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BANGLADESH ENERGY REGULATORY ASSISTANCE PROGRAM (BERAP)

FINAL REPORT

November 15, 2012

This document was prepared for review by the United States Agency for International Development. It was prepared by the National Association of Regulatory Utility Commissioners.

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*Prepared by
Matthew Gardner,
National Association of Regulatory Utility Commissioners*



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Acknowledgments

The National Association of Regulatory Utility Commissioners (NARUC) would like to thank USAID/Bangladesh for their financial and technical support of the Bangladesh Energy Regulatory Assistance Program over the past year. In particular, NARUC would like to express gratitude especially to Mr. A. K. D. Sher Mohammed Khan, the Cognizant Technical Officer for his support and leadership. We are also very grateful to the Bangladesh Energy Regulatory Commission, including Honorable Syed Yusuf Hossain, the former BEREC Chairman, and BEREC members Mr. Emdadul Haque (current acting Chairman) and Mr. Salim Mahmud.

We would like to thank NARUC staff based in the Dhaka field office who contributed to the implementation of BERAP, including Mr. J. Michael Biddison, Former-Chief of Party, Dr. Hasso Bhatia, Former Chief-of-Party, Mr. Syed Musaddeque Hossain, Program Manager, and Mr. Mohammad Arif Sultan, Program Assistant all of whom played a key role in the completion and success of the program.

Lastly, we would like thank NARUC staff based in Washington, D.C. for the support they provided throughout project, including Ms. Erin Hammel-Skootsky, Director of International Programs, Ms. Aida Timm, Director of Financial Grants Administration, Ms. Umida Hashimova, Program Officer, Ms. Agnita Kote, Finance Assistant, and Mr. Matthew Gardner, Deputy Director of International Programs.

Introduction

For the FY12 period, the United States Agency for International Development (USAID) completed a buy-in to the National Association of Regulatory Utility Commissioners' (NARUC) cooperative agreement "Enhancing Sustainable Utility Regulation" (ENSURE) to provide capacity building and technical assistance to the Bangladesh Energy Regulatory Commission (BERC). This assistance to BERC is a continuation of USAID funded assistance to BERC since its establishment under the Bangladesh Energy Regulatory Act of 2003. Previously, NARUC provided capacity building assistance to BERC from June 2004 to February 2008, and then also provided some limited assistance as a sub-consultant to IRG under the Improved Capacity for Energy Access (ICEA) project from 2008-2011.

To initiate the program, NARUC organized a scoping trip from October 25-November 4, 2011, to meet with both the Bangladesh Energy Regulatory Commission (BERC) and USAID/Bangladesh to better define the work plan for FY12. Matt Gardner, Deputy Director of International Programs at NARUC, and Ron Eachus, a consultant, traveled to Bangladesh to carry out the assessment and make recommendations for the Bangladesh Energy Regulatory Assistance Program (BERAP). Based on this assessment, a report was prepared by Mr. Eachus which identified the following challenges:

- The pace for adopting regulations by BERC has been slow.
- BERC is understaffed with low staff retention, which was noted in NARUC's 2008 report to USAID as well; the new staff joining BERC has little training and knowledge about regulation.
- BERC, under prior assistance, has initiated many activities, but left them incomplete. In particular:
 - training on and development of regulations for dispute settlement was developed by ICEA and NARUC, but BERC has not posted for comment the dispute resolution regulation, which is required by the BERC Act;
 - Customer service quality and customer rights and responsibilities were also developed by ICEA and it appears no action was taken by BERC to adopt them;
 - BERC developed, but had not adopted a "Citizens Charter" that according to the staff describes some of the responsibilities of customers and licensees; regulations on meeting procedures and hearing procedures were adopted in 2005, but six years later they still have not been finalized and published and thus are not in effect.
- BERC received support from ICEA on adopting a uniform system of accounts for distribution companies. BERC began a pilot project with the largest electricity distribution company, DESCO, although the details and timeframe of the pilot were unclear. Under the project DESCO is initiating an accounting system based on the draft Uniform System of Accounts
- In 2010, BERC finalized and published Natural Gas Transmission and Natural Gas Distribution Tariff Methodology regulations. However, it does not currently have the wherewithal to apply the methodology.
- The absence of any docketing system is contributing to management difficulties.
- The Government has established a policy goal of 5% renewable supply by 2015. There is no authority, including BERC, in Bangladesh explicitly charged with development of renewable energy.

