

Workshop on Bangladesh Power Sector Reform

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Energy

Sector

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Management

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Programme



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ENERGY SECTOR MANAGEMENT ASSISTANCE PROGRAMME (ESMAP)

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*SUMMARY
PROCEEDINGS
OF
BANGLADESH POWER
SECTOR REFORM
WORKSHOP*

30 SEPTEMBER TO 2 OCTOBER 2000

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The editors are not responsible either for the statements made or for the opinions expressed by the authors in their papers included in this proceedings

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PREFACE

Electricity is the prime mover of economic and social development. Recognizing the importance of the power sector, the Government of Bangladesh has taken up appropriate policy measures to develop the sector. Progress achieved during the last few years glimmers a new hope. The installed generation capacity has increased to 3803 MW compared to 420 MW in 1971. The Rural Power Company now generates 140 MW and has the capacity of installing more power stations. The Private Sector Power Generation Policy, 1996 has made it possible to see Companies like AES, NEPC, Westmont Power, Khulna Power Company Limited etc. generate power in Bangladesh. Under this policy, a total of 2238 MW would be generated in the first phase. In addition to this, small power plants, each with 10 MW capacity are being set up by the Rural Electrification Board. The Policy Guidelines for Small Power Plants, approved by the Government, provides adequate incentives to the private sector to establish their own power plants. The Chittagong Municipal Corporation is establishing a 15 MW power plant to meet its own demands. Rolls Royce is establishing a 10 MW captive power plant. Some other Bangladeshi Companies are coming up to install their own power plants. The Small Power Plant Policy also allows the investors to sell the surplus electricity of the captive power plants in the neighbourhood using the national grid. The government has exempted CDVAT from the import of electricity generators. This incentive has helped captive generation of about 500 MW of electricity in the private sector meeting the demand specially during the peak hours. A number of initiatives have been taken both in Public and Private sectors to promote renewable energy. NGOs such as Grameen Shakti and other organisations are providing photo-voltaic services to rural people. The Government is also considering projects for private participation in Distribution.

The Government has initiated a number of programmes to reform the sector. Some of them have already been implemented. The Power Grid Company of Bangladesh Ltd. (PGCB) has been established under the unbundling programme. It would own and operate all the transmission lines, and be fully functional by 2002. Some of the

power stations of the Bangladesh Power Development Board (BPDB) are going to be corporatised in order to achieve efficiency and operational autonomy.

The Dhaka Electric Supply Authority (DESA) and the Dhaka Electric Supply Company (DESCO), established under the reform programme, are showing signs of improvement. They have taken up programmes to reduce system loss and improve quality of service to customers. The Power Development Board is seriously considering the establishment of Cost Centres in the distribution areas in order to achieve efficiency. All the Utilities are paying attention to improve the quality of service to satisfy the customers. The Rural Electrification Board has achieved a remarkable progress. It has so far given connections to about 3.1 million customers of which 1.7 million connections have been given during the last four years and a half. Now about 29,000 villages have electricity.

Bangladesh has entered a new era of development because of pro-poor policies of the government. The country has achieved self-sufficiency in food production. The growth rate is satisfactory. Disaster management capacity has improved significantly. Literacy rate, especially female literacy has increased noticeably. Micro credit, and other development programmes implemented by the government, NGOs and private sector have resulted in social development, by raising the aspirations of the people. Democracy, freedom of press, new technologies including IT programmes and infrastructure development promise a better future for the people of Bangladesh. It is no surprise that demand for electricity is increasing at a faster rate than it was expected. About two-thirds of the people have to be provided with electricity during the coming years. The government has recently approved the Vision Statement along with a Policy Statement on Power Sector Reform aiming at reaching electricity to all the citizens by the year 2020. But twenty years is a long time. We must try to provide electricity to the majority of the people by the end of the next decade.

The Government is well aware of the challenging task of the power sector. Accordingly, the Government has taken up measures to strengthen the regulatory framework necessary to develop the power sector. The Electricity Reform Act, 2000 has been drafted and is now

passing through the process of approval. The Electricity Reform Act, 2000 would help establish the Regulatory Commission to protect the interests of the investors and the customers.

Reform in the power sector is an on-going process, and its implementation needs the support of all the stakeholders. It is also necessary to revisit some of the reform agenda and evaluate the performance. In this age of globalization, there is a need to learn from the experiences of the regional and international communities. For Bangladesh, electricity has a lot of implications for poverty alleviation. Electricity has positive impacts. It helps remove prejudices, increase working hours, create self-employment opportunities and social status. Electricity is indeed the prime mover of poverty alleviation. A little attention by the concerned agencies including development partners toward the poverty alleviation dimension of electricity connections would be of much help in expanding electricity coverage in the rural areas of the country. It is not paucity of fund alone which is deterring the growth of the sector. Lack of understanding the sectoral issues is equally critical towards the development of the Power Sector.

It is against this background that the Power Division, Ministry of Energy and Mineral Resources (MEMR) under the active support and guidance of Prof. Rafiqul Islam, Honourable State Minister, took the initiative to organize an international workshop on Bangladesh Power Sector Reform. The workshop was designed to provide coverage of the key issues of power sector reform, learn from international experience and create a consensus among various stakeholders on paths to reform. It was held at the Pan Pacific Sonargaon Hotel in Dhaka from September 30 to October 2, 2000. It was jointly organized by the Power Division of the Ministry of Energy and Mineral Resources (MEMR) and The World Bank (WB) and co-sponsored by Energy Sector Management Assistance Program (ESMAP), New Zealand Trade Development Corporation (Trade New Zealand), United States Agency for International Development (USAID) and World Bank Institute (WBI). Dr. Mohiuddin Khan Alamgir, Honourable State Minister for Planning, formally inaugurated the workshop. About two hundred guests attended the inaugural session.

Major sectoral agencies, stakeholders, trade unions/CBAs, consumer groups, experts, academicians, donor agencies, and the Government presented their respective perspectives of power sector reform. The three-day workshop had a number of sessions including panel discussions. Honourable Members of Parliament—Mr. Imran Ahmed, Mr. S.M. Akram and Prof. Md. Ali Ashraf, and Executive Vice Chairman of the Board of Investment Mr. Mokammel Huq presided over a number of sessions and made valuable contributions. Approximately 150 participants attended and took part in the deliberations, demonstrating strong motivation and interest. Individuals representing Legislature, Government, Collective Bargaining Agents (CBA), Labor Organizations, Independent Power Producers, professionals, senior executives, donor agencies, diplomats, academicians, consultants, and the press & media participated in the various sessions. The workshop effectively provided a forum to critically examine the key issues of Bangladesh Power Sector Reform and concluded with a consensus on a set of observations and recommendations on the formulation and implementation of power sector reform.

I am immensely indebted to Dr. Mohiuddin Khan Alamgir, Honourable State Minister for Planning who kindly graced the inaugural session as the Chief Guest and set the direction of the workshop with his visionary speech. I am also grateful to Prof. Rafiqul Islam, Honourable State Minister, Ministry of Energy and Mineral Resources for providing us with inspiration and overall directions for organising the workshop.

I am grateful to Mr. Imran Ahmed, Honourable Member of the Parliament and Chairman, Parliamentary Standing Committee on Public Undertakings, who kindly chaired Session-III of the workshop: Panel Discussion on Challenges Facing Bangladesh Power Sector and made inspiring closing remarks. My gratitude is also due to Prof. Md. Ali Ashraf, Honourable Member of the Parliament and Chairman, Parliamentary Standing Committee on Ministry of Finance, who kindly chaired Session-VIII of the workshop: Interactive Session on Ownership, Labour Issues and Financial Implications and made illuminating closing remarks. I am also grateful to Mr. S.M. Akram, Honourable Member of the Parliament and Chairman, Parliamentary Standing Committee on Public Accounts, who kindly chaired Session-

IX of the workshop: Panel Discussion on Role of Multilateral & Bilateral Agencies and made thought-provoking closing remarks. My thanks are due to Mr. M. Mokammel Huq, Executive Chairman, Board of Investment who encouraged us by gracing the workshop as Session Chairman for Session-V of the workshop: Panel Discussion on International Experience in Legal and Regulatory Arrangements in Electricity and Gas Industries.

I extend my heartfelt thanks to Mr. Calvin Humphrey, Principal Deputy Assistant Secretary, U.S. Department of Energy, USA for his Luncheon Speech on the second day of the workshop. I am especially grateful to Dr. S.A. Samad, Principal Secretary to the Honourable Prime Minister and Dr. Towfiq-e-Elahi Chowdhury, Bir Bikram, former Secretary, Energy and Mineral Resources Division, MEMR and presently Secretary Planning Division for giving us invaluable guidance in designing the workshop and inspiring us in delivering it. I am thankful to Mr. Muhammad Omar Farooq, Member (Energy & Industry), Planning Commission who was kind enough to preside over the inaugural session. My thanks and gratitude are also due to Dr. Shah M. Farid, Member (SEI), Planning Commission and Mr. Mohammad Sirajuddin, Former Secretary, Government of Bangladesh who presided over workshop sessions. I am also indebted to Dr. A.K.M. Masihur Rahman, Secretary, Economic Relations Division who presided over the Concluding Session and summarised the proceedings of the workshop in a very objective manner and defined the main lessons learnt from the deliberations of the delegates from home and abroad.

I extend my heartfelt thanks to Mr. Frederick T. Temple, Country Director, World Bank Office, Dhaka who attended the workshop as a special guest and made very valuable observations and recommendations on current situation of Bangladesh Power Sector.

I take this opportunity to thank the World Bank, ESMAP, New Zealand Trade Development Corporation, USAID and WBI for their support for conducting the workshop. I am thankful to the international resource persons who took the trouble to come to Dhaka to participate in the workshop. I am also thankful to the local resource persons, panelists and participants who made invaluable contributions

in the deliberation of the workshop. I thank my colleagues who have worked hard to organise the workshop and make it a success.

I sincerely believe that the proceedings of the workshop would reorient all of us about the critical issues and actions needed for the development of the power sector.

Date: 21st December, 2000.

Arabinda Kar
Secretary Power Division
MEMR

EXECUTIVE SUMMARY

In 1882 when Thomas Edison, the great American inventor, devised the world's first electric light bulbs, he not only illuminated New York City but also blazed the trail of commercial use of electricity. Over the last century, probably nothing has contributed more to human civilization—transforming our life and work—than electric power. It is the fuel that drives economic growth of the nations of the world.

In today's world, electricity is a vital ingredient for both economic and social development. Adequate, reliable, and reasonably priced supply of electricity is an essential pre-requisite for national development. That is also true in the context of Bangladesh where making power available to all its people at affordable price will not only ensure economic growth, but will also help in alleviating poverty – which is an over-arching development goal of the country.

However, access to electricity in Bangladesh remained one of the lowest in the world – less than 20 per cent of the people having access to electricity and their consumption of power is also very meager, only about 110 kWh per capita per annum. Shortage of power supply, at times very acute and unreliable, has stymied economic growth and development. The lost output, according to some estimates, is as high as one per cent of the GDP. This is critical, because the foregone economic growth could have taken Bangladesh beyond the threshold of 6 to 7 per cent GDP growth rate, which many policy-makers think could make a significant and sustained dent on poverty. Moreover, availability of power is one of the important pre-requisites for attracting domestic and foreign investments in manufacturing and services sectors.

Even though the country has a total installed rated capacity for producing some 3,600 MW of electricity, many of the existing plants, all in the public sector, have to go through a process of rehabilitation. In the peak hours, there is a national demand for 2700 MW. But due to losses on transmission lines and at the consumers' end, even if the existing plants generate 2700 MW, the utilities are able to reach only about 2500 MW of electricity to the people at the consumers' end. Meanwhile, demand for electricity has been increasing, which is

reflected in the rising expectation of the rural population to have access to power. Demand for power will also increase with the accelerated pace of industrialization. If the country wants to achieve an expected 7 per cent economic growth rate, it will need 14 per cent growth rate in electricity generation. This will call for large addition of generation, transmission and distribution system – requiring a huge capital investment. Thus one of the challenges facing Bangladesh’s power sector is to attract large capital investment – about six to seven billion US dollars—to meet future demands of electricity.

Some Bangladeshi officials believe that the funds can be procured through a mix of concessional loans from multilateral and bilateral sources as well as private investors. In addition, the country should also generate funds from domestic sources, and through improving collection of electricity revenues and curbing system loss. Efficiency of the distribution system must be improved to raise revenue collection – that is one of the big challenges facing the sector. In Bangladesh, the power system’s real problem is in the distribution sector. The sector must become commercially viable to attract resources necessary for its expansion. Besides, to attract foreign direct investment (FDI) to the power sector, an enabling environment should be created through adopting pragmatic policies, putting in place necessary regulatory framework, and an independent regulatory body.

On the question of how to attract FDI and tap the global capital market, one of the panelists made two important points. First, he suggested that the global capital market no longer view electricity as infrastructure projects to be financed at preferential rates. He mentioned that there has been a “paradigm shift” and the current view is that electricity is a commodity requiring payment for consumption. This change will have critical implications for countries such as Bangladesh since capital will not be allocated unless return and risks are balanced. He also said that it was not necessary to ask the foreign investors to put money into Bangladesh’s power sector. Instead, the country should try to create an enabling environment and institutions that will encourage them to come to invest in the country and make them willing to wait as long as it is reasonable to get a return on their investments. After all, foreign investors look for a balance between return and risks. For making it happen, one of the prerequisites is to put in place an independent regulatory body that will ensure an even playing field for both state-owned utilities and Independent Power

Producers (IPPs). The country should take steps to reduce perceived risks through such independent regulatory body, buttressed by necessary legislation.

The above view was corroborated during the workshop. It transpired in course of the workshop that there has been a major policy shift in regard to donors' support – both in terms of bilateral and multilateral assistance – for the power sector. The donors would like to focus more on social sectors like health, education, etc. and leave infrastructure sectors like energy and power to be taken care of by private sector. However, they are ready to act as catalysts in terms of investments in the energy sectors of the developing countries. The World Bank has also developed a new policy under which it is ready to support reform programs of the developing countries, while encouraging the private sector to make investments in such sectors such as energy and power.

In Bangladesh, the government as well as different stakeholders, including the power sector trade unions, have been gradually coming to terms with reform initiatives in the country's ailing power sector. It all started in early 1990s. Dhaka Electric Supply Authority (DESA) was created to streamline supply and distribution in capital Dhaka and its periphery. To improve distribution, metering, and revenue collection in parts of the capital city, another public sector entity called DESCO was established in 1996. However, as it transpired in course of deliberations of the workshop, both DESA and DESCO failed to deliver reform objectives.

In 1993, an inter-ministerial working group constituted by the government recommended some reform programs that included unbundling sector entities along functional lines, allowing private participation in generation and distribution sectors, establishment of an energy regulatory commission, etc. In 1995 a Power Cell under the Ministry of Energy and Mineral Resources was created to deal with reform issues. The same year, the government also approved a National Energy Policy, providing a broad guideline for power sector reform including evolving structure of the industry and its regulation.

To introduce competition, attract foreign private investment and more importantly, to increase supply to meet acute electricity shortage, a Private Power Generation Policy was developed and adopted in 1996.

Under this policy, power plants with a total capacity of 1780 MW have so far been contracted out to or are under negotiation with Independent Power Producers (IPPs) through a process of competitive bidding. Rural Power Company, a mixed-sector enterprise undertaken by REB and the private sector, has also set up a power plant having an initial capacity of 70 MW. Besides, to separate the transmission sector from the monolithic BPDB, Power Grid Company of Bangladesh (PGCB) was set up in 1996 as a company owned by the government. PGCB is scheduled to become operational in stages by the year 2003.

In course of the workshop some trade union leaders said that they were not opposed to reform and observed that the reform process so far failed to enlist their full participation and that the workers' demand for holding a dialogue earlier had been ignored. They suggested a fresh start of "consultative culture", abandoning the currently practiced "unilateral conflict culture." The workers' unions support reform, but it should be a total one – not a piecemeal donor-driven one. Some power sector CBA leaders also believe that privatization is not the only solution; electricity utilities should not be privatized, but maintained as a vital public service. It appeared that workers and employees had apprehension of job losses as a result of reform. Some of them are also opposed to scrapping of the BPDB, which had hitherto been a monolithic state monopoly controlling all the three power sector activities, viz., generation, transmission and distribution.

A number of resource persons from abroad presented case studies on labor issues in power sector restructuring. They pointed out that since reform and restructuring mean radical changes such as reorganizing, mergers, corporatization, privatization, partial, and in some cases, complete divestment, there can be initial opposition and non-cooperation from employees and workers. There can be opposition if sufficient and clear information are not provided beforehand on reforms; if no prior consultation is held with workers on contentious but negotiable issues; and due to bad examples of reform and restructuring exercises within or outside the country. Hence, measures are needed to promote effective dialogue among utilities, government, and labor before embarking on reform programs.

Given the dismal picture of the current state of the power sector, as it unfolded from discussions in the workshop, there was a general consensus that the sector should be made financially viable, and should be made to ensure quality supply of electricity at affordable

price. Competition should be introduced through participation of the private sector that will also help mobilize extra finance required to expand the services. In addition, in implementing the power sector reform, the country should look around to see how others have done it. Bangladesh can learn from other countries' experiences. Some reform measures taken in the country in the past did not yield positive results, which might have caused some frustration about reform, which is a very difficult and complex process. It involves employee issues, different financial, and technical issues. It is important to be careful in taking steps towards reform to avoid mistrust and opposition among the stakeholders.

In Bangladesh, as one of the panelists at the workshop pointed out, power sector reform has not failed, rather it has just started. Hence, in its pursuit of reform, it can leverage the latecomer's advantage of avoiding pitfalls and mistakes; and learn from other countries' experiences. Experts from countries like Australia, Canada, India, New Zealand, and USA shared their experiences in reform efforts in their respective energy sectors. Bangladesh can learn from them while trying to construct its own homegrown reform program. However, one discussant pointed out that there was nothing called "homegrown" or "donor-driven" or "imported" reform program and whatever is appropriate to achieve the objectives of reform should be part of the process. Above all, there must be a political consensus and commitment on the question and issues of reform.

SESSION - I: BANGLADESH POWER SECTOR REFORM

This was the first session of the Workshop and chaired by **Dr. Tawfiq-e-Elahi Chowdhury BB**, Secretary, Ministry of Planning. Before his current assignment until very recently, Dr. Chowdhury was the Secretary, Ministry of Energy & Mineral Resources.

This session had the following five presenters:

- **Brig. M.A. Malek**, Chairman, Bangladesh Power Development Board
- **Mr. Sharfuzzaman Bhuiyan**, Chairman, Dhaka Electric Supply Authority
- **Mr. Mesbah Uddin Ahmed**, Chairman, Rural Electrification Board
- **Mr. A.N.M. Rizwan**, Managing Director, Power Grid Company of Bangladesh, and
- **Mr. Scott Kicker**, Managing Director, AES Haripur Private Limited

Presentation by Brig. M.A. Malek

- Brig. Malek's presentation contained the following major points:
- BPDB is a key stakeholder in Bangladesh Power Sector.
- BPDB generates and transmits electricity and distributes all over the country except Dhaka and areas served by the Palli Bidyut Samity under REB.
- BPDB's retail sales account for 36% of the total retail sale of electricity in the country.
- BPDB has staff strength of 23,000.
- Accelerated development & efficient management of power sector is essential.
- BPDB recognizes the necessity for appropriate reforms.
- The process of reform should not disrupt or retard the services provided to the consumers.

- Studies should be conducted to identify potential issues including issues related to employees.
- Implementation roadmaps with realistic timeframes need to be prepared.

Presentation by Mr. Sharfuzzaman Bhuiyan

- Government has accepted the privatization policy and it should be implemented in phases.
- A contingency plan is needed in case privatization fails.
- There are two aspects of power supply in a not so rich country like Bangladesh; a) supply of stable and good quality power to people at reasonable and affordable price, b) making electricity industry profitable.
- Considering the current economic and social trend, privatization is inevitable.
- We will need assistance from those having experience in implementing successful reform projects.

