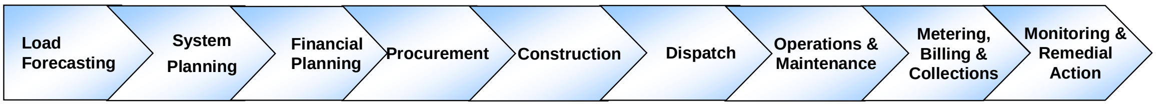
[27] Fact Finding Committee formed by Power Division, Presentation on *Report on National Grid Failures on 16 November 2007*, 30 December 2007. This report drew heavily on a technical study conducted by the Bangladesh University of Engineering & Technology (BUET).

- Establish the sole authority of NLDC to control the real-time operation of the system, accountable for operational reliability.
- Mandate that that all entities connected to the transmission system must take timely action on instructions issued by the head of system operation regarding real-time operation of the system
- Compel members of the committee to participate in monthly system coordination meetings chaired by NLDC, and provide information requested by NLDC for planning system operations.
- Provide for NLDC to report member compliance to the Government authority issuing the instruction, and outline penalties for non-compliance

System operation is but one element of the electricity value chain. Exhibit 10.3 depicts the complete value chain.

Exhibit 10.3: The Electricity Value Chain



Ultimately, reliability of power supply depends upon execution of each element of this value chain. The table in Exhibit 10.4 shows how responsibilities for performance of each element of the chain may be allocated across the power sector entities described in this report. The exhibit also indicates the document(s) that govern the execution of each element of the chain. Not all of these documents have been prepared, but eventually the sector will require the development of and adherence to these documents to guide each of the sector entities in fulfilling its role.

Exhibit 10.4: Post-Corporatization Responsibilities Across the Power Sector

Value Chain Element ***(Governing document)***	**Generation companies**	**PGCB (incl. NLDC)**	**Distribution companies**	**Residual BPDB (Single Buyer)**	**HoldCo**
Load forecasting ***(Grid Code)***	Prepare forecasts of their own availability and potential output for both operational and planning time scales	Prepares, ensures consistency of, and distributes day-, week- and month-ahead forecasts for system operations	Each prepares bottom-up forecast for own service area for both planning and operational time scales	For operational forecasts: receives forecasts from PGCB For planning forecasts: consolidates, checks & ensures consistency	-
System planning ***(Grid Code, Planning Code)***	Provides generation inputs to plan	Provides transmission inputs to plan	Plans local distribution systems	Formulates system least-cost plan	-
Financial planning ***(HoldCo MOA / AOA)***	Proposes capital requirements for plan implementation	Proposes capital requirements for plan implementation	Proposes capital requirements for plan implementation	Provides least-cost plan details to HoldCo	Optimizes capital allocation from Government across entities to best achieve performance contract targets
Procurement ***(Government procurement regulations, Tendering Code)***	Procures fuel & spares, and may procure new capacity as authorized separately by regulator & shareholder.	Procures transmission and grid sub-stations	Procures distribution line materials and sub stations	Works with Power Cell to procure new generation and serves as PPA counterparty	Establishes procurement authorization levels for subsidiaries via shareholder role
Construction ***(Grid Code, other codes & regulations)***	Constructs new generation	Constructs new transmission	Constructs new distribution	-	-
Dispatch ***(Grid Code)***	Follows system operator instructions	Performs system operator role through NLDC	Follows system operator instructions	Provides cost inputs to system operator per PPAs	-
Operations & Maintenance ***(Grid Code, AOA / MOA of entities, contracts & licenses)***	Operates & maintains generation	Operates & maintains transmission and NLDC	Operates & maintains distribution	-	-
Metering, Billing & Collections ***(Grid Code, Supply Code)***	Bills Single Buyer for power produced	Bills distributors for transmission services	Performs retail customer metering, billing & collections	Bills distributors & pays generators for bulk power supply	-
Monitoring & Remedial Actions ***(Annual: HoldCo MOA / AOA Operational: Grid Code, contracts)***	Internal monitoring and performance management to meet SubCo-HoldCo performance contract	Internal monitoring and performance management to meet SubCo-HoldCo performance contract	Internal monitoring and performance management to meet SubCo-HoldCo performance contract	Depends on whether Single Buyer establishes performance contract with Government or becomes SubCo	Monitoring and performance management of SubCos in line with HoldCo-Government performance contract

APPENDIX A: TERMS OF REFERENCE

TECHNICAL ASSISTANCE

FOR THE

CORPORATIZATION OF THE BANGLADESH POWER DEVELOPMENT BOARD

OUTLINE TERMS OF REFERENCE FOR CONSULTING SERVICES

1. In close consultation with various stakeholders and in close collaboration with the Ministry of Power, Energy, and Mineral Resources (MPEMR), BPDB, and the task force to be established by the Government to corporatize BPDB, the consultants will undertake, but not be limited to, the following tasks:

A. Phase I

1. Legal and Commercial Aspects of Corporatization

2. The legal and commercial corporatization tasks will comprise all of the procedural, legal, and operational requirements for establishing a corporation, effecting the transfer and insuring that the company has the rights and authorities needed to conduct the business. The tasks will include the following:

(i) Review the Memorandum and Articles of Association prepared for registration of the corporatized company, and determine what, if any, adjustments are required;

(ii) Review the current legal and regulatory framework in Bangladesh applicable to corporatization of BPDB;

(iii) Review the existing organization and management structure of BPDB. assess management systems including financing management, personnel management, technical operations and inventory management, etc.;

(iv) Review all relevant studies, reports, and policies related to corporatization of power sector entities in Bangladesh including the final report of ADB's TA3343-BAN: Corporatization of the Ashuganj Power Station and ADB's report on Country Assistance Program Evaluation for Bangladesh (CAP: BAN2003-03);

(v) Based upon existing conditions and the studies made above, suggest an appropriate methodology and approach to corporatization of BPDB as a holding company. This should include a timetable and schedule of activities to be completed, and a clear assignment of duties/responsibilities to ensure each step is completed. The methodology should include legal as well as physical transfers of assets, personnel, and liabilities;

(vi) Determine what, if any, additional legal documents and/or instruments would be required to effect the corporatization of BPDB as a holding company;

(vii) Recommend the roles and functions of the proposed BPDB holding company;

(viii) Define the functions and responsibilities of the new company after corporatization and the relations of BPDB holding company and its subsidiaries with other entities in the power sector;

(ix) Identify transactions between the corporatized company and other power sector entities in the post corporatization period; review existing power purchase agreements and gas purchase agreements signed between BDPB and other relevant entities; recommend any changes in the agreements, if any, for use by the corporatized company;

(x) Prepared detailed functions, responsibility and organizational structure of the Single Buyer after corporatization of BPDB;

(xi) Identify legal steps to be undertaken to transfer assets and personnel from BPDB to the corporitized company, and draft the necessary legal documents;

(xii) Review and design an effective organizational and management corporate structure for the corporatized company and its generation, transmission, and distribution subsidiaries with defined functional responsibility;

(xiii) Define rules and responsibilities of the Board of Directors and Management;

(xiv) Establish performance criteria, and develop a summary business plan for the corporatized company; and

(xv) Prepare a strategic paper for offloading of subsidiary companies' shares held by BPDB;

2. Accounting and Financial Management

3. The scope of accounting and financial management tasks will include:

(i) Review the existing BPDB's accounting system, internal control policies and procedures, and recommend required improvements, if any;

(ii) Review of the general ledgers of BPDB to identify the relevant accounting transactions and balances;

(iii) Complete a physical inventory count including fixed assets and inventory. Assets should be categorized as operational or administrative;

(iv) Review financial structure of BPDB, such as assets and liability structure, debt/equity ratio, identify existing contracts and obligations, and investment needs; and identify issues related to transfer of assets and liabilities to the corporitized BPDB; and recommend any actions to address the issues;

(v) Appraise and recommend any adjustments to the assets and liabilities, estimate the necessary working capital for the corporatized company and prepared a proposal for the funding of the working capital requirements;

(vi) Prepare the disposal/divesture plan for the non-core business activities, if any; and

(vii) Prepare financial projection for the corporatized company for the next 5 years.

3. Human Resources Management

4. The scope of human resources management in Phase I is to carry out a due diligence of the organizational structure of BPDB, staffing issues, and employment rules and personnel procedures. The tasks will include:

(i) Develop a realistic staffing plan for the corporatized BPDB, assess BPDB's existing staffing capabilities, and evaluate impacts of corporatization on the existing staff of BPDB;

(ii) Prepare draft job descriptions and qualification requirements for key positions of the corporatized company;

(iii) Propose a draft salary structure suitable for the corporatized BPDB;

(iv) Identify bottlenecks for transfer of employees from BPDB to the corporatized company and propose solutions;

(v) Prepare need analysis of management training for the new managers; and

(vi) Identify training requirements for the corporatized company's positions, if any.

B. Phase II

5. Building on the work conducted in Phase I and taking into account the comments of the Government, ADB on the Phase I work as well as the outcome of the workshop, the consultant will undertake the following activities during Phase II.

1. Development of Management Information System

(i) Determine the MIS system requirements for the corporatized company including human resources management, physical asset management, inventory management and financial management;

(ii) Design MIS system including determination of daily and monthly MIS reporting formats to enable management of the corporatized company to focus on key issues;

(iii) Determine hardware and software requirements (specifications and budgets) for implementation of MIS; and

(iv) Determine staffing requirements and training needs of MIS personnel for the corporatized company.

2. Assistance in Corporatization/Initial Operation

(i) Develop strategies to minimize the social impact of the corporatization process;

(ii) Assist the Government and BPDB in conducting pubic awareness/communication with stakeholders on the corporatization process;

(iii) Finalize corporate governance issues including (a) the roles and responsibilities of the Board of Directors, approval/authorizations, stockholder rights; (b) financial operations such as funding, controllership, banking/trustee; and (c) responsibilities, incentives, and accountability of management;

(iv) Finalize human resources plans including (a) employee transfer scheme; (b) voluntary early retirement plan; and (c) new employment terms and conditions, and (d) organizational structure and staffing for the new company; and propose recommendations on the issues related to implementation of human resources plans;

(v) Finalize financial management operations including (a) identifying and evaluating the assets and liabilities to be vested to the new company; (b) establishing the debt/equity structure of the new company at the outset and the share and loan capitals of the new company; (c) identifying the required start-up or working capital for the new company; (d) projecting an opening balance sheet for the new company when the legal transfer of operations, employees, assets and liabilities is expected to take effect; and (e) presenting a ten year corporate plan for the new company;

(vi) Recommend financial management operations including forecasting, startup and long-term capital raising, and cash flow management; and

(vii) Finalize recommendations on divestment of BPDB shares in its subsidiary companies.

APPENDIX B: HOLDCO MEMORANDUM OF ASSOCIATION

The Companies Act, 1994
(Act No.XVIII of 1994)

A Public Company Limited by Shares

MEMORANDUM OF ASSOCIATION

OF

HOLDING COMPANY LIMITED

I) The name of the Company is 'HOLDING COMPANY LIMITED'.

II) The Registered Office of the Company shall be situated in Bangladesh.

III) The principal objective of the Company is to own, establish, set up, found, form, incorporate and promote subsidiary companies. Without prejudice to the generality of the foregoing provision, the Company shall, in particular have the following object and powers:

1. To take over, acquire and own the shares of the following companies, which are engaged in the business of generating, transmitting, trading, supplying, storing, distributing and/or marketing of electrical energy, or in the business of providing support services for the above activities, namely:
   a) West Zone Power Distribution Company Limited
   b) Electricity Generating Company of Bangladesh Limited
   c) Ashuganj Power Station Company Limited
   d) Power Grid Company of Bangladesh Limited
   e) Dhaka Power Distribution Company Limited
   f) Dhaka Electric Supply Company
   g) North West Zone Power Distribution Company Limited
   h) South Zone Power Distribution Company Limited
   i) Central Zone Power Distribution Company Limited

2. To invest in the power sector in all or part of the equity of existing and/or new power generation, transmission trading, supply, storage, distribution and/or marketing companies, or in companies providing support services for the above activities..

3. To sell any of its investments in subsidiaries or other companies to others at fair market value.

4. To merge with and amalgamate for the betterment of the Company with any other company whose objects are or include objects similar to those of the Company, whether by sale or purchase (for fully or partly paid-up shares or otherwise) of the undertaking, subject to the liabilities of the Company or any such other company as aforesaid, with or without winding-up or by sale or purchase (for fully or partly paid-

up shares or otherwise) of all or a controlling interest in the shares or stocks of the Company or any such other company as aforesaid, or by partnership or any arrangement of the nature of partnership or in any other manner.

5. To take part in the formation, promotion and/or supervision of any company (other than subsidiary companies) or undertaking consistent with the objects of the Company.

6. To acquire, hold, purchase, take on lease, exchange, hire, sell, transfer, let, mortgage, pledge, assign and/or otherwise dispose of property, both movable and immovable, including land or interest in land, buildings, easements, rights, privileges, concessions, patents, patent rights, trademarks, trade names, licences, processes, machinery, plant, equipment, stock-in-trade and any other moveable or immovable property of any kind whatsoever necessary or convenient for the purpose of or in connection with the business of the Company and to pay for the same either in cash or shares, with or without preferred rights in respect of dividend, the repayment of capital or otherwise or by any securities which the Company has power to issue or partly in one mode and partly in another and generally on such terms as the Company may determine.

7. To enter into any partnership, arrangement for sharing profits, union of interests, reciprocal concession or co-operation with any company, firm or person carrying on or proposing to carry on any business within the objects of the Company and to acquire and hold, sell, deal with or dispose of shares, stocks or securities of any such company and to guarantee the contracts or liabilities of or the payment of the dividend, interest or capital of any shares, stocks or securities of such company and to subsidise or otherwise assist any such company.

8. To purchase or otherwise acquire and undertake all or any part of the business, property and transaction of any company carrying on any business which the company is authorised to carry on or which is otherwise suitable for the purpose of the Company.

9. To establish or promote or concur in establishing or promoting any other company whose objects include the acquisition and taking over of all or any part of the business, undertaking, property, right, asset, liability and transaction of the Company or the promotion of which shall be, in any manner, calculated to advance, directly or indirectly, the objects or interests of the Company and to acquire and hold or dispose of shares, stocks or securities of and guarantee the payment of the dividend, interest or capital of any shares, stocks or securities issued by any such company.

10. To enter into any arrangement with any Government or other authorities (supreme, municipal, local, statutory or otherwise) and to obtain from any such Government or authority for the Company or its subsidiaries all rights, concessions and privileges that may seem conducive to any or all of the Company’s objects.

11. To represent all its subsidiary companies in public financing matters, including project finance, with the Government and all its agencies, organizations and authorities concerned, including without limitation the Power Division and the Planning Commission of the Government.

12. To negotiate with and obtain from the Government or any other lawful source on its own behalf or on behalf of its subsidiaries funds and financing in the form of grants, loans, equity or any other legally permissible form, and determine the allocation thereof, including without limitation to arrange, borrow, raise, receive, seek, obtain and accept grants, gifts, monies, funds, loans, donations, technical and financial assistance and foreign aids of any nature whatsoever required for the purposes of the Company from the Government, local authorities, banks and financial institutions, foreign donors and international and other bilateral and multilateral financing institutions, with or without security, for the Company and transfer such monies to the subsidiary companies at agreed terms as and when deemed necessary and expedient.

13. To appoint, engage, employ, maintain, provide for, recruit, take on lien/deputation or on contract and dismiss, terminate or discontinue the services of any chairman, managing director, director, secretaries, managers, accountants, staff, employees, officers, superintendents, advisers, consultants, attorneys, engineers, technicians, experts, agents, clerks and labourers of the Company and to remunerate any such person at such rate and in such manner as may be thought fit.

14. To appoint or nominate directors of its subsidiaries or other investments .

15. To make, monitor and enforce performance contracts with its subsidiary companies or other investments.

16. To monitor and evaluate performance of the subsidiary companies, investments and undertakings for continuous improvement and development of the affairs and businesses of these holdings.

17. To hold powers of attorney in financial matters on behalf of its subsidiary companies.

18. To open and operate bank accounts (current, savings or otherwise) with any scheduled banks or financial institutions and obtain the facility of overdraft, cash credit, term loan or otherwise with such banks or financial institutions and to pay money from any such account.

19. To invest and deal with the money of the Company, not immediately required by the Company for the purpose of its business, in or upon such securities or investments and in such manner as may, from time to time, be determined by the Company.

20. To draw, make, accept, endorse, negotiate, discount and execute promissory notes, bills of exchange and other negotiable instruments and commercial or trading documents.

21. To guarantee, indemnify or become liable for the payment of money or for the performance of any obligation by any of its subsidiary companies in respect of all debts, contracts and facilities granted or to be granted by any bank or financial institution to any of its subsidiaries and to give any kind of security for the payment of such money or the performance of such obligation by such companies and for the aforesaid purposes to enter into any contract(s) of surety either alone or with co-sureties and in any such contract of surety to waive all or any of the privileges to which sureties are by law entitled and to secure, if necessary, any obligation(s)

undertaken by the Company as guarantor or co-guarantor or otherwise by mortgage, charge, assignment or otherwise of the whole or any part of the undertaking, property, assets or revenue of the Company, present or future, including its uncalled capital.

22. To prepare consolidated financial statements for the Company in accordance with Bangladesh Accounting Standards and/or International Accounting Standards.

23. To appoint external auditors for its subsidiaries and ensure that their audit programs are in accordance with Bangladesh Standards on Auditing and/or International Standards on Auditing.

24. To co-ordinate, monitor and review the internal audit function in all its subsidiary companies.

25. To monitor and review compliance with and performance of any performance contract entered into between the Company and any subsidiary thereof or with the directors of those subsidiaries, conduct any inquiry into or carry out an audit of performance contract related issues, and review periodically the internal audit report of any such subsidiaries.

26. To receive for itself by transfer from the Government, local or other competent authorities, organisation, body, bank or financial institution, within Bangladesh or outside, any project, equipment and/or assets whether movable or immovable.

27. To promote, organize, establish and maintain branch or liaison offices and agencies of the Company in Bangladesh or in any other part of the world as may be necessary or useful for carrying on the business and objects of the Company and to manage and control such branch or liaison offices and agencies and to delegate such powers and functions to such branch or liaison offices and agencies as may be considered necessary.

28. To mortgage and charge the undertaking of all or any of the moveable and immovable property and assets, present or future, and all or any of the uncalled capital for the time being of the Company issued at a premium or discount and for such consideration and with and subject to such rights, powers, privileges and conditions as may be thought fit, debentures or debenture stock, either permanent or redeemable or repayable, and to make and issue other forms of security and collaterally or further to secure any securities of the Company by a trust deed or other assurances.

29. To subscribe for, buy, sell, hold in the name of the Company or any nominee, or transfer shares, stocks, promissory notes, bonds, obligations and securities issued or guaranteed by any body (whether corporate or not), person, association or Government Authority (including legal agency or sub-division thereof).

30. To grant pensions, allowances, gratuities, bonuses and other benefits to the officers, ex-officers, employees (including directors and ex-directors) of the Company or the dependants or connections of any such persons and to establish, contribute to and maintain or concur or join with any other companies, corporations, firms or persons in establishing, contributing to and maintaining trusts, fund or schemes (whether contributory or non-contributory) with a view to providing pensions, provident fund

benefits, sickness or compassionate allowances, life assurances or other benefits to any such persons as aforesaid.

31. To sell, improve, manage, develop, exchange, mortgage, dispose of, turn to account, let, lease (whether on rent, royalty or with share of profits or otherwise) and, in any other manner, deal with all or any part of the undertaking, property, asset and right of the Company and to grant licences, easements and other rights in or over the same and to sell or dispose of the business, undertaking, property, right, asset, liability and transaction of the Company (including shares, stocks, bonds, debentures, mortgage and other obligations or any of them) and in any of such cases to accept payment for the same either in cash (by instalments or otherwise) or in fully or partly paid-up shares of any other company or corporation, with or without preferred or deferred or guaranteed rights in respect of dividend or repayment of capital or otherwise, or in debentures, mortgage, debenture-stocks or other securities of any company or corporation, or partly in one mode and partly in another, or for such other consideration and generally on such terms as the Company may determine and to hold, dispose of or otherwise deal with any shares, stocks or other securities so acquired.

32. To enter into and perform all such contracts as it may consider necessary or expedient.

33. To train personnel, cause studies, surveys, experiments or research to be made and to contribute towards the costs of any such studies, surveys, experiments or research made by any other body, agency or organisation.

34. To support, conduct and arrange training programs, seminars, workshops and meetings for the promotion of interaction amongst government organizations, trade associations and similar types of businesses, professional societies, individuals and institutions for advancing the objectives of the Company.

35. To become a member of and represent the Company at meetings of local, national and international organizations and bodies concerned with activities connected or associated with any of the businesses of the Company and to provide services of all kinds to such organizations and bodies and to negotiate and enter into national and international agreements in matters of concern or interest to the Company.

36. To pay all expenses incidental to the formation or promotion of the Company or any other company promoted wholly or in part by the Company and to remunerate any person or company for services rendered or to be rendered with regard to the same.

37. To do all such other lawful things as are incidental or conducive to the attainment of the aforesaid objectives or any one of them and to further the value and growth of the Company.

38. To do all or any of the matters and things mentioned in the preceding paragraphs in any part of the world and either as principals, agents, trustees, contractors or otherwise and either alone or, as in joint-venture, in conjunction with others and either by or through agents, sub-contractors, trustees or otherwise.

It is declared that notwithstanding anything contained in the foregoing object clauses of the Memorandum of Association nothing contained therein shall be construed as empowering the Company to directly undertake the business of electricity generation, transmission, trading, storage, distribution, marketing or supply on its own account.

IV) The liability of the Members is limited.

V) The Authorised Share Capital of the Company is Tk._____ (Taka ______ only) divided into __________ (__________) shares of Tk._____ (Taka __________ only) each. The Paid-up Share Capital of the Company is Tk._____ (Taka ____ only).

We, the several persons whose names, addresses and descriptions are subscribed below, are desirous of being formed into a company in pursuance of this Memorandum of Association and we respectively agree to take the number of shares in the capital of the Company set opposite our respective names and hereunder subscribe to the Memorandum:

Names, Addresses, Descriptions and Nationality of the Subscribers	Number of Shares taken by each Subscriber	Signature of Subscribers	Name, Addresses and Description of Witnesses
1. 2. 3. 4. 5. 6. 7.			

Dated : the ______ day of _______, 2007

APPENDIX C: HOLDCO ARTICLES OF ASSOCIATION

The Companies Act, 1994
(Act No.XVIII of 1994)

A Public Company Limited by Shares

ARTICLES OF ASSOCIATION

OF

HOLDING COMPANY LIMITED

PRELIMINARY

1. The Regulations contained in Schedule-I to the Companies Act, 1994, shall not apply to the Company except in so far as the same are repeated, contained or expressly made applicable in these Articles or by the Act.

2. In these Articles, unless there is something in the subject or context inconsistent therewith:
   (a) 'Act' or 'the said Act' means the Companies Act, 1994, or any amendment thereto or re-enactment thereof for the time being in force;
   (b) ‘Annual General Meeting’ means the general meeting of the Company held in accordance with Section 81 of the Act;
   (c) 'Articles' mean the articles of association of the Company as hereby framed and/or as altered, from time to time, by special resolution of the Company;
   (d) 'Auditor' means any person appointed as an auditor under the Act;
   (e) 'Board' or ‘Board of Directors’ means the board of directors for the time being of the Company;
   (f) ‘Chairman’ means the chairman for the time being of the Board of the Company;
   (g) 'Company' means HOLDING COMPANY LIMITED formed and registered under the said Act;
   (h) ‘Debenture’ includes debenture stock, bonds and any other securities of a company, whether constituting a charge on the assets of company or not;
   (i) 'Director' means any of the directors for the time being of the Company and includes any person occupying the position of Director of the Company, by whatever name called;
   (j) 'Dividend' includes bonus shares;
   (k) ‘Energy’ means electrical energy, when generated, transmitted, supplied or used for any purpose;
   (l) ‘Extraordinary Resolution’ means a resolution, which has been passed by a majority of not less than three-fourths of such members entitled to vote as are present in person or by proxy at a general meeting at which the notice of the meeting included the intention to propose the resolution as an extraordinary resolution;
   (m) ‘General Meeting’ of the Company means a meeting of the members and includes annual general meeting and extraordinary general meetings;

(n) ‘Government’ means the government of the People’s Republic of Bangladesh;
(o) 'Managing Director' means a managing director appointed as such for the time being of the Company and is the chief executive officer of the Company;
(p) ‘Member’ is a natural or juridical person whose name is entered in the register of members of the Company;
(q) 'Month' means a calendar month;
(r) ‘Power’ includes hydraulic as well as thermal power, electrical power, electrical energy, steam, gas or any other power notified by the Government;
(s) ‘Proxy' includes an attorney duly constituted under a power of attorney;
(t) 'Register of Members' means the register of members to be kept pursuant to Section 34 of the Act;
(u) 'Registrar' means a registrar or any other officer, by whatever designation, performing under this Act the duty of registration of companies;
(v) 'Seal' means the common seal of the Company;
(x) 'Share' means a share in the capital of the Company and includes stock.

3. In these Articles, unless the context otherwise requires, expressions defined in the Companies Act, 1994, shall have the meanings so defined and words importing the singular shall include the plural and vice versa and words importing the masculine gender shall be taken to include females and words importing persons shall include bodies corporate and expressions referring to writing shall include references to printing, typewriting, lithography, photography and any other mode of representing or reproducing words in visible form.

PUBLIC COMPANY

4. The Company is a public limited company within the meaning of Section 2(1)(r) of the Act.

AUTHORISED SHARE CAPITAL

5. The Authorised Share Capital of the Company shall be Tk.______________________ (Taka ____________________ only) divided into __________ (__________) shares of Tk.__________ (Taka _____________________ only) each. The Paid-up Share Capital of the Company shall be Tk.__________ (Taka ____________________ only).