Based on the identified challenges Mr. Eachus proposed a variety of support mechanisms including a long-term consultant, various rotating short-term consultants as needed, and short internships for BERC staff. In particular, from this initial assessment he recommended BERAP focus on the following:

- Dispute resolution regulations and process;
- Uniform System of Accounts regulations/follow-up to the current pilot with DESCO;
- Application of a Uniform System of Accounts to the tariff methodology, in particular how to analyze and utilize the information they'd get from the accounting regulations;
- Regulations for enforcement and penalties for violations of licenses;
- Managing and prioritizing BERC activities;
- Docketing system;
- How to investigate complaints and what information to gather;
- How to conduct plant inspections and audits and enforce service quality and performance standards;
- How to integrate service quality standards and performance into tariff analysis;
- Regulation of renewable energy supply;
- How to set standards for petroleum products and otherwise regulate the sector;
- Review of natural gas tariffs and setting of service quality standards in the natural gas sector;
- Public outreach strategy;

During the scoping trip Mr. Gardner also began making arrangement to setup an in-county office and apartment for use by a long-term consultant/chief of party, open a bank account, and interview people to fill local positions.

In January 2012, NARUC hired Mr. Michael Biddison as the Chief of Party (in-country resident advisor) and Mr. Musaddeque Hossain as a local Program Manager. Mr. Biddison arrived in Dhaka, Bangladesh in February and finalized various field office arrangements and held meetings with BERC Commissioners and Staff to refine the scope of work for the project. In late July 2012, NARUC hired a new Chief of Party, Dr. Hasso Bhatia, to replace Mr. Biddison who resigned in order to take on a new consulting opportunity.

Accomplishments

Energy Audit – BERC requested consulting work be completed on energy audits in order to: streamline the grouping of accounts and allocation of costs; evaluate and assess costs, pricing, and sales of electric power generation; develop procurement mechanisms and inventory management. Through a Request for Proposals NARUC selected a consultant from TetraTech based in India to implement these tasks. In addition to completing the limited energy audit, the consultant and Chief of Party provided in-house training to BERC and other stakeholders (see details regarding trainings below, pgs. 7-8). The consultant worked with a multi-stakeholder team and the Tongi Electric Power Generation Plant in Dhaka, Bangladesh, to conduct an energy regulatory audit and accomplished the following tasks:

- Energy regulatory audit of the Tongi Electric Power Generation Plant was prepared and cost analysis was carried out. It includes observations and recommendations for calculating Key Performance Indicators (KPIs), KPIs comparison to industry benchmarks, heat rate comparison, and the plant factor. Also, the consultant recommended the following: reduce auxiliary power consumption; reduce the events of running the Tongi power plant on reduced capacity; make gas supply a priority; measure and monitor SO_x and NO_x emissions and install a flue gas analyzer.
- The energy audit emphasized the benefits of practicing a Uniform System of Accounts by the Bangladesh Power Development Board (BPDB) and BERC because it will (i) make cost comparison among different power generators easier for tariff determination and decision making; (ii) reduce the work of generation licensees as the Uniform System of Accounts will cater to both the regulatory audit and statutory company accounting; (iii) provide investors with consistency, fairness, and transparency.
- Also, the consultant developed a model RFP and ToR for BERC and BPDB to use when conducting an Energy Regulatory Audit.

The complete consultant report “Regulatory Audit of Tongi Power Generation Plant, Bangladesh can be found at <http://www.naruc.org?intl=4223>. Additionally, the consultant prepared a “Model Request for Proposals (RFP) and a Terms of Reference (TOR) Document to Facilitate Electric Power Generation Plant Regulatory Audit Contracts”, which can be found at <http://www.naruc.org?intl=4224>.

Uniform System of Accounts – Through an RFP process, NARUC selected a consultant, Mr. Sam West, to work on the Uniform System of Accounts for one month in Dhaka, Bangladesh. Mr. West’s job was to work with the 10-member team comprised of representatives from BERC and the distribution utilities and complete the following tasks:

- (i) Examine the current system of accounts and determine whether the classification of accounts and subaccounts is compatible with the draft Uniform System of Accounts
- (ii) Resolve any differences and difficulties faced in adopting the draft Chart of Accounts (COA) by, modifying, adding, deleting or reassigning appropriate accounts/subaccounts as necessary.