Presentation by Mr. Mesbah Uddin Ahmed

- Restructuring (reform) of the power industry in Bangladesh is essential.
- Separation of generation, transmission and distribution of power is necessary.
- Private participation in power generation.
- Corporatizing generation and distribution.
- Incentives for individual and corporate performance.
- Effective regulation to safeguard interests of stakeholders.
- REB's energy requirements have grown at 19% annually.
- REB has the lowest system loss, currently at 16% compared with 35-40% industry average.
- The projection shows that the energy requirement of Rural Electrification (RE) program will grow at 11% per annum over the next ten years.
- The National Power System Master Plan does not adequately accommodate the projected demand.

- REB, which sources most of its energy requirements from others is facing serious supply problem causing consumer dissatisfaction, loss of revenue and increased system loss due to consumers backslide.
- The recently formed Rural Power Company, a jointly owned company by REB and Palli Biddut Samity (PBS) is generating 70 MW electricity and steps are currently underway for increasing generation to 210 MW.

Presentation by Mr. ANM Rizwan

Reform is necessary to enable the power sector:

- To become more efficient and customer-oriented;
- To provide power at a reasonable price and make it available to all;
- To bring about competition;
- To attract investment;
- To resolve conflict of interests;
- Commercialize sector entities;
- Accelerate economic growth.

How to reform:

- Establish profit centers;
- Corporatize sector entities;
- Bring private sector participation;
- Creation of an independent regulatory body/commission;
- Redefining government role;
- Separation of transmission in the longer term;
- Segregation of power generation, transmission and distribution functions into separate services.
- Introduction of cost reflective tariff for financial viability of utilities and promoting efficient use of energy;
- Development of demand management including energy efficiency measures to conserve energy.

PGCB's view as a service provider:

- Reform started before creating an appropriate legal framework;
- Reform should be in the right direction, backed by political commitment; and government should own the reform program;
- Reform in distribution sector should be accelerated;
- Employees' concerns should be addressed adequately.
- Employees' support is essential for success of reform program.

Presentation by Mr. Scott Kicker

- Today AES operates in 19 countries and has a portfolio consisting of a) 128 power plants with 44,000 MW capacity, b) 20 distribution companies, c) serve over 15 million end user customers, d) sell 114,000 Gigawatt hours of electricity annually.
- Reform should serve the interest are the customers. Without customers there is no need for BPDB, DESA, REB, MEMR or AES.
- If cost of new generation is valued at US\$ 350/kW, then US\$ 3 billion will have to be invested by the year 2007 to cater to BPDB's growth projections.
- Problems include a) shortage of investment funds, b) high system loss, c) low wages promote theft and corruption, d) labor unions, and e) government process resulting in high turnover.
- Opportunities are, a) strong pool of talent within each organization, b) basic framework of the system is already in place with plans for improvement, indigenous gas makes cost of electricity affordable, good projects and contracts have already been established and can be used as building blocks.
- The government and private sector must have clearly defined territories. The government should concentrate on regulatory functions, judicial process, planning while the

private sector's role should be generating and maintaining assets, transmission and distribution.

- The framework already outlined under the PSMP of 1995 should be reviewed and updated to reflect changing needs.
- Ensure transparency and build proven track records to develop investor confidence in Bangladesh.
- Remove barriers to development (time is money). Sudden changes of policy or direction are often worse than moving at a slow pace.
- Problems cannot be solved overnight.

*Closing remarks by Dr. Tawfiq-e-Elahi
Chowdhury*

Dr. Tawfiq-e-Elahi Chowdhury, Secretary, Ministry of Planning, said that efforts were being made to bring about reforms in the sector. However, the results and improvements so far remained marginal. Reform programs have to be pursued vigorously.

SESSION – II: OTHER STAKEHOLDERS’ PERSPECTIVE

The second session of the Workshop focusing on other stakeholders’ perspective was presided by Dr. S. A. Samad, Principal Secretary to the Prime Minister. Dr. Samad had also served as Secretary, Ministry of Energy and Mineral Resources (MEMR).

The following persons presented papers at this session:

Mr. Manzur Ahmed, Director, Dhaka Chamber of Commerce and Industries (DCCI) represented Federation of Bangladesh Chambers of Commerce and Industries (FBCCI)

Mr. Quazi Faruque, President, Consumers’ Association of Bangladesh (CAB)

Mr. Zafrul Hasan, General Secretary, Bangladesh Jatiya Iddut Sramik Karmachari Union – CBA

Presentation by Mr. Manzur Ahmed:

Making his presentation on behalf of FBCCI – the apex business and industrial Chambers and Associations – came up with the following suggestions:

- A comprehensive Energy Act, related to electricity, petroleum and gas by amending and up-dating existing laws including amendment of laws creating BPDB, DESA, REB and Electricity Act – 1910 to provide for and expedite power sector reform;
- National Energy Regulatory Commission consisting of representatives from the government, energy experts, and private sector representatives including FBCCI. This commission would formulate and enforce all policies, regulate, settle or dispose of all matters and disputes related to power sector under the proposed Energy Act.

Presentation by Mr. Quazi Faruque

- Gave vent to some of the complaints from the general consumers of electricity – particularly the “on-again off-again” load-shedding, power failures, and supply breakdowns;
- Low voltage and fluctuation in power supply damages electronic appliances and equipment like Refrigerators, TV, Computers, Air Conditioners, etc;
- All tiers of the power sector i.e. production, transmission and distribution are in a mess;
- Widespread corruption, mismanagement and irregularities in the power sector;
- Lack of accountability;
- Large-scale system-loss through electricity theft, incorrect billings, meter tampering, and collection loss; (All these are often done in collusion among a section of corrupt employees of BPDB, DESA and some unscrupulous consumers);
- Electricity stolen through illegal connection;
- Harassment of consumers by BPDB/DESA employees through over billing, coercion through sudden disconnection of power line, payment of bills, etc.
- CAB believes that public utilities like BPDB and DESA should be thoroughly reformed and restructured to make them more service-oriented and efficient.

Presentation by Mr. Zafrul Hasan

- He began his presentation by asking whether dialogue on reform was designed for a cosmetic treatment or a real one; the agenda and timing of the workshop raised doubts whether the exercise is an eyewash or a sincere effort for an “effective” reform;
- Workers’ demand for holding the dialogue earlier had been ignored;
- Drastic reform of Bangladesh’s power sector is essential;

- Workers' Unions support reform, but it should be a "total one" – not a piecemeal "donor-driven one";
- Motivated propaganda has painted the workers' unions as anti-reform;
- There are two major pressures behind reform – a) Projected demand to meet future needs; and b) General privatization program;
- Privatization is not the only solution. Electricity should not be privatized, but maintained as a vital public service;
- Suggested a fresh start of "consultative culture" abandoning the presently practiced "unilateral conflict culture";
- Workers' and employees' unions support total reform that will guarantee:
 - *Existence of BPDB as an effective public service utility*
 - *Consultation and dialogue culture*
 - *Recognition and respect as equal partner*
 - *Enforcement of national and international labor standards*
 - *Good working condition*
 - *Cost effective quality public service*
 - *Quality management*
 - *Quality work culture*

Closing remarks by Dr. S. A. Samad

- Power sector has attracted more attention than any other sector because of its critical and vital importance to the country's economy.
- Talking about reforms in the sector, he quoted Russian President Vladimir Putin who recently remarked: "Far too frequently we have set new deadlines to meet old targets." He said the Russian leader's remark had left a deep imprint on his mind because it could be likened to the situation in Bangladesh where so many things have been delayed and the country has failed to reach many targets.
- About power sector reform in the country, Dr. Samad felt that labor or labor representatives had not been quite involved in designing the reform measures that are being implemented. This, he thought, has been a severe

shortcoming. If they are not involved in the process, they will not support it. Everybody should participate; all stakeholders should be involved in the process.

- Noted lack of worthwhile government investment in the past in the power sector although government kept investing from their own resources in roads, highways, bridges, culverts, water, and manufacturing. In allocating resources, the governments in the past ignored the power sector and that is why the sector did not grow. This has left the country to be among the lowest consumers of electricity per capita.
- Government should do what government can do best and leave the rest to the private sector. Commercially oriented things are poorly done by government—this is a universal recognition and we do not have to relearn it.
- Reform does not necessarily mean privatization. If the government cannot manage it, there are many methods of privatization, which are short of divestiture. Examples are contracting out, bringing in strategic partners, joint ventures, etc
- The electricity utilities will not succeed unless they regularly bill their customers or clients, including individuals, the public sector entities, the private sector entities, and the corporate entities. In addition, the bills must be collected rigorously.

SESSION - III: PANEL DISCUSSION ON CHALLENGES FACING BANGLADESH POWER SECTOR

Mr. Imran Ahmed, MP and Chairman of Parliamentary Standing Committee on Public Undertakings, presided over Session III. It was a panel discussion where the participants highlighted the challenges facing the country's power sector and dwelt on the issues, starting point and timing of reforms. Mr. Alastair J. Mckechnie, Sector Director, South Asia Energy Sector Unit of The World Bank, was moderator at the session.

The following were the panel members in this session:

- **Mr. A.F.K. Golam Mowla**, Director General, Power Cell
- **Mr. S.A. Mayeed**, Member (P&D), BPDB
- **Mr. K.Z. Azam**, Member Engg., DESA
- **Mr. M.A. Samad**, Member Engg., REB
- **Mr. N.G. Saha**, Director, Technical, PGCB

Opening Remarks of Mr. Imran Ahmed, MP

In his opening remarks, the session Chairman pointed out that electricity consumption is used as a yardstick of development; the very low consumption and low generation situation in Bangladesh is thus the cause of the country's "stunted growth, or stunted development".

Presentation by Mr. A.F.K. Golam Mowla

The first panelist to speak at the session was Mr. A.F.K. Golam Mowla, Director General, Power Cell of the Ministry of Energy and Mineral Resources. Here are the highlights of his deliberation:

- Given the dismal picture of the state of the power sector, as it was evident from discussions in the previous two sessions, there is a general consensus that the sector should be made

efficient, financially viable, and should ensure quality supply of electricity at reasonable and affordable price;

- Competition should be introduced through participation of the private sector, which will also help mobilize extra finance required to expand the services;
- To improve the power sector services, the country should look around to see how others have done it; Bangladesh can learn from other countries' experiences;
- Some reform measures taken in the country in the past did not yield positive results, which might have caused some frustration about reform;
- Reform is a very difficult and complex process. It involves employees' issues, different financial and technical issues;
- It is important to be careful in taking steps towards reform to avoid mistrust and opposition from any quarter;
- Need for an independent regulator that would give equal opportunity to both public and private sector operators.

Presentation by Mr. S. A. Mayeed

The next panelist was Mr. S. A. Mayeed, Member, BPDB. Following are some of the points he made:

- If the country wants to achieve an expected 7 per cent economic growth rate, it will need 14 per cent growth rate in electricity generation;
- Hence, this will call for large addition of generation, transmission and distribution system – requiring a huge capital investment;
- The first challenge facing Bangladesh's power sector is to attract large capital investment – about US\$ six to seven billion—to meet future demands of electricity;
- The funds can be procured through a mix of concessional loans from multilateral and bilateral sources as well as private investors. The country should also generate some funds from its own domestic sources;
- To bring in such investments, pragmatic policies and a regulatory framework should be put in place;

- Efficiency of the distribution system must be improved to raise revenue collection – that is one of the big challenges facing the country’s power sector;
- Initially when the power sector is unbundled, private investors might not be interested in taking over distribution business;
- Strong commitment is a pre-requisite to reform and government should be in the forefront;
- A reform that is most suitable for Bangladesh should be devised locally; it should not be just to fulfil the covenants of the donors and development partners.

Presentation by Mr. K. Z. Azam

Mr. K. Z. Azam, Member, Engineering, DESA, had the following points to make:

- Since its inception, DESA has been faced with problems of fund constraints and various employees issues;
- When DESA embarked on its commercial journey in October 1991, it had resources to handle a load of only 450 MW. But over the years, its load rose to 1200 MW;
- Likewise, it started functioning with 350,000 consumers – but over the years their number rose to 500,000;
- There has been a peculiar consumer mix – for example, some areas that had been residential in character eventually converted into commercial centers; in some places, garment factories cropped up;
- All this contributed to “on-again off-again” load-shedding and low voltage problems;
- Fund constraints always stood in the way of developing and improving DESA’s distribution system and other services;
- With the addition of generation capacity, there should be simultaneous steps for increasing transmission and distribution systems;
- Reluctance of consumers in paying electricity bills;
- Service level and efficiency of DESA must be improved to raise collection of revenues.

Presentation by Mr. M.A. Samad

The next speaker was Mr. M.A. Samad, Member, Engineering, REB. He mainly focused on the background, functions and development of the country's rural electrification program. Here are some highlights of his presentation:

- Created in 1977, REB has so far set up 67 Palli Biddut Samity (PBS), i.e. rural electricity cooperatives, of which 66 have been under commercial operation. REB has some 2.9 million customers;
- Its network is expanding quite fast – everyday, about 30 kilometers of lines are constructed and at least 1000 new customers connected as nine new villages are electrified;
- Fund constraint has been a major problem standing in the way of faster rural electrification;
- Lack of accountability and discipline among employees is a major challenge for the country's power sector;
- Lack of engineering facilities leads to “neurotic” electricity management;
- One major problem faced by REB is that it lacks industrial and large power consumers, which often cause under-loading of the system;
- Eighty per cent consumers of REB are domestic and poor consumers;
- REB has an annual performance target scheme under which all staff of the PBS receive bonus or penalty based on performance;
- REB follows the procedures of U.S. Rural Electrification Cooperatives.

Presentation by Mr. N. G. Saha

The last panelist at Session III was Mr. N. G. Saha, Director, Technical, PGCB. He came up with the following points:

- The transmission sector must be strengthened and made efficient;
- Collecting tariff, avoiding cross subsidy and setting rationalized retail power prices are the big challenges;

- The need for immediately setting up a National Load Dispatch Center – already approved by the authorities in 1996 -- to create a level playing field for all the operators;
- The main problem in the country's power sector reform is the absence of a legal framework. The proposed Electricity Act should provide the necessary legal framework;
- The reform process must address the employees' concerns;
- Consensus on reform and a synergy of efforts must be there to achieve the goals of power sector reform.

Session Chairman Mr. Imran Ahmed then intervened to declare the floor opens for questions and comments from the workshop participants. Mr. Mahfuzur Rahman, Chief Engineer of REB, observed that he believed that the main obstacle to power sector reform came from within, i.e. people and agencies responsible for bringing about reforms. In other words, the reform measures so far adopted had not been accepted by all the utility agencies. One questioner asked about delays in handing over some BPDB lines to REB. Mr. Masood Ali Mallick of Board of Investment (BoI) observed that power sector reform should be devised in such a way that the private investors feel free to buy gas directly from the gas explorers to generate and supply electricity. During this interactive part of the session, a number of other questions were raised and a lot of opinions heard from the panelists. In his closing remarks, the Session Chairman observed that power generation sector should be completely opened up and there should be a level playing field for both the public and private sectors.

**SESSION - IV: INTERNATIONAL
EXPERIENCE IN RESTRUCTURING
(MARKET DESIGN), PRIVATIZATION, AND
COMPETITION OF POWER SECTOR**

Day two of the Workshop began with its fourth session, presided over by Dr. Shah M. Farid, Member, Planning Commission. The session was designed to give an insight into some international experiences on restructuring and competition in the power sector.

At the outset, Mr. John A. G. Grant, a Canadian economist who was the session's moderator, recapitulated the previous day's proceedings.

Dr. Charles J. Cicchetti, an energy economist from the University of Southern California, United States, presented the keynote paper entitled Power Sector Reform and Restructuring: A Global Perspective.

Mr. M. Y. Rao, Former Chairman & MD, Orissa State Electricity Board and GRIDCO, India, presented a case study on Power Sector Reform in India.

Dr. Ismail Bin Mustapha, Head, Strategic Management and Coordination, Tenaga Nasional Berhad (TNB) of Malaysia gave a presentation on his company's reorganization.

Mr. Renato Agurto Colima of Synex Engineering Consultants, Santiago, Chile, presented a paper on ESI Reform in Latin America.

Dr. Govind Saha, Managing Director, Cap Gemini Ernst & Young NZ Ltd. presented a case study on Sequencing and Phasing of ESI Reform in New Zealand.

Presentation by Dr. Charles J. Cicchetti:

- When it comes to reforms – think globally and act locally;
- Every nation in the world is restructuring its power sector;
- Lessons can be drawn from other nations' experience;
- The process of reform and restructuring is an on-going, continuous process;
- There has been a paradigm shift—Electricity is a commodity, which must be paid for;
- Developing countries like Bangladesh should be aware of their limitation of resources – they need international cooperation for mobilizing finances to develop their power sector;
- The global capital market – which is the main source of funds for the private sector power plants—wants a guarantee that the money they put in is repaid;
- It is important to get people to pay for electricity to finance investments;
- It is necessary to get all the stakeholders to collaborate and cooperate on what needs to be done with regard to reforms;
- Perfection is not what is always needed – what is needed is progress, action, and understanding of how to fix things right;
- Need for a friendly, independent regulatory body with full autonomy;
- The regulatory body should act as referee and facilitator, and they should not take sides;
- Investors or IPPs want consistent, clear and reasonable rules;
- Try to avoid changing the rules frequently;
- Increasingly, developing nations are recognizing the need for incremental source of power (needed for their economic growth) that can be financed without national indebtedness;
- Hence, increasingly they are turning to IPPs;
- IPPs operate on commercial basis and usually have little political interference, (which is) so common in public sector utilities;

- a good project is based on economic analysis and does not allow political meddling;

Presentation by Mr. M. Y. Rao

Mr. M. Y. Rao, a senior energy sector adviser from India, in his presentation came up with reform experiences in his country.

Following are the highlights of his paper:

- The motivation for reform the following facts;
- Inadequate resources to meet the growing demand for electricity;
- Precarious finances of the State Electricity Boards (SEBs) resulting from distorted tariff, mismanagement, political interference and ever-increasing losses;
- Critical financial condition of central and state governments that are no longer able to bail-out the SEBs;
- Viability of all central government utilities and institutions connected with electricity being jeopardized by the ailing SEBs;
- The earliest law on electricity in India was the Indian Electricity Act 1910, which dealt mainly with the rights and obligations of persons licensed to supply electricity. The next major Electricity legislation was the Electricity Supply Act 1948, which provided for the creation of Central Electricity Authority (CEA), State Electricity Boards (SEBs), and defined their functions and responsibilities.
- Unbundling the power sector in India started in mid-1990s with the State of Orissa being the first to go in for a comprehensive restructuring of its power sector by enacting the Orissa Electricity Reform Act, 1995– followed by other States like Andhra Pradesh, Haryana, Rajasthan, Uttar Pradesh, etc.;
- Electricity Regulatory Commission Act 1998 provided for setting up of electricity regulatory bodies by the central and state governments;
- The Orissa SEB was dismantled into entities specializing in generation, transmission and distribution – the corporatization of these entities by creating separate companies, paving the way for their eventual privatization;

- The power sector reform process in Orissa was substantially supported by The World Bank and the UK Government – followed by others donors;

The functions of the regulatory body:

- The regulators are required to function in an open, transparent, and participatory environment and in accordance with the regulations and rules they will frame and publish;
- Advise the government on all matters relating to electricity;
- Issue licenses, set tariff, lay down standard of performance, enforce the standards through incentives and fines, and promote competitiveness by involving the private sector while protecting consumers' interests;
- The regulatory body should also have some quasi-judicial functions, such as resolving disputes among licensees through arbitration.
- The reform effort in the Indian States was preceded by the creation of a reform framework, formulation of a vision statement by policy-makers, and putting in place an institutional framework to handle reform matters;
- Reform implementation challenges :
 - a) *General ignorance – fear and uncertainty. Fear of the unknown and suspicion about 'foreign hand' behind the scene. Uncertainty about reforms among different groups and lobbies;*
 - b) *Deliberate disinformation and sabotage by "vested interests" – often through a sustained and well-orchestrated campaign in the media and other forums;*
 - c) *Transition period pains – employee resistance, teething problems of new entities, fall in productivity;*
 - d) *Unduly high expectations from reform – hopes of immediate benefits;*

Employees and Labor Union issues – Open and hidden issues:

Open issues:

- *Changes in service conditions inevitable in the long run despite statutory protections;*
- *Reduced bargaining power;*

- *Possibility of job losses in the long run because of new manning norms/business practices;*
- *Concerns over terminal benefits.*

Hidden issues:

- *Fragmentation of workers' unions and changes in the power equation;*
 - *Possible loss of illegal income;*
 - *Discipline and accountability in the new setup.*
- Orissa is the first Indian State to have privatized the entire distribution setup and it is too early to assess the results of privatization of the electricity distribution business;
 - Initial impact – immediately after privatization, there was a slowing of activity and an increase in consumer complaints. Reasons – employee apprehensions and resentment. Employees and consumers who were previously used to deal with government utilities take time to understand the new rules of the game and come to grips with new business structures;
 - Initial response of privatized entities – reluctance of the new management to meet social obligation mandated by the government; and to raise working capital;
 - Subsequent response of privatized entities – significant improvement in management culture and practices, slowly but steadily growing awareness of consumer needs and commercial realities and a general improvement in performance;
 - There can be regulatory risks emerging from tariff orders that can often provoke resentment;
 - Power sector reform process is a learning one for every one. It should be driven from the top, but every one must be in for the long haul. Real results take time.