SHARES

6. By an Extraordinary Resolution of the members, a maximum of 49% (forty nine percent) of the issued shares of the Company may be offered to the public for subscription from time to time. A minimum of 51% (fifty one percent) of the issued shares of the Company shall at all times be owned by the Government or its agencies, instrumentalities, corporations, companies or nominees, which cannot and will not be offered to the public for subscription.

7. After shares are offered for public subscription by the Company, the shares which have been offered for public subscription shall be classified as ‘Group-B Shares’ and the shareholders holding the ‘Group-B Shares’ shall be classified as ‘Group-B Shareholders’. The shares retained by the Government or its agencies,

instrumentalities, corporations, companies or nominees shall be classified as 'Group-A Shares' and the holders of the 'Group-A Shares' shall be classified as 'Group-A Shareholders'. All the Group-A and Group-B Shareholders shall have equal rights.

8. Without prejudice to any special right previously conferred on the holders of existing shares, the Company may, from time to time, by special resolution determine the following matters:

   (a) issue of preference shares whether redeemable or otherwise, deferred shares or shares having special right; and

   (b) restrictions that may be imposed with regard to dividend, voting, return of share capital or any other matter.

ALLOTMENT OF SHARES

9. The Board of Directors shall, as regards any allotment of shares, duly comply with such of the provisions of Sections 148 and 151 of the Act as may be applicable thereto.

10. Any issue of further or new shares at any time shall be made in such manner so as to maintain the minimum 51% ownership of the shares in the capital of the Company by the Government.

11. The shares in the capital of the Company shall be under the control of the Board of Directors, who may allot them or otherwise dispose of the same or any of them to such persons in such proportion and on such terms and conditions, and either at a premium or at par or, subject to compliance with such of the provisions of Section 153 of the Act as may be applicable thereto, at a discount, and at such time as the Board of Directors may, from time to time, think fit and proper.

SHARE CERTIFICATE

12. Every person whose name is entered as a Member in the Register of Members shall, free of cost, be entitled to a certificate under the common seal of the Company specifying the shares held by him and the amount paid up thereon: provided that in respect of shares held jointly by several persons the Company shall not be bound to issue more than one certificate and delivery of a certificate for one or more shares to one of several joint holders shall be sufficient delivery to all.

13. If a share certificate is defaced, lost or destroyed it may be renewed and a duplicate share certificate may be issued on payment of such fee as may be determined by the Board of Directors and on such terms, if any, as to evidence and indemnity as the Board of Directors may think fit.

CALL ON SHARES

14. The Board of Directors may, from time to time, make calls upon the Members in respect of any moneys unpaid on the shares held by them, provided that no call shall exceed one-fourth of the nominal amount of the share or be payable at less than one

month from the last call and each Member shall, subject to receiving, at least, 14 (fourteen) day's notice specifying the time of payment, pay to the Company at the time so specified the amount called on his shares.

15. The joint-holders of a share shall be jointly and severally liable to pay all calls in respect thereof.

16. If a sum called in respect of a share is not paid before or on the day appointed for payment thereof, the person from whom the sum is due shall pay interest upon the sum at a rate to be determined by the Board of Directors from the day appointed for the payment thereof to the time of the actual payment, but the Board of Directors shall be at liberty to waive payment of that interest wholly or in part.

17. The provisions of these Articles as to payment of interest shall apply in the case of non-payment of any sum which, by the terms of allotment of a share, becomes payable at a fixed time, whether on account of the amount of the share or by way of premium.

18. The Board of Directors may make arrangements on the allotment of shares for difference between the holders in the amount of calls to be paid and in the times of payment.

19. The Board of Directors may, at its option, receive from any Member willing to advance all or any part of the moneys uncalled and unpaid upon any shares held by him and upon all or any of the moneys so advanced may pay to such Member interest at such rate as may be agreed upon between the Member paying the sum in advance and the Board of Directors.

COMMISSION ON SUBSCRIPTION OF SHARES

20. The Company may, at any time, pay commission to any person for subscribing or agreeing to subscribe (whether absolutely or conditionally) for any shares in the Company or procuring or agreeing to procure subscriptions (whether absolute or conditional) for any shares in the Company; provided, however, that the commission shall not exceed 1.5% (one and a half per cent) of the value of the shares subscribed for or to be subscribed in each case. The Company may also, with the prior consent of the Securities and Exchange Commission, pay on any issue of shares such brokerage as may be lawful; provided, however, that such brokerage shall not exceed 1% (one per cent) of the value of the shares, debenture or debenture-stock paid up at the time of issue.

LIEN AND FORFEITURE OF SHARES

21. The Company shall have a lien on the following shares and also on all dividends payable thereon, namely:

    (a) all shares other than fully paid-up shares, for all moneys whether presently payable or not, called or payable at a fixed time in respect of that share; and
    (b) all shares, other than fully paid-up shares, standing registered in the name of a single person, for all moneys presently payable by him or his estate to the

Company.

The Directors may, at any time, declare any such share to be wholly or partly exempt from the provisions of this Article.

22. The Company may sell, in such manner as the Board of Directors think fit, any share on which the Company has a lien; provided, however, that no sale shall be made, unless some money, in respect of which the lien exists, is payable in cash and a period of 14 (fourteen) days had expired after a written notice, stating and demanding such money, has been served upon the holder of the share registered for the time being or upon the person entitled to the share by reason of the former shareholder's death or insolvency.

23. The proceeds of the sale shall be applied in payment of such part of the amount, in respect of which the lien exists, as is presently payable and the residue shall, subject to a like lien for sums not presently payable as existed upon the shares prior to the sale, be paid to the persons entitled to the shares at the date of the sale. The purchaser shall be registered as the holder of the shares and he shall not be bound to see to the application of the purchase-money, nor shall his title to the shares be affected by any irregularity or invalidity in the proceeding in reference to the sale.

24. Where the Company sells any share in pursuance of the preceding Articles and the former holder of the share does not deliver the share certificate for the share(s) to the Company, the Board of Directors may issue a new certificate for such share(s) distinguishing it, in such manner as they think fit, from the certificate not so delivered.

25. If a Member fails to pay any call or instalment of a call on the day appointed for payment thereof, the Board of Directors may, at any time thereafter as any part of such call or instalment remain unpaid, serve a notice on him requiring payment of so much of the call or instalment as is unpaid together with any interest which may have accrued.

26. The notice shall name a further day, not earlier than the expiration of 14 (fourteen) days from the date of the notice, on or before which the payment required by the notice is to be made, and shall state that in the event of non-payment at or before the time so appointed, the shares in respect of which the call was made will be liable to be forfeited.

27. If the requirements of any such notice as aforesaid are not complied with, any share in respect of which the notice has been given may, at anytime thereafter, but, before the payment required by the notice has been made, be forfeited by the resolution of the Board of Directors to that effect.

28. A forfeited share may be sold or otherwise disposed of on such terms and in such manner as the Board of Directors think fit, and at any time before a sale or disposition of the forfeiture may be cancelled on such terms as the Board of Directors think fit.

29. A person whose shares have been forfeited shall cease to be a Member in respect of the forfeited shares, but shall, notwithstanding, remain liable to pay to the Company

all moneys which at the date of the forfeiture were presently payable by him to the Company in respect of the shares, but his liability shall cease if and when the Company receives payment in full of the nominal amount of the shares.

30. A duly verified declaration in writing that the declarant is a Director of the Company, and that a share in the Company has been duly forfeited on a date stated in the declaration, shall be conclusive evidence of the facts therein stated as against all persons claiming to be entitled to the share. Such declaration and the receipt of the Company for the consideration, if any, given for the share on the sale or disposition thereof shall constitute a good title to the share. The person who becomes the shareholder, under the provisions of this Article, shall be registered as the holder of the share and shall not be bound to see to the application of the purchase-money, if any, nor shall his title to the share be affected by any irregularity or invalidity in the proceedings in reference to the forfeiture, sale or disposal of the share.

31. The provisions of these Articles as to forfeiture shall apply in the case of non-payment of any sum which, by the terms of issue of a share, becomes payable at a fixed time, whether on account of the amount of the share, or by way of premium, as if the same has been payable by virtue of a call duly made and notified.

TRANSFER AND TRANSMISSION OF SHARES

32. Subject to such of the restriction of these Articles as may be applicable any Member may transfer all or any of his shares by instrument in writing in any usual or common form or any other form which the Directors may approve.

33. The right to transfer the shares of the Company shall be restricted insofar as to ensure that at no times shall the number of issued and outstanding shares of the Company held by the Government of Bangladesh, its agencies or instrumentalities fall below 51% of the issued and outstanding shares of the Company, and the Company shall not register any transfer of shares which will result in such a fall in number of the shares held by the Government of Bangladesh, its agencies or instrumentalities.

34. The instrument of transfer of any share in the Company shall be executed both by or on behalf of the transferor and the transferee and the transferor shall remain holder of the share until the name of the transferee is entered in the Register of Members in respect thereof.

35. The Board of Directors may decline to register any transfer of shares, not being fully paid-up shares, to a person of whom they do not approve and may also decline to register any transfer of shares on which the Company has a lien.

36. The Board of Directors may suspend the registration of transfer of shares during the 14 (fourteen) days immediately preceding the Annual General Meeting of the Company in each year.

37. The Board of Directors may decline to recognise any instrument of transfer or refuse to register such transfer, unless:
   (a) a fee not exceeding a sum as may be fixed by the Board of Directors is paid to the Company in respect thereof;

(b) the instrument of transfer of share is accompanied by the certificate of share to which it relates; and

(c) such evidence as the Board of Directors may reasonably require to show the right of the transferor to make the transfer has been furnished.

38. If the Directors refuse to register or decline to recognise the transfer of any shares, they shall, within 1 (one) month after the date on which the instrument of transfer was lodged with the Company, send to the transferee and the transferor notice of the refusal or non-recognition of the transfer.

39. The executors, administrators or legal heirs of a deceased sole holder of a share shall be the only persons recognised by the Company as having any title to the share. In the case of a share registered in the names of 2 (two) or more holders, the survivor or survivors shall be the only persons recognised by the Company as having any title to the share.

40. Any person becoming entitled to a share in consequence of the death or insolvency of a Member shall, upon such evidence being produced as may, from time to time, be required by the Board of Directors, have the right either to be registered as a Member in respect of the share or to make such transfer of the share as the deceased or insolvent person could have made: provided, however, that the Board of Directors shall have the same right to decline to recognise the transfer or to refuse or suspend the registration of the transfer as they could have done had the transfer been made by the deceased or insolvent shareholder before his death or insolvency.

41. A person becoming entitled to a share, by reason of the death or insolvency of the holder, shall be entitled to the same dividends and other advantages to which he would be entitled if he were the registered holder of the share; except that, he shall not, before being registered as a Member, in respect of the share, be entitled in respect of it to exercise any right conferred by membership in relation to the meetings of the Company.

ALTERATION OF SHARE CAPITAL

42. The Board of Directors may, with the sanction of the Company in general meeting, increase the share capital of the Company by such sum, to be divided into shares of such amount, as may be prescribed in the general meeting.

43. The new shares shall be subject to the same provisions with reference to the payment of calls, lien, transfer, transmission, forfeiture and otherwise as the shares in the original share capital.

44. Subject to any resolution sanctioning the increase of share capital, all new shares shall, before issue, be offered to such persons as at the date of the offer are entitled to receive notices from the Company of general meetings in proportion to the amount of the existing shares to which they are entitled. The offer shall be made by notice specifying the number of shares offered and limiting a time within which the offer, if not accepted, will be deemed to be declined and after the expiration of that time or on

the receipt of an intimation from the person to whom the offer is made that he declines to accept the shares offered, the Board of Directors may dispose of the same in such manner as they think most beneficial to the Company. The Directors may, likewise, so dispose of any new shares, which, by reason of the ratio the new shares bear to shares held by persons entitled to an offer of new shares, cannot, in the opinion of the Directors, be conveniently offered under these Articles.

45. The Company may, by special resolution, reduce its share capital in any manner and, with and subject to any applicable provisions of any law for the time being in force in Bangladesh.

46. The Company may, by ordinary resolution:

(a) consolidate and divide its share capital into shares of larger amount than its existing shares;

(b) by sub-division of its existing shares or any of them, divide the whole or any part of its share capital into shares of smaller amount than is originally fixed by the Memorandum of Association subject, nevertheless, to the provision of paragraph (d) of sub-section (1) of Section 53 of the Act; and

(c) cancel any shares which, at the date of the passing of the resolution, have not been taken or agreed to be taken by any person.

BORROWING POWERS

47. The Board of Directors may, subject to the provisions of Section 121 of the Act, from time to time, at their discretion, raise or borrow from any source any sums of money required for the purpose of the Company and raise and secure the payment or re-payment of such sums of money or loan in such manner and upon such terms and conditions in all respects as they may think fit and, in particular, by the issue of shares or debentures or by making, drawing, accepting or endorsing on behalf of the Company any promissory notes, bills of exchange, or by giving or issuing any of the securities of the Company or by the creation of mortgage, charge or hypothecation on all or any of the properties of the Company, both present and future, including the uncalled capital of the Company for the time being or by giving or creating mortgage, charge or hypothecation on any property of any third party as collateral security, and the Directors may, on behalf of the Company, guarantee the whole or any part of such loan or debts incurred by the Company with powers to secure guarantee against the liability in respect of such loan or debts and, generally, to borrow money on such future terms and conditions as may be mutually agreed to by the lenders and the Board of Directors of the Company.

STATUTORY AND GENERAL MEETINGS

48. The Company shall, within a period of not less than 1 (one) month and not more than (six) months from the date at which the Company is entitled to commence business, hold a general meeting of the Members of the Company, which shall be called the Statutory Meeting and in connection therewith, the Directors shall comply with the provisions of Section 83 of the Act. All the existing Directors of the Company shall

retire at the Statutory General meeting and new directors shall be elected from among persons selected by the Selection Panel in accordance with Article 73 below.

49. A general meeting of the Company shall be held within 18 (eighteen) months from the date of its incorporation and, thereafter, once at least in every calendar year at such time not being more than 15 (fifteen) months after the holding of the last preceding general meeting, and at such place as may be prescribed by the Company in general meeting. Such general meeting shall be called Annual General Meeting and all other general meetings of the Company, other than the Statutory Meeting, shall be called Extraordinary General Meeting.

50. The Board of Directors may, whenever they think fit, call an Extraordinary General Meeting and Extraordinary General Meetings shall also be called on such requisition, or in default, may be called by such requisitionists, as provided by Section 84 of the Act. If at any time there are not within Bangladesh sufficient Directors capable of acting to form a quorum at a meeting of the Board of Directors, any Director or any two Members of the Company may call an Extraordinary General Meeting in the same manner as nearly as possible as that in which meetings may be called by the Directors.

PROCEEDINGS AT GENERAL MEETING

51. Subject to the provisions of sub-section (2) of Section 87 of the Act relating to special resolution, 14 (fourteen) days notice shall be served specifying the agenda, place, the day and the hour of meeting and, in case of special business, the general nature of that business, shall be given, in manner hereinafter mentioned, or in such other manner, if any, as may be prescribed by the Company in general meeting, to such persons as are, under the Act or these Articles, entitled to receive such notice from the Company; but the accidental omission to give notice to or the non-receipt of notice by any Member shall not invalidate the proceedings at any general meeting.

52. In reckoning the 14 (fourteen) days the day on which the notice is served or deemed to be served is excluded but the day for which notice is given shall be included.

53. In the case of a general meeting where a special resolution is proposed to be passed, 21 (twenty-one) days notice specifying the intention to propose the resolution as a special resolution must be given.

54. All business shall be called special business that is transacted at an Extraordinary General Meeting, but the sanctioning of a dividend, the consideration of the accounts, balance-sheets and the ordinary report of the Directors and Auditors, the election of Directors and other officers in the place of those retiring by rotation and the fixing of the remuneration of the Auditors shall not be called special business.

55. No business shall be transacted at any general meeting unless a quorum of Members is present at the time when the meeting proceeds to transact business and, save as herein otherwise provided, 5 (five) Members personally present shall be a quorum.

56. If within half an hour from the time appointed for the meeting a quorum is not present, the meeting, if called upon the requisition of Members, shall be dissolved. In

any other case, it shall stand adjourned to the same day in the next week at the same time and place, and if, at the adjourned meeting, a quorum is not present within half an hour from the time appointed for the meeting, the Members present shall be a quorum.

57. The Chairman shall preside at general meetings. If the Chairman is unavailable to attend a general meeting, the Board of Directors shall select one of their Members to preside as Chairman at a general meeting of the Company.

58. If at any meeting the Chairman is not present within 30 (thirty) minutes after the time appointed for holding the meeting, the Members present shall choose some one of their number to be the Chairman of that meeting.

59. The Chairman may, with the consent of any meeting at which a quorum is present, and shall, if so directed by the meeting, adjourn the meeting from time to time and from place to place, but no business shall be transacted at any adjourned meeting other than the business left unfinished at the meeting from which the adjournment took place. When a meeting is adjourned for 10 (ten) days or more, notice of the adjourned meeting shall be given as in the case of an original meeting. Save as aforesaid, it shall not be necessary to give any notice of an adjournment or of the business to be transacted at an adjourned meeting.

60. At any general meeting a resolution put to the vote of the meeting shall be decided on a show of hands unless a poll is, before or on the declaration of the result of the show of hands, demanded by 5 (five) Members present in person or by proxy or the Chairman or any Member(s) holding not less than one-tenth of the issued capital of the Company which carries voting rights. Unless a poll is so demanded, a declaration by the Chairman that a resolution has, on a show of hands, been carried or carried unanimously or by a particular majority or lost and an entry to that effect in the book of the proceedings of the Company shall be conclusive evidence of the fact without proof of the number or proportion of the votes recorded in favour of, or against, that resolution.

61. If a poll is demanded, it shall be taken in such manner as the Chairman directs, and the result of the poll shall be deemed to be the resolution of the meeting at which the poll was demanded.

62. In the case of an equality of votes, whether on a show of hands or on a poll, the Chairman of the meeting at which the show of hands takes place, or at which the poll is demanded, shall be entitled to a second or casting vote.

63. A poll demanded on the election of Chairman or on question of adjournment shall be taken forthwith. A poll demanded on any other question should be taken at such time as the Chairman of the meeting directs.

VOTES OF MEMBERS

64. On a show of hands, every Member present in person shall have 1 (one) vote. On a poll, every Member shall have 1 (one) vote in respect of each share held by him.

65. In the case of joint-holders, the vote of the senior who tenders a vote, whether in person or by proxy, shall be accepted to the exclusion of the votes of the other joint-holders and for this purpose, seniority shall be determined by the order in which the names stand in the Register of Members.

66. No Member shall be entitled to vote at any general meeting unless all calls or other sums presently payable by him in respect of shares in the Company has been paid.

67. On a poll, votes may be given either personally or by proxy, but a member company shall not vote by proxy so long a resolution of its directors, in accordance with the provisions of Section 86 of the Act is in force.

68. The instrument appointing a proxy shall be:

(a) in writing under the hand of the appointor, or of his attorney duly authorised in writing, or:

(b) if the appointor is a body corporate, either under its common seal or under the hand of an officer or attorney so authorised; or

(c) if the appointor is a Government ministry, under the hand of the Secretary to the Ministry, so authorised.

69. The instrument appointing a proxy and the power of attorney or other authority, if any, under which it is signed, or notarially certified copy of that power or authority, shall be deposited at the registered office of the Company not less than 48 (forty eight) hours before the time for holding the meeting at which the person named in the instrument proposes to vote and in default the instrument of proxy shall not be treated as valid.

70. Every instrument appointing a proxy shall, as nearly as circumstances will admit, be in the form or to the effect following and shall be retained by the Company.

I, …………………………………………of …………………….being a member of The Holding Company Limited hereby appoint ……………………………..of…………………… or failing him ………… …………………………of…………………………… or failing him ………………………of ……………………………………..as my proxy/attorney in my absence to attend and vote for me, and on my behalf at the (ordinary or extra ordinary as the case may be) general meeting of the Company to be held on the ……………day of………. …………and at any adjournment thereof. As witness my hand this day of ………..signed by the said ……………… in presence of ……………………………….. [Signature and Date]

MINUTES

71. The Board of Directors shall cause minutes of all proceedings of general meetings and meetings of the Board to be entered in books kept for that purpose. Any such minutes, if purporting to be signed by the Chairman of the meeting at which the proceedings

took place, or by the Chairman of the next succeeding meeting, shall be evidence of the proceedings.

BOARD OF DIRECTORS

72. Unless otherwise determined by the Company in general meeting, there shall be a Board of Directors of the Company consisting of, at any given time, not less than 5 (five) and not more than 9 (nine) Directors, including the Managing Director.

73. Save for the first Directors, no shareholder shall be eligible to become a Director unless he is selected by the Selection Panel constituted by the Government for this purpose. The Selection Panel shall be comprised of the following persons, or their nominees not more than one grade below in rank:

a) a Government representative;

b) President of the Institute of Engineers;

c) Vice-Chancellor of Bangladesh University of Engineering and Technology (BUET);

d) President of the Bangladesh Institute of Chartered Accountants; and

e) President of the Federation of Bangladesh Chamber of Commerce and Industries.

The Selection Panel shall be assisted by an executive search firm as its secretariat. The Company shall bear all the expenses of the Selection Panel.

74. Once a person is selected by the Selection Panel, he shall not be required to be selected by the Selection Panel each time he becomes or is elected by the shareholders to become a Director.

75. After shares are offered to the public for subscription, the Group-B Shareholders shall elect Directors to the Board representing their shareholding. In such an event, the ratio of Directors representing Group-A Shareholders and Group-B Shareholders shall always be 3:2.

76. Subject to Articles 77 and 78, the directors representing the Group-B Shareholders shall not be required to be selected by the Selection Panel and shall be elected at the Annual General Meeting of the Company from amongst the Group-B Shareholders.

77. The Directors of the Company must be independent business persons or persons representing independent consumers or professional interests. and shall not be persons who are current employees of the Government or members, employees, office-bearers or officers of any of its instrumentalities or agencies, or of any statutory authority or who have been employees of the Government or members, employees, office-bearers or officers of any of its instrumentalities or agencies, or of any statutory authority in the preceding 2 (two) years. For so long as the Government or its nominees are majority shareholders of the Company, the requirements of any notification issued by the Government in respect of the composition of the Board of Directors shall be given

effect to.[1]

78. The qualification of a Director of the Company shall be the holding of, at least, 1000 (one thousand) shares in the Company in his own name. A shareholder may act as a Director without obtaining the qualifying shares provided he obtains the required qualifying shares within 60 (sixty) days after his appointment. A Director nominated by a shareholder need not hold qualifying shares in his own name provided that the nominating shareholder holds the qualifying shares.

79. The Chairman of the Board of Directors shall be elected by the members of the Board from amongst themselves.

80. The Managing Director of the Company shall be appointed by the Board of Directors either from amongst its members or from outside and in the latter case shall be an ex-officio member of the Board with voting rights.

81. The remuneration of the Directors shall be set by the Company in the Annual General Meeting.

82. The Directors shall be reimbursed for expenses reasonably incurred by them in attending and returning from any meeting of the Directors, any committee of the Directors or any general meeting of the Company in connection with the business of the Company, and shall be entitled to a reasonable fee, to be determined by the Board of Directors, for attending each such meeting.

83. If any Director, being willing, is called upon to perform any extra services for any of the purposes of the Company, or to give any special attendance to the business of the Company, he may be paid such remuneration for those services as may be determined by the Board.

POWERS AND DUTIES OF DIRECTORS

84. The business of the Company shall be managed by the Directors, who may pay all expenses incurred in forming and registering the Company and may exercise all such powers of the Company as are not, by the Act or by the Articles, required to be exercised by the Company in general meeting, subject nevertheless to any of the Articles or to the provisions of the Act and to such provisions being not inconsistent with the aforesaid Articles as may be prescribed by the Company in general meeting: but no provision made by the Company shall invalidate any prior act of the Directors which would have been valid if that provision had not been made.