- (iii) Develop a synchronized draft of COA with cross-references between the current and the proposed COA with a view to its applicability to all utilities.
- (iv) Identify software that provides the conversion to the synchronized draft Chart of Accounts as mentioned in (iii) above.
- (v) Consultant may select a small segment of accounts and demonstrate the convertibility into the corresponding draft Chart of Accounts.
- (vi) Recommend actions the Commission or the utility may take to harmonize the conversion and facilitate the implementation of USoA.

A summary of recommendations from this consulting project include the following:

1. Internal to BERC

- a. BERC should work to approve the Proposed Chart of Accounts (COA) and order implementation (first at DESCO/Pilot, then schedule additional implementations)
- b. BERC must take a very active role in implementation of approved COA (at each and every utility)
 - Senior accountants needed at BERC to monitor and document the process (develop institutional knowledge)
 - BERC should require periodic status reports
 - Ensure progress toward a successful conclusion
- c. Later Compliance Audits – Ensure Uniformity of Accounting and Financial Reporting Practices
- d. Continue Toward Goal of a Comprehensive Uniform Chart of Accounts
 - Develop a Uniform Chart of Accounts for all DISCO's, GENCO's and TRANSCO's
 - Develop uniform accounting policies and procedures
 - Resulting in comparability of financial data

2. Automation Issues

- a. Need Comprehensive and Flexible *Enterprise Resource Planning* (ERP) with full integration of all accounting and financial control/reporting sub-systems
- b. Current Situation:
 - Bangladesh Power Development Board is almost totally a manual system, with very little reliance on automation.
 - Dhaka Electric Supply Company using a purchased software package. Current software package is inadequate for an electric utility as large and complex as DESCO and needs to be replaced. However, funding such a large expenditure is a problem.
 - Dhaka Power Distribution Company using an internally developed Accounting System. They are in the process of custom developing a replacement for that System.
 - Rural Electricity Board is a special case. REB itself uses a software system. Each of the Palli Bidyut Samities (PBS) has a separate set of software. Many of PBS's use a common software package, while others use differing software.

Each PBS provides a monthly summary of the results of its operations to REB. REB summarizes, and reports on, partially consolidated PBS data. REB needs to address full and complete consolidation of results, including its own operations.

- West Zone Power Distribution Company is almost totally a manual system, with very little reliance on automation.
- c. All utilities need a uniform fully functional ERP. If possible, BERC should help with funding. The same software would be best.

3. Pilot Implementation at DESCO

a. Plan the Implementation – Initial Plan:

- Form the Implementation Team and Review Implementation Plan
- Complete and Verify the Mapping of Account Numbers and Heads
- Document All Work Done on this Pilot Implementation Project
- Prepare the Automated System Platform for the Implementation
- Enter the Approved Chart of Accounts
- Schedule and Initiate the Accounting Data Conversion
- Train All Accounting Personnel in the New Chart of Accounts
- Convert the Accounting Data
- Review Lessons Learned

b. Implement the approved Chart of Accounts – Execute the Plan.

c. Document Process – Lessons Learned. Documentation is the primary responsibility of the BERC Monitoring Group. Carry forward knowledge to subsequent implementations.

4. Implementation at Remaining DISCO's – Need Continuity of BERC Monitors

- Apply Lessons Learned
- Implement
- Document Additional Lessons Learned

5. Extension to GENCO's, TRANSCO's and Short-Term Marketer

- Note utilities with distribution, transmission, and generation
- Committees draft the Chart of Accounts (similar to distribution company process under this project)
- BERC approve Chart of Accounts and order implementation
- Implement approved Chart of Accounts with lessons learned

6. Complete Comprehensive Uniform System of Accounts - Uniform Chart of Accounts and Uniform Accounting Policies and Procedures – For All Electric Utilities

- Customize the accounting policies and procedures in the draft USoA to reflect the electric utility business and regulatory environment in Bangladesh. Specifically, those items which do not apply in Bangladesh should be deleted, and items unique to Bangladesh should be inserted. As these efforts progress,

needed modifications and extensions of the initially approved Chart of Accounts sections will be identified.

- Replace the COA in the USoA with the final Uniform COA developed for the electric utilities in Bangladesh. The associated definitions and procedures need to be developed.
- Add additional account numbers and associated definitions and procedures to the COA areas of the USoA. Most of these will have been identified during the customization of the accounting policies and procedures.
- Design the financial reports required by BERC to accomplish its monitoring and other regulatory functions.
- Address other items that are discovered during these tasks.
- Formally adopt and order implementation and compliance by all electric utility companies in Bangladesh.