Presentation by Dr. Ismail Bin Mustapha

Dr. Ismail Bin Mustapha, Head, Strategic Management and Coordination, Tenaga Nasional Berhad (TNB), Malaysia, in his presentation shared his country's experience with participants of the workshop. The highlights of his presentation:

- The process of privatization in the Malaysian economy began in the early 1980s and the decision to privatize the National Electric Board (NEB) was taken in 1989, followed by several legislative actions;
- The decision to privatize the power sector aimed at relieving the government of financial and administrative burdens. It was designed to spur economic growth through private sector investment, improve efficiency and productivity, and reduce the size and presence of the public sector by allowing the private sector to lead the economy;
- NEB was soon taken over by TNB, and the latter was afterwards listed on the KL Stock Exchange offering public shares;
- Employees of the NEB were given a number of incentives and options. They could join the new company – that is TNB – on new terms or on existing government service terms, or retire from NEB with all pension benefits.
- TNB gradually transformed from a vertically integrated utility to an unbundled organization with major interest in generation, transmission, and distribution of electricity;
- TNB is also involved in other businesses related to the power sector;
- TNB's current generation capacity is 7,626 MW of electricity with a customer base of five million. It employs some 22,000 people.
- TNB's company vision is "To be among the leading corporation in energy and related businesses globally."

Presentation by Mr. Renato Agurto Colima

Mr. Renato Agurto Colima, of Synex Engineering Consultants, Santiago, Chile, presented a case study on Chilean power sector reform that started in early 1980s.

- Chile started restructuring its power sector through a new regulatory framework under which a National Energy Commission (NEC) – with seven Ministers on its Board – was created.

- The NEC sets energy policy and issues laws and by-laws. It regulates prices and controls investments in state-owned electricity companies;
- The Minister for Economy, Energy and Mines is the Chairman of the NEC;
- There is also a Superintendence of Electricity and Fuels whose function is to supervise compliance of quality of services and settlement of disputes;
- The Chilean government brought in competition in power generation – no license required to install power plants;
- There is no central planning – investors make the planning;
- Co-existence of a spot market and long-term contracts;
- There is an Economic Load Dispatch Center (ELDC) supervised by the (NEC) through monthly reports;
- Open access by generators to the transmission system, which is paid through the tariff income and toll fees;
- Regulated tariff for distributors; There are concessionaires who own the distribution facilities and must serve anyone within the concession area. Concessions are permanent and cancelled only in case of non-compliance with obligations;
- Rural people get subsidized electricity;

Presentation by Dr. Govind Saha

Dr. Govind Saha, Managing Director of Cap Gemini Ernst & Young NZ Ltd. New Zealand, in his paper focused on the sequences and phasing of ESI reform in New Zealand. Here are the salient points of his paper:

- In the mid-1980s electricity industry in New Zealand was controlled mostly by the government that owned and operated 96 per cent of generation and all high voltage transmission lines. But some 50 local authorities ran the distribution and retail facilities;
- About the same time, the government, in response to international oil price movements and to use the country's natural gas resources, made significant investments in the power sector.

- But such investment failed to achieve expected benefits – electricity retail services, provided by the government and regional monopolies, remained poor;
- Policy makers in New Zealand then thought that a “light handed” regulatory environment would be appropriate for the electricity industry – a view that still holds sway;
- The over arching goal of the policy makers was that a competitive market would bring required benefits to the industry;
- Legislation is used primarily to encourage contestability. Monopoly businesses are encouraged, where possible, to operate as if in a competitive market;
- Industry self-regulation is encouraged, though the government maintains a threat of heavy handed regulation;
- Along a reform road map, the country in late 1980s went ahead for corporatization of government-controlled generation and transmission systems, created the new Electricity Corporation of New Zealand (ECNZ), reduced staff members, and went about improving the efficiency of the sector. But resolution of staffing issues was an important part of the reforms;
- An Electricity Task Force was also formed to prepare a report that set the scene for restructuring and regulating the power sector;
- The result of the Task Force was that the government turned to separation of transmission from generation and reforming the local electricity retail and distribution operations;
- Of late though, New Zealand has gone about privatizing the energy sector to encourage competition and new investments, to raise government revenues and reduce government control.

Closing remarks by Dr. Shah M. Farid

In his closing remarks, the Session Chairman Dr. Shah M. Farid said that in a developing country like Bangladesh, resource constraints called for international cooperation in mobilizing finances for developing and reforming the power sector. Referring to the case studies presented by resource persons from various countries, he

observed that the experiences of Orissa, India, appeared to be most relevant for Bangladesh. The State of Orissa played a pioneering role in power sector reform in neighboring India and because the situation of Orissa is very similar to that of Bangladesh, Mr. Farid pointed out, the paper presented by Mr. M. Y. Rao “is specially valuable for us.” He observed that the situation in the labor fronts in India and Bangladesh were very similar and that one of the bottlenecks in implementing reform in the developing countries has been the opposition posed by the trade unions of the mostly state-owned power sectors of those countries.

SESSION - V: INDUSTRIAL EXPERIENCE IN LEGAL AND REGULATORY ARRANGEMENTS IN ELECTRICITY AND GAS INDUSTRIES

Session V was presided over by Mr. M. Mokammel Huq, Honorable Minister and Executive Chairman, Board of Investment (BoI).

There were two resource persons – Mr. Allan Asher, Deputy Chairman, Australian Competition and Consumer Commission and Mr. Amir Shalaby, Manager, Regulatory Affairs, Ontario Independent Market Operator (IMO), Canada. Both the resource persons gave an overview of different regulatory arrangements in power and gas industries in their respective countries.

Presentation by Mr. Allan Asher

Mr. Allan Asher's paper had the following main points:

- Australia' energy industries have been dramatically restructured since the early 1990s with the Federal, State and Territory governments having introduced reforms to establish competitive wholesale and retail electricity markets;
- Ownership and management structures have also been reformed and this involved privatization and commercialization of some public utilities;
- The Australian reforms were aimed at reducing business and household energy costs as well as increasing Australian industry's global competitiveness;
- A National Gas Code was formulated to govern transmission, distribution and pipeline operations;
- Before 1990, the power sector had been under public ownership of vertically integrated monopoly enterprises. There was excess capacity, little interstate trade in electricity and quite inefficient work practices;
- The power sector structural reform in Australia so far tended to involve the separation of commercial and regulatory

functions of the electricity authorities, facilitating the introduction of competition into the generation and retail sectors;

- The natural monopoly elements of the industry – transmission and distribution – are now regulated to prevent monopoly pricing and to establish uniform rules for all generators and retailers to gain access to their services on a non-discriminatory basis;
- Unbundling of the accounting system to compare and find out cost-effectiveness;
- One most important component of the Australian energy reforms has been the creation of independent regulators; it is important that regulators not only be independent of government and the industry, but also follow processes that improves transparency and confidence in their regulatory functions; But a light-handed regulatory procedure helps to harness open market; intervene only in case of failure.

Presentation by Mr. Amir Shalaby

Mr. Amir Shalaby provided an overview of Canada's gas and power industries with particular focus on the province of Ontario. Following are the highlights of his presentation:

- Canada is a major producer and exporter of natural gas, which is regulated both federally and provincially. However, distribution, storage, and retailing are regulated mostly by the provincial authorities. In Canada, natural gas regulation is moving to market-based mechanisms;
- The Canadian authorities deregulated natural gas earlier than electricity; natural gas deregulation started in the 1980s while electricity restructuring started in the late 1990s; the process of restructuring takes a long period;
- In Canada, electricity is mostly a provincial matter; federal jurisdiction on electricity is limited to export facility approvals and export permits;
- Provincial jurisdiction on electricity extends to most other matters like facilities permits, prices, entry regulation, environmental emissions, and taxes;

Key issues of power sector restructuring in Canada;

- *Separation of functions – generation, transmission, marketing, system control, etc.;*
 - *Regulation of monopoly functions and deregulation of competitive functions;*
 - *Choice of market model: single buyer, competitive bidding, ownership;*
 - *Role of independent governance and regulation, and degree of stakeholder consultation;*
 - *Rate of change, transition arrangements, phase out of legacy arrangements, contracts, prices, ownership, etc.;*
- Focusing on Ontario's electricity restructuring, Mr. Shalaby came up with the following main points:
 - *In Ontario, power sector restructuring was led by the provincial government;*
 - *It was done through legislation and a collaborative process involving the stakeholders;*
 - *Designed to introduce both retail and wholesale access;*
 - *Divested transmission from generation;*
- The nature and speed of restructuring the energy sector worldwide are driven by some common factors such as:
 - *Major global trends are driving restructuring worldwide;*
 - *Most countries are examining the options that suit them best;*
 - *Local priorities and conditions shape the details and speed of restructuring;*
 - *Most of the global electricity markets experiences are still young;*
 - *There are enough common drivers, however, which can make experiences of one country relevant to others;*
- In conclusion, Mr. Shalaby pointed out that the challenges facing Canada are different from those facing Bangladesh, but they share common global drivers. Each country has unique circumstances, but still, there are valuable experiences to share.

Closing remarks by Mr. M. Mokammel Huq

Winding up the session, Mr. M. Mokammel Huq, Executive Chairman of BoI, underlined the inter-relation between gas and power. He said the demand for electricity is growing in Bangladesh and with the rising trend in investment, this demand is expected to grow further in the coming years. In the last about nine years, the country attracted more than US\$ 19 billion worth of investment. “This kind of investment flow we won’t be able to sustain if we are not able to produce more electricity,” he said. Mr. Huq also pointed out that the power sector being highly technology and capital intensive would require foreign direct investments (FDI). Hence, without wasting any time, necessary reform must be brought about to attract more FDIs into the country.

**SESSION - VI: INTERACTIVE SESSION ON
ENERGY MARKET REFORM: LESSONS FOR
BANGLADESH**

Dr. Tawfiq-e-Elahi Chowdhury, Bir Bikram, Secretary, Ministry of Planning, presided over Session VI of the workshop. It was an interactive session covering market design for power sector utilities, regulation, and how to introduce and manage competition of the industry.

There were seven panelists – all of them from abroad – took questions from the delegates and tried to answer them. Mr. John A. G. Grant, a Canadian economist, was Moderator at the session.

Dr. Charles Cicchetti

Dr. Charles Cicchetti, an academic and economic expert from United States, was the first to answer a number of questions earlier sent to him in writing through the Moderator. Dr. Cicchetti was asked how to distinguish between a bad project and a good project. Answering the question, he said:

- A good project can be distinguished at the first sight. However, a bad project has some routine characteristics – too many guarantees, too much of commitments from the government, etc. If the project, according to Dr. Cicchetti, is pushed too heavily not by outside donors and banks, but by outside governments for political reasons, then it is likely to be a bad project.

There was another question as to how changes can be brought about when it is so difficult to get things started. He had the following answer:

- The key is to get senior members of the government to adopt reform and restructuring and to have that reform process pushed from top-down. It is also often a case that a nation has to feel that there are big problems in the energy sector as well as the economy, which call for bringing about

changes. Citing the case studies from Australia and New Zealand, Dr. Cicchetti said it was important to address macroeconomic problems to bring about sectoral reforms or changes.

The next question that Dr. Cicchetti answered related to how a country like Bangladesh could get access to the capital markets and could the IPPs be confident that they would get hard currency in return. Dr. Cicchetti's answer:

- Concentrate on developing power for manufacturing industry and commercial purposes so that the IPPs can be paid for. Privatization can also bring in some hard currency through selling of assets. It is a situation where you pay the IPPs as you go. You earn the currency from electricity that is being generated - it is hard currency because you are using the power to create an export industry.
- It is not necessary to ask foreign investors to lend money to Bangladesh. Rather the country should try to create structures and institutions that will make private investors to put their money in the country and be willing to wait as long as it is reasonable to get a return.

The last question directed to Dr. Cicchetti related to how could Bangladesh get access to global financial markets. His answer was:

- Investors look for a balance between return and risks. Hence, Bangladesh can take steps to reduce perceived risks through creation of institutions such as an independent regulatory body, legislation to supporting the regulatory body and an enabling environment for investment.

Mr. M. Y. Rao

Mr. M. Y. Rao, an energy expert from the State of Orissa, India, was the next panelist to come in for answering some queries. The first question was about power tariff structure in Orissa before and after the Electricity Regulatory Commission came in.

- The Commission issued several tariff orders allowing increases in the rates to help the utilities to cover some of their initial losses. However, the last order that came in 1999 limiting the tariff increase to only 4.05 per cent. The reason was to force the companies to meet any losses above the level accepted by the commission and not to pass it on to consumers. In other words, the companies are penalized on the ground that unless they are able to meet prescribed standards and efficiency, they should not get full cost recovery. Mr. Rao also answered to queries about transmission tariff and performance improvements since the power sector reform were introduced in the State of Orissa. There has been substantial reduction in losses in 18 months since the power sector was restructured. Interestingly, there was an amazing result of reforms - demand for electricity fell. The reason, as Mr. Rao pointed out, when you start monitoring very closely as the tariff grows, the consumer knows that either he pays for it or he does not use it. Thus, a fall in demand for power has been an unexpected outcome of reform.

The next question that Mr. Rao took for answering was how did bureaucrats and the government finally give up their control of the power sector utilities.

- Replying in a subtle way, he admitted that it was indeed difficult for the authorities to abrogate their powers and control of public utilities. They are forced to give up in the end when things cease to work out, they fail to deliver, meet the demand and rising expectation of the people. They become butt of public criticism and targets of public ire. Hence, they eventually shed the power and control to escape from public criticism. That was the case in Orissa.

Why, of all the Indian States, Orissa in particular was the first to be chosen for reform? Responding to this question Mr. Rao explained:

- Orissa is one of the poorest states and only those who are absolutely being ground down have an incentive for reform – like the French Revolution. It did not start with the aristocracy; it started with the peasants. The state could not take the financial strains any longer. Besides, Orissa's reform initiative was the brainchild of a "far-sighted" Chief Minister who had come into politics from industry. Having an industrial background, he could recognize the writing on the wall and gave the state's power sector reform agenda a go-ahead.

Dr. Ismail Bin Mustapha

The next panelist to answer questions was Dr. Ismail Bin Mustapha from Malaysia. Two of the queries related to employees' share and ownership schemes at TNB, a Malaysian electricity utility where Dr. Mustapha is a top executive.

- Another question was about finance. He observed that there had been a gradual improvement in financial performance of TNB after its privatization, but on the profit side there was little increase because of relatively high price that the company had to pay the IPPs on account of power purchase. In recent times, he also noted, there has been some negative or not so profitable results in TNB's finance figures.
- What is the percentage of IPPs in Malaysia? During the first stage, five IPPs have come into the market – which made about 40 per cent. However, in the immediate future – by 2002, the IPPs will be about 60 per cent, including those that they are going to buy from the government under its divestment program.

Mr. Renato Agurto Colima

Mr. Renato Agurto Colima, from Chile, was the next panelist to take the floor. Here are some of the points he made:

- In Chile, there is no central planning for the power sector. Each investor and each existing power generating company is free to make its own planning as to what type of power plant to install. But the National Energy Commission provides an indicative planning, keeping up with the laws of the land and ensuring a stabilized price of electricity for distribution among small customers;
- Replying to another question, he said the tariff level in Chile varies not only in accordance with density of distribution but also varies among regions in accordance with different modes of the transmission system. The grid operators are given sufficient incentive to encourage them to expand distribution to areas where density of customers is lower;
- Electricity is subsidized for rural people in Chile;
- Currently, a process of integration of the energy sector in Latin America is being developed, which will enable any national grid, including that of Chile, to participate in the electricity spot market.

Dr. Govind Saha

Dr. Govind Saha, energy sector analysts from New Zealand, was then given the floor to answer queries;

- He first answered questions relating to payments of transmission tariff in his country;
- Reform is not a one-point game ... it is a continuous process. It's an improvement that is required to be undertaken on an on-going basis because of the changing world, changes in technologies and, as people understand new ways of making improvements;
- New Zealand has introduced a retail competition regime under which distributors who supply electricity and companies that are responsible for metering and billing are separate entities - by law; any company cannot do both.

Mr. Amir Shalaby

The floor was then given to Mr. Amir Shalaby from Canada. First, he answered a questioner seeking an explanation on the difference between retail and wholesale access.

- The word “access” in North American context means customers have access to the markets and producers have access to customers. It’s a notional expression used to describe choice and freedom of producers and consumers to find each other;
- There is an Independent Market Operator (IMO) that works alongside the regulatory body. The first one oversees and manages the wholesale market while the latter i.e. the Interior Energy Board (IEB), manages the retail market, sets the rates and issues rate orders. The IEB also arbitrates disputes;
- In what way can a body like the IMO be relevant to Bangladesh? Perhaps it would be of interest as it demonstrates the range and spectrum of configuration a reform can take or proceed to. It may not be the destination that one could go to immediately – or even in the mid-term. The IMO shows an advanced stage of creating competitive markets. It may prove instructive for Bangladesh in setting regulatory functions.

Dr. Charles Cicchetti

Dr. Charles Cicchetti next took the floor to answer some additional questions. Answering a question on BPDB, he came up with three reasons why it is a good idea to unbundle or break-up the vertical integration of this public sector utility in Bangladesh:

- If BPDB stays vertically integrated, it is going to make private investors who are thinking about coming into the country to worry about whether there will be a level playing field and whether they will be treated fairly and reasonably as they make the investments, particularly on the generation side;

- Another reason for breaking up this public sector utility is that, as experiences in South America showed, a private distribution company is more likely to get paid by customers than a government-owned utility ... The key part of what needs to be done in Bangladesh is to get the people who use the electricity to pay for it;
- Thirdly, it will create a competitive process in the generation market and help bring down the cost of electricity - much to the benefit of the consumers;

These were the three reasons why Dr. Cicchetti thought the unbundling of BPDB makes sense quite apart from “appeasing the World Bank.”

- Dr. Cicchetti suggested that the best joint venture should be 70 per cent private and 30 per cent public or local authority equity.