85. Without prejudice to the general powers conferred by the last preceding Article and the other powers conferred by these presents, it is hereby expressly declared that the Board of Directors shall have the following powers, that is to say:

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[1] This is with reference to the instructions of the Government issued by memo no, BiJaKhoSho/BiBi/Pro:-2/2Bi-1/2007/668 dated 15.11.07, which lays down guidelines for the composition of government-owned companies in the power sector. The existing power companies have been instructed to amend their memoranda and articles of association accordingly.

a) To pay the cost, charges and expenses preliminary and incidental to the promotion, formation, establishment and registration of the Company.

b) To manage all concerns and affairs of the Company, to appoint, recruit and employ officers, organizers, workmen, day labourers for the purpose of the Company and to remove or dismiss them and appoint others in their place and to pay such persons as aforesaid such salaries, wages or other remuneration as may be deemed fit and proper.

c) To provide for the welfare of employees and ex-employees of the Company and their dependents in such manner as the Board may deem fit.

d) To borrow or raise any sum of money by loan, on hypothecation or mortgage on such terms and conditions as may be deemed fit and proper.

e) To purchase or otherwise acquire for the Company any property rights or privileges which the Company is authorized to acquire at such price and generally on such terms and conditions as they think fit and subject to the provisions of Section 107 of the Act to sell, let, exchange or otherwise dispose of absolutely or conditionally any part of the property, privileges and undertaking of the Company upon such terms and conditions and for such consideration as they may think fit; save that the Company shall not sell or otherwise dispose of its undertaking in whole other than with the approval of the shareholders in general meeting.

f) At their discretion to pay for any property, rights or privileges acquired by or services rendered to the Company either wholly or partially in cash or in shares, bonds, debentures or other securities of the Company, and any such shares may be issued either as fully paid up thereon as may be agreed upon and any such bonds, debentures, or other securities may either specifically charged upon all or any part of the property of the Company, including its uncalled capital not so charged.

g) To secure the fulfilment of any contracts, agreements or engagements entered into by the Company, mortgage or charges on all or any of the property of the Company and on its uncalled capital for the time being or in such other manner as they may think fit.

h) To appoint any person or persons (whether incorporated or not) to accept and hold in trust for the Company any property belonging to the Company or in which it is interested or for any other purposes and to execute and do all such deeds, documents and things as may be requisite in relation to any such trust and to provide for the remuneration of such trustee or trustees.

i) To institute, conduct, defend, compound or abandon any legal proceedings by or against the Company or its officers or otherwise concerning the affairs of the Company and also to compound and allow time for payment or satisfaction of any claims or demands by or against the Company.

j) To make and give receipts, releases and other discharges for money payable to the Company and for the claims and demands of the Company.

k) To act on behalf of the Company in all matters relating to bankruptcy and insolvency.

l) Subject to the provisions of Sections 58, 103, 120(1), 121 and 122 of the Act, to invest and deal with any of the purposes thereof upon such securities (not being shares in this Company) and in such manner as they think fit, and from time to time vary or realise such investment.

m) To give to any person employed by the Company as remuneration for their services, bonuses and share of profits of the Company and such remuneration shall be treated as part of the expenses of the Company.

n) From time to time to make, vary and/or repeal all rules and regulations of the Company, including service rules, organizational structure and codes of conduct for the business of the Company, its officers and servants as the Board may deem fit.

o) To create any provident fund in such or any other manner as the Directors may deem fit.

p) To enter into all such negotiations and contracts and rescind and/or vary all such contracts and execute and do all such acts, deeds and things in the name and on behalf of the Company as they may consider expedient for or in relation to any of the matters aforesaid or otherwise for the purpose of the Company.

q) To make, draw, endorse, sign, accept, negotiate and give all cheques, bills of lading, orders, bills of exchange, letters of credit and promissory notes and other negotiable instruments required in the business of the Company.

r) To insure and keep insured against loss or damage by fire or otherwise in such manner and for such period and to such extent as they may think proper for all or any part of the buildings, machinery, goods, stores, produce and other movable and immovable property of the Company either separately or jointly, also to insure all or any portion of the goods, produce, machinery and other articles dealt with by, imported or exported by the Company, and to sell, assign, surrender or discontinue any policy of insurance effected in pursuance of this power.

s) To open accounts with any bank(s) or financial institution and to pay money into or draw money from any such account from time to time as the Directors may think fit.

t) To attach to any shares to be issued as the consideration for any contract with or property acquired by the Company, or in payment for services rendered to the Company, or to the transfer thereof, such conditions as they think fit.

u) To establish branch offices and agencies in any part of Bangladesh or aboard.

v) The Board of Directors may from time to time delegate all or any of their powers and authorities herein to the Managing Director, Directors, officers of the Company and or any other person(s) as they may decide.

86. The amount for the time being remaining un-discharged of moneys borrowed or raised by the Directors for the purposes of the Company, otherwise than by the issue of share capital, shall not at any time exceed an amount whereby the ratio of long-term debt to paid-up shareholders' equity of the Company shall be in excess of 70:30 without the sanction of the Company in general meeting.

87. The Directors shall cause minutes to be made in books provided for the purpose:

(a) of all the appointments of officers made by the Directors;

(b) of the names of the Directors present at each meeting of the Directors and of any committee of the Directors; and

(c) of all resolutions and proceedings at all meetings of the Company and of the Directors and of committees of Directors.

Every Director present at any meeting of Directors or committee of Directors shall sign his name in a book to be kept for that purpose.

88. The office of a Director shall *ipso facto* be vacated if the Director:

(a) fails to obtain within 60 (sixty) days, or at any time thereafter ceases to hold, or in the case of a nominated director, the nominator fails to obtain within 60(sixty) days, or at any time thereafter ceases to hold, the share qualification necessary for his appointment; or

(b) has his nomination withdrawn by the nominator by notice in writing to the Company for any reason whatsoever, or being a Director or member of the company *ex officio*, immediately upon relinquishment of or removal from the said office;

(c) fails to perform his duties in accordance with his performance contract; or

(d) is found to be of unsound mind by a Court of competent jurisdiction; or

(e) is adjudged insolvent; or

(f) fails to pay calls made on him in respect of shares held by him within six months from the date of such calls being made; or

(g) without the sanction of the Company in general meeting accepts or holds any office of profit under the Company other than that of the managing director or manager, or legal or technical adviser or banker; or

(h) absents himself from 3 (three) consecutive meetings of the Directors without leave of absence from the Board of Directors; or

(i) accepts a loan from the Company; or

(j) is concerned or participates in the profits of any contract with the Company; or

(k) is convicted of a criminal offence; or

(l) is punished with imprisonment for a term exceeding six months.

Provided, however, that no Director shall vacate his office only by reason of his being a member of any other company which has entered into contracts with or done work for the Company, but a Director shall not vote in any meeting of the Company or the Board of Directors in respect of any such contract or work and if he does so vote, his vote shall not be counted.

ROTATION OF DIRECTORS

89. At the first annual general meeting of the Company, all the Directors of the Company shall retire from office. At the annual general meeting in every year after the first annual general meeting of the Company, one-third of the Directors for the time being, or if their number is not three or a multiple of three, then the number nearest to one-third shall retire from office.

90. The Directors to retire each year shall be those who have been longest in office since their last election, but as between persons who became Directors on the same day those to retire shall, unless they otherwise agreed among themselves, be determined by lottery.

91. A retiring Director shall be eligible for re-election for multiple terms with a maximum of three consecutive terms. Each term shall not be more than 3 years.

92. The Company at the general meeting at which a Director retires may fill in the vacated office by electing a person thereto.

93. If at any meeting at which an election of Directors ought to take place, the offices of the vacating Directors are not filled in, the meeting shall stand adjourned till the same day in the next week and shall be held at the same time and place, and if at the adjourned meeting the offices of the vacating Directors are not filled in, the vacating Directors or such of them as have not had their office filled in shall be deemed to be have been re-elected at the adjourned meeting, subject to their consent to continue to act as Directors of the Company.

94. Any casual vacancy occurring in the Board of Directors may be filled in by the Directors but the person so chosen shall be subject to retirement at the same time as if he had become a Director on the day on which the Director in whose place he is appointed was last elected a Director. A Director so chosen shall be known as an Alternative Director.

95. The Directors shall have power at any time to appoint a person, subject to confirmation of the Selection Panel, as an additional Director who shall retire from office at the next following ordinary general meeting but shall be eligible for election by the Members at that meeting, as a Director.

96. The Company may, by extraordinary resolution, remove any Director before the expiration of his period of office, and may by, an ordinary resolution appoint another person in his stead; the person so appointed shall be subject to retirement at the same time as if he had become a director on the day on which the director in whose place he is appointed was last elected a Director.

97. The Directors may at the request of a Director appoint any person approved by such Director to be an alternate Director to represent such Director during the absence of the Director from Bangladesh for a continuous period of not less than three months and such appointment shall have effect and such appointee while he holds office as an alternate director shall be entitled to notice of Meetings of Directors, and in the absence of the Director from Bangladesh whom he represents to attend and vote thereat accordingly, and he shall *ipso facto* vacate office immediately after he receives information that the original director has returned to Bangladesh, and also if and when the Director whom he represents vacates office or the alternate Director is removed from office at the request of the Director whom he represents. Any appointment or removal under this article shall be effected by the Directors upon the request in writing to the Company under the hand of the Director whom the alternate Director is to represents. Every person acting as an alternate Director shall be an officer of the Company and he shall not be deemed to be the agent of the Director whom he represents. A person shall not act as alternate for more than one Director. Such appointee shall not be required to hold qualifying shares in accordance with Article 76.

PROCEEDINGS OF THE BOARD OF DIRECTORS

98. The Board of Directors may meet together for the disposal of business and adjourn and otherwise regulate their meetings, as they think fit. Questions arising at any meeting shall be decided by a majority of votes. In case of an equality of votes, the Chairman of the meeting shall have a second or casting vote. A resolution or circular in writing signed by all the Directors shall be as valid and effectual as if it had been passed at the meeting of the Directors duly called and constituted. A meeting of the Board of Directors may be held through audio or audio visual or other electronic media, provided the identity of the participants can be satisfactorily ascertained.

99. The Managing Director or a Director may, and the Secretary on the requisition of a Director shall, at any time, summon a meeting of the Board of Directors.

100. The quorum necessary for the transaction of the business of the Board of Directors may be fixed by the Directors and unless so fixed shall be three.

101. The continuing Directors may act notwithstanding any vacancy in their body but, if and so long as their number is reduced below 5 (five), the continuing Directors may only act for the purpose of increasing the number of Directors to 5 (five) or of summoning a general meeting of the Company, but for no other purpose.

102. The Board of Directors may delegate any of their powers to committees consisting of such Member(s) of their body, as they think fit. Any committee so formed shall, in the exercise of the powers so delegated, conform to any restrictions and regulations that may be imposed on them by the Directors.

103. A committee may meet and adjourn, as they think proper. Questions arising at any meeting of any committee shall be determined by a majority of votes of the Members present and, in case of an equality of votes, the Chairman shall have a second or casting vote.

104. All acts done by any meeting of the Board of Directors, or of a committee of the Directors, or by any person acting as a Director shall, notwithstanding that it be afterwards discovered that there was some defect in the appointment of any such Directors, or persons acting as aforesaid, or that they or any or them were disqualified, be as valid as if every such persons had been duty appointed and was qualified to be a Director.

MANAGING DIRECTOR

105. The Board of Directors shall appoint a Managing Director for a period of 5 (five) years at a time and upon such terms and conditions as they think fit and may vest in the Managing Director such of the powers of the Directors as they think fit and such powers may be made exercisable for such period, subject to such restrictions, and upon such terms and conditions as may be determined by the Board.

106. The remuneration of the Managing Director shall be fixed by the Board and may be made payable by way of salary, stock options, commission, participation in profits or partly in one mode and partly in another, as may be determined by the Board or Directors.

107. The Managing Director shall be an *ex-officio* member of the Board and shall have voting power in the Board or in any general meeting of the Company and shall enjoy all the privileges and advantages enjoyed by a Director.

POWERS OF THE MANAGING DIRECTOR

108. Without prejudice to the general powers conferred by these Articles and to any other powers or authorities conferred on the Directors, the Managing Director shall have the following powers subject to the superintendence, control and direction of the Board:

a) to hire or terminate staff and officers in accordance with any association or union agreements and to appoint, and at his discretion, remove or suspend such manager, secretary, officer, clerk, employee, agent, adviser and consultant for permanent, temporary or special services as he may, from time to time, think fit, and to determine their powers and duties and fix their salaries, emoluments and remuneration, and require security of such instances and to such amount as he may think fit: provided, however, that the appointment, removal, discharge or termination of immediate sub-ordinate officers of the Managing Director, in whatever name called, including vice-presidents and head of legal, shall be made by the Managing Director with the concurrence of the Board;

b) to call a meeting of Board or general meeting as may be required;
c) to open branches or offices of the company at any other place in Bangladesh or in any other country as and when necessary;

d) to manage, look after and supervise the business and all other affairs of the company;

e) to admit execution of documents before the Registrar or any other registering authority and to conduct or defend any case before the authority;

f) generally to do all acts and things as may be necessary from time to time in connection with the business of the Company in different departments under the Government of Bangladesh, all commercial bank's import and export offices, custom office, shipping office, railway office, post office and other public or private offices;

g) to pay for rent of the hires in the name of Company;

h) to purchase or otherwise acquire for the Company rights or privileges which the Company is authorized to acquire up to the price considered to be fair market value and generally on such terms and conditions as he thinks fit and to sell, let, exchange or otherwise dispose of all or any part of the properties, privileges and undertakings of the Company at a price not less than fair market value and upon such terms and conditions and at such considerations as he may think fit;

i) to sign, seal and execute bills, notes, receipts, acceptances, endorsements, cheques, dividend warrants, releases, contracts and all such documents, acts, deeds and things in the name of the Company as he deems fit so long as doing so does not result in a cost to the Company or future obligation for payment exceeding Tk.5,00,00,000/- (Taka Five Crore only) and/or a variation, alteration, execution or rescission of obligations and contracts of the Company for an amount exceeding Tk.5,00,00,000/- (Taka Five Crore only);

j) to pay for any property, rights, privileges acquired by, or services rendered to, the Company, whether wholly or partly in cash or in shares, debentures or other securities, either specially charged upon all or any part of the property of the Company and its uncalled capital for the time being, or in such other manner as he thinks fit;

k) to insure all such property and immovable effects, goods or belongings of the Company which may be of an insurable nature against such risks and contingencies as he may deem fit;

l) to appoint, employ and instruct counsel, legal adviser, advocates and any other legal practitioner in the interest and for the purpose of the Company, to act for and on behalf of the Company before all Courts (civil, criminal, revenue or otherwise), whether original or appellate, to sign petitions, applications, affidavits, pleadings and *vokalatnama* authorising legal practitioners to act for and on behalf of the Company and to conduct and institute or defend any suit or case instituted by or against the Company;

m) to open bank accounts, make, draw, endorse, sign, negotiate and give cheques, bills of lading, drafts, orders and promissory notes, securities and negotiable instruments required in the business of the Company, and may also sign and give effectual receipt and other discharges of money payable to the Company and for the claims and demands of the Company, and pay money into and draw money from any such account, from time to time, as he may think fit;

n) to comply with the requirement of any local law which, in his opinion, is necessary and expedient to comply with in the interest of the Company; and

o) to enter into all such negotiations for the purposes of the Company.

109. The Board may specifically grant the following powers to the Managing Director by resolution:

a. to borrow or raise any sum of money by loan or on mortgage or by hypothecation or otherwise on such securities and terms as may deem fit and execute, sign, seal or deliver all necessary documents or do any other act or acts on their behalf;
b. to settle, compound, submit for arbitration and compromise and withdraw all actions, demand, whatsoever arising in any legal proceeding or otherwise;
c. to pay the costs, charges and expenses, preliminary and incidental to the promotion, establishment and registration of the Company;
d. to pay monthly salary, remuneration and other allowances as may be determined from time to time by the Board for the employees of the company as well as for the Directors;
e. to purchase or otherwise acquire for the Company immovable property which the Company is authorized to acquire up to the price considered to be fair market value and generally on such terms and conditions as he thinks fit and to sell, let, exchange or otherwise dispose of all or any part of the properties, privileges and undertakings of the Company at a price not less than fair market value and upon such terms and conditions and at such considerations as he may think fit;
f. to secure the fulfillment of any contracts or engagement entered into by the Company by mortgage or charge of any of the property of the Company and its uncalled capital for the time being or in such other manner as he thinks fit;
g. to institute, conduct, defend, compound or abandon any legal proceedings by, or against the Company, or its officers, or otherwise concerning the affairs of the Company, and also to compound and allow time for payment or satisfaction of any debt due, or of any claims or demands by, or against, the Company;
h. to refer any claim or demand by, or against, the Company to arbitration and observe and perform the awards;
i. to act on behalf of the Company on all matters relating to bankruptcy and insolvency;
j. to invest and deal with any of the money of the Company, not immediately required for the purpose thereof upon such securities and in such manner as he may think fit and, from time to time, vary or realize such investments;

k. to provide for the welfare of employees and ex-employees of the Company and their dependents in such manner as the Board may deem fit;

OPERATION OF BANK ACCOUNT

110. The Board may open a bank account or accounts with any scheduled bank or banks, or financial institutions, or with any foreign bank in or outside Bangladesh subject where necessary to the grant of authorisation from Bangladesh Bank, and borrow money from such banks or any other financial institutions for the purposes of the Company. The Board of Directors may authorise any person or persons, including the Managing Director, to operate such bank accounts either solely or jointly with any other Director of the Company, or any other person so designated by the Board of Directors.

THE SEAL

111. The common seal of the Company shall not be affixed to any instrument except by the authority of a resolution of the Board of Directors and in the presence of the Managing Director and the Managing Director shall sign every instrument to which the seal of the Company is so affixed in his presence.

112. The Company may, for its use outside Bangladesh, have an official seal which shall be a facsimile of the common seal of the Company with the addition on its face of the name of the territory, or place where it is to be used.

DIVIDEND AND RESERVE

113. The Company in general meeting may declare dividends, but no dividend shall exceed the amount recommended by the Directors. No dividend shall bear interest against the Company. Dividends may be paid in cash or in kind.

114. When a dividend is declared, it shall be paid within 60 (sixty) days from the date of its declaration, provided that the period of 60 (sixty) days shall not apply, in case, where:

a) there is a dispute regarding the right to receive the payment; or

b) the dividend has been lawfully adjusted by the Company against any sum due to it from the shareholder.

115. The Directors may, from time to time, pay to the Members such interim dividend as appear to the Directors to be justified by the profits of the Company.

116. No dividend shall be paid otherwise than out of the profits of the year or any other undistributed profits of the Company, nor shall be paid if the Company is insolvent or if doing so would result in the insolvency of the Company.

117. The Company shall not pay any dividend on its shares until all its capitalised expenditure, including preliminary expenses, organisation expenses, share selling commission, brokerage and loss incurred and any item of expenditure not represented by tangible assets, has been completely written off, and that current liabilities for staff

retirement benefits have been fully funded or otherwise satisfied.

118. Subject to the rights of persons, if any, entitled to shares with special rights as to dividends, all dividends shall be declared and paid according to the amounts paid on the shares; but, if, and so long as nothing is paid upon any of the shares in the Company, dividends may be declared and paid according to the nominal value of the shares. No amount paid on a share in advance of calls shall, while carrying interest, be treated for the purpose of this Article as paid on the share.

119. The Board of Directors may before recommending any dividend, set aside out of the profits of the Company such, sums as they think proper as reserve or reserves which shall at the discretion of the Board be applicable for meeting contingencies, or for equalizing dividends or for any other purpose to which the profits of the Company may be properly applied and pending such application may, at the like discretion, either be employed in the business of the Company or be invested in such investments as the Directors may from time to time think fit.

120. If several persons are registered as joint-holders of any share, any one of them may give effectual receipts for any dividend payable on the share.

ACCOUNTS

121. The Board of Directors shall cause to be kept proper books of account with respect to:

a) all sums of money received and expended by the Company and the matters in respect of which the receipts and expenditure take place;

b) all sales and purchases of goods by the Company;

c) the assets and liabilities of the Company; and

d) cost accounts, as may be applicable.

122. The books of account shall be kept at the registered office of the Company or at such other place as the Directors shall think fit and shall be open to inspection by the Directors during business hours.

123. Within three (3) months after the end of each financial year, the Board shall deliver to the Members:

a) a report of the operations of the Company including its subsidiaries for that financial year;

b) audited consolidated financial statements for that financial year consisting of the statement of financial position (balance sheet), profit and loss, changes in financial position, and such other statements as may be necessary to show the financial position of the Company and its subsidiaries and the financial results of their operations during that financial year prepared in accordance with Bangladesh Accounting Standards and/or International Accounting Standards; and

c) the Auditor’s report on those financial statements.

124. Within two (2) months after the end of the first half of each financial year, the Board shall deliver to the Members a report of its operations during that half-year.

125. The Board may decide to form or maintain a reserve fund out of the initial investment or from profits. This fund may be utilized for the expansion of investment in a new venture or for paying up company's liabilities as decided by the Board.

126. The Directors shall cause to be prepared and to be laid before the Company in general meeting such profit and loss accounts or income and expenditure accounts, balance-sheet and reports as are, referred to, and, required by Sections 183 and 184 of the Act.

127. The profit and loss account shall, in addition to the matters referred to in Section 185(2) of the Act, show, arranged under the most convenient heads, the amount of any provision made to the satisfaction of the auditors for bad and doubtful debts distinguishing the several sources from which it has been derived, and the amount of gross expenditure distinguishing the expenses of the establishment, salaries and other like matters. Every item of expenditure, fairly chargeable against the year's income, shall be brought into account so that a just balance of profit and loss may be laid before the meeting, and, in cases where any item of expenditure which may in fairness be distributed over several years has been incurred in any one year, the whole amount of such item shall be stated, with the addition of the reasons why only a portion of such expenditure is charged against the income of the year.

128. A balance sheet shall be made out in every year and laid before the Company in general meeting. The balance sheet shall be made up to a date not more than 6 (six) months before such meeting. The balance sheet shall be accompanied by a report of the Directors as to the state of the Company's affairs and the amount, if any, which they propose to carry to a reserve fund.

129. A copy of the balance sheet and report shall, 14 (fourteen) days prior to the meeting, be sent to the persons entitled to receive notice of general meetings.

AUDIT

130. Once, at least, in every year the accounts of the Company shall be audited in accordance with Bangladesh Standards on Auditing and/or International Standards on Auditing and the correctness of the profit and loss account and balance sheet ascertained by Auditors appointed in accordance with the provisions of Sections 210 to 213 of the Act.

131. Auditors and their remuneration shall be proposed to the shareholders by the Board at the annual general meeting for the ensuing year, except that the remuneration of the first Auditors appointed by the Board may be fixed by the Board. The auditors so nominated must be qualified chartered accountants and the firms must have adequate resources to undertake the audit. The Company shall require the Auditors to provide a management letter in respect of each year of accounts audited by them, which sets out the results of the systems review and recommendations for improvement the Auditors shall be required by the Company to perform as a part of their engagement.

132. A retiring Auditor shall be eligible for re-appointment.

NOTICE

133. A notice may be given by the Company to any Member either personally or by sending it by registered post to him to his registered address, or if he has no registered address in Bangladesh to the address, if any, within Bangladesh supplied by him to the Company for the giving of notice to him.

134. Where a notice is sent by post, the service of such notice shall be deemed, to be effected by properly addressing, prepaying and posting a letter containing the notice and, unless the contrary is proved, to have been effected at the time at which a letter would have been delivered in the ordinary course of post.

135. If a Member has no registered address in Bangladesh, and has not supplied to the Company an address within Bangladesh for the giving of notice to him, a notice addressed to him and advertised in a newspaper circulating in the neighbourhood of the Registered Office of the Company shall be deemed to be duly given to him on the day on which the advertisement appears.

136. A notice may be given by the Company to the persons entitled to a share in consequence of the death or insolvency of a Member by sending it through the post by a prepaid letter addressed to them by name, or by the title of representatives of the deceased or assignee of the insolvent, or by any like description, at the address, if any, in Bangladesh supplied for the purpose by giving the notice in any manner in which the same might have been given if the death or insolvency had not occurred.

137. A notice may be given by the Company to the joint-holders of a share by giving the notice to the joint-holder named first in the Register in respect of the share.

138. Notice of every general meeting shall be given, in such manner as has been mentioned above, to:

a) every Member of the Company, including bearers of share-warrants, except those Members who have no registered address within Bangladesh and have not supplied to the Company an address within Bangladesh for the giving of notice to them; and

b) every person entitled to a share in consequence of the death or insolvency of a Member, who but for his death or insolvency, would be entitled to receive notice of the meeting.

139. Any notice to be given by the Company shall be signed by the Secretary or by such officer as the Director may appoint. Such signature may be written, printed or lithographed.

WINDING UP

140. Subject to the provisions of these Articles, if the Company shall be wound up and the

assets available for distribution among the Members as such shall be insufficient to repay the whole of the paid-up capital, such assets shall be distributed so that, as nearly as may be, the losses shall be borne by the Members in proportion to the shares held by them respectively. And, if in a winding up, the assets available for distribution among the Members shall be more than sufficient to repay the whole of the capital paid up at the commencement of the winding up, the excess shall be distributed amongst the Members in proportion to the shares held by them respectively. But this Article shall be without prejudice to the rights of the holders of shares issued upon special terms and conditions.

141. If the Company shall be wound up, whether voluntarily or otherwise, the liquidators may, with the sanction of an Extraordinary Resolution, divide amongst the contributors in specie kind, any part of the assets of the Company and may, with the like sanction, vest any part of the assets of the Company in trustees upon such trusts for the benefit of the contributors or any of them as the liquidators with the like sanction shall think fit.

SECRECY

142. No Member shall be entitled to require discovery of any information respecting any detail of the Company's trading or any matter, which may be in the nature of a trade secret, mystery of trade or secret process which may relate to the conduct of the business of the Company and which in the opinion of the Directors will not be inexpedient in the interest of the Company to communicate to the public.

143. Every Director, Managing Director, secretary, Auditor, accountant or any other persons employed in the business of the Company shall have to observe strict secrecy respecting all matters which may come to his knowledge in the discharge of his duties except when required as to do so by resolution of the Company or by a court of law or where the person connected is required to do so in order to run the Company with provision(s) of the law or in these Articles.

144. The Company shall keep secret and confidential all transactions with its clients.

145. Every Director, manager, Auditor, trustee, member of a committee, officer, servant, agent or other persons employed in the business of the Company shall, if so required by the Directors, before entering upon his duties, sign a declaration pledging himself to observe strict secrecy respecting all transactions of the Company with its customers and in the matter relating thereto and shall by such declaration pledge himself not to reveal any of the matters which may come to his knowledge in the discharge of his duties except when required so to do by the Directors or by a court of law and except so far as may be necessary in order to comply with any of the provisions of these Articles.

INDEMNITY AND RESPONSIBILITY

146. Subject to the provisions of Section 102 of the Act, every Director of the Company including its Chairman, Managing Director or officer or employee of the Company shall be indemnified by the Company against, and it shall be the duty of the Directors, out of the funds of the Company to pay, all costs, losses and expenses, including

travelling and living expenses, which the Chairman, Managing Director, Director, officer or employee aforesaid may incur or become liable for by reason of any contract entered into or act or deed done by him in such capacity or in any way in the proper discharge of his duties.

147. Subject as aforesaid, every Director, including the Chairman, Managing Director or officer of the Company, shall be indemnified against any liability incurred by him in defending any proceeding, whether civil or criminal, in which judgement is given in his favour or in which he is acquitted or in connection with any application under Section 396 of the Act in which relief is given to him by the Court.

We, the several persons whose names, addresses and descriptions are subscribed below, are desirous of being formed into a company in pursuance of this Articles of Association and we respectively agree to take the number of shares in the capital of the Company set opposite our respective names and hereunder subscribe to these Articles:

Serial No.	Names, Addresses, Nationality, Description of Subscribers.	Number of Shares taken by each Subscriber	Signature
1.			
2.			
3.			
4.			
5.			
6.			
7.			

Total shares taken: _____ (______)

Names, Addresses and Signature of Witnesses:

1)

2)

Dated this the _____ day of __________, 200_.