The final report “Uniform System of Accounts for Electricity Distribution Utilities in Bangladesh” can be found at <http://www.naruc.org?intl=4225>.

In-house Training at BERC (including participation by other stakeholders)

Complementing the short-term consulting assignments, NARUC conducted ten training modules on regulatory issues for 63 trainees with BERC, Bangladesh Power Development Board (BPDB), Dhaka Power Distribution Company Ltd. (DPDC), Rural Electrification Board (REB), Dhaka Electric Supply Company Ltd. (DESCO), West Zone Power Development Company Ltd. (WZPDCL), Consumer Association of Bangladesh (CAB).

The following topics were covered:

1. **Energy Regulatory Audits: A General Overview (May 2012)** - case study of energy audit of gas based power plant; heat balance analysis, new & clean analysis; performance gap impact analysis, retrofit analysis; data requirements for regulatory activities; energy audit methodology; types of energy audits; energy audit questionnaire
2. **Energy Regulatory Audits: Further Technical Insight (May 2012)** - Report on Energy Audit of Barisal Power Plant; energy savings and efficiency improvement measures in power sector of Bangladesh; compliance audit; energy audits in thermal power station; sample maintenance audit report; energy management and audit
3. **Uniform System of Accounts: A General Overview (May 2012)** - objectives, regulatory requirements, data requirements, compliance with existing legislation, structure and elements, cost elements
4. **The Effect of Regulatory Audits on Rate Cases (June 2012)** - guidelines for cost allocations & affiliate transactions; methodologies on calculation of tariffs for electric energy (capacity) delivered by the power generation companies; rate case and audit manual
5. **Uniform System of Accounts & Its Applications (June 2012)** - monitoring of utilities and licenses through charts of accounts; USOA prescribed to public utilities and licensees subject to the provisions of the BERC Act
6. **Tariff Rate Design (June 2012)**- cost allocation principles and methods; system peak vs. diversified peak; cost of capital analysis; capital structure and models for estimating ROE, CAPM, DCF. Also discussed BERC Electric Retail Tariffs Methodology

7. **Power Purchase Agreements (August 2012)** - tariff structure; negotiation; determining price; implementation; oversight; force majeure; dispute resolution
8. **Basic Concepts in Rate-Making (September 2012)** – cost of service, cost allocation, tariff design, fixed costs, variable costs, profitability
9. **Consumer rights and Obligations** - regulatory focus and principles; utility responsibilities and rights; public information and education; complaint dispute resolution rules; new customer connection rules; tariff review procedures
10. **Quality of Service Regulation** - value to consumers; measurements and reporting of quality of service; voltage variations; regulatory control mechanism; blending technical, commercial, and safety standards

Settlement of Disputes Regulation

The NARUC Chief of Party combined and rewrote the former working draft “Energy Consumer Rights” and “Dispute Settlement” regulations into the Final Draft “BERC Procedures for the Settlement of Disputes Regulation 2012”, which emphasizes the resolution of disputes before being filed as a BERC case and deemphasizes the authority and use of an arbitrator to resolve disputes between and among Licensee’s and between Licensee’s and Customers.

One of the Commission responsibilities is to ensure Consumer Protection when receiving utility services. In this respect it is absolutely critical for the Commission to adopt appropriate regulations and procedures for Consumer Complaint and Dispute Resolution mechanism. A consumer-friendly, equitable Dispute Resolution mechanism, established by the Commission will allow ordinary consumers as well as large users to seek redress of any grievance against the service providers, thru an informal, and if necessary a formal procedure, supervised by the Commission staff. Adopting and disseminating such a regulation will clearly enhance Commission awareness and image among the general public.

BERC Act 2003 is the enabling legislation that gives Commission a clear mandate to resolve disputes among utility stakeholders. This was recently reaffirmed in a recent High Court ruling that declared this Commission to have the exclusive jurisdiction to resolve utility disputes.

Most Regulatory Commissions in the region have well-established robust Consumer Complaint and Dispute Resolution procedures that have gone a long way to mitigate the public resentment against monopoly position of the utility services providers. By adopting similar regulations and procedures BERC will join the rank of other regional regulators at the cutting-edge of Consumer Protection.

NARUC under BERAP provided a draft of the Dispute Resolution regulation to the staff and Commissioners. The draft resolution was resubmitted to BERC in September 2012, urging BERC to seriously consider the draft and publish to make it official. As of October 2012, BERC had not responded to the draft.