SESSION - VII: MANAGEMENT AND EMPLOYEE ISSUES IN POWER SECTOR REFORM

Session VII was presided over by Mr. Mohammad Serajuddin, Former Secretary, Government of Bangladesh. At the outset of the session Mr. John A. G. Grant, the session Moderator, recapitulated the previous day's workshop proceedings. Three papers on labor issues in power sector reform were presented during the first half of the session.

Presentation by Mr. Ramiah Muthusamy

Mr. Ramiah Muthusamy, from Malaysia, presented the first of these papers. It was a case study focusing on labor issues in power sector restructuring. He had the following highlights in his paper:

- Reform and restructuring mean radical changes such as reorganizing, mergers, corporatization, privatization, and partial and/or complete divestment;
- There can be initial reaction in the form of opposition and non-cooperation;
- Opposition :
 - *If sufficient and clear information are not provided beforehand on reforms;*
 - *If no prior consultation is held with workers on contentious but negotiable issues;*
 - *Due to bad example of reform and restructuring exercises within or outside the country;*
 - *Profit perceived as the bottom-line for reform and restructuring;*
 - *Electricity industry is service-oriented and reform perceived as deviation from that concept.*
- Non-cooperation : There can be non-cooperation before and during reform and restructuring process, leading to problems in implementation;
- Measures to promote effective dialogue among utilities, government, and labor:

- *a) Transparency b) accountability c) shared common aims and goals d) mutual respect for and understanding of the important roles of the social partners, i.e. government, capital, and labor e) line of communications open at all time f) frequent tripartite/bilateral meetings, and f) non-political approach to issues.*

Presentation by Mr. Hebertus Essenberg

Mr. Hebertus Essenberg is from International Labor Organization (ILO), Geneva. His paper on Labor Unions and Reforms: A Review of International Trends, spelt out the UN body's framework in dealing with various issues as privatization and restructuring processes with their implications on the labor front. Here are some of the points he made:

- ILO's strategic objective is to promote and realize fundamental rights and principles at work: create greater opportunities for women and men to secure decent employment; improve the coverage and effectiveness of social protection for all; and strengthening tripartism and social dialogue;
- Although the terms "privatization" and "restructuring" are often taken as part of the same process, restructuring can occur with or without privatization;
- There is a great variety of privatization and restructuring models for public utilities, ranging from minimum to full withdrawal of the state; restructuring may often precede privatization –its aim being to make the companies more effective to private buyers or operators;
- Privatization and restructuring processes in utilities have in general resulted in a reduction of employment levels, sometimes affecting up to 50 per cent of the workforce;
- The employment reductions are of particular concern, as they often occur during economic recessions when high unemployment is common;
- Privatization works most successfully where it is backed up by social consensus and support; these are the conditions of economic good management;

- Once governments decide to proceed with privatization of public utilities, it is important for all parties that a structured and coherent plan and timetable be elaborated and it is implemented in accordance with national realities;
- Need for social dialogue and participatory approach in bringing about reform and restructuring.

Presentation by Mr. Paul A. Kouris

Mr. Paul A. Kouris, a legal specialist on ESOP (Employee Stock Ownership Plan) working for the Foundation for Enterprise Development, California, United States, in his paper dwelt on various aspects of equity sharing and employees' ownership. Following are some of the highlights from his paper:

- Companies go for equity sharing or employees' ownership as part of restructuring. It's a value-based approach and often designed to save the company, to grow faster and be more productive; does not necessarily mean that employees will be in the management;
- Suggested three approaches to equity sharing:
 - *Simplest* :- Equity to a few key people to recruit, retain, motivate;
 - *Best* :- Performance-based incentives, broad-based ownership, communication, participation;
 - *Worst* :- Broad-based ownership as a financial strategy.
- It is important to remember that equity sharing is a long-term strategy, not a quick fix;
- Spelt out an eight-step approach to equity sharing:
 - *Head in the right direction by defining the vision and objectives for equity sharing;*
 - *Address the fears and concerns;*
 - *Choose a path;*
 - *Evaluate and select the best tools for your situation;*
 - *Map out your plan;*
 - *Test your approach;*
 - *Go for it – implement your plan;*
 - *Re-evaluate your plan and adjust.*

The remaining part of Session VII of the workshop was on Power Sector Reform: Consequences for Management and Labor. Focusing mainly on the Bangladesh situation, the following three participants presented their papers on the subject:

- 1) *Mr. Ashraf Ali Khan, Secretary, International Affairs, Jattio Sramik League and a CBA leader at DESA.*
- 2) *Dr. M. A. K. Azad, President, Water and Power Engineers' Association*
- 3) *Mr. Pradip Kumar Ghosal, General Secretary, BPDB Diploma Engineers' Association*

Presentation by Mr. Ashraf Ali Khan

In his presentation, Mr. Ashraf Ali Khan Secretary, International Affairs, Jattio Sramik League and a CBA leader at DESA, discussed some management and workers' issues in Bangladesh Power Sector Reform. Here are some of his views:

- As part of a global trend for unbundling of different industries, Bangladesh has been experiencing reform and restructuring of its power sector;
- However, the prescription of reform has come mostly as a condition/covenant of grants/loans, etc., of donor agencies.
- In case of DESA, the prescription mostly came from donors like The World Bank, Asian Development Bank (ADB), etc.;
- DESA's performance since its creation in 1990 has not been satisfactory, according to the government as well as the donors. There are a number of reasons for its poor performance:
 - *The number one reason is that during its creation, matters related to human resources were ignored;*
 - *The authorities imposed restrictions on recruitment or appointment of new manpower – as a result DESA has been under-staffed and unable to satisfy the demand of the consumers;*
 - *DESA started with a load of only 450 MW in 1990, but the load has now increased to 1,200 MW with addition of about 200,000 consumers of different categories;*

- *The reforms till date caused considerable frustration among employees and staff as the process of deployment has been taking “in-ordinate delay”;*
- *Only 30 per cent of DESA workers are engaged in operation and maintenance activities (they work in shifts); They also lack logistic supports;*
- There is a fear of large-scale termination or retrenchment as a result of privatization and the coming of the IPPs;
- An infrastructure like power should not be handed over to private ownership. It should be declared as social and commercial utility, but transparency and accountability of the sector should be maintained as per standard commercial operation procedure.

Presentation by Dr. M. A. K. Azad

Dr. M. A. K. Azad, representing the Water and Power Engineers’ Association, said there was no argument on the need for reform, rather there is a consensus for reforms. In his presentation, he discussed at length on various management and employees’ issues on power sector reform in Bangladesh. Some highlights of his presentation:

- So far, reform in the power sector was a matter of top-level decision – it was not participatory. As a result, there has been half-hearted cooperation in implementing reform;
- Donors drove reform; it was not an agenda of the affected persons. Reform action was swallowed sometimes as the only means to get funding without really understanding the process of reform. As a result, it lacked necessary commitment of the implementing agency;
- Failure of some past reform measures – such as creation of some new organizations – did not bear fruitful result, leaving a wrong understanding about reform;
- Some reform activities affected employees’ job security and career;
- There is lack of political consensus and commitment behind reform activities;
- Reform plan should be transparent, having clear objectives. It should be acceptable to all concerned;

- It should involve gradual, systematic, continuous, and sustainable improvement activities;
- In Bangladesh, reform in the power sector should concentrate on increasing generation, transmission and distribution capacity while private sector participation should be encouraged to create competition between public and private sector;
- Before finalizing power sector reform, a national consensus should be arrived at. This can be done through an open debate among experts, economists, politicians and concerned professional groups. Stakeholders' participation in the reform process is essential to achieve the desired goal.

Presentation by Mr. Pradip Kumar Ghosal

Mr. Pradip Kumar Ghosal, representing BPDB Diploma Engineers' Association, in his paper had the following main points:

- There should be an effective, just and long-term solution to the power sector problems, but not the on-going model of reform;
- The present problems in the power sector are rooted in planning faults, inefficiency, mismanagement, and corruption of a few persons who have been dominant in the whole process;
- Transfer of BPDB's transmission functions to the newly created Power Grid Company of Bangladesh (PGCB) should be stopped. Vertical separation of transmission might trigger widespread chaos and result in lack of coordination and problems in load management;
- Development of an efficient and competitive private power sector without dismantling or affecting the BPDB as a public sector utility;
- Reform and restructuring, in whatsoever form, should be brought about in a peaceful way without antagonizing the workers and employees.

SESSION - VIII: INTERACTIVE SESSION ON OWNERSHIP, LABOR ISSUES AND FINANCIAL IMPLICATIONS

Prof. Md. Ali Ashraf, Member of Parliament and Chairman of the Parliamentary Standing Committee on Ministry of Finance, presided over Session VIII, which focused on ownership, labor and financial issues involved in the reform process. It was an interactive session participated by CBA leaders, Chamber leaders, and power sector reform experts. Mr. John Grant was the moderator at this session.

The first question that was addressed by the panelists was on the desirability of privatization. There had been many arguments in favor of privatization during other sessions of the workshop. The panelists were asked whether in the context of Bangladesh, privatization would be a realistic way to push forward the power sector reform agenda.

Mr. Zafrul Hasan

Mr. Zafrul Hasan, General Secretary, Bangladesh Jatiya Biddut Sramik Karmachari Union – CBA, a leader of the power sector trade union in Bangladesh, was first given the floor to give his views on the issue. His observations:

- In view of the past experiences of privatization in different industrial sectors in Bangladesh, we cannot come to a clear conclusion that privatization has been able to resolve the problems of the industry;
- Privatization of electricity should not be a desired option as it is a very sensitive industry;
- Should try to find out some other options – if privatization or experiments with privatization fails in the power sector, it will have adverse effects on the economy and other sectors;
- Should be careful in making privatization of the power sector utilities a priority in the reform process.

Mr. Paul Kouris

Then came Mr. Paul Kouris, an ESOP specialist from the United States. He made the following points while answering questions on privatization and employees' stock ownership program:

- Bangladesh's electricity sector is yet to understand the culture or status of privatization;
- Privatization must be done in stages and it must be done within the parameters of the cultures, the labor situation, and other strains in Bangladesh;
- Employees' ownership ensures that the employees take a deeper interest in the company;

Mr. Ashraf Ali Khan

Mr. Ashraf Ali Khan, Secretary, International Affairs, Jattio Sramik League and a CBA leader at DESA, was asked how to provide access to 80 per cent of Bangladeshis who do not have electricity and what measures the employees of Dhaka Electric Supply Authority had taken to improve collection of revenues. He answered that the donors, after bringing in the reforms, had stopped providing loans for developing the country's power sector. He believes that greater access to electricity for Bangladeshis could be ensured through government ownership of the power sector utilities.

Mr. Pradip Kumar Ghosal

Then there was a question directed to Mr. Pradip Kumar Ghosal, General Secretary of BPDB Diploma Engineers' Association. It related to salary structure and organogram of the newly created PGCB, and handing over of BPDB sub-stations and facilities to PGCB. At a later point, Mr. A. N. M. Rizwan, Managing Director of PGCB intervened to assert that his organization was being run according to all necessary rules, and that it had an organogram.

Dr. M. A. K. Azad

Another question that was directed to Dr. M. A. K. Azad, Water and Power Engineers' Association, related to putting right people in the right place. He explained that in a big organization like BPDB, which

employs some 25,000 people for operating wide-ranging utilities like generation, transmission, and distribution, right people were not always placed in the right position. For example, he pointed out: somebody having no experience in generation is sometimes placed to work in the generation side.

Mr. Hebertus Essenberg

Mr. Hebertus Essenberg, from ILO, Geneva, answered a number of questions concerning trade union activities in public sector companies, wages and allowances of workers, the role of labor unions for failure of any state-owned enterprise (so), the issue of labor unions becoming affiliated with political parties, etc. In his answer, Mr. Essenberg made the following points:

- Political affiliation of trade unions is prevalent in many countries, In some countries it has gone to the extent of determining who controls whom – the union party controls the union or the union controls the party; and in some countries in Europe, the recent trend is that unions are trying to cut their links with political parties to become more independent;
- The ILO has no position on whether or not unions should be affiliated to political parties;
- Both the workers and employers should be free to form or join organizations of their own choice.

Mr. Zafrul Hasan

Mr. Zafrul Hasan, General Secretary, Bangladesh Jatiya Biddut Sramik Karmachari Union – CBA, speaking on the labor issues afterwards reiterated that workers were not opposed to reform. They understand that there is a strong demand from workers also to reach electricity to an overwhelming majority of Bangladeshis as soon as possible. However, that will entail investments to the tune of US\$ 10 billion in the next one decade. He said the workers' unions would like to know how best they could cooperate in improving the performance of the country's power sector.

SESSION - IX: PANEL DISCUSSION ON ROLE OF MULTILATERAL AND BILATERAL AGENCIES

Mr. S. M. Akram, MP and Chairman of Parliamentary Standing Committee on Public Accounts, presided over Session IX of the workshop where following five panelists took part in discussions.

Mr. Marc L. Heitner, Team Leader, South Asia Energy Sector Unit, The World Bank

Mr. Shamsuddin Ahmed, Head, Energy, Asian Development Bank.

Mr. Franz Haller, Director, KfW - Delhi

Mr. Yasunori Onishi, Chief Representative, Japan Bank for International Co-operation (JBIC), Dhaka

Mr. Bruce McMullen, Senior Energy Advisor, United States Agency for International Development

Mr. John Grant was Moderator at the session.

Mr. Marc L. Heitner

The first speaker at this session was Mr. Marc Heitner, Team Leader, South Asia Energy Sector Unit, The World Bank. He discussed two main aspects – the general WB policy today in the energy sector and the Bank's program for Bangladesh. Here are some of the points he made:

- The emphasis of the World Bank program today is on poverty alleviation; priority should be given to all the activities relating to the poor, which are not commercial in nature. The government should give priority to social sectors like education, health, sanitation, etc.;
- On the other hand, commercial activities such as power supply should be able to operate on their own;
- Reforms in the power sector are being carried out all over the world; everywhere the sector is undergoing transformation to keep up with the changing times;

- The power sectors of various countries benefited from WB lending until around 1990, though in many cases such lending did not yield expected results;
- Many government utilities supported by the Bank were not performing well; there had been huge losses, low tariff and poor service to consumers while millions – like in Bangladesh—remained without any access to electricity;
- In 1993, the Bank developed a new policy under which the private sector – that can do things much more efficiently than the public sector – is encouraged to invest in the power sectors of the developing countries;
- In Bangladesh, World Bank has so far lent something like 600 million US\$ for power development; generation, transmission and distribution.
- The last loan to BPDB was in 1991; it was for improving power distribution in 16 towns. However, the project was not successful. Likewise, WB finance for improving metering system and technical assistance in building computer programs also failed to yield results;
- The World Bank now puts emphasis on reform program. It is ready to help Bangladeshi parties or stakeholders to develop a consensus on what is the power program that is required for Bangladesh. WB believes that reform has to be homegrown;
- Reforms have not failed in Bangladesh, rather they have not really started;
- The World Bank is cognizant of the problems of the power sector workers' unions and believe that the unions must be involved in the power sector reform process;
- The interest of the workers should be protected – nobody should lose one's pension and gratuity because of any structural change in ownership of electricity utilities;
- The World Bank is now waiting for the government, authorities, and the utilities to come up with a road map, with a program, which commits everybody to reform, and improve the country's power sector. That is the imperative for reducing poverty, ensuring economic growth, and development as well as improving the quality of people's life.

Mr. Shamsuddin Ahmed

Next came Mr. Shamsuddin Ahmed, of Asian Development Bank (ADB), Bangladesh Resident Mission. Some of his views:

- ADB is involved in Bangladesh's power and energy sector since 1972 and so far provided nearly one billion US dollars for development of the sector. It also has significant involvement in the country's power sector reform process;
- Supported the creation of DESA in 1990 – which commenced operation in 1991. But so far DESA failed to bring any tangible improvement except some reduction in BPDB's system loss;
- Unlike other multilateral donors, ADB continued to support power sector projects in Bangladesh; since 1994, ADB provided three loans to the sector totaling US\$ 347 million. In 1995, ADB extended a US\$ 50 million loan to the country's rural electrification program;
- ADB helped the creation of the Rural Power Company (RPC), which set up a 70 MW power plant in Mymensingh. RPC is a private-public partnership being run on commercial basis to boost REB network;
- ADB also supported the creation of DESCO, designed to improve the billing and collection of revenues within Dhaka City. It also supports the newly set up Power Grid Company of Bangladesh (PGCB), which is due to take over the country's electricity transmission system;
- The power sector reform initiatives in Bangladesh has been a homegrown process while the donors such as ADB should assist the government in developing that.

Mr. Franz Haller

The floor was next given to Mr. Franz Haller, Director of KfW – the German donor agency. Mr. Haller, who is based in New Delhi, India, briefly presented KfW's position concerning power sector reform in Bangladesh. He views:

- The power sector is considered as one of the important sectors in the German financial cooperation with Bangladesh. Germany helped the development of this sector for more than 30 years, investing some DM 600 million (or about Tk. 1,300 crore).
- German funds mostly came for investments in generation and transmission of electricity – the Ashuganj Power Plant and the Ashuganj-Comilla-Chittagong transmission line being the major projects under German support;
- Germany appreciates the reform program undertaken so far, particularly the creation of the PGCB for corporatizing transmission system. Welcomed the government decision to corporatize the Ashuganj power plant, and moves for the passage of Bangladesh Electricity Act;
- Mr. Haller, however, expressed concern at the relatively slow pace of reform and non-fulfillment of a number of commitments that the government had agreed on various power sector projects financed by KfW;
- Those commitments were related to (a) providing a maintenance fund for Ashuganj Power Plant where KfW had financed for rehabilitation of units 1 & 2, (b) reducing outstanding dues of BPDB to a maximum level of three months' billings until June 2000, (c) reducing BPDB's dues from the government. There were also some non-fulfillment of commitment in respect of 230 kV Comilla-Chittagong transmission line;
- An improvement in the sector situation is an important precondition for future German assistance in Bangladesh power sector. In view of the past experience of non-fulfillment of commitments, it might prove difficult for KfW to recommend to the German government for taking up new projects;
- KfW does not consider it useful to add more generation capacity or to expand the transmission and distribution systems unless the overall sector efficiency becomes satisfactory, the technical and non-technical system losses are reduced and the revenue collection rates are improved;
- Germany will continue to support Bangladesh government in its efforts to reform and restructure the country's power

sector, to help Dhaka in achieving the goal of reaching electricity to the majority of Bangladeshis.

Mr. Yasunori Onishi

The next panelist to speak was Mr. Yasunori Onishi, Chief Representative of the Japan Bank for International Cooperation, Dhaka Mission. His observations included the following main points:

- It is the government of Bangladesh that should identify in which projects they need donors' support – the government should conduct studies before requesting for any assistance from the development partners;
- Donors and consultants often tend to hold sway over decision making;
- An eight-member team from Japan International Cooperation Agency (JICA) that came to Bangladesh on an expert mission to study the power sector had a positive impression about the capability of Bangladeshi engineers – “they understand the contents of the manual and can answer very difficult technical questions”. There should be confidence in local experts;
- The problem in Bangladesh is that of the system, organization, and situation – a problem that can be solved by the government and the people of Bangladesh.