APPENDIX D: OTHER DOCUMENTS FOR HOLDCO OPERATIONS

D.1 REQUIRED DOCUMENTS

Listed below are the documents, certificates and licenses required for the formation and basic operations of HoldCo. The specific requirements for obtaining that particular document are noted beneath each.

1. Certificate of Incorporation from the Registrar of Joint Stock Companies and Firms (RJSC)
   - Forwarding Letter
   - Name Clearance Certificate
   - Resolution of Promoters' Meeting
   - Memorandum and Articles of Association (3 Copies)
   - Forms:
     - Form I: Declaration on Registration
     - Form VI: Registered Office
     - Form IX: Consent of Director to Act
     - Form X: List of Persons Consenting to Act as Directors
     - Form XII: Particulars of Directors
   - Directors' TIN Certificates
   - Challan (5,000/- TK), original and photocopy
   - Fees (Calculated on the authorized capital)
   - Consent of Securities and Exchange Commission for issuing capital

2. Certificate of Commencement of Business from RJSC
   - Declaration of payment of minimum subscription
   - Declaration of payment of subscription by directors
   - Duly verified declaration by the company secretary or a director in the prescribed form that the above conditions have been complied with
   - A statement in lieu of prospectus

3. Taxpayer Identification Number from the National Board of Revenue
   - Two sets of application forms for a TIN
   - A forwarding letter addressed to the Deputy Commissioner of taxes of Income Tax Circle concerned.
   - Copy of the Trade License
   - Copy of the land title deed/lease agreement for the office premises
   - Copy of the Certificate of Incorporation of the company
   - Memorandum and Articles of Association of the company
   - Two photographs of the person signing the application forms (usually the Managing Director of the company)
   - Bank solvency certificate
   - Letter of authorization to the person who will submit the paperwork and collect the TIN

4. Value Added Tax (VAT) Registration Certificate from the National Board of Revenue
   - Application Form (Mushak-6)Copy of TIN certificate
   - Copy of Trade License

   - Import/Export Registration Certificate if applicable
   - Copy of the land title deed/lease agreement for the office premises
   - Copy of the Certificate of Incorporation of the company
   - Memorandum and Articles of Association of the company
   - Two photographs of the person signing the application forms (usually the Managing Director of the company)
   - Bank solvency certificate
   - Nationality certificate of the Managing Director of the company from the local Ward Commissioner, if he is a Bangladeshi national.
   - Work Permit from BOI, if the country chief of the company is a foreign national
   - Board resolution authorizing the Managing Director to will sign and execute all the paperwork

5. Trade License from the City Corporation/Municipal Corporation where the office premises are situated
   - Copy of the land title deed/lease agreement for the office premises
   - Copy of the Certificate of Incorporation of the company
   - Memorandum and Articles of Association of the company
   - Two photographs of the person signing the application forms (usually the Managing Director of the company)
   - Bank solvency certificate
   - Nationality certificate of the Managing Director of the company from the local Ward Commissioner, if he is a Bangladeshi national.
   - Work Permit from BOI, if the country chief of the company is a foreign national
   - Photocopy of passport with foreign address including father's and mother's names, if the country chief of the company is a foreign national.
   - Bank solvency certificate
   - Commercial permission for the office premises and photocopy of the Commercial Plan attested by RAJUK

6. Utility supplier registration documents for electricity, gas, water, telecommunications etc. The documents required to obtain these vary from provider to provider

In addition to the above, in varying circumstances HoldCo may require one or more of the permits/licenses/authorization or other documents listed in Appendix D.

D.2 OTHER DOCUMENTS THAT MAY BE REQUIRED

OTHER REGISTRATIONS, LICENSES, CONSENTS AND PERMITS WHICH MAY BE REQUIRED FOR OPERATIONALIZING HOLDCO AND THE RELEVANT AUTHORITY

Land Purchase and Development	**RAJUK or other local authority**
Environmental Clearance Certificate	**DOE**
Export/Import License, bonded warehouse facilities	**CCIE**
Product standards mark	**BSTI**
Patents and trade marks, design registration	**RTM**

"Certificate of Registration" of Plant (if any) under the Factories Act, 1965 (Act IV of 1965) **CIFE**

Consent for opening and operating on-shore foreign exchange (FX) or offshore Foreign Currency bank accounts **BB**

Consent for the purchase of FX for Taka through normal commercial banking channels in Bangladesh and for the transfer of such FX from bank accounts inside Bangladesh into bank accounts outside Bangladesh **BB**

Consent to make or remit payments in FX from bank accounts in Bangladesh or outside Bangladesh **BB**

All import permits, certificates, licenses and other consents allowing the Company to import into Bangladesh all plant, machinery, equipment, spare parts, materials and supplies required for the plant **CCIE**

Statutory notifications granting exemption from Customs Duties and VAT on the importation of plant and equipment (including spare parts) for incorporation into the Company's plant and the temporary importation of erection materials, machinery and equipment (subject to re-export) **NBR**

Statutory notification granting the Company exemption from taxation on its income related directly to the plant/tax holidays **NBR**

No objection certificate to obtain export permit to export any imported equipment not forming a permanent part of the plant **BB**

Permission for transporting chemicals, toxic wastes and hazardous materials on land and water routes **DOE/DOEXP**

Approval of installations for boilers at the Plant under Sections 6 and 7 of the Boilers Act, 1923 (Act V of 1923) **Department of Explosives/CIFE**

License for the Company to obtain and have arms for the purposes of the security of the Plant **MOHA**

License under the Petroleum Act, 1934 (Act LXIX of 1934) for storage of petroleum products at or proximately to the Plant **Department of Explosives**

Approval of the Plant as satisfying the fire safety and protection standards under the Fire Service Ordinance, 1959 (Ord. No. XVII of 1959) and Civil Defence Act 1952 (Act. XXXI of 1952) **DFSCD**

Consent to operate the Plant based on the implementation of measures identified in the EIA ("Environmental Clearance Certificate") **DOE**

Consent for the execution of any financing documents, including approval of the term sheets for the Company's foreign currency loans **MOF (ERD)/BOI**

Registration of the executed financing documents **BOI**

Registration for availing infra-structural facilities and institutional support including TIN Certificate, Trade License, Incorporation Certificate etc **BOI**

Work permits for foreign personnel including the Company's employees and residence visas **BOI**

National security clearance for expatriate employees of the Company**MOHA**

Consent for remittance of up to fifty percent (50%) of salaries and savings by expatriate employees of the Company without restriction **BB**

Registration of agreements under which royalties, technical know-how fees and technical assistance fees are payable by the Company **BOI**

Statutory notification granting foreign collaborators, companies and experts exemption from tax or withholding tax on such of their income as is paid as "royalties", "technical assistance fees" and "technical know-how fees" by the Company in connection with the Plant **NBR**

Exemption from Section 3D(2) of the Insurance Act 1938 (Act IV of 1938) to permit the Company to obtain insurance for the Plant from companies outside Bangladesh **MOC/CI**

Certificate under Section 3D(1) of the Insurance Act 1938 (Act IV of 1938) to enable the Company to obtain reinsurance for the Plant from companies outside Bangladesh **CI**

Exemption for insurers (other than the SBC) from the obligation to reinsure all or any part of insurance cover relating to the Plant with the SBC and permissions allowing the Company to effect such reinsurance with reinsurers outside Bangladesh on terms whereby:

- remittance/deposit of premia in Foreign Currencies to such reinsurers by the Company is permitted;
- the proceeds of any claims under such reinsurances may be paid directly by the reinsurers pursuant to the loss(es) payable endorsed upon any such reinsurances and such proceeds may be deposited/retained in Foreign Currencies outside Bangladesh;
- the conduct and settlement of claims shall be undertaken by and at the sole discretion of the reinsurers; and disputes between the insured and the insurers will be resolved by the reinsurers according to such law as the relevant insurers and reinsurers may agree **CI**

Statutory notification granting the Foreign Investors of the Company (if a public limited company) exemption from capital gain tax in respect of any transfer or disposal of shares in the Company **NBR**

Statutory notification granting foreign employees of the Company exemptions from taxation on their personal income in Bangladesh **NBR**

Statutory notification granting the Company an exemption from any tax on the sale of electricity to BPDB **NBR**

Statutory notification that any foreign lenders will be exempted from taxation on their income in Bangladesh **NBR**

Statutory notification granting exemption from stamp duties in respect of the registration of all deeds, documents and instruments contained in any financing documents and conveyances of land **NBR**

Consent for payment by the Company to persons outside Bangladesh under Section 6 of the Foreign Exchange Regulations Act, 1947 (Act VII of 1947) (“FERA”) in respect of all transactions of the Company as may be necessary **BB**

Consent for the issuance, export and transfer of securities in Bangladesh or outside Bangladesh under Section 13 of FERA, purchased in Taka or in Foreign Currency. **BB**

Consent to lend money to the Company or purchase the Company’s securities under Section 16 of FERA (transactions involving foreigners) **BB**

Easement or lease agreement and approval for construction of shoreline work, jetty, intake and outfall structures of once through cooling system and dredging of river **IWTA**

Approval for construction of shoreline work, jetty, intake and outfall structures including sheet piling and dredging or rivers **BWDB/Local authority**

<u>Abbreviations:</u>

BB - Bangladesh Bank
BOI - Board of Investment
BPDB - Bangladesh Power Development Board
BSTI - Bangladesh Standards Testing Institute
BTTB - Bangladesh Telegraph and Telephone Board
BWDB - Bangladesh Water Development Board
CCIE - Chief Controller of Import and Export
CI - Controller of Insurance
CIFE - Chief Inspector of Factories and Establishment
DFSCD - Department of Fire Service & Civil Defence
WASA - Water and Sewerage Supply Authority
DOE - Department of Environment
DOEXP - Department of Explosives
FERA - Foreign Exchange Regulation Act 1947
GOB - Government of Bangladesh
IWTA - Inland Water Transport Authority
MOC - Ministry of Commerce
MOF - Ministry of Finance (Economic Relations Division)

MOHA - Ministry of Home Affairs
NBR - National Board of Revenue
RAJUK - Rajdhani Unnayan Kartripakkha
RJSC - Registrar of Joint Stock Companies and Firms
RTM - Registrar of Trade Marks
SEC - Securities and Exchange Commission
SBC - Sadharan Bima Corporation

Using land as collateral for borrowings raises a set of registration-related issues which may be addressed separately.

APPENDIX E: RESPONSES TO BPDB QUERIES ON CORPORATE ESTABLISHMENT

The following are responses to the queries and observations of BPDB forwarded to the Country Director, ADB BRM, by letter dated 06.01.08. The queries/observations are in italics.

a) It is known to all that BPDB has undertaken all undertakings and properties of the then East Pakistan Power Development Authority by the President's Order 59 of 1972. Therefore, before finalization of this 'Draft Final Report' we should examine the establishment process of different subsidiaries (Subsidiary companies) of BPDB. In other words we should examine whether the subsidiaries have been established or are going to be established lawfully. We also need to scrutinize the process or system we have followed in transfer of properties and undertakings of BPDB to subsidiary companies.

P.O.59 provides that BPDB shall be a body corporate, having perpetual succession and a common seal with power, subject to the provisions of the Order, to acquire, hold and dispose of property, both movable and immovable, and shall by its name sue and be sued. This provides the legal basis for BPDB to set up and hold shares in subsidiary companies.

The five existing subsidiary companies the ownership of which is proposed to be transferred to HoldCo are the West Zone Power Distribution Company Limited (WZPDCL), Electricity Generation Company of Bangladesh Limited (EGCB), Ashuganj Power Station Company Limited (APSCL), Power Grid Company of Bangladesh Limited (PGCB) and North West Zone Power Distribution Company Limited (NWZPDCL). These were all formed as companies under and in compliance with the requirements of the Companies Act, 1994. The companies are duly and properly formed under the laws of Bangladesh.

HoldCo will be incorporated in accordance with the provisions of the Companies Act, 1994 as well, and will be authorized by its memorandum of association to "own, establish, set up, found, form, incorporate and promote subsidiary companies". Any subsidiary of HoldCo to be formed in the future would also be formed in compliance with the provisions of the Companies Act, 1994. Therefore, it may be clearly stated that the existing subsidiaries of BPDB have been established lawfully, and the future subsidiaries, it must be presumed, will also be set up lawfully.

In transferring properties and undertakings of BPDB to subsidiary companies, the approach has been for BPDB to enter into a vendor's agreement (also referred to as an asset transfer agreement) with the subsidiary company concerned in respect of all the movable and immovable property to be transferred by BPDB to the subsidiary. Such vendor's agreements have been entered into with APSCL, PGCB and WZPDCL. The vendor's agreement with EGCB is near finalization, although some assets, such as Siddhirganj power plant has been physically handed over to EGCB. NWZPDCL is not yet fully operational and no assets have been transferred to it till now.

Internally, the Rules of Business, 1996[28], in Chapter IV, Para 16 provides the following matters, among others, to be brought before the Cabinet: proposals relating to the creation of new corporations or companies wholly owned by the government or by a public sector undertaking, and participation by the government or a public sector undertaking in providing share capital to a new corporation/company or any existing corporation or companies. While "public sector undertaking" is not defined in the Rules of Business, it would appear that BPDB is treated as a public sector undertaking, as the Ministry of Energy and Mineral Resources is given the task of "[A]dministration and control of Bangladesh Power Development Board...".

The valuation of the property to be transferred is as yet provisional in all cases. A value is computed on the basis of BPDB's books of accounts. In some cases, such as APSCL, a committee has been formed by BPDB to finalize the valuation of the assets.

b) We need to review further whether the acquisitioned land has been transferred to subsidiary companies or the value of the transferred land has been determined as per the government Rules and Procedures. Whether the vetting/Agreement of the land Ministry was needed for that. It should be looked into.

Once the valuation of the assets to be transferred, including immovable property, i.e. land, has been determined, the land will be transferred to the subsidiary company as agreed in the vendor's agreement, upon compliance with the necessary requirements for registration of the deed of transfer. The vendor's agreements have been vetted by the Ministry of Law. This presumes that the land to be transferred now belongs to BPDB, in which case the vetting of the Ministry of Land is not required for the land transfer. If the land is owned by the Government, then questions of lease may become relevant, in which case the Government's internal policies for vetting of such lease agreements, which may involve the Ministries of Land and Law, would be followed by the Government.

c) We need to ascertain that in the way of establishing BPDB as a holding company and in establishing its subsidiary companies, which Ministries are to be consulted and agreement or vetting of which Ministries are to be required. For example, for VAT and Tax we need vetting of NBR. Similarly, for transfer or lease of acquisitioned land vetting/agreement of Land Ministry is needful.

Under the Rules of Business, Cabinet approval would be required for establishment of HoldCo as a company wholly owned by the Government. Particular matters would need t be reviewed in light of the Rules of Business to ascertain whether any Ministry would be required to approve of the matter.

d) How the following matters are to be accommodated or which Authority will take the responsibility of the following:

---

[28] Issued by the President in exercise of powers conferred by Article 55(6) of the Constitution for allocation and transaction of business of the Government.

> *"All debts, liabilities and obligations incurred, all contracts entered into, all matters and things engaged to be done by, with or for the BPDB and all suits and other legal proceedings instituted by or against the BPDB after the commencement of P.O. 59 of 1972".*

P.O. 59 provided that on the commencement of the Order, all debts, liabilities and obligations incurred, all contracts entered into and all matters and things engaged to be done by, with or for, the said Authority before the commencement of this Order shall be deemed to have been incurred, entered into, acquired or engaged to be done by, with or for BPDB, so far as they relate to the undertakings transferred to BPDB. Since BPDB will continue to exist, and HoldCo is intended to be formed as a new company with a clean slate, such a vesting of debts, liabilities and obligations may not be required. If the HoldCo is required to replace BPDB as a party to any contract, this may be done either by an amendment to P.O.59 by insertion of a section vesting such contractual obligations upon BPDB, or by novation of contract.

e) Whether a Deed of Agreement (Vendor's Agreement) is to be required between the Holding Company and the Government.

A vendor's agreement may be required between BPDB and HoldCo in respect of the sale and transfer of the shares held by BPDB in the subsidiary companies to HoldCo. No such agreement will be required between the Government and HoldCo unless it is intended for the Government to transfer any property, including shares, owned by the Government (rather than BPDB) to the HoldCo.

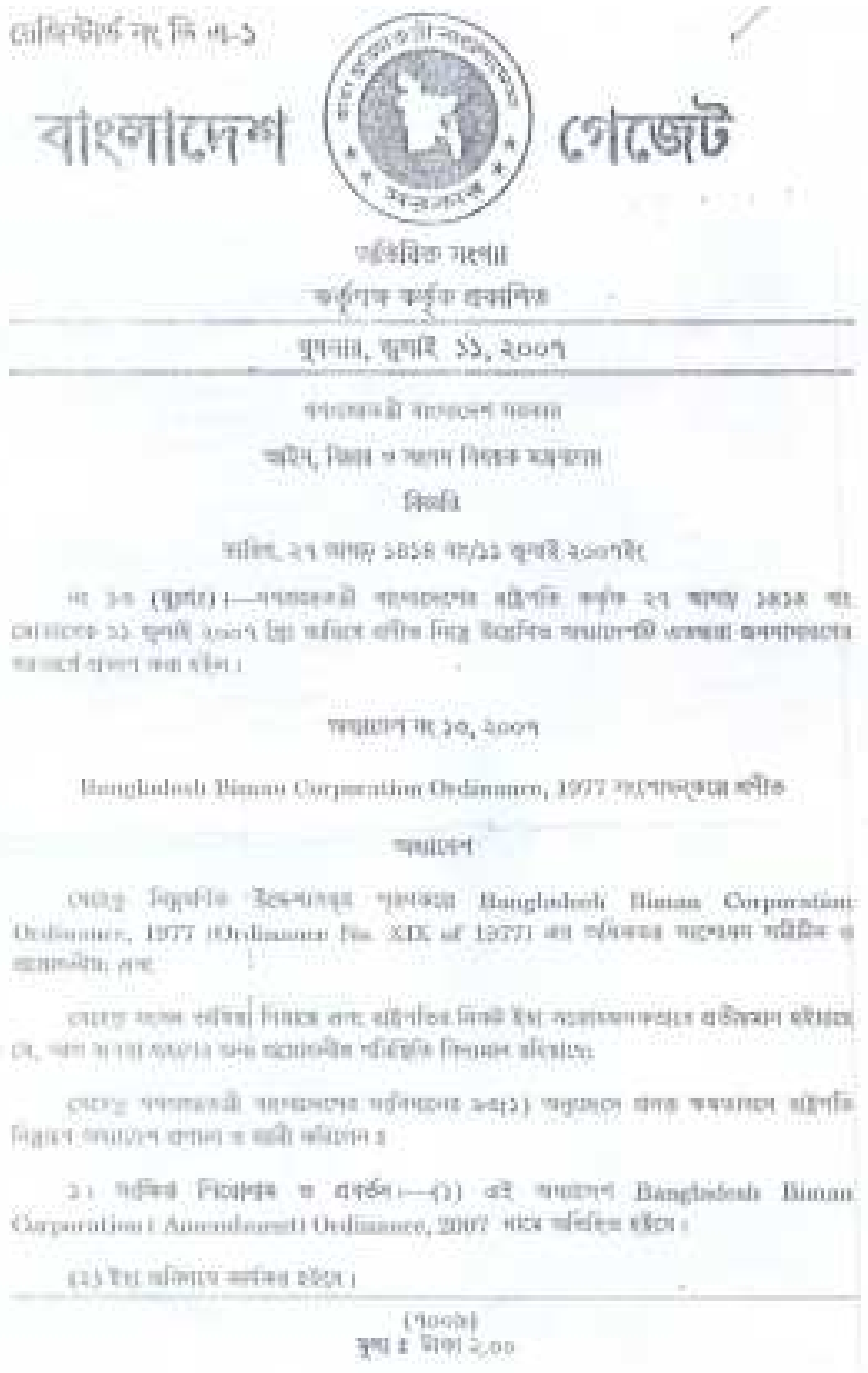
f) How the Sponsor Company will be selected by the Holding Company and what sorts of formalities are to be maintained with the Government for that?

The term "Sponsor Company" is not understood. If the intention is "Subsidiary Company", then all of BPDB's existing subsidiaries as well as future operations to be corporatized are to be transferred to HoldCo following the processes described in the Final Report.

g) To redress or to settle the above observations whether a simple Amendment of P.O.59 of 1972 is sufficient or a new Act/ordinance is essential. It should be mentioned/explained clearly.

In fact, a new statutory provision, whether by amendment of P.O.59, or by a new enactment, will not be necessary to address any of the observations made above. As a matter of abundant caution, should the Government so think necessary, a section may be inserted in P.O.59 by amendment, similar to the existing Section 32(6), providing for the formation of a holding company and for removing any difficulty arising out of, or in connection with, the formation of the holding company.

NOTE: Please see attached scanned amendment to the Bangladesh Biman Corporation Ordinance 1977 which was enacted to convert Bangladesh Biman Corporation in its entirety to a public limited company. This is not appropriate in the case of BPDB as BPDB is not being dissolved, but a separate legal entity, HoldCo, is being created.



রেজিস্টার্ড নং ডি এ-১

বাংলাদেশ গেজেট

অতিরিক্ত সংখ্যা
কর্তৃপক্ষ কর্তৃক প্রকাশিত

বুধবার, জুলাই ১১, ২০০৭

গণপ্রজাতন্ত্রী বাংলাদেশ সরকার
আইন, বিচার ও সংসদ বিষয়ক মন্ত্রণালয়

বিজ্ঞপ্তি

তারিখ, ২৭ আষাঢ় ১৪১৪ বঃ/১১ জুলাই ২০০৭খ্রিঃ

নং ১৩ (মুদ্রণ)।—গণপ্রজাতন্ত্রী বাংলাদেশের রাষ্ট্রপতি কর্তৃক ২৭ আষাঢ় ১৪১৪ বঃ মোতাবেক ১১ জুলাই ২০০৭ খ্রিঃ তারিখে প্রণীত নিম্নে বর্ণিত অধ্যাদেশটি এতদ্বারা জনসাধারণের অবগতির জন্য প্রকাশ করা হইল।

অধ্যাদেশ নং ১৩, ২০০৭

Bangladesh Biman Corporation Ordinance, 1977 সংশোধনকল্পে প্রণীত

অধ্যাদেশ

যেহেতু নিম্নবর্ণিত উদ্দেশ্যসমূহ পূরণকল্পে Bangladesh Biman Corporation Ordinance, 1977 (Ordinance No. XIX of 1977) এর অধিকতর সংশোধন সমীচীন ও প্রয়োজনীয়; এবং

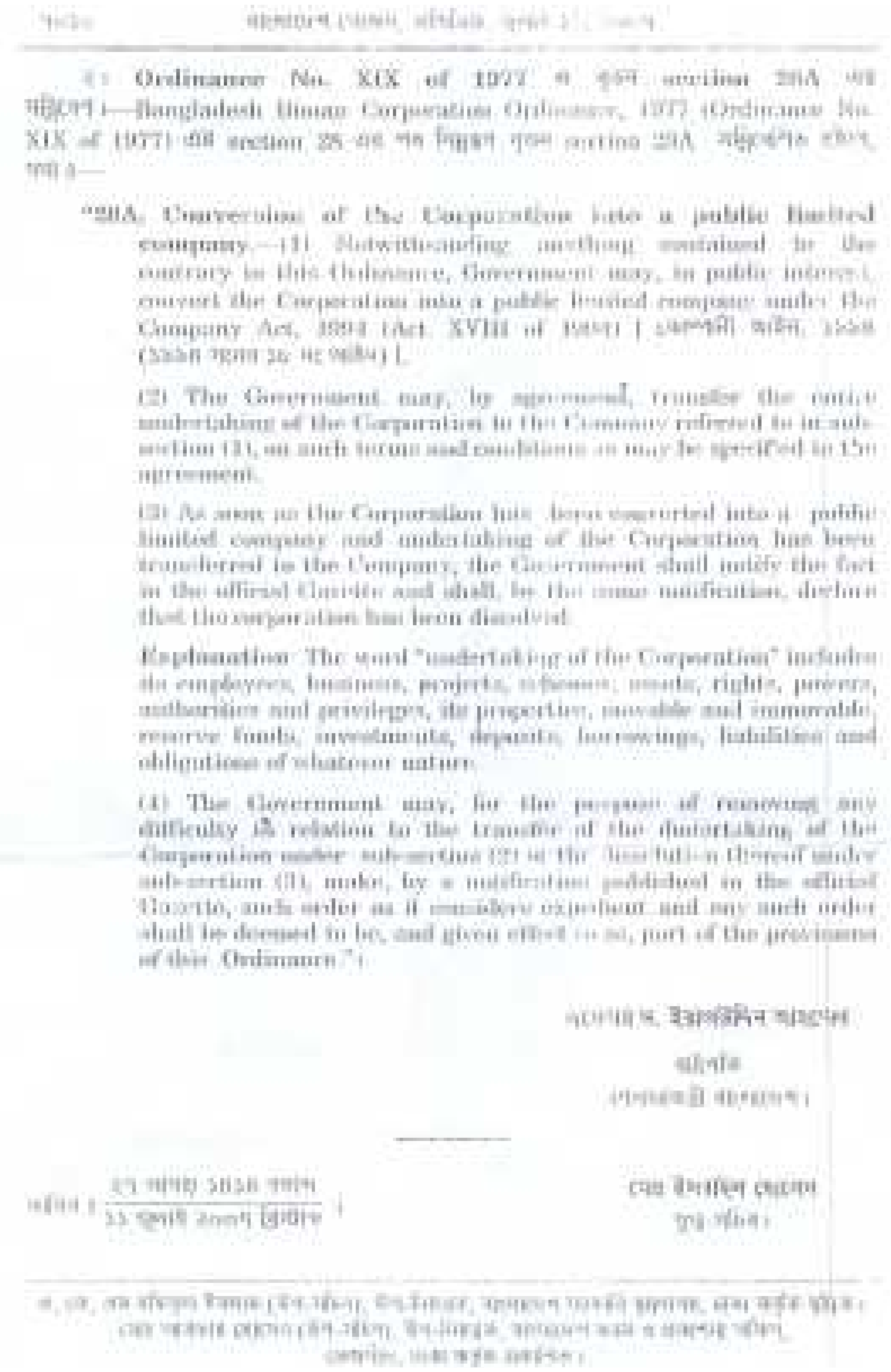
যেহেতু সংসদ ভাঙ্গিয়া যাওয়া অবস্থায় রহিয়াছে এবং রাষ্ট্রপতির নিকট ইহা সন্তোষজনকভাবে প্রতীয়মান হইয়াছে যে, আশু ব্যবস্থা গ্রহণের জন্য প্রয়োজনীয় পরিস্থিতি বিদ্যমান রহিয়াছে;

সেহেতু গণপ্রজাতন্ত্রী বাংলাদেশের সংবিধানের ৯৩(১) অনুচ্ছেদে প্রদত্ত ক্ষমতাবলে রাষ্ট্রপতি নিম্নরূপ অধ্যাদেশ প্রণয়ন ও জারী করিলেন :—

১। সংক্ষিপ্ত শিরোনাম ও প্রবর্তন।—(১) এই অধ্যাদেশ Bangladesh Biman Corporation (Amendment) Ordinance, 2007 নামে অভিহিত হইবে।

(২) ইহা অবিলম্বে কার্যকর হইবে।

(৭০০৩)
মূল্য : টাকা ২.০০



২। Ordinance No. XIX of 1977 এ নূতন section 28A এর সংযোজন।—Bangladesh Biman Corporation Ordinance, 1977 (Ordinance No. XIX of 1977) এর section 28 এর পর নিম্নরূপ নূতন section 28A সংযোজিত হইবে, যথা :—

"28A. Conversion of the Corporation into a public limited company.—(1) Notwithstanding anything contained to the contrary in this Ordinance, Government may, in public interest, convert the Corporation into a public limited company under the Company Act, 1994 (Act XVIII of 1994) [কোম্পানী আইন, ১৯৯৪ (১৯৯৪ সনের ১৮ নং আইন)].

(2) The Government may, by agreement, transfer the entire undertaking of the Corporation to the Company referred to in sub-section (1), on such terms and conditions as may be specified in the agreement.

(3) As soon as the Corporation has been converted into a public limited company and undertaking of the Corporation has been transferred to the Company, the Government shall notify the fact in the official Gazette and shall, by the same notification, declare that the corporation has been dissolved.

Explanation The word "undertaking of the Corporation" includes its employees, business, projects, schemes, assets, rights, powers, authorities and privileges, its properties, movable and immovable, reserve funds, investments, deposits, borrowings, liabilities and obligations of whatever nature.

(4) The Government may, for the purpose of removing any difficulty in relation to the transfer of the undertaking of the Corporation under sub-section (2) or the dissolution thereof under sub-section (3), make, by a notification published in the official Gazette, such order as it considers expedient and any such order shall be deemed to be, and given effect to as, part of the provisions of this Ordinance."।

অধ্যাপক ড. ইয়াজউদ্দিন আহম্মেদ
রাষ্ট্রপতি
গণপ্রজাতন্ত্রী বাংলাদেশ।

ঢাকা ঃ ২৭ আষাঢ় ১৪১৪ বঙ্গাব্দ / ১১ জুলাই ২০০৭ খ্রিষ্টাব্দ।

মোঃ [illegible]
যুগ্ম-সচিব।

[illegible]

APPENDIX F: SAMPLE PERFORMANCE CONTRACT

F.1 INTRODUCTION

This document sets out the intentions of the Board of HoldCo with respect to the operations of the Group over the years 2010-2015. It has been prepared and submitted to the Shareholders and, when accepted (possibly after negotiation and amendment), will constitute a performance contract between the Board and the Shareholder.

F.2 GENERAL STATEMENT OF PURPOSE

HoldCo's purpose is to play a major part in giving effect to the Government's power sector reform objectives as set out in the Government's 1994 publication *Power Sector Reforms in Bangladesh* and the subsequent 2000 *Vision Statement*.

F.3 SCOPE OF BUSINESS

HoldCo's principal function is to own controlling interests in companies that exist or will in future exist to own and operate the Government's power sector assets that are at present directly or indirectly owned and operated by BPDB and its subsidiaries or other Government entities. It may take interests in other power companies as well.

The principal activities of subsidiary companies are generation, transmission and distribution of electric power.

F.4 OBJECTIVES & STRATEGIES

HoldCo's principal objective is to ensure that its subsidiary companies are efficiently directed, financed and managed.

HoldCo's principal strategies to achieve its objective are:

- Ensure the highest level of direction and management of all companies in the Group
- Employ capable professional staff to implement Board policies
- Provide Group-wide policies on key issues such as:
    1. Evaluation, selection and financing of capital works
    2. Health, safety and environmental management
    3. Accounting and financial reporting policies
    4. Information and communication technology
    5. Risk management, including compliance with relevant laws and regulations
    6. Human resource management, including recruitment, training and remuneration and related matters
- Implement a performance management system that will identify subsidiary resources and plans and establish corresponding performance targets, monitor group operational and financial performance against those targets, and reward subsidiaries or take remedial action where necessary

- Based on a review of the overall system plan, corresponding budget requirements and resource availability, determine the optimal allocation of capital among Group companies so as to best achieve overarching targets agreed with the Government
- Provide technical assistance or support to subsidiaries drawing on broader Group experience or resources to help them achieve their targets.

F.5 FINANCIAL & OPERATIONAL PERFORMANCE TARGETS AND MEASURES

The effectiveness of HoldCo will be reflected in the operational and financial results of its subsidiaries. Group-wide operational performance ratios reflect commercial performance. The consolidated financial statements of HoldCo reflect the financial performance of the Group.

F.5.1 Operational Performance–major objectives

[These objectives should reflect or support the Government's broader sector-wide objectives]

Generation: [here are planned totals of generating capacity to be available]

Transmission: [here major construction or rehabilitation projects are summarized by completion date]

Distribution: [here are summarized major capital works by completion date and impacts on performance]

F.5.2 Operational Performance–summary'

[Note that HoldCo commences operations with effect from 1 July 2009, so the first reporting year is FY 2010. Although the planning period is five years, projections below run to FY 2015, which is the end of the FRRP projections.]

Item	Unit	2010	2011	2012	2013	2014	2015
Total sales	GWh						
Bulk - REB	%						
HV	%						
MV	%						
LV	%						
Retail connections	k						
Revenue yield	Tk / kWh						
System losses	% Sent out						
Generation plant factor	% time						
Transmission outages	No						
Transmission outages	Av duration mins						
Distribution outages	No						
Distribution outages	Av duration mins						
System peak demand	MW						
Load shed at peak	%						
Capital works							
Expenditure	% budget						
Completed works	% on time by value						
Completed works	% budget						

F.5.3 Financial Performance

Item	Unit	2010	2011	2012	2013	2014	2015
Profitability							
Operating Return on Av. Net Fixed Assets i/s	% BTBI	**3.7%**	**4.7%**	**5.1%**	**5.2%**	**5.3%**	**5.4%**
Return on Revenue	% BTBI	**23%**	**24%**	**23%**	**21%**	**20%**	**19%**
Net return on Equity	% ATAI	**7.3%**	**8.9%**	**9.1%**	**9.0%**	**8.7%**	**8.6%**
Productivity							
Revenue : Total Capital Employed	%	**35%**	**38%**	**41%**	**43%**	**47%**	**48%**
Return on Total Capital Employed	% BTBI	**8.0%**	**9.0%**	**9.3%**	**9.3%**	**9.4%**	**9.4%**
Liquidity							
Current assets : current liabilities	ratio						
Trade debtors	Months' rev						
Long Term Debt : Equity	ratio	**2.4**	**2.3**	**2.1**	**2.0**	**1.9**	**1.8**
LT Liabilities : (LT Liabilities + Equity)	%	**71%**	**69%**	**68%**	**67%**	**65%**	**64%**
Debt Service Cover	%	**10%**	**11%**	**13%**	**13%**	**14%**	**14%**
Selffinancing ratio	% 3 yr CapEx						

*BTBI : **B**efore **T**ax, **I**nterest*
*ATBI : **After T**ax, **I**nterest*

F.5.4 Capital Structure–consolidated

Item	Unit	2010	2011	2012	2013	2014	2015
Paid in capital		90 615	90 615	90 615	90 615	90 615	90 615
Retained income		5 654	13 511	21 902	26 852	34 475	39 493
less Share purchase premium		3 481	3 481	3 481	3 481	3 481	3 481
Shareholders' equity		92 788	100 645	109 036	113 986	121 608	126 626
Minority interest in PGCB		5 167	5 844	6 692	7 615	8 602	9 656
Total shareholders' funds	**M Tk**	97 955	106 489	115 728	121 601	130 210	136 282
Long term liabilities & provisions		228 481	230 293	230 963	227 464	224 305	222 965
Total Capital Employed	**M Tk**	326 436	336 782	346 691	349 065	354 515	359 247

F.6 BASIS FOR PERFORMANCE TARGETS

[The Group performance targets stipulated above are predicated on a number of factors outside the control of the Group. In certain cases, performance will depend on delivery on commitments by the Government, e.g. financing and subsidies, or on decisions by the Regulator, e.g. tariff levels. While the Government has the authority as Shareholder to change or reward the management of HoldCo, it also has an obligation to provide support or resources that have been promised. The Performance Contract must make these mutual obligations between HoldCo and Government explicit. In addition, other key exogenous factors should be highlighted to help determine ex-post *whether a deviation from target performances is the result of Board performance or factors outside its control]*

The financial and operational performance targets have been developed based on assumptions regarding various exogenous factors, financing availability, tariff levels, and subsidies. Each set of assumptions is discussed in turn below.

F.6.1 Exogenous Factors

[The financial and operational objectives have been established on the basis of various factors outside the control of HoldCo. Such factors include fuel prices, inflation, the frequency and intensity of cyclones, other force majeure events, etc. These assumptions should be enumerated here]

F.6.2 Financing Availability

[The financial projections obviously depend on continuing investment. Realization of planned investment will also affect operational performance. This section should enumerate the type and amount of financing expected each year, and for debt financing, the interest rate and tenor]

F.6.3 Tariff Levels

[Tariffs are set by the Regulator, and hence are outside the control of HoldCo. Nonetheless, they are a critical driver of financial performance, and indirectly, of operational performance. Assumed tariff levels can be expressed as a sales-weighted average annual tariff yield. However, SubCos obligations to prepare tariff filings in compliance with regulations should also be noted here.]

F.6.4 Subsidies

[Any Government subsidies that are included in the financial projections should be noted here. An example is given below]

HoldCo's distribution subsidiaries provide a first block of power to their customers below cost as mandated by the Regulator. Based on the forecast sales for each of the following years, the following table sets out the amount of assumed Government compensation in the form of subsidies. Details have been submitted to the Regulator for confirmation of reasonableness.

Item	Unit	2010	2011	2012	2013
No of customers	k	2 100	2 200	2 400	2 550
Average consumption pa	kWh	525	600	610	625
Total sales below cost	GWh	1 103	1 320	1 464	1 594
Average yield	Tk/kWh	2.00	2.02	2.04	2.06
Expected revenue	M Tk	2 205	2 666	2 987	3 284
Cost	Tk/kWh	4.85	4.89	4.93	4.97
Cost	M Tk	5 347	6 453	7 214	7 917
Subsidy sought	M Tk	3 142	3 787	4 228	4 633

F.7 REPORTING

The Board shall report to the Shareholders as follows:

- Within two months of the end of each quarter: summarized financial statements indicating the results of the Group against operating and capex budgets and performance against the targets in the Performance Contract.[29]

- Within three months of the end of each financial year: audited financial statements and accompanying directors' and CEO's reports.[30]

The Chairman shall keep the Shareholders informed about any significant matters that arise, especially matters affecting public expenditure, safety of staff and public, and the supply of power.

F.8 DIVIDEND POLICY

The directors to propose to pay dividends when the following conditions are met:

- The HoldCo Group is profitable

- Sufficient cash is available

- The ratio of debt/(debt+equity) is less than 70 per cent.

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[29] It is proposed to follow US practice and have the auditor review the reports and make limited comment on them.

[30] Contracts with auditors incorporate these deadlines.

Dividends are expected to be payable from FY 2011 at five per cent of paid up capital, approximately one third of tax paid profit

F.9 ACCOUNTING POLICIES

The Group shall observe the requirements of Bangladesh Accounting Standards.

The Board has elected to follow the fair value approach of presenting the value of fixed assets in service and therefore of shareholder's equity, generally in accordance with BAS 16. The cost of fixed assets in service will be restated not less often than three-yearly to reflect changes in replacement cost depreciated at rates that reflect capital consumption over the economic lives of plant items.

F.10 COMMERCIAL VALUE OF GOVERNMENT'S INVESTMENT

The commercial value of the Government's investment in the HoldCo Group as at 30 June 2010 is estimated to be Tk 100,200 million, based on market value of shares of PGCB plus the lesser of depreciated replacement cost of fixed assets plus working capital and the present worth of future cash flows.

F.11 PROCEDURE FOR SALE & PURCHASE OF SHARES OR ASSETS

[The Group's five year financing plan will show the extent, if any, to which it is proposed to finance its operations by the sale of equity in subsidiaries or the issue of shares in HoldCo.]

Per the Articles of Association, and subject to Shareholder approval and the requirements of the Companies Act:

- Shares in subsidiaries will be sold or new shares will be issued at values established by independent valuers

- A & B shares in HoldCo will be issued on the same basis but in proportions that retain the Government's minimum controlling interest of 51 per cent.

F.12 CORPORATE GOVERNANCE

The Board has reviewed the requirements and recommendations of the SEC, the Bangladesh Enterprise Institute and the OECD and drawn up a set of principles and practices that will be incorporated in a manual that reflects the Board's view of the best interests of the Group's stakeholders. Major subjects to be included in the manual are noted hereunder.

F.12.1 Code of Practice

The Board will draw up and issue a code of practice for directors, managers and all employees of the Group. It will include directors' obligations; director and employees standards of behavior; conflicts of interest; receipt and use of company information, gifts and property; compliance with HoldCo's policies and processes, relevant legislation and regulations; disciplinary measures and processes.

F.12.2 Independent Directors

The HoldCo's constitution limits Government employees as directors to not more than one third. The majority of directors is therefore always independent.

F.12.3 Chairman & CEO

The Chairman of directors will be non-executive. The President (Managing Director) is the Group's chief executive officer.

F.12.4 Board Committees

The Board will set up the following committees with appropriate terms of reference:

- Audit and Risk Management
- Finance and Planning
- Information Technology
- Technical
- Human Resources, Nomination and Remuneration

F.12.5 Auditors

The Group's auditors shall be independent, qualified and appointed by the shareholder for terms not exceeding three years. They will not normally be employed to provide any other services than advice on taxation.

F.12.6 Risk management

The Audit & Risk Management Committee, assisted by an executive subcommittee and such technical advisers as may be necessary, will oversee the establishment of procedures within the Group for identifying financial, operating and other risks and policies and procedures to mitigate them

F.13 SUBSIDIARY COMPANIES

[Subsidiary companies and the scope of activities of each are enumerated here.]

Appendix–Consolidated Financial Projections

[A set of consolidated financial statements taken from the Business Plan would be appended here indicating the planned results and key assumptions on which they are based.]

APPENDIX G: KEY JOB DESCRIPTIONS

JOB DESCRIPTION

Title	President & CEO
Reports to	Chairman – Board of Directors

Position Responsibilities

- Develop and recommend long term strategies and business plans to the Board of HoldCo to ensure the viability of HoldCo and the Subsidiaries.
- Implement all strategies and plans approved by the Board of HoldCo.
- Be the Boards representative on the Board of the Subsidiary.
- Submit financial statements, budgets and reports for consideration by the Board.
- Ensure that the HoldCo achieves its financial and long-term business objectives through effective management of functional departments.
- Ensure that appropriate strategies are in place to manage the company's resources effectively.
- Ensure the effective financial management of the HoldCo and the Subsidiaries, including all treasury functions, financial reporting, and planning.
- Ensure that HoldCo fulfills all it statutory obligations
- Ensure that HoldCo and the Subsidiaries keeps abreast of current market, economic, technology and political trends to maximize business opportunities and minimize risk.
- Establish effective relationships and performance contracts with the Government and the Subsidiaries ensuring the delivery on performance contracts are of the highest quality while meeting the laid objectives.
- Build and maintain an effective working relationship with all senior managers ensuring all functional groupings align with other organizational priorities and initiatives
- Provide leadership, vision and direction for all employees of HoldCo and the Subsidiaries.

Position Competencies

Some of the competencies required for the position are:

- **Performance Focus**

  Committed to exceeding targets and improving performance and does this by being creative and innovative. Links business plan goals and key result areas with stakeholder needs in order to achieve goals.

- **Commercial Orientation**

Develops and implements innovative and robust business strategies which explore opportunities and display a thorough appreciation of the market and industry conditions, risks and anticipated stakeholder needs.

- **Managing Change**

  Displays a positive attitude to change and persists in the face of ongoing obstacles and challenges by maintaining morale and enthusiasm.

- **Teamwork**

  Leads, contributes to, and co-operates willingly with the team and promotes team spirit. Communicates needs clearly and effectively by clarifying responsibilities, goals and outcomes to be achieved.

- **Leadership & Vision**

  Actively promotes HoldCo's principles and the organization's strategies and goals internally and externally. Represents policies and decisions of HoldCo positively. Inspires others to adopt the principles and goals of the organization. Promotes and adopts the creation and implementation of innovative approaches, new ideas and methods. Is able to consider requests to change plans and goals with an open mind; and to evaluate others' views logically.

Qualification

- Bachelor / Master of Engineering or Technology with a Business Degree
- Minimum 15 – 20 years experience in the power sector
- Cross functional experience in the power sector is a must

JOB DESCRIPTION

Title	Vice President – Financial Planning
Reports to	President & CEO

Position Responsibilities

- Responsible for the internal management of the financial planning department ensuring that all financial objectives, requirements and timeframes are met.
- Obtain information from Government System Planner, review Subsidiary technical plans and designs and conduct techno feasibility studies on subsidiary plans for better financial planning. Evaluate proposed projects and provide technical expertise as required related to financial planning and management.
- Identify the financing requirements including Capex, loans, repayments etc. for the subsidiaries.
- Identify sources of funds and conduct negotiations with funding agencies on terms and in turn negotiate terms with subsidiaries for their financing requirements.
- Provide senior management with financial reports, statistics, forecasts and other information necessary for effective financial planning, management and control of the HoldCo and the subsidiaries including monitoring of net position and develop strategies for managing surpluses or shortfalls.
- Participate in the development of the HoldCo accounting policies and ensure that accounting methods and procedures are used in accordance with HoldCo policies. Develop financial reporting procedures for the subsidiaries.
- Oversee production of financial and management accounts, budgeting and forecasting, treasury, financial decision making and tax responsibilities
- Understand and anticipate financial risks, putting in place appropriate strategies to avoid and/or alleviate negative outcomes
- Manage and maintain effective relationships with Banking and Insurance service providers and negotiate best terms / rates with them. Insure the subsidiary and where applicable HoldCo assets.
- Member of Senior Management team and contributor to strategic direction and development of the HoldCo's long range strategies and business plans.

Position Competencies

Some of the competencies required for the position are:

- **Performance Focus**

  Committed to exceeding targets and improving performance and does this by being creative and innovative. Links business plan goals and key result areas with stakeholder needs in order to achieve goals.

- **Commercial Orientation**

  Develops and implements innovative and robust business strategies which explore opportunities and display a thorough appreciation of the market and industry conditions, risks and anticipated stakeholder needs.

- **Managing Change**

  Displays a positive attitude to change and persists in the face of ongoing obstacles and challenges by maintaining morale and enthusiasm.

- **Teamwork**

  Leads, contributes to, and co-operates willingly with the team and promotes team spirit. Communicates needs clearly and effectively by clarifying responsibilities, goals and outcomes to be achieved.

- **Leadership & Vision**

  Actively promotes HoldCo’s principles and the organization's strategies and goals internally and externally. Represents policies and decisions of HoldCo positively. Inspires others to adopt the principles and goals of the organization. Promotes and adopts the creation and implementation of innovative approaches, new ideas and methods. Is able to consider requests to change plans and goals with an open mind; and to evaluate others’ views logically.

Qualification

- Bachelor / Master of Engineering or Technology with a Business Degree – preferably with specialization in Finance
- Minimum 15 years experience in the power sector
- In depth understanding of the financial planning requirements in the power sector

JOB DESCRIPTION

Title	Vice President – Performance Management
Reports to	President & CEO

Position Responsibilities

- Develop performance parameters for evaluation and Monitoring of performance of HoldCo and Subsidiaries.
- Negotiate between the parties concerned on drawing up of performance contracts and the targets laid therein. Present the results of the negotiations on performance to the management and Board of the HoldCo.
- Assist development of performance contracts and evaluation criteria including promoting adoption of best practices.
- Set procedures for monitoring of performance contracts and ensure collection, collation and analysis of data with regard to evaluating performance against set targets.
- Use data available and create a detailed set of Benchmarks related to performance targets.
- Ensure compliance across HoldCo and subsidiaries in meeting norms related to environment, human resources etc.
- Audit performance contract related issues across subsidiaries.
- Develop IT policy across the HoldCo and the subsidiaries. Identify and develop MIS requirements between HoldCo and Subsidiaries and ensure compliance.
- Ensure IT enablement of services and data across the HoldCo and the subsidiaries.
- Member of Senior Management team and contributor to strategic direction and development of the HoldCo's long range strategies and business plans.

Position Competencies

Some of the competencies required for the position are:

- **Performance Focus**

  Committed to exceeding targets and improving performance and does this by being creative and innovative. Links business plan goals and key result areas with stakeholder needs in order to achieve goals.

- **Commercial Orientation**

  Develops and implements innovative and robust business strategies which explore opportunities and display a thorough appreciation of the market and industry conditions, risks and anticipated stakeholder needs.

- **Managing Change**

  Displays a positive attitude to change and persists in the face of ongoing obstacles and challenges by maintaining morale and enthusiasm.

- **Teamwork**

  Leads, contributes to, and co-operates willingly with the team and promotes team spirit. Communicates needs clearly and effectively by clarifying responsibilities, goals and outcomes to be achieved.

- **Leadership & Vision**

  Actively promotes HoldCo's principles and the organization's strategies and goals internally and externally. Represents policies and decisions of HoldCo positively. Inspires others to adopt the principles and goals of the organization. Promotes and adopts the creation and implementation of innovative approaches, new ideas and methods. Is able to consider requests to change plans and goals with an open mind; and to evaluate others' views logically.

Qualification

- Bachelor / Master of Engineering or Technology with a Business Degree
- Minimum 15 years experience in the power sector
- Well versed with both financial and technical aspect of operations in the power sector

JOB DESCRIPTION

Title	Vice President – Program and Projects
Reports to	President & CEO

Position Responsibilities

- Review, monitor and implement multi lateral donors / government funded projects at HoldCo and Subsidiary level
- Develop procedures for project planning and monitoring as per donor guidelines. Report on a regular basis progress and achievements. Present the report to the HoldCo management and the Board.
- Prepare project plan, terms of reference for new projects in coordination with the donors.
- Identify and Initiate new efficiency improvement programs with subsidiaries.
- Develop project plan for such programs with subsidiaries and monitor implementation and success. Identify key resources across the sector to work on these special program
- Develop and document key processes to ensure better coordination between the Subsidiaries and the HoldCo.
- Member of Senior Management team and contributor to strategic direction and development of the HoldCo's long range strategies and business plans.

Position Competencies

Some of the competencies required for the position are:

- **Performance Focus**

  Committed to exceeding targets and improving performance and does this by being creative and innovative. Links business plan goals and key result areas with stakeholder needs in order to achieve goals.

- **Commercial Orientation**

  Develops and implements innovative and robust business strategies which explore opportunities and display a thorough appreciation of the market and industry conditions, risks and anticipated stakeholder needs.

- **Managing Change**

  Displays a positive attitude to change and persists in the face of ongoing obstacles and challenges by maintaining morale and enthusiasm.

- **Teamwork**

Leads, contributes to, and co-operates willingly with the team and promotes team spirit. Communicates needs clearly and effectively by clarifying responsibilities, goals and outcomes to be achieved.

- **Leadership & Vision**

  Actively promotes HoldCo's principles and the organization's strategies and goals internally and externally. Represents policies and decisions of HoldCo positively. Inspires others to adopt the principles and goals of the organization. Promotes and adopts the creation and implementation of innovative approaches, new ideas and methods. Is able to consider requests to change plans and goals with an open mind; and to evaluate others' views logically.

Qualification

- Bachelor / Master of Engineering or Technology with a Business Degree
- Minimum 15 years experience in the power sector
- Past experience in Project Monitoring and Implementation is a must.

JOB DESCRIPTION

Title	General Manager – Accounting
Reports to	Vice President – Financial Planning

Position Responsibilities

- Prepare accounting statements and reports in compliance with the requirements as set by the Bangladesh Accounting Standards.
- Ongoing contribution to and evaluation of, legislative and financial report requirements, and modification to accounting procedures and systems where necessary
- Consolidation of Accounts of the HoldCo and the Subsidiaries and preparation of consolidated financial statements.
- Provide financial reports inputs for preparation of Annual report of the HoldCo
- Responsible for Treasury Asset Management.
- Ensure financial priorities are identified and actioned swiftly
- Maintain overall accuracy of the accounting system including all ledgers
- Coach, lead and supervise accounts and support staff

Position Competencies

Some of the competencies required for the position are:

- **Performance Focus**

  Committed to exceeding targets and improving performance and does this by being creative and innovative. Links business plan goals and key result areas with stakeholder needs in order to achieve goals.

- **Commercial Orientation**

  Develops and implements innovative and robust business strategies which explore opportunities and display a thorough appreciation of the market and industry conditions, risks and anticipated stakeholder needs.

- **Managing Change**

  Displays a positive attitude to change and persists in the face of ongoing obstacles and challenges by maintaining morale and enthusiasm.

- **Teamwork**

Leads, contributes to, and co-operates willingly with the team and promotes team spirit. Communicates needs clearly and effectively by clarifying responsibilities, goals and outcomes to be achieved.