Mr. Bruce McMullen

Mr. Bruce McMullen, Senior Energy Adviser, United States Agency for International Development (USAID), Dhaka, was then invited to make his presentation. He spelt out in brief how the United States views the bilateral energy cooperation with Bangladesh, how this has evolved over the years. Here are the salient features of his presentation:

- US role in terms of bilateral assistance in Bangladesh's energy sector dates back more than 30 years. US helped to build Kaptai Hydroelectric Project -- the country's only hydro power plant in Chittagong. In the 1950s, US had been a large donors for infrastructure projects – a responsibility that

later shifted to multilateral development banks, which came up to support big infrastructure projects including those in the energy sector;

- Today, in view of the fact that resources can be generated by the private sector, foreign or domestic, the US position on bilateral assistance, particularly in the energy sector, has changed. The US government now seeks how best it can work most effectively as catalysts, as multipliers, in terms of investment in the energy sector of the developing countries. “This is what we’re striving for”;
- The US government feel that such infrastructure sectors like power and energy can rather be left to the private sector and big foreign investors while bilateral assistance can focus on areas of economy that are unlikely to attract private investments – such as social sectors like health, education, etc.;
- The United States now-a-days has been approaching things differently in view of various factors: a) Increased capability of Bangladesh, b) Bangladesh’s growth potentials resulting from large-scale discoveries of natural gas in the 1990s;
- The newfound gas resources opened a new vista in terms of ways to prepare a new growth-oriented economic format for Bangladesh. It is absolutely essential for Bangladesh to have an efficient energy and power sector to support new industries, to support its garment sector, and other export-oriented industries as the country “strives to achieve a middle-income status, which is possible in the near future.”
- A good example of US cooperation in Bangladesh’s energy sector had been in the field of rural electrification – US assistance to REB;
- The present focus of US government is on promoting use of clean energy in South Asia through utilizing natural gas resources, in which Bangladesh is particularly rich;
- US is trying to promote energy sector cooperation in South Asian region where the countries can have a more “effective exchange of energy resources, reflecting competitive advantages”;
- In Bangladesh, the US focus in future will be on training and technical assistance in the energy sector. Recently, the US

government has taken up an upper management-training program with BPDB. The US Geological Survey has been collaborating with Petrobangla in assessing Bangladesh's natural gas reserve position;

- US government will extend assistance towards Bangladesh's efforts in energy sector legislation and regulatory reforms, and encourage partnerships between US utilities and Bangladesh's energy organizations;
- Trying to help Bangladesh's energy sector policy makers in becoming much better familiar with uniform developments in other parts of the world and assist in improving energy sector investment climate in the country;
- The US government will also try to help Bangladesh in better preparing it in terms of contract negotiations, contract implementation, and dispute resolution in the power and gas sectors.

Mr. Scott Kicker

As soon as Mr. Bruce McMullen had done with his presentation, Mr. Scott Kicker of AES Corporation – a US-based IPP – came up with a question, asking whether the donor community or multilateral development financing agencies would help private investors taking over any public sector energy utility like DESA. He meant that such help would not be sought for the purchase of the assets, but in terms of relocating and retraining of excess or redundant people so that they can start new vocation or business.

Mr. Marc Heitner

Mr. Marc Heitner of the World Bank took Mr. Kicker's query and answered that WB would be ready to help privatization of any public utility like DESA through financing retrenchment programs, training programs, etc.

No sooner than Mr. Heitner finished his answer, there was intervention from two questioners. He then went on to explain that the share of WB lending to the power sector was going down as more and more countries were turning to the private sector and tapping the endless resources of the global capital market. This is happening in

Latin America as well as in Asia. In addition, that in turn enabled the World Bank to devote its resources more to the social sector development, which is not revenue producing. He told another questioner that the World Bank and ADB had been in regular contacts with each other and they hold coordination meetings from time to time.

SESSION - X: BANGLADESH POWER SECTOR REFORM: THE WAY FORWARD

Session X was the closing session of the workshop titled “Bangladesh Power Sector Reform: The Way Forward” chaired by Dr. AKM Mashiur Rahman, Secretary, Economic Relations Division.

At the beginning, the Chair invited the Chief Rapporteur, Prof. Mohammad Ibrahim to present his report.

Prof. Mohammad Ibrahim

Prof. Ibrahim presented the Chief Rapporteur. This report is provided as Annex-1 of this proceedings.

After the Chief Rapporteur’s Report, the Chairman invited the panelists individually for their contributions. The summary of the panel members deliberations are given below:

Mr. AFK Golam Mowla:

- Everybody recognizes the necessity of reform;
- Reform should be organization-grown rather than homegrown;
- Organizations themselves can bring their own reform program that can be considered by the government;
- Convergence of reform goals by the various stakeholders such as service providers, users, employees, consumers, government and donor agencies are required to avoid conflicts of interests;
- The workshop deliberations have provided a direction by sharing experiences from other countries for the formulation of good reform process for the Bangladesh Power Sector.

Brig. M.A. Malek:

- Reform is due to our failure to run our organizations efficiently;

- The existing systems, if properly run, are good systems. Miracles can be achieved if we can work united and with accountability;
- An independent regulatory body should be formed in Bangladesh;
- Reform is a continuous process.

Mr. A.J.M. Enamul Islam:

- Implementing reform and restructuring is difficult;
- The gap between investment requirements and implementation needs is increasing rapidly resulting in continuous deterioration in this Power Sector;
- We should keep the reform process as simple as possible;
- Reform in the power sector in Bangladesh is an urgent need;
- More dialogue with trade union to remove fears of losing job are needed;
- Policies to ensure competition in power sector so that consumer gets electricity at affordable price and better service;
- Develop the culture of privatization;
- Reduce electricity tariff as tariff discrepancy of peak and non-peak hour affects production and the economy of the country as a whole;
- Policy guidelines to discourage monopoly;
- More participation by politicians and legal profession should be encouraged in future workshops.

Prof. Nurul Islam:

Previous reform measures failed to achieve expectations due to the following reasons:

- Lack of decision-making continuity; two ministers and three secretaries changed in last four years;
- Lack of understanding about reform. Privatization is not reform; it's one of the tools, one of the possible components of reform process;

- Donor phobia; donors do not understand local conditions and press too hard;
- Fear of change within PDB. Analogies used are China and former USSR. Apprehends that changes will be too severe and may rip apart existing organizations;
- Reform may be painful but Bangladesh will have to face the challenge;
- BPDB may be allowed to make existing four zones as corporate entities, similar to REB. If BPDB is unwilling, it can be offered to REB.
- We should consider micro/mini generation for those situations where grid electricity cannot be provided;
- Independent regulatory body is an essential component of reform and “independent” must mean independent.

Dr. Charles Cicchetti:

- The need for electricity in Bangladesh is extraordinary. Increased capacity will enable other complimentary business activities, which will not only help grow exports, GDP, but also, significantly contribute towards improvements in quality of life;
- Today the global capital markets view electricity as a commodity and not as financing and construction activities of power projects. This change in perception by the global capital markets is at the root of global restructuring of electricity markets. This is what he calls a paradigm shift;
- The fact that electricity is viewed as a commodity has deeper implications. First, the capital markets will not allocate resources unless it is assured of return. Return depends primarily on two factors; First, timely collection for consumption, and second, the risk associated with the investment;
- Most global electricity markets were founded on the old paradigm. Every electricity market throughout the world is trying to adjust to this new paradigm. This process of adjustment or reform can take various shapes and forms. The challenge is to find the right mix or ingredients. Without reform in the power sector, Bangladesh face considerable

danger. First, the international capital markets will not allocate resources to Bangladesh unless there is necessary readjustment towards the new paradigm. Second, the donor agencies, in a changed global environment, are either not willing or does not have the resources to finance investments that are founded on obsolete rules.

After the presentation by Dr. Charles Cicchetti, the Chairman invited Mr. A.F.K. Golam Mowla to read out the draft recommendations of the Workshop.

Mr. A.F.K. Golam Mowla :

Mr. Mowla presented the following draft observations and recommendations of the workshop.

DRAFT

Observations and Recommendation

of

Workshop on Bangladesh Power Sector Reform

30 September-2 October, 2000

Dhaka, Bangladesh.

Present Status of Power Sector Reform

Government of Bangladesh has taken up reform in the Power Sector. The present status is presented below:

Reform Programme:

- *Reform programme has been continuing since 1994 in line with the recommendations of an Inter-ministerial Working Group, which were adopted in the National Energy Policy, 1996.*
- *Government declared its Vision Statement and Policy Statement on Power Sector Reform in January 2000, wherein commitment to power sector reform and policy-guidelines thereof have been articulated.*
- *Reform has gone ahead towards restructuring of the sector along functional lines, keeping REB structure unchanged.*
- *Power Grid Company of Bangladesh Limited (PGCB) was established in 1996 and is functioning. Programme is at hand to transfer all transmission assets to PGCB in stages by December, 2002. BPDB and PGCB have identified key issues related to staff transfer, and Power Division is overseeing the transfer scheme maintaining and safeguarding the employee concerns and issues.*
- *Dhaka Electric Supply Company Limited (DESCO) was established in 1996 and DESCO is currently functioning in*

Mirpur area of Dhaka Metropolis. Performance of DESA and DESCO is under evaluation.

- *Rural Power Company Limited (RPC) was established in 1994 as a mixed sector entity with ownership divided among REB, PBS's, and eventually private sector. RPC has already commissioned its first Gas Turbine unit of 70 MW. Work is in progress to add more units and to raise capacity of the power station to 210 MW.*
- *Private Sector Power Generation Policy was declared in 1996, which attracted private investment in power generation. So far 1158 MW capacity has been contracted with private sector of which about 300 MW is operational through long term power purchase contracts with BPDB.*
- *Future power industry configuration has been decided along Single Buyer Model. It has also been envisioned that Single Buyer function would be entrusted to a public sector entity. However, BPDB would continue as the Single Buyer till the new entity is established.*
- *There is consensus in BPDB and DESA that there is serious need for reform to improve performance and achieve efficiency.*
- *Steps have been taken to corporatize Ashuganj Power Station and to convert Haripur Power Station to a strategic business unit(SBU).*
- *Steps have also been taken to convert BPDB distribution segment into 23 profit centers.*
- *The Bangladesh Electricity Reform Act 2000 now under consideration of GOB will help to establish the Energy Regulatory Commission by 2001 to oversee sector operations in the restructured environment.*
- *Distribution segment performance in DESA and BPDB coverage is poor with high system loss and accounts receivable.*
- *BPDB and DESA suffer from inadequate commercial infrastructure such as metering and billing system, weak consumer focus, corrupt practices etc.*
- *REB's performance is reasonably satisfactory, REB has established accountability, financial discipline, good commercial infrastructures and HRD programmes.*

- *GOB has approved policy guideline for Small Power Plants (SPP) in Private Sector in 1998 to diversify investment in generation and distribution , particularly to serve non-grid areas and provide opportunity for sale of excess power from captive generators to consumers in the neighbouring area. Government has agreed on principle to allow fiscal and other incentives to the SPPs.*
- *A Financial Management Upgrade Project has been undertaken by BPDB and DESA to established transparency and accountability in commercial functions.*

Lessons Learned from Reform Initiatives Undertaken

The following lessons have been learnt from reform initiatives undertaken:

- *Appropriate mind set conducive to reforms is critical.*
- *Regular consultation with employees and labour unions would help sharpen the understanding of the reform agenda at all levels.*
- *Current reform efforts lack in good communication strategy and this process must be improved.*
- *Continued and strong political commitment is the key to the success of reform programme.*
- *A document providing the ROAD MAP towards implementation of power sector reform should be prepared.*
- *Technical assistance in some key areas viz. staff transfer scheme, human resources development, development of business and financial plans for evolving entities, legal aspects related to restructuring and overall management of reform programme would be needed to carry out planned reform at a faster pace.*
- *Attention must be given to corporatizing distribution segments on priority to improve commercial performance as well as service quality. This will help establish accountability, deal with corruption and provide incentive to employees.*
- *Private Sector Power Generation Policy and the Model Security Package Documents developed for private investment with one of the lowest power tariff is in the world.*

- *REB has been proved to be successful. DESA and BPDB may learn from REB model.*
- *Steps are needed to be taken to reduce peak load by introduction of effective Demand Side Management (DSM).*
- *Training activities for staff development and R & D programmes in BPDB & DESA are inadequate.*
- *Need-based training programme have to be implemented to motivate employees and upgrade their skills.*
- *All efforts must be directed towards collection of bills from consumers.*

Power Sector Vision by 2012

It is recognised that electricity is the prime mover for economic development and poverty alleviation. The current level of electrification is at an unacceptable low level, and gigantic efforts must be made to accelerate pace of electrification to achieve GOB's Vision of Electricity to all by 2020 GOB is committed to transform the power sector from its present position to a new horizon by 2012 as envisioned below:

i. Generation Segment

A competitive power generation market would be developed, allowing single or portfolio generating companies to enter the competitive market without any barrier of entry for power generation through an environment providing level playing field for all developers.

ii. Transmission Segment

PGCB would be fully functional as an independent, transmission company in the public sector. PGCB would provide open access to its transmission network to all generators and distributors. It would operate as the wheeler of electricity, and realize wheeling and other ancillary service charges from generators/distributors. An independent system operator would be established in the public sector.

iii. Distribution Segment

Restructuring of BPDB and DESA distribution system into a number of corporatized entities would be completed and these would be fully functional in commercial environment. Private sector participation in the distribution segment would be allowed. Captive generators would be allowed to sell excess power at regulated prices to customers of neighboring areas. Direct power purchase arrangement between generators and distributors would also be considered.

iv. Regulation

An independent Energy Regulatory Commission would be established, and will be fully functional to oversee operations of sector entities and to establish:

- *transparent pricing regulations for transmission and distribution segments;*
- *cost reflective tariff based on efficient system operation.*

v. Employee Issues

The consensus of the employees of the sector would be appropriately addressed.

vi. Consumer Interests

Consumers' interests would be protected by ensuring that system expansion and operation is least cost and quality of supply is maintained and tariff is reasonable. Consumers' voice and organizational accountability would be established in the form of citizen/ client charter.

Next, the Chairman invited the floor for interactions.

The first person to interact was Mr. Abdul Muyeed Chowdhury , former Secretary of GOB, followed by other delegates. The essential points of the interactions are presented below:

Mr. Abdul Muyeed Chowdhury:

- There is nothing called homegrown or imposed reform. These debates can only serve the purpose of the vested interest. Whatever is appropriate to achieve the objectives should be part of the reform process;
- We need more power for connecting new consumers and we cannot provide that because we cannot even collect our dues resulting in erosion of assets. We seek the donors because we need capital;
- The perception that donors “press” originates from the fact that it’s their money, we do not have enough resources to invest, and we go to them again and again;
- As long as the institutions remain under government control there will be corruption, inefficiency, and non-collection of receivables;
- Even though privatization is not going to be a panacea, it has better prospect of success;
- Independent regulators must control the predominant profit motive of the private sector.

Ambassador Waliur Rahman:

- For the past 29 years we have been trying to come out of the vicious cycle but without success;
- Regulatory system is an absolute necessity.

Mr. Aminur Rahman:

- We have said much and now we need to do;
- A national level commission, something like National Energy Sector Reform Commission to be represented by government, trade unions, professional bodies and industry experts should handle reform.

Mr. Zafrul Hasan:

- Experience shows that in similar workshops, assurances are customarily given to labor representatives that their “voices will be heard”, “consultation will be made”, etc. However, the reality is such that all these are forgotten once the workshop concludes. Some people go ahead with what is in their mind.

Mr. Abul Monsur Azad:

- Composition of the proposed Independent Regulatory Commission is needed.

Mr. M. Y. Rao:

- A single regulatory commission for both gas and electricity is a step in the right direction.

Person that cannot be identified (1):

- In observation and recommendations preference has been given to REB;

- But REB is not taking BPDB people. The people are coming back to BPDB to become “surplus”;
- Ashuganj Power Station is vital, viable, and profitable plant and should not be corporatized.

Mr. Greg Gritters:

- Companies like UNOCAL AES, Shell, and Cairn will have brought over billion dollars of investment into Bangladesh over the last three years and the coming next year;
- But they are not the solution, just provider of building blocks for other investors to create jobs, to produce tax revenue;
- If 80% of the remaining population is to get access to electricity, additional jobs will have to be created so that they can pay for electricity.

Mr. Sohel Hashmi:

- Vision of 2020 of total electrification entails 400,000 new connections every year, for the next 20 years. Given that kind of volume there should not be any fear of unemployment.

Person that cannot be identified (2):

- We cannot afford more time to waste;
- We must reform immediately.

Mr. ANM Rizwan:

- The undergoing reform in Bangladesh is homegrown, initiated through an inter-ministerial committee consisting of members from BPDB, REB, DESA, and all responsible experts from different organizations. Subsequently the Cabinet approved it in 1994.

Prof. Nurul Islam:

- There should be mini, micro utilities with or without mini, micro generation;
- In a rapidly changing technological environment, we should not lock ourselves in particular technology; we need to keep our options open.

Person that cannot be identified (3):

- Generation and transmission should be kept together and distribution should be separated.

Mr. Hussain Ali:

- To cope up with the process of globalization, power generation, distribution and transmission should be streamlined so that the industrialists and entrepreneurs who are already established and those who are emerging must get power to rise to the occasion and diversify the country's export market. We cannot delay in the reform.

Closing remarks by Session Chairman Dr. AKM Mashiur Rahman (edited):

It seems to me that there is a consensus on the need for reforms also on the urgency of reforms, in order to improve electricity supply and also because of its importance for industrialization, civic life, improvement of quality of life, and so on.

However, as there is a saying that “wishes are horses that beggars may ride”. If wishes were reforms then we would not have any problem. What we are trying to do is acquire those horses that we can ride without falling down. Falling down is a real threat.

I have seen that those of my colleagues who are very enthusiastic about reforms, once they start dealing with the details they sort of get a little afraid because, I guess the future is unknown and in the civil service, or in the bureaucratic organization, or in any organization,

your performance now and tomorrow matters more than your performance (or the result of your performance) after three years or four years, when most probably, you would not be there. Reform does affect the vested interest and there is a threat of immediate short-term disruption. So we sort of weigh between continuing what it is and forgetting what it ought to be after sometime, and reform does suffer. So I guess reform does need strong commitment and courage.

Now, I was never involved in managing change. But the way I tried to look at it, and sort of learn why reforms are important, I may share with you the process rather than the principles which ought to determine where there ought to be reforms or not. I believe the recognition that reform is necessary comes from the concern for efficiency and welfare, which can be derived from operation that is more efficient. With a given amount of investment and capacity, you possibly can extend services to much larger number of consumers; if the operations, the investment, and the management are efficient. Some how or other, the public sector started with the promise somewhere on the way, it did not appear that it could manage large establishments because the establishments were also large. Some of the new entities have done well like REB because it started afresh, and I mean REB is large but the operating units that are the Palli Biddut Samiti are small units where the owners are also the managers and consumers. So there is a convergence of interest.

Now in addition to that what I think ought to be recognized is our idea or our perception of what is efficient come from the concept of market. However, in power you do not have the textbook kind of market where competition is unconstrained. So that all that we try to do is approximate a market condition, in a situation where you cannot leave the enterprise, you can't leave the industry to itself it has a tendency to be oligopolistic or monopolistic or whatever is it. Therefore, the efforts are to reach an approximation to market determined outcome where the industry has some of the characteristics of monopoly or oligopoly.

I guess we have talked too much about the price aspects and the fiscal implication of continuing loss. Neither we the homegrown reformers nor our friends from the development partners, the alien reform promoters. I guess we did not talk much about the agent theoretic perspective. The public sector entities are owned by the government as one of the speakers very eloquently and very correctly said, "I want

the value for my tax money". In the public sector the government is the owner and the objectives and the interest of the owner do not necessarily converge with the objectives and the interest of the agent or the manager, operator. There is a divergence between the two and we do not have any effective instrument to enforce convergence between a public sector manager's interest and the government as political agents chosen by the people. The interest may be divergent. So once we look at it in the agent theoretic perspective, it seems to me that a few other things also follow. Now, within a government system, incentives have to be more generalized. We do talk about incentives being differentiated with respect to performance. But how do you measure performance? If someone in the Power Development Board or REB today is not performing, he can always say that the assets are of such a poor quality that he cannot achieve the efficiency that is expected of that organization.