- **Leadership & Vision**

  Actively promotes HoldCo's principles and the organization's strategies and goals internally and externally. Represents policies and decisions of HoldCo positively. Inspires others to adopt the principles and goals of the organization. Promotes and adopts the creation and implementation of innovative approaches, new ideas and methods. Is able to consider requests to change plans and goals with an open mind; and to evaluate others' views logically.

Qualification

- Chartered Accountant with minimum 10 - 14 years experience in accounting and related activities

OR

- M.Com with atleast 15 years experience in audit

OR

- B.Com with Post Graduate Diploma in Financial Management with 15 -20 years experience in accounting

JOB DESCRIPTION

Title	General Manager – System Planning Review
Reports to	Vice President – Financial Planning

Position Responsibilities

- Carry out design review of engineering plans of the subsidiaries through application of the knowledge of engineering theory and practice.
- Identify any problems in the design if any and provide recommendations
- Conduct and present techno feasibility of the reviewed design as input for financial planning activity.
- Review master plan of the government as obtained from Single buyer. Ascertain feasibility of subsidiary plans ensuring that it is in line with the master plan.
- Prepare preliminary and/or detailed estimates cost estimates for the submitted plan.

Position Competencies

Some of the competencies required for the position are:

- **Performance Focus**

  Committed to exceeding targets and improving performance and does this by being creative and innovative. Links business plan goals and key result areas with stakeholder needs in order to achieve goals.

- **Commercial Orientation**

  Develops and implements innovative and robust business strategies which explore opportunities and display a thorough appreciation of the market and industry conditions, risks and anticipated stakeholder needs.

- **Managing Change**

  Displays a positive attitude to change and persists in the face of ongoing obstacles and challenges by maintaining morale and enthusiasm.

- **Teamwork**

  Leads, contributes to, and co-operates willingly with the team and promotes team spirit. Communicates needs clearly and effectively by clarifying responsibilities, goals and outcomes to be achieved.

- **Leadership & Vision**

Actively promotes HoldCo’s principles and the organization's strategies and goals internally and externally. Represents policies and decisions of HoldCo positively. Inspires others to adopt the principles and goals of the organization. Promotes and adopts the creation and implementation of innovative approaches, new ideas and methods. Is able to consider requests to change plans and goals with an open mind; and to evaluate others’ views logically.

Qualification

- Engineering Graduate
- Minimum 12 – 14 years experience preferably in the power sector
- Past experience in System design and review is a must

JOB DESCRIPTION

Title	General Manager – IT & MIS
Reports to	Vice President – Performance Review and Monitoring

Position Responsibilities

- Develops, together with the Vice Presidents of the HoldCo a cost effective and sustainable IT strategy for the HoldCo through consultation and collaboration with all Departments.
- Implement practicable cost effective Information Technology Solutions to ensure strategic goals of the HoldCo are realized.
- Develop MIS parameters and develop mechanism of data exchange between the HoldCo and the Subsidiaries including IT enablement of this process.
- Manage and coordinate the maintenance of the operating systems and software to ensure user requirements are being met as effectively as possible from a systems perspective
- Implement procedures and controls to effectively manage the use of the Information Technology System
- Create, implement, maintain and review Information Technology specific processes, methods, principles of working, systems and models that are the most effective and reflect the business needs and develop and enhance them on a regular and on-going basis, to generate continuous improvement in quality and service.

Position Competencies

Some of the competencies required for the position are:

- **Performance Focus**

  Committed to exceeding targets and improving performance and does this by being creative and innovative. Links business plan goals and key result areas with stakeholder needs in order to achieve goals.

- **Commercial Orientation**

  Develops and implements innovative and robust business strategies which explore opportunities and display a thorough appreciation of the market and industry conditions, risks and anticipated stakeholder needs.

- **Managing Change**

  Displays a positive attitude to change and persists in the face of ongoing obstacles and challenges by maintaining morale and enthusiasm.

- **Teamwork**

  Leads, contributes to, and co-operates willingly with the team and promotes team spirit. Communicates needs clearly and effectively by clarifying responsibilities, goals and outcomes to be achieved.

- **Leadership & Vision**

  Actively promotes HoldCo's principles and the organization's strategies and goals internally and externally. Represents policies and decisions of HoldCo positively. Inspires others to adopt the principles and goals of the organization. Promotes and adopts the creation and implementation of innovative approaches, new ideas and methods. Is able to consider requests to change plans and goals with an open mind; and to evaluate others' views logically.

Qualification

- Engineering Graduate with IT Specialization
- Minimum 12 – 14 years experience preferably in the power sector
- Past experience in development of MIS systems is a must

JOB DESCRIPTION

Title	Senior Manager / Manager – Internal Audit
Reports to	Chairman – Board of Directors

Position Responsibilities

- Monitor the achievements of the organizational objectives
- To identify, assess and manage risks to those objectives
- To advise on, formulate internal audit policy
- To ensure compliance with policies, laws and regulations
- To ascertain the integrity and reliability of financial and other information provided to management and stakeholders, including those used in decision making
- To ascertain that systems of control are laid down and operate to promote the most economic, efficient and effective use of resources and to safeguard assets
- Lead and manage a team of auditors to conduct regular audit and checks across the HoldCo and in some situations the subsidiaries.
- Review Subsidiaries Internal Audit Report and present findings to the Board.
- Trains staff and creates a positive learning and working environment through delegation and coaching.
- Add value by acting as a facilitator in business risk management and carrying our value for money reviews, thereby assisting the management and the board of the HoldCo in the effective discharge of their responsibilities.

Position Competencies

Some of the competencies required for the position are:

- **Performance Focus**

  Committed to exceeding targets and improving performance and does this by being creative and innovative. Links business plan goals and key result areas with stakeholder needs in order to achieve goals.

- **Commercial Orientation**

  Develops and implements innovative and robust business strategies which explore opportunities and display a thorough appreciation of the market and industry conditions, risks and anticipated stakeholder needs.

- **Managing Change**

  Displays a positive attitude to change and persists in the face of ongoing obstacles and challenges by maintaining morale and enthusiasm.

- **Teamwork**

  Leads, contributes to, and co-operates willingly with the team and promotes team spirit. Communicates needs clearly and effectively by clarifying responsibilities, goals and outcomes to be achieved.

- **Leadership & Vision**

  Actively promotes HoldCo's principles and the organization's strategies and goals internally and externally. Represents policies and decisions of HoldCo positively. Inspires others to adopt the principles and goals of the organization. Promotes and adopts the creation and implementation of innovative approaches, new ideas and methods. Is able to consider requests to change plans and goals with an open mind; and to evaluate others' views logically.

Qualification

- Chartered Accountant with minimum 7 - 10 years experience in auditing and related activities

OR

- M.Com with atleast 10 - 12 years experience in audit

OR

- B.Com with Post Graduate Diploma in Financial Management with 10 – 12 years experience in audit

JOB DESCRIPTION

Title	Senior Manager / Manager – Corporate Communications
Reports to	President & CEO

Position Responsibilities

- Create, implement and oversee communication programs that effectively describe and promote the organization and its objectives
- Prepare presentations for effectively communicating company programs and policies to employees and other stakeholders
- Liaison with and build relations with media and other bodies to manage the corporate image including preparation of publicity and press materials
- Manage internal and external corporate events and ensure the event meets its intended objective
- Provide corporate communications support to subsidiaries as and when required
- Develop confidence in HoldCo involving various public stakeholders and positioning the HoldCo as a company of choice through communication activities.
- Regularly communicate, coordinate and create and maintain good and cordial contacts with administrative, legislative and judicial members of the Royal government.
- Keep the employees informed of the important sector (industry) changes at all unit levels that could have impact or affect HoldCo or its Subsidiaries.

Position Competencies

Some of the competencies required for the position are:

- **Performance Focus**

  Committed to exceeding targets and improving performance and does this by being creative and innovative. Links business plan goals and key result areas with stakeholder needs in order to achieve goals.

- **Commercial Orientation**

  Develops and implements innovative and robust business strategies which explore opportunities and display a thorough appreciation of the market and industry conditions, risks and anticipated stakeholder needs.

- **Managing Change**

  Displays a positive attitude to change and persists in the face of ongoing obstacles and challenges by maintaining morale and enthusiasm.

- **Teamwork**

Leads, contributes to, and co-operates willingly with the team and promotes team spirit. Communicates needs clearly and effectively by clarifying responsibilities, goals and outcomes to be achieved.

- **Leadership & Vision**

  Actively promotes HoldCo's principles and the organization's strategies and goals internally and externally. Represents policies and decisions of HoldCo positively. Inspires others to adopt the principles and goals of the organization. Promotes and adopts the creation and implementation of innovative approaches, new ideas and methods. Is able to consider requests to change plans and goals with an open mind; and to evaluate others' views logically.

Qualification

- Graduate with Business Degree
- Communications specialization
- Minimum 10 years experience preferably in the power sector

JOB DESCRIPTION

Title	Senior Manager / Manager – Human Resources & Training
Reports to	President & CEO

Position Responsibilities

- Design, develop and implement Human Resource Strategies consistent with the business objectives of the HoldCo.
- Provide HoldCo expert knowledge of human resource activities and processes including recruitment, human resource planning, training and development, performance management, remuneration and staff benefits.
- Ensure compliance with the obligations of the HoldCo to meet its legislative and contractual obligations as an employer.
- Identify long-term staffing resource issues, including planning for succession and development and delivering training strategies to resolve resource issues.
- Training needs analysis to determine organizational and individual training needs including preparation of annual training plans including monitoring and evaluation of training and development programs
- Ensure that the Human Resources Cell achieves its targets and business objectives through effective and integrated leadership and management of all its functions

Position Competencies

Some of the competencies required for the position are:

- **Performance Focus**

  Committed to exceeding targets and improving performance and does this by being creative and innovative. Links business plan goals and key result areas with stakeholder needs in order to achieve goals.

- **Commercial Orientation**

  Develops and implements innovative and robust business strategies which explore opportunities and display a thorough appreciation of the market and industry conditions, risks and anticipated stakeholder needs.

- **Managing Change**

  Displays a positive attitude to change and persists in the face of ongoing obstacles and challenges by maintaining morale and enthusiasm.

- **Teamwork**

Leads, contributes to, and co-operates willingly with the team and promotes team spirit. Communicates needs clearly and effectively by clarifying responsibilities, goals and outcomes to be achieved.

- **Leadership & Vision**

  Actively promotes HoldCo's principles and the organization's strategies and goals internally and externally. Represents policies and decisions of HoldCo positively. Inspires others to adopt the principles and goals of the organization. Promotes and adopts the creation and implementation of innovative approaches, new ideas and methods. Is able to consider requests to change plans and goals with an open mind; and to evaluate others' views logically.

Qualification

- Graduate with Business Degree with specialization in Human Resources
- Minimum 10 years experience preferably in the power sector

JOB DESCRIPTION

Title	Senior Manager / Manager – Corporate Communications
Reports to	President & CEO

Position Responsibilities

- Develop and oversee systems that ensure company's compliance with all legal and statutory requirements
- Ensure the Group's compliance with legal and regulatory requirements
- Provide advice in relation to the Group's acquisitions, disposals and other corporate and contractual transactions, whether financial or otherwise
- Providing legal support to the Subsidiaries as and when required.
- Responsible for maintaining Shareholder relations including register of shareholders and monitoring changes in share ownership
- Represent the HoldCo at the Registrar of Companies on all company related matters.
- Arrange Annual General Meetings, prepare agendas, Minutes of the meeting and assist in the production of company annual reports
- Monitor changes in relevant legislation and regulatory environment and take appropriate action

Position Competencies

Some of the competencies required for the position are:

- **Performance Focus**

  Committed to exceeding targets and improving performance and does this by being creative and innovative. Links business plan goals and key result areas with stakeholder needs in order to achieve goals.

- **Commercial Orientation**

  Develops and implements innovative and robust business strategies which explore opportunities and display a thorough appreciation of the market and industry conditions, risks and anticipated stakeholder needs.

- **Managing Change**

  Displays a positive attitude to change and persists in the face of ongoing obstacles and challenges by maintaining morale and enthusiasm.

- **Teamwork**

Leads, contributes to, and co-operates willingly with the team and promotes team spirit. Communicates needs clearly and effectively by clarifying responsibilities, goals and outcomes to be achieved.

- **Leadership & Vision**

  Actively promotes HoldCo's principles and the organization's strategies and goals internally and externally. Represents policies and decisions of HoldCo positively. Inspires others to adopt the principles and goals of the organization. Promotes and adopts the creation and implementation of innovative approaches, new ideas and methods. Is able to consider requests to change plans and goals with an open mind; and to evaluate others' views logically.

Qualification

- Graduate with Degree in Law
- Minimum 10 years experience with in depth understanding of the power sector operations

APPENDIX H: VALUATION OF FIXED ASSETS & INVESTMENTS

H.1 PURPOSE OF PAPER

The GoB's plan for development of the power sector envisions that all entities in it will in time become operating subsidiaries of a holding company. It is therefore necessary to examine briefly the policies that have been followed to date in the sector, notably in the bifurcation of BPDB to create DESA and, subsequently, DESA's spin-off of DESCO, as well as in the formation of BPDB's present subsidiaries, APSC, PGCB and WZPDCL.

This paper examines policies adopted and recommendations made in the past, identifies issues relating to the valuation of assets intended for long term holding and prior to their transfer to a NewCo[31] and options for dealing with them.

In principle, the valuation of fixed assets in all companies in the sector should be made on bases that are mutually consistent, economically justified and commercially sound. It is essential that the accounting policies employed by a group of subsidiaries of one holding company are the same.

Achieving a consistent and logical basis of fixed asset valuation throughout the HoldCo group is an issue that will need to be resolved in due course by the Board of HoldCo. The financial projections in the FRRP, which have been adopted for the purpose of presenting HoldCo's and the HoldCo group's opening balance sheets and financial projections, are based on the existing (2006) book value of fixed assets in the various companies.

H.2 SITUATION

BPDB's fixed assets have been valued on various bases for establishing total capital employed[32] in NewCos. They differ from one another and from the values in BPDB's books. Most differ from the customary methodology for assessing current values of infrastructure assets for financial reporting purposes.

Since an important aim of restructuring the power sector into companies is to make the sector financially viable, efficient and commercial[33] it is important that realistic values are placed on the capital employed in each company. The major component of capital employed in the power sector is electrical plant and equipment, i.e., fixed assets.

H.2.1 BPDB

BALANCE SHEET

The value of BPDB's fixed assets in its balance sheet was restated in 1992. Since that time additions have been included at cost. Thus, the value in the latest accounts (2005) is a mixture of taka of differing purchasing power, it is understated in 2005 taka, and the real

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[31] 'NewCo' refers to any subsidiary of BPDB or DESA whether already existing or to be formed. The proposed holding company is referred to as 'HoldCo.

[32] Total Capital Employed = Working Capital + Fixed Assets = Long term liabilities + Owners' Equity; Working Capital = Current Assets - Current Liabilities.

[33] As stated in the GoB's *Policy Statement on Power Sector Reforms,* January, 2000.

cost of capital consumption is likewise understated each year while the operating profit is overstated. It follows that, if the tariff were constructed to reflect book costs, the rates in it would also be understated.[34]

It should be noted that there is an asymmetry in BPDB's accounting for fixed assets and the foreign currency denominated loans that financed a large part of them: loans not yet due for repayment are revalued annually and the resulting gain or, more usually, loss due to devaluation of the taka, is charged to revenue. No corresponding restatement of the foreign content of fixed assets is made. The effect is to understate the value of reported equity when, in fact, losses on foreign debt are complemented by an (unrecorded) increase in replacement cost of the assets they financed.

Transfers from capital works in progress to fixed assets in service are not supported by schedules that identify the works in the detail needed, for example, to identify clearly all the distribution assets created within the Zones in which they exist. Total fixed assets are not subdivided further than by the main functions of generation, transmission, distribution and 'other'.[35]

IVVR

In 2000 BPDB set up a project–the asset Identification, Verification, Valuation & Recording (IVVR) project–to undertake a country-wide inventory of fixed assets and stores.[36]

This was a major project and resulted in a complete inventory and up-to-date valuation of BPDB's fixed assets and stores. The 2000 valuation was based on assessed replacement cost of assets and remaining service lives. Table 1 gives the book values of BPDB's fixed assets at 30 June 2000. Table 2 gives the values resulting from the reappraisal made as at the same date.

Table 3 compares the appraised value of fixed assets with BPDB's balance sheet values at 30 June 2000.

Overall, the appraised value of assets in 2000 is 43 per cent higher than the book values at the same date and about the same as the increase in the GPI between 1992 and 2000.

H.2.2 2005 Update

The IVVR values at 2000 have been updated in the following way:

- Additions and disposals[37] shown in BPDB's financial statements were taken into account in the relevant year

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[34] We understand that BPDB decided in June 2005 to adopt the IVVR 2000 valuation of fixed assets in its financial statements for FY 2006.

[35] However, additions since 2000 are mostly identifiable by project and those that affect more than one distribution zone were allocated on rational bases.

[36] The intention was not only to establish reliable asset records but to integrate the asset and stores systems with the general ledger established under the FMU project. However, like the FMU systems, the IVVR system lapsed for want of management commitment to funding and extending it country-wide. It has not been updated since 2000.

[37] Mainly to Ashuganj Power Station Co Ltd and Power Grid Company of Bangladesh Ltd.

- Additions were depreciated using average overall rates derived from BPDB's financial statements
- Movements in the 12 month average General Inflation Index published by the Bangladesh Bank were used to express the resulting replacement costs and depreciation provisions in terms of 2005 purchasing power.

Table 4 compares the book value of fixed assets as per the financial statements for FY 2005 with the value restated in terms of 2005 purchasing power. Table 5 shows the allocation of fixed assets to actual or proposed NewCos after restating the values. Some assets of PGCB and WZPDC are still in BPDB's 2005 balance sheet.

Table 1: Book Value of Fixed Assets at 30 June 2000

Sector	Land	Buildings	Plant	Other	Total
	M Taka				
Generation	7 504	5 134	58 704	121	71 462
Transmission	878	392	16 546	30	17 845
Distribution	1 886	1 478	32 927	78	36 369
Other	4	82	1 217	491	1 795
	10 272	7 085	109 393	720	127 471

Table 2: Appraised Value of Fixed Assets at 30 June 2000

Sector	Land	Buildings	Plant	Other	Total
	M Taka				
Generation	5 718	9 126	78 963	237	94 043
Transmission	3 222	1 368	40 147	94	44 832
Distribution	8 970	2 686	23 491	4 198	39 344
Other	3 246	586	70	239	4 141
	21 155	13 766	142 671	4 768	182 360

Table 3: Comparison of Appraised & Book Values of Fixed Assets at 30 June 2000

Sector	Land	Buildings	Plant	Other	Total
	Appraised Value % of Book Value				
Generation	76	178	135	196	132
Transmission	367	349	243	316	251
Distribution	476	182	71	5 355	108
Other	79 166	714	6	49	231
	206	194	130	662	143

Table 4: Fixed Assets of BPDB at 30 June 2005, M Tk.

Item	Revalued Cost	Depreciation	Nett BV
Restated value	252 712	115 306	137 406
Reported value	172 956	101 392	71 564
Appraisal surplus	79 756	13 914	65 842

Table 5: Allocation of BPDB Fixed Assets at 30 June 2005, Restated M Tk.

Item	Revalued Cost	Depreciation	Nett BV
OtherGenerating Cos	147 313	69 352	77 960
PGCB	31 291	13 992	17 299
NZPDC	29 117	10 919	18 198
CZPDC	15 507	7 201	8 306
WZPDC	6 354	5 191	1 163
SZPDC	15 502	6 863	8 639
BPDB for disposal	7 627	1 786	5 841
Restated value	252 712	115 306	137 406

H.2.3 Ashuganj Power Station Company Ltd (APSCL)

BPDB-appointed consultants[38] appraised the value of fixed assets at Tk 21,130 million as at 7 January 2003 on the basis of depreciated replacement cost.

ADB-appointed consultants[39] considered the result “unrealistic and unsustainable in terms of the future revenue earning capacity of the plants” and therefore based their valuation on the historic cost of assets determined from a range of documents including project costs records, project Pro-formas and Project Completion Reports. The resulting valuation, allowing for the remaining service lives, was Tk 13,088 million.

The agreement for the transfer of fixed assets dated 22 May 2003 records a value of Tk 19,892 million. A paragraph in the agreement notes that BPDB and the Ashuganj Power Station Co Ltd agreed to finalize the value of net assets and liabilities with assistance from an IVVR consultant on the basis of “international commercial norms and international accounting standards”.[40]

Based on updated IVVR data, the replacement cost of assets transferred to APSC as at the end of FY 2003 was Tk 52,705 million and accumulated depreciation was Tk 28,526 million, a net value of Tk 24,179 million, 60 per cent greater than the value used to capitalize APC and not out of line with the independent valuation of Tk 21,130 million.

The value of assets acquired from BPDB has been settled at Tk 15,117 million, a figure reduced to make the company appear profitable while selling prices are held down.[41]

H.2.4 West Zone Power Distribution Company Ltd (WZPDCL)

The Consultant for the corporatization of the West Zone distribution operations summarized the IVVR value of assets to be taken over by WZPDCL at Tk 7176 million.

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[38] Consortium of M R Hasan & Associates for the IVVR Project. See later Note re Power Stations.

[39] Nexant under TA 3343-BAN.

[40] The valuation of plant is an accounting matter only to the extent that Bangladesh Accounting Standard 16, *Property, Plant and Equipment,* requires values reported in financial statements to be based on either DHC or DRC and prescribes the treatment of appraisal surpluses and deficits.

[41] See later Note re Relationship Between Asset Values & Energy Prices

Some adjustments were made to reflect the results of check inspections of significant assets to verify the reliability of the IVVR quantities and remaining asset service lives.

The Consultant made valuations on two bases:

- Written down original cost having regard to expected residual lives
- Earnings capability, i.e., present worth of net future cash flows.

The first basis gave a total value of Tk 4308 million; the second, recommended value was Tk 4754 million.[42]

The IVVR valuation of fixed assets employed by WZPDCL at 30 June 2005 is Tk 8204 million, 70-90 per cent greater than the Consultant's valuations.[43]

H.2.5 South Zone Power Distribution Company (SZPDC)

The consultant's Final Report for the corporatization of SZPDC[44] gives in the opening balance sheet, without explanation, fixed assets a value of Tk 20,716 million.. Since the first projections made are for FY 2009, we infer that the date of the opening balance sheet is 1 July 2008.

No information is given in the report to enable reconciliation of this value with the results of the updated IVVR value given in Table 5, which assessed the DRC of fixed assets in the South Zone at 30 June 2005 at Tk 8639 million.

H.2.6 Power Grid Company (PGCB)

A series of five agreements between BPDB and PGCB records the transfer of assets at historic cost less depreciation. Some of the assets were formerly owned by the East Pakistan Power Development Board and no records remained. Estimates of cost of some assets were made by working backwards from the pre-1992 revaluation of assets in BPDB's books.

Based on updated IVVR data, the current depreciated replacement cost of assets transferred from BPDB to PGCB as at the end of FY 2003 plus the balance remaining in BPDB's books at FY 2005 is Tk 47,969 million. This sum does not include assets taken over from DESA. The total is almost twice the net book value shown in PGCB's financial statements as at FY 2005 and reflects the understatement of asset values acquired by PGCB as a result of using depreciated historic costs.

H.2.7 DESA

At the time of writing (June 2006) we had not received information about the basis on which DESA's fixed assets are valued.

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[42] British Power International's report *Review of Existing Fixed Assets,* March 2004, did not disclose how revenue was calculated in its cash flow model. The discount rate used was 6.6 per cent.

[43] It is noted that BPDB's financial statements for FY 2005 show the transfer of fixed assets to WZPDC at a net Tk 4600 million (IVVR value Tk 7041 million); at the same time, further assets with a net IVVR value of Tk 1163 million remain in BPDB's FY 2005 balance sheet.

[44] Soluziona, *Development of South Zone Power Distribution Project*, 3 June 2007.

H.2.8 DESCO

The Mirpir area fixed assets taken over by DESCO from DESA were valued by ADB-appointed consultants[45] as at 30 June 1997 on the DRC basis. Subsequent transfers were brought into the books at DRC assessed by DESCO's engineers.

Worley's statement of Valuation Principles is excellent and worth reproducing.

> #### *2.4 Valuation Principles*
>
> Ideally, the final value of the physical assets transferred from DESA to DESC should represent their *market value*.. Market value can be defined as *the estimated amount for which an asset should exchange on the date of valuation between a willing buyer and a willing seller in an arms length transaction after proper marketing wherein the parties had each acted knowledgeably, prudently and without compulsion*.
>
> In this case, however, there is no open market for the assets, and therefore they cannot be valued in accordance with the market value definition. For this reason, the Depreciated Replacement Cost (DRC) method has been applied. DRC is based on an estimate of the current market value of land for its existing use, plus the current gross replacement costs of network assets less allowances for physical deterioration and obsolescence. The result is an estimate of the value to DESC in taking over DESA's Mirpur operations at the valuation date of 30 June 1997.
>
> The DRC method must always be expressed as subject to adequate potential profitability. Therefore it combines elements of market and non-market considerations. However, because the DRC method is concerned with the valuation of individual assets rather than the business as a whole, it is essentially different from Going Concern Value methods and concepts and is properly used in this asset valuation for financial statements.
>
> It was suggested to us that the assets be valued at historical replacement cost. If assets are valued at their historic cost then depreciation and return on capital are recovered on this basis. Although the capital cost of the assets will be recovered, an inflationary environment will lead to insufficient return being generated to replace the assets at current costs. By adopting a depreciated replacement cost regime the market value of equity is maintained through the periodic revaluation of the asset base. Thus sufficient funds are able to be provided to renew the asset base. In principle, nominal returns on historic cost should yield the same net cash flow as real returns on replacement cost.
>
> We considered the use of "deprival" value for this valuation but rejected the concept as inappropriate in this case. A deprival value is a forward-looking valuation in which assets are valued at the lesser of their capitalized future earnings or their *optimized* DRC. Determination of a future tariff path is necessary for use of this method. Note that a circularity of argument arises if a price-determined value is adopted and then used as the base for future tariff fixing.
>
> Use of an optimized DRC (ODRC) was considered, and is an improvement on a DRC value without going as far as a deprival value. Optimization attempts to answer the question of whether the overall configuration of the network is optimal and efficient for the purpose intended, and whether individual elements are correctly sized. Redundant elements or surplus capacity should be removed from the valuation or written down. All replacement costs need to be fixed on the basis of modern equivalent assets. To be theoretically correct, optimization should be applied rigorously. This requires detailed power systems studies and analysis beyond the scope of the present exercise. However, it

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[45] Worley International, TA 2715-BAN. At the time the US dollar equalled Tk 45/-.

is possible to make a rough estimate of the need for optimization if any and this we have done in Section 3 of the report. Our experience on other valuations suggests that such adjustments, if necessary, seldom amount to more than around 5% of the total value of the assets.