Secondly, if you are in the public sector, you also are confronted with a soft budget line and there is a public obligation, perception within the government that you cannot fail to provide electricity to the people. You have to provide electricity to the people who have been getting it; you have also an obligation to expand the number of consumers. That is a kind of public obligation. So the managers can fail, but the politicians, whom we blame for lack of commitment, etc., cannot fail. Therefore, they continue to finance the expansion and operation of a public sector entity. Also, as the investor in the public sector entities, the risk is taken by the equity holder, the government here is equity holder. If you ask the government to make the investment, if you ask the government to provide resources for operation and maintenance, then the government also has the corresponding obligation to determine and to oversee that the entities are running properly. Furthermore, these days we talk about transparency, accountability, and behind the government are the several institutions like parliament, public opinion, press which would demand that these entities performed. So whether you like it or not, as long as the entities remained within the public sector and the public domain, there is almost an automatic extension of public control or government's control over the operations. It may be possible for a while to devise instruments which will ensure for a while a degree of efficiency. But at some point of time perhaps the divergence and the weakness of a public sector in managing, what one of our panelists

described as a commodity in the market organization that is unlikely to wait.

Now, on why we quite often here complain that adequate investment could not be made because the resources are short. Operation and maintenance are not efficient because the resources are short. But if you look into the picture, then we have to ask the question, why are the resources short? A private investor will have to recoup the investment with a reasonable amount of profit. And the minimum test of viability or feasibility is that he must be able to replace the current investment by a new plant, which means that he has to recover the money. In the public sector entities some or other has not been able to recoup the investment made, they have not been able to make profit. We can argue why they could not, they did not have autonomy, there are public policy constraints, there are operation constraints and so on. But after all the explanations the fact that has to be recognized is that the investment did not produce the return which it should. And from one investment made in a previous period, we did not earn enough to expand and to reinvest. So we are to go back to the government again for reinvestment and also for periodical major rehabilitation and major repairs. Where I think the textbook like transcription of price equals the marginal cost could have been misleading, is when the scale of operation was low and with expansion, the average cost or marginal cost would go down. There was a case for a while to provide some subsidy. That was a principle that was applied to REB. And as a matter of budget principle, public policy, etc., it was recognized that after commencement of Polli Biddut Samiti for a period the government would provide some subsidy because their consumers remained small, and with that small number of consumers the investment would not be viable. But if that continues for too long, there is a signal that the investment perhaps was not very prudently chosen. The price determination is an issue that most regulators in all the countries have to deal with. I understand that the British regulation puts a cap on tariff. And assume that over time, the entities will gain in inefficiency and the gain in efficiency will result in an increase that is lower than the inflation rate which is measured in some special way. And part of that will be given to the consumers so the price increase is always less than the retail price increase but there is some criticism that with the cap on profit there is also a reduced incentive or investment cannot provide maintenance of the asset. So

if I know that I have a contract for supplying for ten years, I will rundown the quality of the assets and extract as much profit as I can. So, may be in the longer term that may have a depressed effect on investment. I do not know much about the US, my information about the US regulation and pricing is, I am not familiar with that, but I understand they have some mechanism to put some cap on the amount of investment and so on.

I mentioned before that in the electricity sector in those sector we tried to approximate a market outcome and there are traces or inherent characteristics of monopoly or oligopoly. But if you look at the element that composed the electricity generation, transmission and distribution system, you would recognize that it is possible to unbundled and if you unbundled, you will find that there are many elements in the system which are genuinely of a monopolistic nature. For instance, generation plants are discrete plants. It is possible to identify each of the plant as a separate operating unit and have their performance accounted for separately.

Distribution is definitely in discrete units. You may combine them into a large distribution system but in distribution in Dhaka or distribution in one of the areas of Dhaka, one of the smaller areas of the neighborhood and so on.

Transmission perhaps has something inherently which cannot be unbundling to smaller pieces but even then there can be forms of ownership which would reduce the monopolistic element in that. But as far as we are concerned, we recognize that transmission at least for the foreseeable future would continue to be a monopoly either in the government or in the public sector or may be sometime in the future with some private participation.

But this remains a monopolistic element in the whole system. So there is a need for unbundling of this system. Now, regulation becomes important because of the monopolistic characteristic and the power that a sole distributor or a small number of distributors would have to exploit consumers.

Some of the speakers did mention that we need a regulatory body in order to determine tariff on a competitive basis. But if you have four or five that can enter into collusive arrangement, the market will not be able to do it. So that is why a regulatory system would be necessary. Now independence of the regulatory system raises a lot of

question. My own understanding is independence of the regulatory system cannot be an unqualified term. It has to be specified in the law and within the parameters the agency or to be free to exercise its power. But as one of the panelists did say that it has to be compatible with public policy initiative.

My perception is that in a country like ours, the government has to take initiative in a lot of things and where the investment is very lumpy, and where the recovery period is somewhat longer than what an ordinary investor would like to accept, the government perhaps, to provide some assurance, some comfort, so that the private investors also would be interested in making investment.

I read in the newspapers the recent stories about California's electricity supply problem and the effort by the regulator or the state government to impose a limit on the tariff and also differentiating tariff with respect to the users. If you are old person then you pay lower tariff, if you are young man working in industry, you pay higher tariff. So that kind of distortion because of the perception of public interest is possible anywhere in the world. In Andhra Pradesh also recently the state government did dictate the tariff. But in order to ensure the independence of the regulator which has been granted by the law, they did except the obligation to meet the difference between the tariff determined by the regulatory agency and the tariff ordained by the state. The compensation will be paid from the budget, so you take the responsibility and it becomes transparent. What perhaps is wrong is not to look at the cost and price that will make the enterprise viable and then to exercise authority in order hold the price low.

Now regulation, I think we should differentiate between a regulatory agency and a conventional judicial agency. In the case of judicial agency, the values and rights that they have to enforce are more clearly understood. In the case of regulatory agency, particularly in determining the tariff, they have to establish the logic on which the tariff is established and they are not as immune from public criticism as a conventional judicial institution is. So the regulatory agency has to undertake the research and to produce the data and the logic, which establish the values which they would enforce.

Now, we do praise private investment but if you look at the nature of private investment in these industries, it is not the classic type of private investment. The risk of investment is reduced substantially.

The guarantee is provided by the government, by the purchase agreement by the government and so on. But it is justifiable to argue that many of these guaranties are there because the government still has control and the government still is the only buyer or the only provider of the input. So those arrangements are to be there. In other words, if we are trying to get investment in a market which is somewhat imperfect, then that imperfection has to be addressed by providing some kind of assurance, some kind of comfort by the government. So it is not a pure perfect competitive market but it comes with some assurances, which tries to remove and address some of those imperfections.

We do blame the political leaders for not having commitment, the vested interested and so on. I have a little more sympathy with the vested interest, may be with the political leaders also then many others. Now the political leaders, their primary objective is to win votes so that they can remain in power or they can get back into power. It is a very honest legitimate objective for a politician. If I benefit from being part of a group, I would like to see that that group continues to get the benefits. So they have to be compensated. I believe most of the development partners, at least, the major one's who advice us on policies, do recognize, and for instance, whenever the government acquires land, there is a prescription that the fellow who have been rendered landless, we have to find some land to settle him, we have to compensate them and so on and the compensation is at a rate slightly higher than the rate at which a registered transactions in land are taking place. So, it is now recognized that those who suffer from a reform or change have to be compensated. The scale of compensation has to be consistent with the extent of suffering and affordability.

I guess one the speakers did raise a question of "appropriate" but these will involve details that they have to work out, consistent with, commensurate with what loss they suffer, legitimate loss, not the benefit that you are getting illegitimately and what can be given by the society which will benefit from this.

Homegrown and non-homegrown I guess I cannot provide a difference much stronger than what my colleague and friend Mr. Moyeed Chowdhury has said. But let me add a little story here.

Some one promised that he would not use any word that is not a pure Bengali word. So after a few days his friend visited him, he found that the doors were locked, the windows were closed, he knocked on the door and the friend would not come out. He said, "Why don't you open the door?" The Bengali word for door is darja that is derived from some Spanish or Portuguese word. He said, "For door I do not have a pure Bengali word so I would not touch it." "Why are you suffocating yourself within these closed windows? Janala again is derived from a foreign work I would not touch it. It is okay. Let me open it and you come out." He said, "I am not quite sure that whether you would like to see me as I am because I don't have anything on me now." So why don't you put on a lungi?" "That's a Burmese word."

I mean if the basis of reform is derived from a set paradigm or theories or techniques, or whatever it is, and if those are not the property of a particular nation but part of the global inheritance of knowledge, then there is nothing which can be as a purely homegrown reform or a purely foreign driven reform. But there is a real psychology when we say that it is a homegrown or it's donor driven. When I feel that I have, I mean the government or the experts in the country have devised a set of reforms, we feel much more committed to implement that reform. When it comes as a part of a package of assistance that we get, we feel that there is a bit of subtle coercion in it. Now the degree of coercion is felt differently by us, I mean some of us would feel that it is very strong, some of us feel that it is not very strong. But my perception is that there is nothing which can be described as an externally imposed set of reforms, there is nothing which can be described as a completely homegrown reform because the theoretical underpinning of those reforms are derived from the same source. I guess the genuine difference between a donor and us is in determining what is practicable within what frame of time. May be the donors would like us to move a little faster. May be we feel comfortable with a slower speed. But even within the government the perception about what we should do and how soon we should do, I mean there is difference among ourselves.

Now when we were determined, the government was determining the fees to be charged for the Bangabondhu Bridge. The homegrown recommendation was a rate which most of the donors felt to us too high and I do remember there was a specific suggestion, they said that if you set the tariff at such a high level this will have an impact on the

traffic, it will be lower. In order to encourage people to use it we would suggest that you allow them to use it free for sometime. Our response was once you allow them to use it freely it will be very difficult to impose a tariff or a fee, if you fix it low it will be difficult to reduce it. So fix it at a high level. If there is a problem you reduce it. It is easier to reduce and it is okay. We have provided you with some relief. So homegrown reform I do not think we should suspect that the homegrown or the reform suggestion which comes from us could not be as strong as others.

Now, a number of recommendations and number of opinions have come. There is a sense of frustration among the participants not only here, but also in other similar workshops and seminars that there voices go unheard. I do not think that is correct. It takes time for the government to process the information to make it compatible way what the public would, broad public would accept.

So, I would request my colleague from power division, Secretary Power that he takes the suggestions, the opinion which have emerged in the course of discussion to the government and to the best of his ability, he judges what is practicable and he persuades the government to implement those. Because with the reforms is linked a very crucial question of adequate investment for augmentation of power supply.

Let me conclude by thanking the organizers and the participants and particularly those of the participants who have taken the trouble of coming to Bangladesh for joining.

I regret that I have not been able to be with you from day one. If I had done so, I would have learnt a lot. So let me thank you all and conclude with thanks to all of you for your contribution and for your participation.

Mr. Arabinda Kar

Next, Mr. Arabinda Kar, Secretary thanked the Session Chairman, resource persons, and delegates.

Mr. Qazi Nasirul Islam

Before concluding the workshop, Mr. Qazi Nasirul Islam, Joint Secretary, Ministry of Energy & Mineral Resources proposed a vote of thanks that was carried by the floor through applause.

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ANNEX-1: OVERVIEW OF SUMMARIES AND LESSONS FOR BANGLADESH

*Presented by Chief Rapporteur, Prof. M.
Ibrahim.*

Inaugural Session

The inaugural session set the stage for the general issues to be taken up to the workshop on the power sector. Mr. Arabinda Kar, Secretary, Power Division, Ministry of Energy & Mineral Resources gave the background of the workshop. Mr. Muhammad Omar Faruq, Member, Planning Commission, pointed out how reforms are essential not only for the basic issues of generation, transmission and distribution of power, but also in things like energy efficient appliances.

Mr. Frederick T. Temple, World Bank Country Director took up the issues in some details. He reminded us of various reasons for the urgent reforms in the power sector its importance in economic growth, stability of economy and human development. Vested interests may oppose the reforms for their corrupt reasons, but other apparent dissenters, including the utility employees would see the point of reform should be on the distribution- there lies the key to the commercial viability, which is a must for the power system's expansion.

Dr. Mohiuddin Khan Alamgir, State Minister, Ministry of Planning in his inaugural speech, emphasized that the reform has to be a homegrown one. The economic use of a multiplicity of energy options should be open to us including coal, renewable and nuclear energy. Our development partners often insist on immediate reforms but their cooperation is not always forthcoming in the nature of the possibilities.

Session I

Session I was a general one on the reform. Mr. Arabinda Kar gave an overview highlighting the following:

The vision of Government

- Electricity to all by 2020, at an affordable price.

- Appropriate reform program for the sector to improve efficiency and making it financially viable.
- The key constraints in the sector:
- Scarcity of resources, \$5-6 billion investment needed by 2007
- Lack of autonomy, incentives, accountability
- Absence of a business plan
- Some organizational steps for reform:
- Productive dialogue with all stakeholder including the employees to address their concerns.
- A citizen/client charter to bring organizational accountability
- A task force to guide and monitor the reforms
- A reform Directorate to manage and coordinate the reform implementation.

Brig. M. A. Malek, Chairman, Bangladesh Power Development Board (BPDB), mentioned the lack of honesty, integrity and accountability in the sector entities. He emphasized on the comprehensiveness of reforms, consensus among the stakeholder and appraisal of ongoing reforms. Highest priority of course should be on the reform in the distribution sector.

Mr. Sharfuzzaman Bhuiyan, Chairman Dhaka Electricity Supply Authority (DESA), said that there is a limitation of entity's authority, because he ministry controls almost everything. As subsidies are there for the sake public services, the public will suffer as a result of privatization. Reform should come only in phases.

Mr. Mesbah Uddin Ahmed, Chairman, Rural Electrification Board (REB), observed that a level playing field will be established through the unbundling process and making PGCB fully functional. He pointed out the importance of ownership issue and that of the renewable energy resources.

Mr. A. N. M. Rizwan, Managing Director, Power Grid Company of Bangladesh (PGCB), is of opinion that an independent regulatory process and a commercial arrangement among the unbundled sector entities are important requirements in the reform. According to him enhanced political commitment, parent- organization cooperation for the new entities and employee supports are essential.

Mr. Scott Kicker, Managing Director, AES Haripur Private Ltd. mentioned the conflicting interests within the reform process. Some problems are obvious-a huge investment is needed whereas BPDB is burdened with a huge unpaid receivable. REB should pay all cost, which it does not, Gas an excellent resource is a plus point, but the nuclear option is simply not viable. Generation, transmission and distribution all three should be open to private sector. The government functions should be limited to regulatory, judicial, planning and facilitating ones. It should promote confidence and transparency and remove barriers because time is money.

Mr. Zafrul Hasan, General Secretary of BPDB's CBA expressed concerns about not allowing Union activities in the newly formed entities, which is against social justice.

Dr. Tawfiq-e-Elahi Chowdhury, Secretary, Ministry of Planning, the session Chairman, mentioned that the improvements through efforts so far have only been marginal. The point is to accelerate the process of reform.

Session II

Session II was on other Stakeholders Perspective. Mr. Manzur Ahmed, Director, Dhaka Chamber of Commerce & Industries, pointed out that existing corporatization of some entities in the sector does not conform with the Companies Act. Distribution should be privatized and alternative mechanism should be developed to subsidize really life-line customers.

Mr. Quazi Faruque, General Secretary, Consumer's Association of Bangladesh (CAB), blamed the widespread corruption, mismanagement and indiscipline in the power sector for its present predicament. He called for immediate actions to stop these.

Dr. Charles J. Cicchetti, University of California, USA:

- Different options are there, but unless the consumers pay, none will work
- What is needed is progress, not perfection
- A friendly independent regulatory body with full autonomy

- Investors need consistent, clear and reasonable rules
- For distribution, the options are- Customer owned utility, joint venture or single buyer option
- A good project is based on economic analysis, and does not allow political interference

Mr. M. Y. Rao, Ex-Chairman & MD. Orissa State Electricity Board and GRIDCO, India

- Orissa's State Electricity Board was in a precarious condition: distorted tariff, mismanagement, political interference, and ever-increasing losses.
- Reform emphasizing independent regulator with quasi-judicial powers
- Strong institutional framework to manage reform
- Reform consists of unbundling, corporatization of utilities, privatization had teething problems
- Some positive results already. But implementation and real results take time.
- Tariff-increased as subsidy was withdrawn, then it decreased with the improved efficiency.

Dr. Ismail Bin Mustapha, Strategic Management and Coordination, TNB, Malaysia

- Malaysia implemented reform to relieve financial and administrative burdens on the government.
- Involved privatization of vertically integrated monopoly utility. But monopoly in transmission, near monopoly in distribution and major presence in retailing, are retained
- There is guaranteed share for the workers and guaranteed service for 5 years after privatization
- Presently, IPP's share is 40% and is expected to rise to 60% by 2002

Mr. Renato Agurto Colima, Synex Engineering Consultants, Chile

- Chile restructured through a new regulatory framework:
- Competition in generation
- Regulated wheeling charges for transmission
- Regulated tariff for distributors
- Wholesale Market Operator (Economic Load Dispatch Centre)
- There is no central planning: investors make the planning
- Rural people get subsidized electricity

Mr. Zafrul Hasan, the trade union representative, complained that workers have not been consulted about the reforms. They are in favor of total reform instead of donor –driven piecemeal reforms. He assured of union cooperation in reasonable reforms, but called for union rights, dialogue not conflict, a new management culture, and international labor standard. He said workers could not do anything to reduce system loss because the management did not want them to, in real sense.

Dr. Syed Abdus Samad, Principal Secretary, Prime Minister’s Office the Session Chairman, suggested that the government should do what it can do best, and leave the rest for the private sector. He reminded that there are a number of different modes of involving private sector and outright privatization is only one of these. Billing, however, should always be in private hand because the latter will have serious stake in its success for its very survival.

Session III

Session III was on challenges facing Bangladesh Power Sector. Mr. A. F. K. Golam Mowla, Director General, Power Cell, described the unviable state of the sector and suggested learning from the neighbors. Mr. S. A. Mayeed, Member, P & D, BPDB said that while unbundling, private investors would not be interested in the distribution sector. He thinks that rationalization of tariff would prevent power from reaching the people.

Mr. K. Z. Azam, Member, Commercial & Engineering, DESA said that technical handicaps can not be righted because of fund constraints.

Mr. N. G. Saha, Director, PGCB, mentioned collective tariff, avoiding cross-subsidy and setting rationalized retail power prices, as the big challenges, A national load Dispatch Centre has to be established to create level playing field. Mr. M. A. Samad, Member, REB described some of the REB's difficulties- lack of large customers, low numbers of consumers per km of grid line etc.

Some other opinions expressed by the participants were:

There is a lack of harmony among various agencies.

Distribution should remain non-profit for the time being, as an escalation of tariff will bite all sectors of the economy.

Theft can be overcome by the existing management through technical measures such as underground cable, computerization and electronic meter.

The session Chairman, Imran Ahmed, M. P. suggested that the time has come to open the task of generation to everyone –government or private-giving all equal opportunities. The regulatory body has to be totally independent.

Sessions IV, V, and VI

Session IV was on International Experience in Restructuring (Market Design), Privatization and Competition, while the Session V was on the same in Legal and Regulatory Arrangements. Session VI was an interactive session on these themes. The following messages were given by various speakers in these Sessions.

Dr. Govind Saha, Managing Director, Cap Gemini Ernst & Young NZ Ltd. New Zealand

- Determine long term goal for the sector: experimental piece meal reform will not do
- Ensure an adequate legislative framework
- Labor issues are best solved by companies with defined targets, not by the government
- Small consumers might need regulatory protection

Mr. Allan Asher, Deputy Chairman, Australian Competition and Consumer Commission

- Restructuring created environment for competition
- Light-handed regulatory procedure helps to harness open market
- A National Code will be useful
- Intervene only in case of failure
- Unbundling the accounting system to compare and to find out problems and cost-effectiveness

Mr. Amir Shalaby, Manager, Regulatory Affairs, Ontario Independent Market Operator, Canada

- Ontario has broken up an old, powerful, government – owned monopoly creating an open, competitive wholesale and retail market
- An independent and powerful regulatory body
- All wholesale market participants are licensed and regulated
- The degree of stakeholders' consultation is important

- Market operators manage the retail price while the Independent Regulator manages the bulk price

Speech by Mr. Calvin Humphrey, Principal Deputy Assistant Secretary, US Department of Energy, USA

- Twin Goals:
- Investment by the market's offering of a fair return
- Competition through non-discriminating access to power grid
- Regulatory independence, meaning authority, tenure and resources
- USAID will support cross border cooperation in energy in South Asia
- As in the case of REB, Bangladesh can learn from the US experience, e.g. deregulation experience in power distribution.