H.2.9 Summary of Practices to Date

The values of electrical plant and equipment in sector entities' financial statements are expressed in various ways, few consistent with the policy of BPDB from which each entity's initial assets were transferred. Even BPDB's subsidiary companies have been permitted to adopt lesser values than those in BPDB's books. Not all assets employed by subsidiaries have been reflected in their respective books.

BPDB has decided to update the values it uses for financial reporting purposes and its subsidiary companies should adopt the same basis. It would be contrary to good accounting practice to consolidate subsidiary assets valued on dissimilar bases.

H.3 VALUATION OPTIONS

It is sound commercial accounting practice for capital intensive industries (such as power, steel, pulp & paper) to restate the value of fixed assets from time to time, especially during periods in which the currency is rapidly losing value. By restating fixed asset values the value of shareholders' equity more nearly reflects the current economic value of the investment. Total capital employed is more realistically stated.

In the absence of markets for power system plant and equipment in service it is not possible to base valuations on market prices. Other bases of setting values are required. Those available include:

- Book value (BV)
- Depreciated historic cost (DHC)
- Depreciated replacement cost (DRC)
- Going concern value (GCV)
- Optimized deprival value (ODV)

H.3.1 Book Value

BV is simply the amount showing the in the entity's ledger and reported in its balance sheet. It is often the depreciated balance of the cost of assets acquired at widely differing times and therefore includes values recorded in currencies of differing purchasing power.[46] It is not suitable basis for capitalizing capital-intensive industries. It is generally the same as DHC.[47]

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[46] The significance of this may be seen by considering an item of plant purchased in one year for $1000 and a second one of identical specification and service life purchased later for $2000: the annual depreciation charge for the first machine will be half that for the second, but it will cost at least twice as much to replace

[47] Under BAS, a company's 'books' may also reflect DRC.

H.3.2 Depreciated Historic Cost

DHC suffers from two weaknesses:

- Assets acquired at different times are recorded in currencies of differing purchasing power
- It results in undercharging capital consumption (depreciation) against revenue, overstating profits, and understating real asset values and equity.

H.3.3 Depreciated Replacement Cost

Under DRC policy, asset values are restated from time to time by substituting for the historic cost of assets the cost of replacing them with modern assets that provide the same service and depreciating the higher values. It thereby overcomes the weaknesses in DHC.

H.3.4 Going Concern Value

Profitable businesses are often valued by reference to the free cash flows that they generate, i.e., the funds available after meeting debt service obligations, income tax and normal levels of capital investment for maintenance of system capability.. The present worth of the free cash flows is the current value of the business. Deduct the value of working capital and cash and the balance of the value may be attributed to the fixed assets. However, this is an oversimplification as profitable businesses often have an intangible asset, goodwill, that is also reflected in the present worth of the free cash flows. The value of goodwill is not depreciable as plant, so plant values have to be established to determine the goodwill component and the depreciable asset base.

Going concern values so obtained may be cross-checked against share market valuations of companies in similar lines of business, using the ratio of market prices to earnings.

It should be noted that the ODV method takes the value of future cash flows into account.

H.3.5 Optimized Deprival Value

The ODV methodology is a two-stage one. First it values system assets by assuming that the owner is ‘deprived’ of the elements of the supply system which are then notionally replaced with new assets that will provide equivalent service using modern equivalent equipment in an ‘optimized’ system (i.e., the lowest cost system that would provide the same level of service.) The elements of the replacement system are then depreciated according to age and remaining life of the equipment they replace.

Optimizing the assets of the system requires a level of technical inputs that is beyond the scope of this technical assistance. An approximation sufficient for present purposes is the DRC of assets that are to continue in service.[48]

The second step in valuation is to ensure that the results of the first stage are not overstated. This requires an assessment of the present worth of the free cash flows[49] that

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[48] Assets not required for efficient operation of NewCos should be retained by BPDB and disposed of to the best advantage.

asset combinations (such as a power plant or distribution network) are likely to produce in future.

The commercial value to be assigned to assets is the lower of these two values.

H.4 NOTE RE POWER STATIONS

The real–or economic–value of BPDB's gas fired power plants can be better estimated by reference to the prices paid for the output of the IPPs. The 'revenue' stream is derived from the sum of capacity payments and output projections over the service life of the plant multiplied by the price paid to IPPs; net cash flow is obtained by deducting O & M costs, including the cost of major overhauls. The resulting cash flows are discounted to arrive at their present worth, i.e., the value of the power plant. As with ODV, the commercial value is the lower of DRC or the present worth of the cash flows.[50]

H.5 NOTE RE COMPANIES

Valuation of utility company shares that are not traded in financial markets differs from the methods described above only in that all assets and liabilities need to be taken into account. The principal assets are valued as described. Other assets are valued at realizable value, i.e., what they can be converted into cash for. Deductions are made for liabilities at the date of valuation and the result is the total value of the shareholders' interest. If a sale of shares is contemplated, share values may be adjusted to reflect price/earnings ratios of similar businesses listed on stock exchanges and other market factors.

H.6 NOTE RE RELATIONSHIP BETWEEN ASSET VALUES & ENERGY PRICES

Working papers indicate there was some dissension over the calculation of price for use of PGC's system. All calculations were based on costs derived from BPDB's financial statements. One paper referred to 'the abnormal and excessive mark-up based on return on net fixed assets has arisen due to revaluation of assets in 1991'.. The rate in use reflects the historic cost of assets and is about 40 per cent below the rate derived from the higher asset values.[51]

The Ashuganj consultants rejected asset values derived from DRC methodology, describing the result "unrealistic and unsustainable in terms of the future revenue earning capacity of the plants" and therefore based their valuation on the historic cost of assets.

The WZPDCL consultant made valuations on two bases: written down original cost having regard to expected residual lives and on earnings capability, i.e., present worth of net future cash flows. The second value was about 10 per cent higher than the first and was

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[49] Free cash flows are the funds remaining after deducting O & M costs and major maintenance costs from revenues; their present worth is assessed by discounting the annual free cash flows at the firm's weighted average cost of capital (WACC).

[50] A valuation of power station assets on this basis is beyond the scope of this technical assistance.

[51] It is noted that PGCB's UOS charge is based on energy delivered, despite the fact that none of its costs is incurred on this basis. The main determinants of cost of a transmission grid are capacity provided (MW) and circuit length (km). Most recurring costs are time-related. UOS charges commonly reflect these factors.

recommended. However, since the difference in value was so small it is likely that the recommended value was still below DRC. Additionally, the basis of calculating revenue was not given but it is inferred from the relatively low valuation that a continuation of tariffs similar to existing levels was assumed.

All the examples indicate a view that the cost of supply–as opposed to the price that is charged–depends *inter alia* on the value placed on fixed assets. This is not so. The cost of supply is the *real* cost of the resources consumed valued in the currency of the day and that cost is independent of any balance sheet figures. A commercial selling price is one that recovers the real costs of supply, including the return of the present worth of the capital sunk into fixed assets and a return on total capital employed.

It needs to be recognized that setting a less-than-commercial level of tariff rates results not only in an artificially reduced capital base but, more seriously, in cash flows reduced below the level likely to be necessary to enable a company to maintain, reinforce, augment and replace fixed assets as needs arise as well as to meet its other obligations.

It is the depression of selling prices below the real, economic level that results in the commercial value of fixed assets to the business falling below their real value. The reduction in value so caused is equivalent to a one-off deprecation charge (or write-down) that is not accounted for in the entity's income statement nor disclosed to the owners. It is not recovered from customers either, thereby reducing the internal funds available for reinvestment and increasing future capital costs.

H.7 ISSUES

A major issue is: what is to be done to value the capital employed by BPDB's successor holding and subsidiary companies on a rational and consistent basis? As pointed out, one, major, determinant of the value of business assets is future net cash flows, but there is not at present a rational retail pricing policy that enables cash flows to be estimated. Historic cost is not appropriate given the very large changes in the purchasing power of the currency over the long lives of electric plant and equipment.

Another issue is BPDB's failure to adopt the asset records of the IVVR project and to update them as assets are built, augmented, transferred to other companies or taken out of service. The longer the interval before incorporating the IVVR asset records in BPDB's accounting system and updating them, the greater the effort that will be required to make inventories of assets transferred to NewCos at vesting date and to place a value on them.

H.8 OUR VIEW

There needs to be a uniform basis that reflects current values used consistently across the BPDB/DESA groups. The most appropriate basis is depreciated replacement cost (DRC) of assets that continue in use, restated from time to time to keep them up-to-date.[52]

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[52] An alternative for generation plants is suggested above, based on the value of output from IPPs' plants.

PROPOSED
POWER SECTOR INVESTMENT FUNDING PROGRAM (PSIFP)

Rationale

Power demand is growing at a rate of about 10% per annum. A sector wide assessment indicates that power generation capacity and energy generation will have to be further increased to support higher GDP growth rates of 6.5% in 2007 and 7% in 2008. By the year 2015, the required power generation will be 15,000 MW merely to keep pace with present demand growth. This certainly warrants efficient and timely investment in the sector. The current public sector investment procedure is extremely time consuming and cumbersome producing delayed and suboptimal results and pushing the sector further behind the required schedule in terms of increasing generation capacity. Measures are needed to address constraints to current public sector funding procedure in the power sector because power sector investment by nature takes relatively long time and the current approach makes it more lengthy and protracted as well.

Promoting corporatized entity participation in investment decision making and associated activity for power sector development is opportune since there is that necessity of introduction of corporate practices replacing government system, surplus generation and sustainability at this juncture. For instance, private companies including several international power developers have demonstrated corporate investment planning and practices in the power sector of Bangladesh and it is incumbent upon the public sector corporatized entities to assume the culture of corporate practice.

There will be three principal constraints that would impede realization of the corporate goal if investment of public resources in the power sector has to continue under the current mode of Government bureaucratic funding procedure:

- investments are entirely project-specific and provide little or no flexibility for necessary adjustment and interfacing with other projects as well as leveraging of funds to make overall sectoral investment efficient;
- project proposal needs to go through many stages of the system mostly for the similar scrutiny causing long delay and thus making the analysis out of date by the time the project is approved; and
- every episode of fund release has to go to the Ministry of Finance, sometime also Planning Commission, and usually funds are released at the fag end of financial year which greatly hampers implementation of the project.

The proposed Power Sector Investment Funding Program (PSIFP) will be a corporate plan based initiative to increase flexibility to deploy public resources for meeting more compelling power sector investment need. The creation of this new program of funding under a sector-wide approach will also complement actions being in parallel by the private sector investment activity and to rehabilitate public sector power plants. The funding nature will be a ‘common pot’ of GoB and donor contribution/outlay. Taken together, this approach of investment will bring about overall improvement in the generation and delivery of electricity services to the people of Bangladesh.

PSIFP Description

The overall objective of the investment funding program is to provide the much needed corporate and market emphasis on the investment capital even though it is sourced from public resource allocation and thereby to highlight appropriate cost of capital and ensure efficient and timely investment in the sector.

This would be designed to address the constraints described above so as to:

- provide flexibility to the holding company to take investment decision based on ground realities and use the fund efficiently;
- allow Holdco acquire institutional capability to handle investment process responsibly with the requirement of shifting focus on that of acting in a market oriented situation;
- meet the long-term investment need of the sector and make the sector financially viable and sustainable;
- strengthen Holdco's ability to attract, negotiate and close private sector power project transactions by building capacity to evaluate and negotiate projects with private sponsors; and
- secure avenues to increasingly leverage private capital for investment in new projects.

The objectives are sought to be achieved through creation of a power sector program fund (named Power Sector Investment Funding Program-PSIFP) of ten years term from a mix of:

(i) GoB outlay;
(ii) (ii) donor assistance; and
(iii) surplus of the entities channeled through Holdco framework.

The fund size will be about the quantum of power sector investment requirement in the coming ten years. This will be better decided on the basis of the corporate investment plan of the Holdco. This will be imbued with the spirit and philosophy of productive capital investment and surplus generation. Fund will be lent to the subsidiary companies and the lending component will address the project financing constraint through government.

The lending will be operated through the funding mechanism (the Power Sector Investment Funding Program -PSIFP). This will be established in a form consistent with GoB's power sector development objectives. Its design and operation will take account of corporate culture and institutional experience of the GoB sponsored donor assisted development funding mechanism such as Infrastructure Development Company Limited (IDCOL) in the infrastructure sector and Palli Karma Sahayak Foundation (PKSF) in the social sector of Bangladesh.

The important thing to note is that the proposed Power Sector Investment Funding Program (PSIFP) is meant to be a transitional facility and geared to meet GOB's objectives of promoting investment in critical power sector projects over the next 6-10 years. The financing support from the PSIFP will provide up to 80 percent to subsidiaries' demand, i.e., project costs as medium-term debt for sound investment. By proving long term debt finance to the subsidiaries, the Holdco will enable timely investment in projects. There will be guidelines to help establish a 'Fund Facilitation Unit' (FFU) in the Holdco for interfacing with subsidiaries and of potential projects.

However structured, the PSIFP would have four basic components, an oversight mechanism (referred to as the Steering Committee), a decision-making body -the Board of the Holding company, a fund facilitation unit (FFU) and a suitable mechanism to house the fund preferably in the Bangladesh Bank. In order for the PSIFP to act prudently and enjoy the confidence of the GoB, it needs to operate on clearly spelled out guidelines and articulated commercial principles, be professionally and transparently managed and maintain an efficient interface with the subsidiaries and the Holdco. It is envisaged that in the near term the PSIFP will be sourced from the commercial sources both home and abroad.

Fund Facilitation Unit (FFU): The PSIFP will complement ongoing and planned initiatives for sector development in terms of generation capacity and generation. In general, there will be scheme for project and fund management skill development training for HoldCo staff through a TA for capacity building at the FFU and in other relevant units of the HoldCo. The FFU is expected to house the expertise and skills necessary to appraise/reappraise and package projects proposed by subsidiary companies, including facilitation of private participation under different model. A workshop may be organized to conceptualize and articulate the role and institutional and operational framework of the proposed PSIFP and FFU at the HoldCo before completion of the first phase (the major episode) of the migration process of the coporatization program.

Given BPDB's overall financial situation and enormous power sector investment need whereas the existence of underdeveloped capital market and the constraints of the private investment, such financing of capital investment through PSIFP mechanism would lead to better investment potential and framework within the sector itself. This mechanism would provide long-term funding window to qualifying projects of the subsidiary companies until capital markets are more established and other sources particularly the private commercial ones are forthcoming. Most importantly, it would help GOB leverage scarce resources to maximum advantage and also the corporatized BPDB play a more integrated and meaning role in the development of power sector.

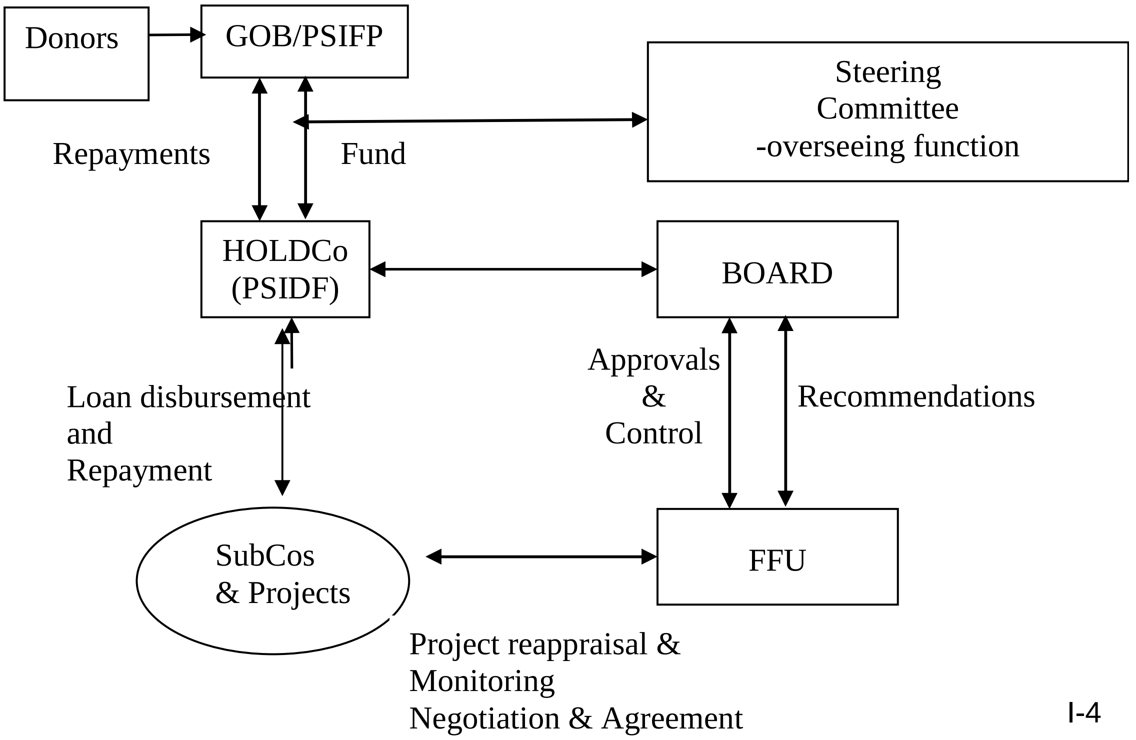
PSIFP Structuring and Framework

Under the program, Government and donor funds (multilateral and bilateral) would be provided as a credit to the HoldCo which would be placed in the proposed Power Sector Investment Funding Program (PSIFP). The FFU of the HoldCo or the HoldCo will be/have the institutional mechanism to manage the PSIFP as per the laid out corporate policies and strict commercial principles. The HoldCo would place loans from PSIFP to eligible projects from the subsidiaries, on the basis of terms to be determined. The FFU of the

HoldCo would thus have to be equipped to reappraise potential projects, make recommendations on placement of funds, negotiate terms and inter-creditor agreements, and supervise and monitor loan accounts. The PSIFP would have four basic components, an oversight and strategic body-the Steering Committee; a decision-making body-the 'Board' of the Holdco; a professionally equipped and market-oriented operational structure-referred to as Fund Facilitation Unit (FFU); and an institutional mechanism to house the fund. The PSIFP needs to operate on clearly established and articulated commercial principles, be professionally managed and maintain an efficient interface with the HoldCo and the Government.

Basically, three options are suggested here to structure the PSIFP. It has been clarified by the Ministry of Finance that the Fund itself can be maintained as an account in the Bangladesh Bank (BB) without having to be a part of the Government's Consolidated Fund. Thus the PSIFP would be established as a Special Purpose Fund, through which donor funds would be accounted for and into which loan repayments would be received. It is recognized that due to the difference in the borrowing rates of GOB from donors, and the lending rates from the PSIFP (which would be close to long term market lending rates) and the difference in the maturity of loans between donor/GOB and GOB/HoldCo, the PSIFP would accumulate a substantial build-up of funds. These would be employed to lend for other new power projects, as they materialize, thereby ensuring sustainability and future expansion of such financing. Once established, the Steering Committee would represent GOB's interest in making decisions about strategic placement of PSIFP funds for candidate projects. On the other hand, the HoldCo Board should have a clear mandate to apply commercial principles for choosing investments and make independent decisions. Government's involvement in investment decision making by the Steering Committee should be minimized, as it may create a risk of noncommercial decisions and detract from timely response. Therefore, all operational and institutional implementation shall be handled/decided by the 'Board' of the Holding Company (HoldCo).

Basic Structure of PSIFP



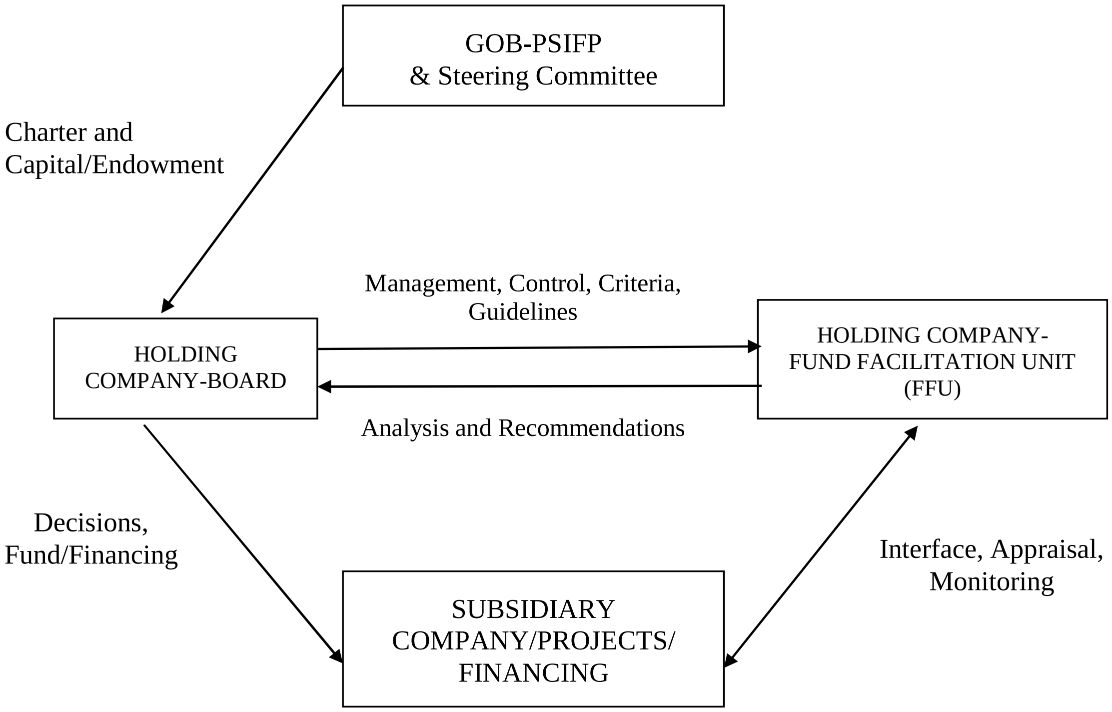
The FFU of the HoldCo has to perform several critical functions. Besides being the interface institution between the HoldCo and the subsidiary companies, it needs to have the capacity and expertise to reexamine/reappraise and negotiate investment funding proposals from the subsidiary companies and other entities, particularly in the form of projects. The current BPDB structure has experience of project appraisal and management in line with Government criteria and guidelines. But the HoldCo would need to sharpen that expertise and would also need to understand and adopt more professional approach, market perspective and commercial criteria in managing the fund of the PSIFP. This may require some training and technical assistance as well, once the fund is structured and established. As a matter of fact, it may require a high degree of technical, financial and legal acumen to be performed effectively. Since HoldCo and PSIFP is the lender to the subsidiary/project, it is in its interest need to ensure that the FFU has the capacity and skills necessary to carry out these tasks diligently and make sound recommendations to be placed to the Board on financing/loan proposals. The Manager and staff of the FFU of the HoldCo should have experience with non-recourse lending for power projects, the ability to participate with other leading international lenders in project appraisal and loan negotiations, and have a sound understanding of international procurement practices and standards.

The FFU will necessarily be small; a Manager supported by maximum 5-6 professionals command in the financial community, definitely domestic but also preferably international. Although it would be empowered to engage short-term consultants for more specialized work if specific purposes/projects require so, it would normally be expected that FFU should be able to marshal these within itself and also obtain such expertise from the institutional capacity of the HoldCo.

Option 1- *The Full Holding Company Option*

Under this option, the Fund and the FFU are both housed in the incorporated BPDB-the Holding Company. The company may be wholly or partially owned by the Government and manage the PSIFP. The fund utilization, financing and placement and other management decisions of the Company will be made by the Company's Board of Directors. It would be overseen and strategically guided by the Steering Committee. In order to be effective, the Board should have a two Government representation, one is the line Ministry-the Ministry of Energy and Mineral Resources and the other is the Ministry of Finance. It should be vested with the necessary autonomy and authority to make fund utilization and placement decisions, without having to refer the recommendations to GOB for review and final approval. This is necessary to ensure that decisions are not delayed and are taken only on the basis of corporate and commercial principles. It would also ensure that GOB does not have to spend resources in carrying out a review of the appraisal already done by the FFU. The Board will appoint a General Manager, experts and staff at the FFU to appraise, negotiate and monitor financing proposal and projects and generally facilitate financing as per the given guidelines. The General Manager of the FFU should ideally be a professional investment banker, with international project finance experience. Quality and expertise of the GM and his staff will be ensured if an international recruitment is carried out and the HoldCo is authorized to pay competitive private sector salaries. It has been indicated that it is difficult to introduce these arrangements for a Government Company. Subject to the HoldCo being able to secure such arrangements on service conditions and salaries, the principal advantages of this option would be professional management of the Fund and the creation of expertise and capacity over time.