Sessions VII and VIII

Session VII was on Management and Employee issues and Session VIII was an interactive one on the theme.

Mr. Humbertuss Essenburg from ILO, Geneva referred to the usual union resistance to privatization and gave ILO's framework on various issues such as consultations with workers, role of governments utility regulations etc.

Mr. Paul Kouris elaborated Employee stock ownership plan:

- Owning stocks give a motivation, a stake
- Does not mean they will be in management
- Company offers it as a performance based reward
- Also direct purchase, stock option
- Stock should be saleable

Mr. Ashraf Ali Khan, Secretary, International Affairs, Jattio Sramik League and a CBA leader at DESA gave the following opinions:

- Power is social service, not to be privatized
- More autonomy and decision making for DESA

- Adequate manpower and safety net for DESA
- Logistic Support
- These and better technology will eliminate non-payment.

Dr. A. K. Azad, President, Bangladesh Water & Power Engineers Association emphasized on:

- Home grown reform, not imposed ones
- Autonomy of BPDB
- Improvement in skill, convergence of goals, motivation, mindset
- Haripur Power Station success story, within BPDB setup
- Generation and Transmission remaining integrated
- A national consensus

Mr. Pradip Kumar Ghosal, General Secretary, BPDB Diploma Engineers Association made an appeal:

- Not to fragmentize and destroy an important institution like BPDB
- Implement good strategies through BPDB
- Introduce reform in a peaceful way not antagonizing workers

Chairman of the Session Mr. Mohammad Sirajuddin, Former Secretary, Government of Bangladesh remarked rather regretfully that reform will be allowed to happen only if vested interests are placated and Bangladesh's tradition in work-culture is not disturbed.

OPINIONS

- It was pointed out that REB distributes system loss among consumers of the area
- There is no representation of consumers in REB Board
- Private ownership should not have a monopoly.

Chairman, Prof. Ali Ashraf M. P.

- Reform may be painful but it is a must
- Should not be imposed-ownership, labor and other issues must addressed
- Labor unions should act in the interest of the general public, not narrow interest

Session IX : Role of Multilateral and Bilateral

Mr. Mare L. Heitner, Team Leader, South Asia Energy Sector Unit, The World Bank

- Last loan to BPDB' 91 not successful
- Reform required, suggested, not imposed
- Labor can defend the their rights, but not useless institutions
- Reform has not started, so no question of failure
- World Bank and ADB policies are well-coordinated

Mr. Shamsuddin Ahmed, Head Energy, Asian Development Bank

- Support stopped except for REB
- Reform plans taken- as a home grown process(from 1994)
- Corporatization of entities
- Rural Power Company through REB/DESCO from DESA

Mr. Franz Haller, Director KfW- India, Germany.

- Reform a precondition to support
- Reform is a challenge, and price has to be paid

Mr. Yasunori Onisi, Resident Representative, Japan Bank International Cooperation, Dhaka. (JBIC)

- Too much decided by donors and consultants
- Key work is patience and let Bangladesh decide
- Keep confidence on local experts-they are capable

***Mr. Bruce McMullen, Senior Energy Advisor,
USAID, Dhaka***

- Energy should be private investors area not bilateral's
- Consist mainly in training & Technical assistance
- Reforms similar as suggested by bilateral & multilateral are imperative
- Donors give conflicting prescriptions at the same time

***Mr. S. M. Akram, MP, Chairman, Parliamentary
Standing Committee on Public Accounts.***

- We are perplexed by conflicting prescriptions
- Sometimes we also get stuck
- Workshop will help in resolving some of these

Session X: CLOSING SESSION

Prof. Nurul Islam, BUET

- Consistent directions to reform from the top would have given speed
- Donor phobia- they think things can be implemented right away
- Privatization will come, through painful
- Resistance within BPDB-why reform could not happen there internally?
- Non-grid alternatives, e.g. micro utility
- Independent Regulator? How it will be in Bangladesh? Will it be free of Ministry control?

***Dr. Charles J. Cicchetti, University of Southern
California, USA:***

- Let us do our best-be as good as possible
- Which way to go in reform

- Why reform?
- * Need is overwhelming
- * Electricity is a commodity, not construction of power plant
- * Good news is that it allows you to pay as you go, country does not have to worry about risks
- * Bad news is that, without reform there is no investment
- Regulatory body will have a clear limited task-setting the rule, same as a referee, not taking over government functions.
- Existing generators-partially corporatize, partially privatize
- Distribution-joint venture with existing systems
- Transmission-still to be studied
- Donors are only exposing the country to the reality that electricity is a commodity

***Mr. Abdul Mueed Chowdhury, Former
Chairman, NBR***

- Homegrown may only mean dilution for the vested interest
- Donor press, because they have to pay
- Independent Regulatory needed to protect consumers from private as well as public operator
- Regulator can regulate both electricity and gas
- Power investors are creating the building block for local investors and employment
-

***Mr. Masihur Rahman, Secretary, Economic
Relations Division-Session Chairman***

- Consensus on need and urgency on reform
- Need strong commitment and courage
- Convergence of public sector manager's interest (govt.) may not happen
- So long as entities are in public sector-government obligation remain because of public presence and full dissociation is impossible
- Regulatory agency is not similar to a judicial agency, the former has to establish different kinds of values

- Power division should take the recommendations for implementation.

ANNEX-2: AGENDA

Workshop on Bangladesh Power Sector Reform
30 September to 2 October 2000
The Pan Pacific Sonargaon Hotel, Dhaka

Day 1: September 30, 2000

8:00 – 9:30 a.m. Registration and Breakfast

Inaugural Session

Chairman: Mr. Muhammad Omar Farooq, Member (Energy & Industry), Planning Commission

9:30 – 10:25
a.m. Recitation from the Holy Quran
Address of Welcome by *Mr. Arabinda Kar*,
Secretary, Power Division, Ministry of Energy & Mineral
Resources
Address by Session Chairman, *Mr. Muhammad Omar Farooq*,
Member (Energy & Industry), Planning Commission
Address by Special Guest, *Mr. Frederick T. Temple*,
Country Director, World Bank Office, Dhaka
Address by Special Guest, *Prof. Rafiqul Islam. M.P.*,
Honourable State Minister, Ministry of Energy & Mineral
Resources
Inaugural Speech by the Chief Guest, *Dr. Mohiuddin Khan
Alamgir*,
Honourable State Minister, Ministry of Planning
Vote of Thanks by *Mr. A.F.K. Golam Mowla*,
Director General, Power Cell, Ministry of Energy & Mineral
Resources

10:25 - 10:50 a.m. Refreshment

Session I

Bangladesh Power Sector Reform

Chairman: Dr. Tawfiq-e-Elahi Chowdhury, Bir Bikram, Secretary, Ministry of Planning

10:50 –11:20 a.m. Key Note Speech: An Overview of Bangladesh Power Sector Reform by *Mr. Arabinda Kar*, Secretary, Power Division, Ministry of Energy & Mineral Resources

11:20 – 1:05 p.m. Bangladesh Power Sector Reform: Service Providers' Perspectives

Presentations by:

Brig. M.A. Malek, Chairman, Bangladesh Power Development Board

Mr. Sharfuzzaman Bhuiyan, Chairman, Dhaka Electric Supply Authority

Mr. Mesbah Uddin Ahmed, Chairman, Rural Electrification Board

Mr. A.N.M. Rizwan, Managing Director, Power Grid Company of Bangladesh

Mr. Scott Kicker, Managing Director, AES Haripur Private Limited

1:05 – 1:15 p.m. Closing Remarks by Session Chairman, *Dr. Tawfiq-e-Elahi Chowdhury, Bir Bikram*, Secretary, Ministry of Planning

Rapporteurs:

Mr. A.S.M. Alamgir Kabir, Director, Power Cell and Mr. Mizanur Rahman, Deputy Director, System Planning, BPDB

1:15 - 2:10 p.m. Lunch (The Balcony, 1st Floor)

Session II

Bangladesh Power Sector Reform - Other Stakeholders' Perspectives
Chairman: Dr. S. A. Samad, Principal Secretary, Prime Minister's Office

2:10 - 3:30 p.m. Bangladesh Power Sector Reform: Other Stakeholders' Perspectives

Presentations by:

Mr. Manzur Ahmed, Director, Dhaka Chamber of Commerce & Industries (representing Federation of Bangladesh Chambers of Commerce & Industries)

Mr. Quazi Faruque, President, Consumers' Association of Bangladesh

Mr. Zafrul Hasan, General Secretary, Bangladesh Jatio Bidyut Sramik Karmachari Union-CBA

3:30 – 3:40 p.m. Closing Remarks by Session Chairman, *Dr. S. A. Samad*, Principal Secretary, Prime Minister's Office

Rapporteurs:

Mr. A.S.M. Alamgir Kabir, Director, Power Cell and Mr. Mizanur Rahman, Deputy Director, System Planning, BPDB

3:40 – 4:00 p.m. Tea/Coffee

Session III

Panel Discussion on Challenges Facing Bangladesh Power Sector

Chairman: *Mr. Imran Ahmed, M.P.*

Chairman Parliamentary Standing Committee on Public Undertakings

4:00 – 5:50 p.m. Panel Discussion on Challenges Facing Bangladesh Power Sector: Starting Point, Issues, and Timing of Reform

Panelists:

Annex-2: Agenda

Mr. A.F.K. Golam Mowla, Director General, Power Cell

Mr. S.A. Mayeed, Member (P&D), BPDB

Mr. K.Z. Azam, Member Engg., DESA

Mr. M.A. Samad, Member Engg., REB

Mr. N.G. Saha, Director, Technical, PGCB

Moderator:

Mr. Alastair J. Mckechnie, Director, Energy Sector, South Asia Region, The World Bank

5:50 – 6:00 p.m. Closing Remarks by Session Chairman, Mr. Imran Ahmed. M.P., Chairman Parliamentary Standing Committee on Public Undertakings

Rapporteurs:

Mr. S. R. Akhtar, Director, Planning, DESA and Mr. Amzad Hossain, Asstt. Director, Power Cell

6: 00 p.m. Close of Day 1

Day 2: October 1 2000

8:00 - 9:00 a.m. Breakfast

Session IV

**International Experience in Restructuring (Market Design), Privatization, and
Competition of the Power Sector**

Chairman : *Dr. Shah M. Farid*, Member (SEI), Planning Commission

9:00 - 9:10 a.m. Recapitulation by Moderator, *Mr. John A. G. Grant*

9:10 – 10:00 a.m. Power Sector Reform and Restructuring: A Global Perspective
Dr. Charles J. Cicchetti, University of Southern California,
USA

10:00 – 11:10 a.m. International Experience in Restructuring ESI

Case Study: Power Sector Reform in India

Mr. M Y Rao, Ex-Chairman & MD, Orissa State Electricity
Board and GRIDCO, India

Case Study: Reorganisation of Malaysia's Tenaga Nasional
Berhad *Dr. Ismail Bin Mustapha*, Head, Strategic Management
and Coordination, TNB, Malaysia

11:10 – 11:40 a.m. Tea/ Coffee

11:40 – 12:50 p.m. International Experience in Restructuring ESI-Continued

Case Study: ESI Reform in Latin America

Mr. Renato Agurto Colima, Synex Engineering Consultants,
Santiago, Chile

Annex-2: Agenda

Case Study: Sequencing and Phasing of ESI Reform in New Zealand

Dr. Govind Saha, Managing Director, Cap Gemini Ernst & Young NZ Ltd., New Zealand

12:50 – 1:00 p.m. Closing Remarks by the Session Chairman, *Dr. Shah M. Farid*, Member (SEI), Planning Commission

Rapporteurs:

Mr. M.A. Jalil, Director, System Planning, BPDB and Mr. Ataur Rahman, Sr. Assistant Secretary, Power Division, MEMR

1:00 – 2:00 p.m. Lunch (Ballroom-2)

Speech by *Mr. Calvin Humphrey*, Principal Deputy Assistant Secretary, U.S. Department of Energy, USA

(Introduced by Mr. Arabinda Kar, Secretary, Power Division, MEMR)

Session V

International Experience in Legal and Regulatory Arrangements in Electricity and Gas Industries

Chairman: *Mr. M. Mokammel Huq*, Executive Chairman, Board of Investment

2:00 – 2:45 p.m. Overview of Regulatory Arrangements in Electricity and Gas industries

Mr. Allan Asher, Deputy Chairman, Australian Competition and Consumer Commission, Australia

2:45 – 3:30 p.m. Legal and Regulatory Arrangements in Canadian Electricity and Gas industries *Mr. Amir Shalaby*, Manager, Regulatory Affairs, Ontario Independent Market Operator, Canada

3:30 – 3:40 p.m. Closing Remarks by the Session Chairman, *Mr. M. Mokammel Huq*, Executive Chairman, Board of Investment

Rapporteurs:

Mr. Nazrul Islam Khan, Director, Prime Minister's Office and Mr. Delwar Hossain, Deputy Director, System Planning, BPDB

3:40 – 4:00 p.m. Tea/Coffee

Session VI

Interactive Session on Energy Market Reform: Lessons for Bangladesh

Chairman: *Dr. Tawfiq-e-Elahi Chowdhury*, Bir Bikram, Secretary, Ministry of Planning

4:00 – 5:50 p.m. Interactive Session to cover (i) Restructuring (Market Design); (ii) Regulation and (iii) Competition

Annex-2: Agenda

Panelists:

Dr. Charles J. Cicchetti

Mr. M Y Rao

Dr. Ismail Bin Mustapha

Mr. Renato Agurto Colima

Dr. Govind Saha

Mr. Allan Asher

Mr. Amir Shalaby

Moderator:

Mr. John A. G. Grant

5:50- 6:00 p.m. Closing Remarks by Session Chairman, *Dr. Tawfiq-e-Elahi Chowdhury, Bir Bikram*, Secretary, Ministry of Planning

Rapporteurs:

Mr. B.D. Rahmatullah, Director, Power Cell, and Mr. A.S.M. Alamgir Kabir, Director, Power Cell

6:00 p.m. Close of Day 2

Day 3: October 2, 2000

8:00- 9:00 a.m. Breakfast

Session VII

Management and Employee Issues in Power Sector Reform

Chairman: *Mr. Mohammad Sirajuddin, Former Secretary, Government of Bangladesh*

- 9:00 – 9:10 a.m. Recapitulation by Moderator, Mr. John A. G. Grant
- 9:10 – 10:20 a.m. Labour Issues in Power Sector Reform
Labour Issues in Power Sector Reform: Case Study of Malaysia: *Mr. Ramiah Muthusamy, General Secretary, KPPPTNB, Malaysia*

Labour Unions and Reform: A Review of International Trends *Mr. Hubertus Essenberg, Transport and Utilities, International Labor Organization, Geneva*

Employee Share Ownership Plans *Mr. Paul Kouris, ESOP Specialist, USA*
- 10: 20 – 10:50 a.m. Tea/Coffee
- 10:50 a.m.-12:10 p.m. Power Sector Reform: Consequences for Management and Labour *Mr. Ashraf Ali Khan, Secretary, International Affairs, Jattio Sramik League and a CBA leader at DESA.*
Dr. M. A. K. Azad, President, Water & Power Engineers' Association, Bangladesh
Mr. Pradip Kumar Ghosal, General Secretary, BPDB Diploma Engineers' Association

12:10 – 12:20 p.m. Closing Remarks by Session Chairman, *Mr. Mohammad Sirajuddin*, Former Secretary, Government of Bangladesh

Rapporteurs:

Mr. Abdul Mannan, Deputy Secretary, Ministry of Labour & Manpower and Mr. T. A. Siddique, General Manager, DESA

Session VIII

Interactive Session on Ownership, Labour issues and Financial Implications

Chairman: Prof. Md. Ali Ashraf. M.P.

Chairman of the Parliamentary Standing Committee on Ministry Finance

12:20 – 1:00 p.m. Interactive Session on (i) Ownership; (ii) Labour issues; and (iii) Financial Implications

Panelists:

Mr. Zafrul Hasan, General Secretary, Bangladesh Jatio Bidyut Sramik Karmachari Union-CBA

Mr. S. M. Mahbubur Rahman, President, DESA Sramik League-CBA

Mr. Manzur Ahmed, Director, DCCI

Mr. Ramiah Muthusamy, General Secretary, KPPPTNB, Malaysia

Mr. Tanvir Newaz Khan, President, Asia Pacific Economic Cooperation

Mr. Paul Kouris, ESOP Specialist

Moderator:

Mr. John A. G. Grant

Annex-2: Agenda

- 1:00- 2:00 p.m. Lunch (Ballroom-2)
- 2:00 – 2:50 p.m. Interactive Session-continued
- 2:50 – 3:00 p.m. Closing Remarks by Session Chairman, *Prof. Md. Ali Ashraf M.P.*, Chairman of the Parliamentary Standing Committee on Ministry of Finance

Rapporteurs:

Mr. Abdul Mannan, Deputy Secretary, Ministry of Labour & Manpower and Mr. T. A. Siddique, General Manager, DESA

Session IX

Panel Discussion on Role of Multilateral & Bilateral Agencies

Chairman: Mr. S.M. Akram. M.P.