Institutional Structure – Option-1

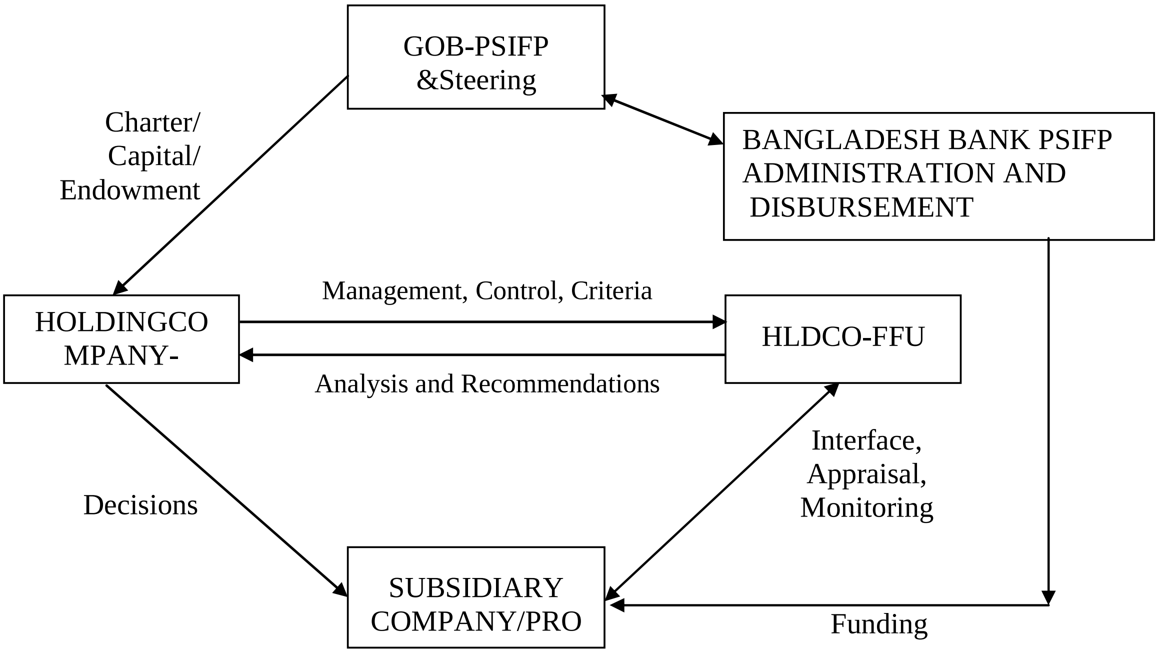


Option 2 - *Use of on Bangladesh Bank Option*

Under this option, the PSIFP is placed as an off-balance sheet account in the Bangladesh Bank, the fund will be managed by a specialized unit set up within the Bangladesh Bank, with a separate Fund Manager newly appointed or seconded staff. The Fund Manager should ideally be a professional investment banker, with international project finance experience. The Bangladesh Bank will just administer the fund on the basis of the recommendation of the Board of the holding company. The FFU of the HoldCo will do appraisal, negotiation and monitor financing proposals, projects and generally facilitate financing for the subsidiary sponsored projects. The Bangladesh Bank will make the placement on the recommendation of the HoldCo.

The Bangladesh Bank will be allowed a small percentage spread on the on-lending rate to pay for its services and take placement and disbursement responsibility. The principal advantages of the arrangement are professional management of the Fund and at the same time confidence that fund are secured and well administered provided the personnel at the FFU and the Central Bank are chosen carefully.

Institutional Structure – Option-2



Option 3- *Agent Bank Option*

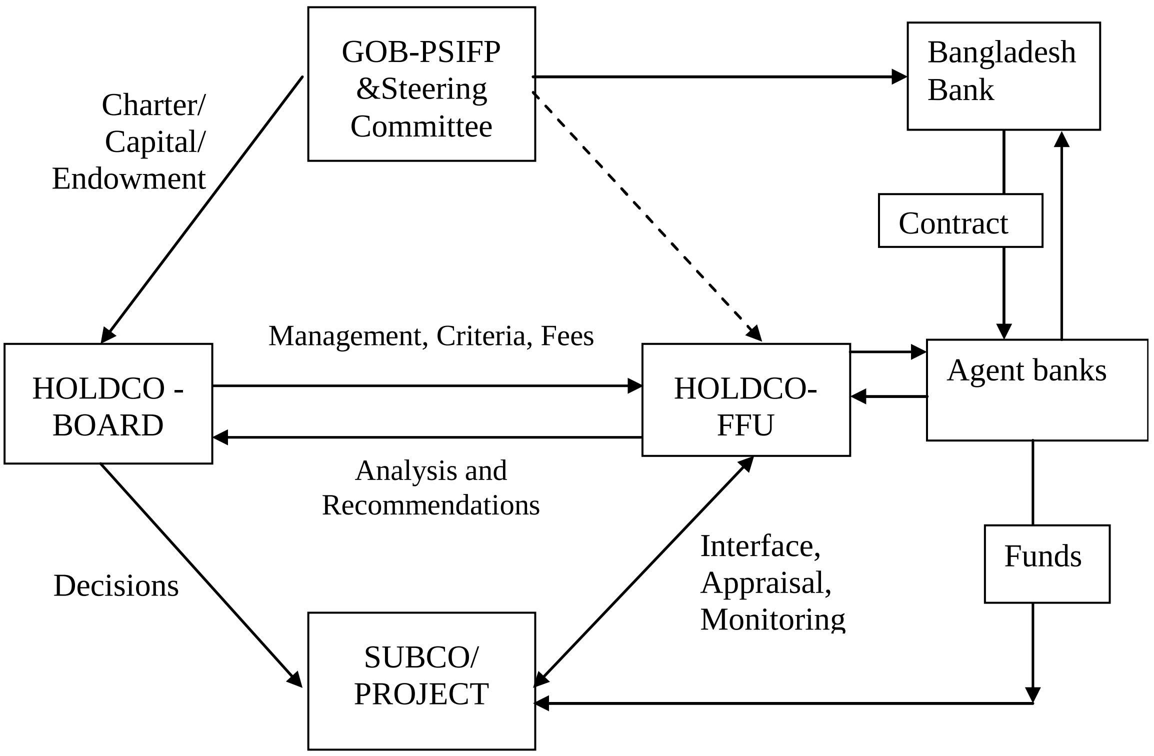
Under this option, a number of commercial banks will be contracted to manage the Fund by GOB, on a fee plus incentive basis. Selection of the bank would be dictated by the relative financial strength and standing of available banks, and may require detailed assessment of a number of banks short-listed for this purpose. The selection of the agent banks will be made by the Bangladesh Bank through competitive solicitation. However, to ensure that the Bank exercises due diligence in placing PSIFP funds as loans on HoldCo's recommendations to its subsidiaries, there could be a stipulation that it also cofinance a percentage of each sub-loan placed, from its own resources (say 20% of the loan, subject to a ceiling). By stipulating this financial stake, Steering Committee of the PSIFP would ensure that there are appropriate incentives for the participating Bank (s) to be more responsible in making loan/fund placement and compensated appropriately. This will be incentives to the agent bank(s) to exercise due diligence through the deployment of its own funds in conjunction with the PSIFP.

The FFU as well as the Agent Banks jointly undertake reappraisal of the project or funding proposal, negotiate and monitor and generally facilitate financing. The FFU will also manage and maintain the individual sub-loan accounts and effect transfers of principal repayments and interest to the PSIFP main account of the Government. The oversight of the FFU and loan placement decisions will be taken by a HoldCo Board under the general and strategic guidance of the Steering Committee. The Agent Banks will periodically report to the HoldCo Board and Bangladesh Bank about the status of the utilization of the PSIFP funds and make demand for further replenishment which will in turn be decided in the Steering Committee with appropriate recommendation of the HoldCo Board.

The Agent Bank's compliance record in guarding against potential conflicts of interest will be an issue to be considered, e.g., if the principal lending arm of the Agent were to participate in senior debt and/or equity financing of a subsidiary company which is also applying for PSIFP funding. Strict standards and compliance requirements in this respect would be prescribed as part of the solicitation. The principal advantages of the arrangement are competitive and professional management of the Fund, incentives to banks to manage the fund through the fee and commission structure, and the ability to avoid creating or perpetuating of new government institution. Furthermore, the prospect of independent and fully commercial management of the Fund will provide comfort to potential applicants. The option also has the advantage that a wide range of staff expertise will be available from the parent institution of the Agent Bank.

However, given the generally weak state of the financial sector, the problems with DFIs and the need for tailoring management arrangements in existing institutions to the requirements of the PSIFP, this may not be a highly preferred option.

Institutional Structure – Option-3



The four parties involved in the Program, namely Government, Donor(s), HoldCo and the Subsidiary Companies will be governed by the following legal relationships:

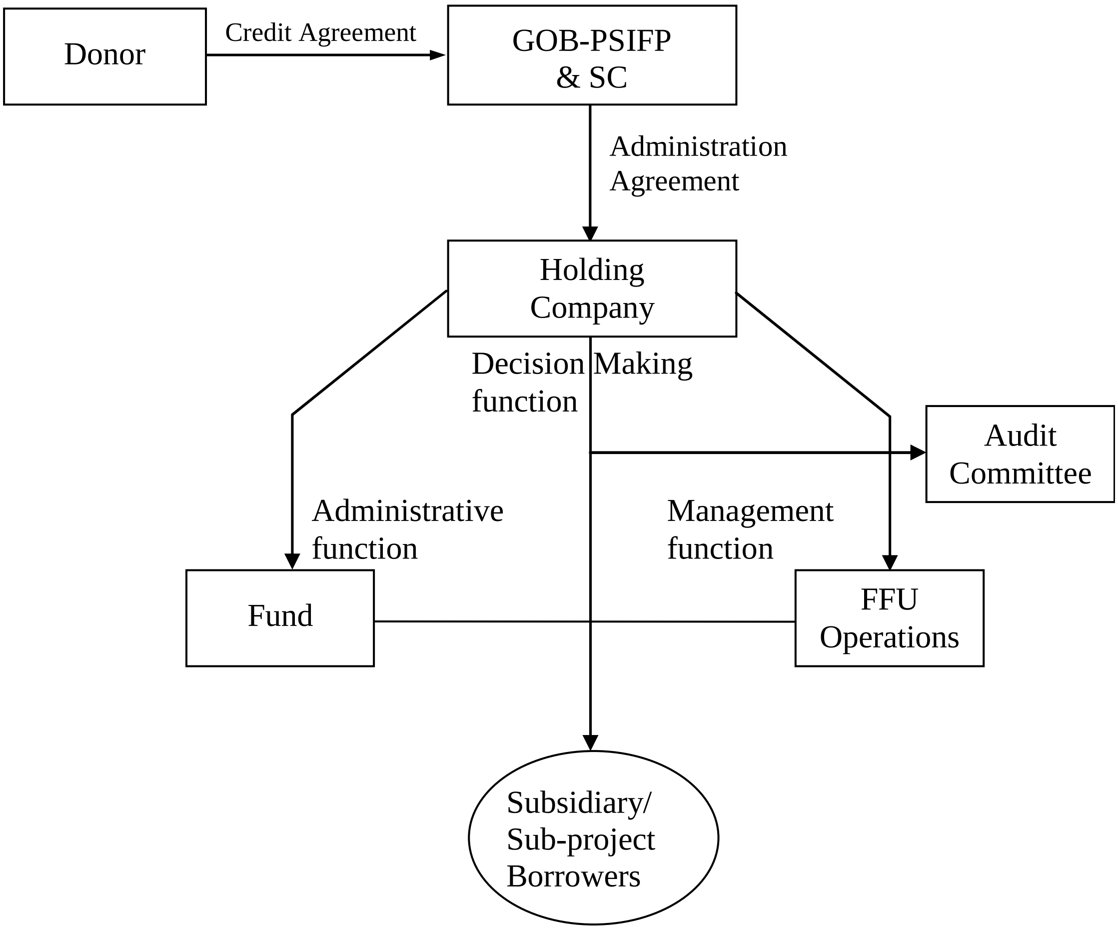
(a) The Government-HoldCo relationship. This relationship will be governed by an Administration Agreement, which will enable the Holding Company to manage/administer the "Fund" on behalf of the Government; while the technical aspects of the fund operation will be handled through the FFU.

(b) The HoldCo-Subsidiary relationship. Once sub-projects have been approved for financial support from the PSIFP, the necessary funds will be made available to the sub-project borrowers by the HoldCo, on behalf of the Government/PSIFP, pursuant to standard sub-loan documentation).

(c) The Government-Donor relationship. This will be subject to a standard Development Credit Agreement.

The HoldCo-Subsidiary Company borrower; and the Government-Donor relationships are well understood and would follow standard practice. The relationships among the parties are illustrated in the diagram below.

PSIFP STRUCTURE and FRAMEWORK



The overall supervision and implementation of the proposed Power Sector Investment Funding Program will be done by a Steering Committee to be set up in the MPEMR. The Steering Committee will provide strategic guide line to the Holding Company for implementation of the Funding Program keeping in view the Government policy, road map and sectoral development milestones. The Holding Company Board will devise

corporate policy and procedure for efficient utilization of the funding and in line with that the Fund Facilitation Unit (FFU) of the HoldCo will conduct the operation of the fund and funding but primarily on the basis of commercial criteria and sound analysis, judgments and monitoring.

There will be an independent Audit Committee comprising of professorial auditors, independent experts, representative of Comptroller & Auditor General of Bangladesh to make thorough evaluation of the utilization of the fund.

The HoldCo Board could have sufficient representation from the Government and constituted in a way so that it is empowered to make decisions without a need to refer the recommendations to GOB for review and final approval. This is necessary to ensure that decisions are not delayed and are taken only on the basis of commercial principles.

Proposed Financing Arrangements

Under the PSIDF, the Government will make available very large sums of money to finance large power projects. It is important that adequate safeguards exist to ensure the proper and efficient deployment of these funds. It is to be noted that the sub-projects considered by the HoldCo for financing would have already been evaluated by the Government during the Power Sector Program (PSP) development process. That is, on the basis of ten year corporate investment plan entailing potential projects, the Power Sector Program (PSP) will be developed and PSIFP will be designed with the one time but final appraisal, programming and approval of the Finance Division/Ministry of Finance and the Planning Commission under the concept of Sector Wide Management (SWM) as was done in the case of Health and Population Sector Program (HPSP) for the five year period from 1997 to 2001. Thus candidate sub-projects would have received Government approval for implementation, before the HoldCom is asked to make a determination on its suitability for financing.

The proposed PSIFP amount will be made available to the HoldCo on a 10 year term, with a 5 year grace period. The funds required for approved sub-projects will be made available by the HoldCo to subsidiary companies at prevailing market rates of interest and on terms of between 12-15 years maturity, with a maximum grace period of 5 years.

Repayment of principal and interest amounts on sub-loans will be made by the sub-project borrowers to the HoldCo. Where foreign currency loans will be involved, payment will be in Taka equivalents of the currency in which the loan was made and on the basis of the exchange rate prevailing on the repayment date. In this way, the foreign exchange risk on all sub-project loans will be borne by the HoldCo and will be paid into a “Collection Account”. For the Donor assistance component, the interest element of such repayments will consist of the service charge on bi-lateral or multi-lateral credit and the spread between that service charge and the applicable sub-project lending rate. The principal and interest to be applied in repayment of the Donor loan will be paid out from the Company’s “Collection Account” into a Government account with the Bangladesh Bank, and repaid to Donor as per normal practice. The balance of funds in the “Collection Account” less funds required for the operational activities of the HoldCo, will be transferred to the Fund. Such moneys will be administered by the HoldCo and will be made available for new sub-projects in the same way as the original money supplied by the PSIFP was administered, i.e., in accordance with the terms of the Administration Agreement. Thus the HoldCo will not carry any loan funds on its books. It will not retain any earnings received in the form of fees or transfers from the interest spread in excess of its own operational requirements and would thus function on a no-profit basis.

The proposed structure for the PSIFP incorporates the following further safeguards. First, the Board of the HoldCom will include both public and private sector representatives, and independent experts. Second, all utilization of fund will be audited by an independent Audit Committee. Third, it should be emphasized that on a case by case basis the PSIFP will provide 80 to 90 percent of total financing package. A 10 to 20 percent of financing will be provided by international and domestic commercial banks and other financiers involved – all of who may be expected to carry out their own diligence – which will be as thorough, if not more so than that of the FFU. Thus, projects that fail the market test of financial viability will not come to fruition at all. Finally, the Fund Manger at the FFU will be carefully selected and monitored by the Company and will be subjected to a performance-based contract, which should also ensure that sub-projects are properly structured and implemented so as to avoid any risk to the Government.

Views of Government and Relevant Agencies

On the proposed PSIFP some discussions were made with high officials of relevant Ministries and agencies to gather views regarding the practicality and Government position about the scheme. The general view has been found mixed, however, detailed description of the nature and operation of the proposed PSIFP scheme and mechanism elicited mostly positive views of the officials in those institutions. The brief account of the gathered view comes as under.

The Ministry of Power, Energy and Mineral Resource (MPEMR): Such proposal and approach of Sector Wide Management (SWM) would be regarded new and thus would require extensive analysis and trial phase of implementation before putting into for full-fledged under the proposed 5 or 10 investment funding program. The proposal of constituting a Steering Committee with strategic responsibility has received acceptance and has been reiterated for two aspects: (a) balanced representation; and (b) regular functioning, with some required technical assistance.

The Ministry of Finance (MOF): under recently introduced Medium-Term Budgetary Framework (MTBF), some ministries have been allowed and provided assistance by the Ministry of Finance to make budgetary allocation and give as well as fund release following the Finance Ministry's prescribed budgetary framework. Therefore, on a trial basis, such proposal of PSIFP may come under the MTBF and good implementation should be appreciated and highlighted.

Planning Commission (PC): Planning Commission in the past did approve such Sector Wide Program, that is, for the health sector under a five year program named Health and Population Sector Program (HPSP), and it was a single final approval by the Planning Commission for a five financing outlay. It was a program instead of hundred specific projects but the Ministry of Health and Family was mainly responsible for implementation of the program (HPSP) through evaluation and approval of annual operational plan form line designated line directors. The proposed PSIFP may be a program but should consist of annual program to be reviewed and approved by the line ministry, here the Power Division of the MPEMR.

A. West Zone Power Distribution Co. Ltd. (WZPDCL)

WDPDCL inherited a system of consolidated monthly report of selling and distribution activities. The reports titled as 'Commercial operation Statistics' contain an executive summary and detail analyses of zone/circle wise sales and distribution stations.

It contain information on sale, import of electricity, sale and system loss, Collection/Import ratio, Collection/bill ratio, receivable, receivable by equivalent month. Information provided in the report provides a good basis for performance monitoring and timely measures for improvement. Spread sheet is used to prepare the consolidate report on commercial operation and statistics Two of its officer ranks Asstt. Engineer level is entrusted to monitor computerized billing activities performed by contractors.

West Zone is in the process of recruitment of programmer and Assistant Programmer.

West Zone floated a tender for integrated Information Management during year 2004 however the tender process was abandoned later at year 2005.

Recently they are developing a fresh requirement list for computerization of its activity.

Presently it uses Tally an off the shelve software at head office level for preparation of Accounts. At fields office Accosting data's are manually prepared.

Approximately 80% of Its consumer is covered under computerized billing. However it process computerized billing at different location using software from different vendors few of which have bill calculation and printing facility only.

It prepares commercial statements using spread sheet detailing import, sale, system loss, receivable Collection/input ratio etc.

Reports on Accounts and Finance are prepared using spread sheet.

WZPDCL

SL No.	Area of Work	Present System
1.	Non Financial Management information Reporting	Manual
2.	Financial Management information Reporting	Manual
3.	General Ledger Processing	Use a S/W at head office level

4.	Budgeting	Spread Sheet
5.	Billing and Collection	Use a rudimentary S/W in few Division. Using a standard Billing S/W in few Division
6.	Purchase and Creditor payment processing	Manual
7.	Payroll	Manual
8.	Human Resource processing	Manual
9.	Asset Management	Manual
10.	SCADA	Not Done
11.	Maintenance Management	Manual
12.	Stock Management	Manual
13.	Job Costing	Manual
14.	Meter Management	Manual
15.	Load forecasting and system planning	No Information Received

B. Power Grid Company Bangladesh (PGCB)

Power Grid Company of Bangladesh (PGCB) Ltd is responsible for Transmission of Electricity through National Grid.

PGCB maintains a SCADA system. Though this SCADA it supervises and control transmission and analyses technical data.

PGCB has recently procured an off the shelve Software ‘Open sesame’ and maintain General Ledger, Asset, Receivable management and supplier management. Implementation of store management system using open Sesame is at initiation stage.

Spread sheet based budget, payroll is maintained. They do not have any dedicated IT manpower except a network engineer.

Maintain Manual Register at Grid Substation for recording and follow up of Maintenance.

Load dispatch center of PGCB collects and prepare daily generation data from all generation plants under National Grid, data, includes fuel uses, load shedding, maximum demand information etc. They prepare formatted report using spread sheet. The report contains daily energy curve, daily load curve etc.

The Company is listed on the stock exchange and it prepares report as per the guideline of Security and Exchange Commission.

PGCB also prepares reports on maximum and minimum voltage in some selected substation.

PGCB's main source of revenue is wheeling charge through its transmission line.

C. Electricity Generation Company Bangladesh Ltd. (EGCB)

Electricity Generation Company of Bangladesh Ltd. (EGCB) has been formed as on out come of Power Sector Reform.

Incorporated in February 2004, EGCB is expected to become a leading Electricity Generation Company of Bangladesh. At present the Principle activity of EGCB is to acquire Generation facilities and it will take same time to reach operation and maintenance stage. It has already taken number of Major power projects and in the process of investment for constructing those projects. EGCB is expected to take over a 210 MW Power Plant from BPDB from 1st January 2008, when it will reach revenue earning phases.

At presents information system are not computerized, except it has introduced accounting software 'Nikash' for general ledger.

It has not yet have any IT setup.

Reports on Accounts, Finance are prepared using Spread Sheet.

EGCB

SL No.	Area of Work	Present System
1.	Non Financial Management information Reporting	Manual
2.	Financial Management information Reporting	Manual

3.	General Ledger Processing	Use ‘Nikash’ S/W
4.	Budgeting	Spread Sheet
5.	Billing and Collection	Not Done
6.	Purchase and Creditor payment processing	Manual
7.	Payroll	Manual
8.	Human Resource processing	Manual
9.	Asset Management	Manual
10.	CSADA	Not available
11.	Maintenance Management	Manual
12.	Stock Management	Manual
13.	Job Costing	Manual
14.	Meter Management	Not dome
15.	Load forecasting and system planning	Not Done

D. Ashuganj Power Station Company Limited (APSCL)

APSCL operates as a subsidiary of BPDB. Recording and reporting system exists are register based and manual, except it started using “Tally” an off the shelve accounting software for preparation of accounts data i.e. General Ledger.

Recently in order to benefit from information technology it has recruited a Deputy Manager entrusted to assess and priorities introduction of IT.

APSCL has started processing of official approval for computerization of its store transaction and do a physical verification of stock.

Reports are prepared using spreadsheet main reports are on Daily Generation containing Fuel use, auxiliary use, Type of Fuel, Energy export to grid.

Prepare report on Generation performance by Plant on monthly basis, contains installed, Net and gross energy generation. Total hour run since inception. Total hour run since last overhauling. Fuel cost per unit of generation and other technical details.

APSCL

SL No.	Area of Work	Present System
1.	Non Financial Management information Reporting	Manual
2.	Financial Management information Reporting	Spread Sheet Basis
3.	General Ledger Processing	Use Tally S/W at head office level
4.	Budgeting	Spread Sheet
5.	Billing and Collection	Manual
6.	Purchase and Creditor payment processing	Manual
7.	Payroll	Manual
8.	Human Resource processing	Manual
9.	Asset Management	Manual
10.	SCADA	Not available
11.	Maintenance Management	Manual
12.	Stock Management	Manual
13.	Job Costing	Manual
14.	Meter Management	Not done
15.	Load forecasting and system planning	Manual

Ashuganj Power Station Company Ltd (APSCL)

Monthly Report Month ....

Gross G'tion Month Target % YTD Target %

MWh…………………………………………………………………….

Export G'tion Month Target % YTD Target %

MWh…………………………………………………………………….

Station Use Month Target % YTD Target %

MWh……………………………………………………………………...

Revenue Month Budget % YTD Budget %

MTk…………………………………………………………………….

Operating Expenses Month Budget % YTD Budget %

MTk…………………………………………………………………….

Billed outstanding Month Target % YTD Target %

MTk…………………………………………………………………….

Plant Load Factor Month Target % YTD Target %

%...

Availability Month Target % YTD Target %

%……………………………………………………………………….

Planned outage Month Target % YTD Target %

Hours…………………………………………………………………….

Unplanned outage Month Target % YTD Target %

Hours………………………………………………………………………

No of Employees YTD Target %

No.…………………………………………………………………….

Net GWh/employee Month Target % YTD Target %

GWh…………………………………………………………………….

Power Grid Company of Bangladesh Ltd

Monthly Report Month ....

Energy Imported Month Target % YTD Target %

MKWh………………………………………………………………….

Energy Exported Month Target % YTD Target %

MKWh………………………………………………………………….

Transmission Loss Month Target % YTD Target %

MKWh…………………………………………………………….......

Revenue Month Budget % YTD Budget %

MTk ……………………………………………………………………..

Operating Expenses Month Budget % YTD Budget %

MTk ………………………………………………………………….

Billed outstanding Month Target % YTD Target %

MTk ....

SAIDI & SAIFI Month Target % YTD Target %

Hours/No……………………………………………………………….

No of Employees YTD Target %

No ……………………………………………………………….

Circuit-km per employee YTD Target %

Circuit-km/empl…………………………………………………….

Transformer MVA per employee YTD Target %

MVA/empl………………………………………………………………

West Zone Monthly Report Month ....

Revenue Month Budget % YTD Budget %

MTk ……………………………………………………………………

Operating Expenses Month Budget % YTD Budget %

MTk ……………………………………………………………………

Distribution & Commercial Loss Month Target % YTD Target %

% ……………………………………………………………………

Collection ratio Month Target % YTD Target %

% ……………………………………………………………………

Billed Outstanding Month Target % YTD Target %

MTk ……………………………………………………………………

SAIDI & SAIFI Month Target % YTD Target %

Hours/No……………………………………………………………………

New Connects Month Target % YTD Target %

No ……………………………………………………………………

Connects Waiting Month Target % YTD Target %

No ……………………………………………………………………

Employees YTD Target %

No ……………………………………………………………………

Consumers/ Employees Month Target % YTD Target %

No ……………………………………………………………………