Chairman of the Parliamentary Standing Committee on Public Accounts

- 3:00 - 4:00 p.m. Panel Discussion on Role of Multilateral & Bilateral Agencies

Panelists:

Mr. Marc L. Heitner, Team Leader, South Asia Energy Sector Unit, The World Bank

Mr. Shamsuddin Ahmed, Head, Energy, Asian Development

Mr. Franz Haller, Director, KfW - Delhi

Mr. Yasunori Onishi, Chief Representative, Japan Bank for International Co-operation, Dhaka

Mr. Bruce McMullen, Senior Energy Advisor, United States Agency for International Development

Moderator:

Mr. John A. G. Grant

Annex-2: Agenda

4:00- 4:10 p.m. Closing Remarks by Session Chairman, *Mr. S.M. Akram. M.P.*,
Chairman Parliamentary Standing Committee on Public
Accounts

Rapporteurs:

Mr. N.G. Saha, Director, Technical, PGCB and Mr. Ajit K.
Paul, Sr. Asstt. Secretary, Power Division, MEMR

4:10 – 4:30 p.m. Tea/Coffee Break

Session X

Bangladesh Power Sector Reform: The Way Forward

Chairman: Dr. A.K.M. Masihur Rahman, Secretary, Economic Relations Division

4: 30 – 4:50 p.m. Overview of Summaries on Power Sector Reform and Lessons for Bangladesh Presented by Chief Rapporteur, *Prof. M. Ibrahim*, Dhaka University

4: 50 – 6:15 p.m. Panel Discussion on Power Sector Reform in Bangladesh: The Way Forward

Panelists:

Mr. A.F.K. Golam Mowla, Director General, Power Cell, MEMR

Brig. M.A. Malek, Chairman, BPDB

Mr. A.J.M. Enamul Islam, Director, FBCCI

Prof. M. Nurul Islam, Institute of Appropriate Technology, BUET

Dr. Charles J. Cicchetti, University of Southern California, USA

Moderator:

Mr. John A. G. Grant

6:15 – 6:30 p.m. Closing Remarks by Session Chairman, *Dr. A.K.M. Masihur Rahman*, Secretary, Economic Relations Division

6:30 – 6:45 p.m. Closing Remarks by *Mr. Arabinda Kar*, Secretary, Power Division, Ministry of Energy & Mineral Resources

6:45 – 6:50 p.m. Vote of Thanks by *Mr. Qazi Nasirul Islam*, Joint Secretary (Development), Power Division, Ministry of Energy & Mineral Resources

Annex-2: Agenda

Rapporteurs:

Mr. N.G. Saha, Director, Technical, PGCB and Mr. Ajit K. Paul, Sr. Asstt. Secretary, Power Division, MEMR

Close of Workshop

ANNEX-3: PARTICIPANTS LIST

Session Chairmen

1. *Mr. M. Mokammel Huq, Hon'ble Minister & Executive Chairman, Board of Investment.*
2. *Mr. Imran Ahmed. M.P, Chairman Parliamentary Standing Committee on Public Undertakings, Bangladesh Jatiya Sangshad.*
3. *Mr. S. M Akram. M.P, Chairman Parliamentary Standing Committee on Public Accounts, Bangladesh Jatiya Sangshad.*
4. *Prof. Md. Ali Ashraf. M.P, Chairman of the Parliamentary Standing Committee on Ministry of Finance, Bangladesh Jatiya Sangshad.*
5. *Dr. Tawfique-e-Elahi Chowdhury. Bir Bikram, Secretary, Ministry of Planning.*
6. *Dr. Shah M. Farid, Member (SPI), Planning Commission.*
7. *Mr. Muhammad Omar Farooq, Member, Energy & Industry, Bangladesh Planning Commission.*
8. *Dr. A.K.M Mosihur Rahman, Secretary, Economic Relations Division.*
9. *Dr. S. A. Samad, Principal Secretary, Prime Minister's Secretariat.*
10. *Mr. Mohammad Sirajuddin, Former Secretary, Government of Bangladesh, .*
11. *Mr. Arabinda Kar, Secretary, Power Division, Ministry of Energy & Mineral Resources.(Host)*

Presenters

12. *Mr. Renato Agurto, Synex Engineering Consultants.*
13. *Mr. Manzur Ahmed, Director, Dhaka Chamber of Commerce & Industry.*
14. *Mr. Mesbah Uddin Ahmed, Chairman, Rural Electrification Board.*
15. *Mr. Allan Asher, Deputy Chairman, Australian Competition and Consumer Commission.*
16. *Dr. M. A. K. Azad, Project Coordinator, Power Plant Rehabilit, Bangladesh Power Development Board.*
17. *Mr. Sharfuzzaman Bhuiyan, Chairman, Dhaka Electric Supply Authority.*
18. *Dr. Charles Cicchetti, University of Southern California.*
19. *Mr. Hebertus Essenberg, Transport & Utilities, International Labor Organization.*
20. *Mr. Quazi Faruque, General Secretary, Consumers' Association of Bangladesh.*

Annex-3: Bangladesh Power Sector Reform Workshop Participants List

21. *Mr. Pradip Kumar Ghosal, General Secretary, BPDB Diploma Engineer's Associatio.*
22. *Mr. Md. Zafrul Hasan, General Secretary, Bangladesh Jatio Bidyut Sramik Karmachari Union-CBA.*
23. *Mr. Ashraf Ali Khan, Secretary, International Affairs, Jattio Sramik League.*
24. *Mr. Scott Kicker, Managing Dirctor, AES Haripur Private Limited.*
25. *Mr. Paul Kouris, ESOP Specialist, .*
26. *Brig. M.A. Malek, Chairman, Bangladesh Power Development Board.*
27. *Mr. A.F.K. Golam Mowla, Director General, Power Cell, Ministry of Energy & Mineral Resources.*
28. *Dr. Ismail Bin Mustapha, Head, Strategic Management, Tenaga Nasional Berhad (TNB).*
29. *Mr. R Muthusamy, General Secretary, Amalgamated Union Of Tenaga Nasional Berhad Employ, KPPPTNB.*
30. *Mr. M.Y. Rao, Ex-Chairman & MD, Orissa Electricity Board & GRIDCO.*
31. *Mr. A.N.M. Rizwan, Managing Dirctor, Power Grid Company of Bangladesh Ltd.*
32. *Dr. Govind Saha, Cap Gemini Ernst & Young NZ. Ltd.*
33. *Mr. Amir Shalaby, Manager, Regulatory Affairs, Ontario Independent Market Operator (IMO).*

Moderators

34. *Mr. John Grant, Independent Market Operator.*
35. *Mr. Alastair McKechnie, The World Bank.*

Panelists

All Presenters plus the following:

36. *Mr. Shamsuddin Ahmed, Head, Energy, Asian Development Bank.*
37. *Mr. K.Z. Azam, Member, Engineering, Dhaka Electric Supply Authority.*
38. *Mr. John Cashin, Economic Advisor, Department for Intern, British High Commission.*
39. *Mr. Franz Haller, Director, KfW Delhi (India).*
40. *Mr. Marc L. Heitner, Team Leader, South Asia Energy Sector Unit, The World Bank.*
41. *Dr. Momenul Huq, FBCCI*

Annex-3: Bangladesh Power Sector Reform Workshop Participants List.

42. *Mr. A.J.M. Enamul Islam, Chairman, Standing Committee on, Federation of Bangladesh Chamber of Commerce & Industry.*
43. *Prof. M. Nurul Islam, Institute of Appropriate Technology, Bangladesh University of Engineeri.*
44. *Mr. Tanvir Nawaz Khan, President, Asia Pacific Economic Cooperation (APEC).*
45. *Mr. S.A. Mayeed, Member (P&D), Bangladesh Power Development Board.*
46. *Mr. Bruce McMullen, Senior Energy Advisor, Economic Growth & Agricultural Dev. Team, USAID.*
47. *Mr. Yasunori Onishi, Chief Representative, Japan Bank for International Cooperation.*
48. *Mr. S.M. Mahbubur Rahman, President, DESA Sramik League.*
49. *Mr. Md. Monzur Rahman, DCCI*
50. *Mr. N.G. Saha, Director Technical, Power Grid Company of Bangladesh Ltd.*
51. *Mr. M.A. Samad, Member, Engineering, Rural Electrification Board.*

Rapporteurs

52. *Mr. S.R. Akhtar, Director Planning, Dhaka Electric Supply Authority.*
53. *Mr. Md. Amzad Hossain, Assistant Director, Power Cell, Ministry of Energy & Mineral Resources.*
54. *Mr. Delwar Hossain, Deputy Director, System Planning, Bangladesh Power Development Board.*
55. *Dr. Muhammad Ibrahim, Executive Director, Center for Mass Education in Science.*
56. *Mr. Mohammad Abdul Jalil, Director, Directorate of System Planning, Bangladesh Power Development Board.*
57. *Mr. A.S.M. Alamgir Kabir, Director, Power Cell, Ministry of Energy & Mineral Resources.*
58. *Mr. Ajit Kumar Paul, Senior Assistant Secretary, Power Division, Ministry of Energy & Mineral Resources.*
59. *Mr. Aatur Rahman, PS to Secretary, Ministry of Energy & Mineral Resources.*
60. *Mr. Mizanur Rahman, Deputy Director, System Planning, Bangladesh Power Development Board.*
61. *Mr. B.D. Rahmatullah, Director, Power Cell, Ministry of Energy & Mineral Resources.*

Annex-3: Bangladesh Power Sector Reform Workshop Participants List

62. *Mr. Tauhid Ahmed Siddique, General Manager, South Zone, Dhaka Electric Supply Authority.*

Delegates

63. *Mr. Shahid Ahmed, Superintending Engineer, Bangladesh Power Development Board.*
64. *Prof. Md. Kamrul Ahsan, Professor, Bangladesh University of Engineering & Technology.*
65. *Mr. Md. Hossain Ali, Consultant, Dhaka Chamber of Commerce & Industry.*
66. *Mr. Nurul Amin, Deputy Director, Commercial Operation, Bangladesh Power Development Board.*
67. *Mr. Naoko Anzai, JBIC Headquarters, Japan Bank for International Cooperation.*
68. *Mr. Abul Monsour Md. Azad, Deputy General Manager, Petrobangla.*
69. *Mr. N. C. Bhakta, Chief Engineer, Ashuganj Power Plant, Bangladesh Power Development Board.*
70. *Mr. Abdur Rab Bhuiyan, General Secretary, Bangladesh Water & Power Diploma Engineers' Association.*
71. *Mr. Md. Aminul Islam Bhuiyan, Deputy Secretary, Economic Relations Division.*
72. *Dr. AHM. Mustain Billah, Environmental & Resource Econom, Senior Asstt. Secy, Ministry of Establishment.*
73. *Mr. R. T. Terry Budden, President & Managing Director, Unocal Bangladesh Limited.*
74. *Mr. Peter Chapman, Deputy General Manager, Shell Bangladesh Exploration & Development BV.*
75. *Mr. Charles Cleve, Embassy of the United States of America.*
76. *Mr. Abdul Mueyed Chowdhury, Former Secretary, GOB.*
77. *Mr. Raihan Elahi, Consultant, Energy and Infrastructure Team, The World Bank.*
78. *Mr. Kazi Tajul Islam Faruque, Managing Director, Westmont Power (Bangladesh) Ltd.*
79. *Mr. Md. Shawkat Ali Ferdousi, Associate Professor, Institute of Business Administration, University of Dhaka.*
80. *Mr. James Ford, Team Leader, NRECA International Ltd.*
81. *Ms. Shahnaz Gazi, Assistant Secretary, Ministry of Foreign Affairs.*
82. *Mr. Emdadul Haque, Secretary, Petrobangla.*
83. *Mr. M. R. Haroon, Director, Directorate Program, Bangladesh Power Development Board.*

Annex-3: Bangladesh Power Sector Reform Workshop Participants List.

84. *Mr. Ahsan Ul Haye, Program Manager, South Asia Regional Initiative, USAID.*
85. *Dr. Ute Heinbuch, KfW.*
86. *Prof. Shamsul Hoque, Professor, Institute of Business Administration, University of Dhaka.*
87. *Mr. N.R. Hore, Executive Engineer, Barge Mounted Power Company, Bangladesh Power Development Board.*
88. *Mr. Mangesh Hoskote, Senior Power Sector Specialist, World Bank Institute, World Bank.*
89. *Mr. A. K. M. Tofazzal Hossain, Project Manager, Westmont Power (Bangladesh) Ltd.*
90. *Mr. Amzad Hossain, Deputy Director, Power Cell, Ministry of Energy & Mineral Resources.*
91. *Mr. Md. Anwar Hossain, Assistant Chief, Power Division, Ministry of Energy & Mineral Resources.*
92. *Prof. Ismail Hossain, Unnayan Samannay.*
93. *Mr. Md. Abul Hossain, Member, Bangladesh Institute of Labor Studies (BILS).*
94. *Mr. Md. Shawkat Hossain, Director Finance, Dhaka Electric Supply Company Ltd.*
95. *Mr. Motaher Hossain, Deputy Chief, Power Division, Ministry of Energy & Mineral Resources.*
96. *Mr. Sarwar Hossain, General Manager, Rural Electrification Board.*
97. *Mr. A.S.M. Bashirul Huq, Senior Energy Specialist, Energy and Infrastructure Team, The World Bank.*
98. *Mr. Mahfuzul Huq, Deputy Chief, Power Division, Ministry of Energy & Mineral Resources.*
99. *Mr. Md. Mominul Huq, Executive Engineer, Dhaka Electric Supply Authority.*
100. *Mr. Md. Nurul Huq, Deputy Director, Directorate of System, Bangladesh Power Development Board.*
101. *Mr. Syed A.F.M. Sajedul Huq, Deputy Director, Power Cell, Ministry of Energy & Mineral Resources.*
102. *Mr. Azizul Huque, Assistant Chief, Power Division, Ministry of Energy & Mineral Resources.*
103. *Mr. Shabbir Husain, Assistant Secretary, Power Division, Ministry of Energy & Mineral Resources.*
104. *Mr. Md. Iqbal, Energy Specialist, Energy and Infrastructure Team, The World Bank.*
105. *Mr. Md. Sirajul Islam, General Manager, Energy Services Division, Rahimafroz (Bangladesh) Ltd.*

Annex-3: Bangladesh Power Sector Reform Workshop Participants List

106. *Mr. Mohd. Rafiqul Islam, Deputy Director, Implementation Monitoring and Evaluation.*
107. *Mr. Qazi Nasirul Islam, Joint Secretary (Development), Power Division, Ministry of Energy & Mineral Resources.*
108. *Mr. Serajul Islam, Member, Administration, Dhaka Electric Supply Authority.*
109. *Mrs. Latifa Aktar Jahan, Power Cell, Ministry of Energy & Mineral Resources.*
110. *Mr. Rahat Jaman, Investment Officer, Infrastructure Development Company.*
111. *Prof. S.M. Lutful Kabir, Professor, Bangladesh University of Engineeri.*
112. *Mr. Bazlul Kader, Contracts & Procurement Executi, Infrastructure Investment Facilitation Center.*
113. *Mr. Nuruddin M. Kamal, Former Chairman, Bangladesh Power Development Board.*
114. *Ms. Shaheda Karim, Team Assistant, Energy and Infrastructure Team, The World Bank.*
115. *Mr. Md. Khalekuzaman, Member, Board of Investment.*
116. *Mr. Md. Abdul Khaleque, Assistant Director, Academy for Planning & Development.*
117. *Mr. Abdul Aziz Khan, Deputy General Manager, Petrobangla.*
118. *Mr. Ansar Ali Khan, PS to Hon'ble State Minister, Power Division, Ministry of Energy & Mineral Resources.*
119. *Mr. K.M. Nayeem Khan, Assistant Director, Power Cell, Ministry of Energy & Mineral Resources.*
120. *Mr. Zahid H. Khan, Urban Specialist, the World Bank.*
121. *Mr. A.K.M. Shahjahan Khondokar, Vice President, BPDB Diploma Engineers' Association, Bangladesh Water & Power Diploma Engineers' Association.*
122. *Ms. Khaleda Latif, Assistant Chief, Power Division, Ministry of Energy & Mineral Resources.*
123. *Mr. Faysal Bin Majid, Researcher, Consumers' Association of Bangladesh.*
124. *Mr. Masood Ali Mallick, Director, Board of Investment.*
125. *Mr. Abdul Mannan, Senior Assistant Secretary, Power Division, Ministry of Energy & Mineral Resources.*
126. *Dr. M.A. Mannan, Consultant, Prokaushaly Sangsad Ltd.*
127. *Mr. Sven Medby, Embassy of Norway.*
128. *Mr. Abdur Rouf Mia, Assistant Director, Power Cell, Ministry of Energy & Mineral Resources.*

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129. *Mr. Md. Shahjahan Mia, Director, Power Cell, Ministry of Energy & Mineral Resources.*
130. *Mr. Abdul Awal Mintoo, President, Federation of Bangladesh Chamber of Commerce & Industry.*
131. *Mr. Mohammad Mohsin, JBIC Dhaka Office, Japan Bank for International Cooperation.*
132. *Mr. Abdul Halim Mollah, Chief Engineer, Planning & Operation, REB*
133. *Mr. Yasushi Negishi, Director, JBIC Headquarters, Japan Bank for International Cooperation.*
134. *Mr. Shigetoshi Otaru, TEPCO Expert, Japan Bank for International Cooperation.*
135. *Mr. S.M. Abul Quayum, General Manager, Foreign Exchange Investment, Bangladesh Bank.*
136. *Mr. Bhuiyan Aatur Rahman, Senior Assistant Secretary, Power Division, Ministry of Energy & Mineral Resources.*
137. *Mr. Masudur Rahman, Director, Dhaka Chamber of Commerce & Indust.*
138. *Mr. Md. Monzur Rahman, Director (Technical), Dhaka Electric Supply Company Ltd.*
139. *Mr. Mojibur Rahman, Secretary, Dhaka Electric Supply Authority.*
140. *Mr. Mokhlesur Rahman, Assistant Chief, Power Division, Ministry of Energy & Mineral Resources.*
141. *Mr. Shafiur Rahman, Senior Assistant Secretary, Power Division, Ministry of Energy & Mineral Resources.*
142. *Mr. Syedur Rahman, General Secretary, BPDB Labor Employee Union.*
143. *Mr. Holloway Randy, Plant Manager, AES Haripur Private Limited.*
144. *Prof. Kalim Ullah, Professor, Department of Public Administration, University of Dhaka.*
145. *Mr. Masaki Watabe, JBIC Tokyo, Japan Bank for International Cooperation.*

Joint UNDP/World Bank
ENERGY SECTOR MANAGEMENT ASSISTANCE PROGRAMME (ESMAP)

LIST OF TECHNICAL PAPER SERIES

<i>Region/Country</i>	<i>Activity/Report Title</i>	<i>Date</i>	<i>Number</i>
SUB-SAHARAN AFRICA (AFR)			
Kenya	Field Performance Evaluation of Amorphous Silicon (a-Si) Photovoltaic Systems in Kenya: Methods and Measurement in Support of a Sustainable Commercial Solar Energy Industry	08/00	005/00
	The Kenya Portable Battery Pack Experience: Test Marketing an Alternative for Low-Income Rural Household Electrification	05/01	012/01
Swaziland	Solar Electrification Program 2001—2010: Phase 1: 2001—2002 (Solar Energy in the Pilot Area)	12/01	019/01
Uganda	Report on the Uganda Power Sector Reform and Regulation Strategy Workshop	08/00	004/00
WEST AFRICA (AFR)			
	LPG Market Development	012/01	017/01
EAST ASIA AND PACIFIC (EAP)			
China	Assessing Markets for Renewable Energy in Rural Areas of Northwestern China	08/00	003/00
	Technology Assessment of Clean Coal Technologies for China Volume I—Electric Power Production	05/01	011/01
	Technology Assessment of Clean Coal Technologies for China Volume II—Environmental and Energy Efficiency Improvements for Non-power Uses of Coal	05/01	011/01
	Technology Assessment of Clean Coal Technologies for China Volume III—Environmental Compliance in the Energy Sector: Methodological Approach and Least-Cost Strategies	12/01	011/01
Thailand	DSM in Thailand: A Case Study	10/00	008/00
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Bangladesh	Workshop on Bangladesh Power Sector Reform	12/01	018/01
LATIN AMERICA AND THE CARIBBEAN (LAC)			
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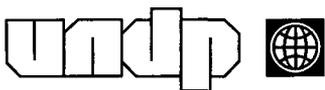
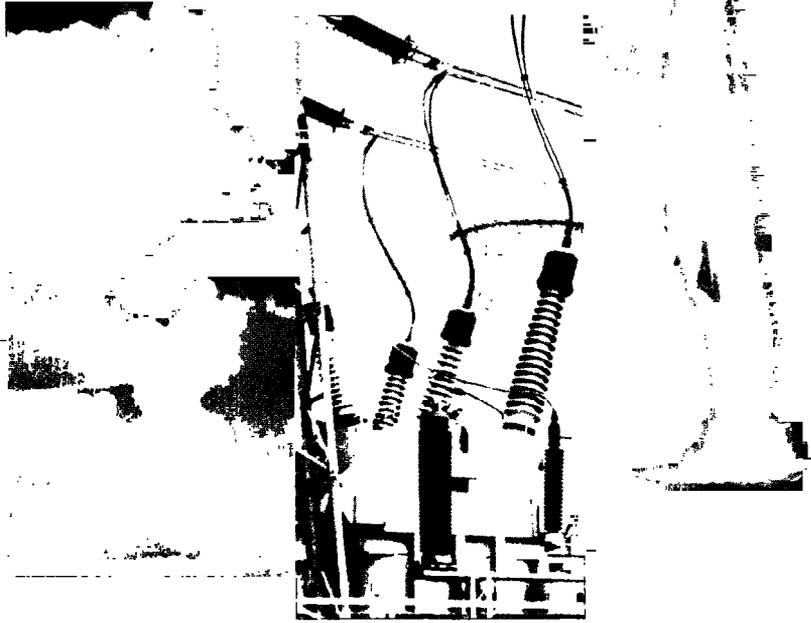
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