Regulatory Internship to the Philippines Energy Regulatory Commission (October 15-26, 2012) (see Annex 2 for full report by the participating interns)

Three technical staff from BERC and one from DESCO were selected to go to the Energy Regulatory Commission (ERC) of Philippines for a two-week internship to learn about the

implementation of Uniform System of Accounts; demand side management; feed-in tariffs for solar, biomass, waste to energy; consumer complaints and dispute resolution. The interns were exposed to many of the practice by the Philippine Energy Regulatory Commission, helping them gain a greater vision for the role that BERC can and should play in Bangladesh. The two week visiting included the following:

- Presentations regarding the ERC (organization and functions), and related laws.
- Met with ERC Director of Regulatory Operations, ERC Director of Legal Services, Market Operation Services, Consumer Affairs Service (Service and Meter Divisions)
- Visit to the National Grid Corporation of the Philippines (NGCP)
- Visit to the Wholesale Electricity Spot Market (WESM)
- Visit to the Manila Electric Company (MERALCO)
- Visit to the Batangas Electric Cooperative (BATELEC I)
- Visit with the National Electrification Administration
- Malaya Thermal Power Plant – SPC Malaya Power Corporation
- Observed Public Consultation on Transition Rules (rules for open access and retail competition).
- Discussed the Philippines Feed-in-Tariff
- Observed discussions between the ERC and a delegation from the Japan Electric Power Information Center.

Other deliverables/accomplishments:

- NARUC COP participated in the World Bank / BERC sponsored regional seminar “Energy Security and Regional Cooperation: Role of Regulators” as a keynote speaker in May 2012 on “Regulatory Leadership in Energy Efficiency & Energy Conservation”, which was widely discussed by the attendees at the seminar. They were particularly impressed with the ‘regulatory toolbox’ that was part of the presentation.
- Per the request of BERC Commissioner Emdadul, NARUC reviewed and drafted comments for discussion purposes on the “Gas Pricing Review 2012: In Support of PetroBangla’s Pricing Application”. These written and further discussed comments were incorporated in BERC’s official response to PetroBangla.
- Acted as an advisor to each BERC member, key staff, and consultants/advisors on a variety of issues, including rate cases (firm vs. interruptible rates, procedures, costs and pricing issues, policies, and components of a rate case), strategy for strengthening BERC, public policy and outreach concerns, training and capacity building, and development of leadership initiatives.
- Conducted interviews with rooftop solar photovoltaic suppliers and customers on the possibility of BERC providing incentives to stimulate this renewable energy resource, including tariff rate reductions, subsidies, net metering through bidirectional meters, etc. NARUC learned quite rapidly that the GOB policies do not promote rooftop solar power installations.
- USAID has stated that it is ready to support the Docketing & Records Management SOW/RFP once BERC makes commitments to satisfy the conditionalities that are proposed by NARUC (dedicated computer and software, webmaster/IT specialist, library scientist specialist, file cabinets, book shelves, dedicated room and storage area, copier/printer scanner, etc.).

Constraints Encountered

The one year timeframe for the project was rather short. With the time required to assess BERC's needs, design a program, and find a qualified advisor to BERC (Chief of Party), the remaining time to implement the project was limited. Additionally, the Chief of Party, Mike Biddison, resigned from the project after being employed for just 6 months and only 3 months prior to the completion of the project. Dr. Hasso Bhatia was hired to replace him and had one day to overlap with Mr. Biddison. The time needed for Dr. Bhatia to get a grasp of the project and develop a working relationship with BERC significantly slowed down the activities.

Delays by BERC in committing to and approving the ToRs that had been prepared for short-term consultants slowed progress. The approval process for the ToRs for the Energy Audit and Uniform System of Accounts took longer than expected, but eventually were approved (Energy Audit in May and Uniform System of Accounts in August). The short-term consultancy for docketing, as outlined in the workplan, was never executed because BERC didn't have strong commitments to invest in technology, human capital, and storage space.

BERC requested to cut back on multiple occasions (June and September) the frequency and number of weekly trainings prepared by NARUC and its team. BERC has limited staff and members with limited interest on certain regulatory principles and issues, so as a regulatory agency it could not focus on too many issues at one time.

The Energy Audit consultant left Bangladesh 10 days prior to the completion of the contract term due to visa issues, and therefore, was not able to perform a final presentation of his report and receive comments from BERC staff.

Due to limited staff and interest from BERC, NARUC could not conduct work on parallel tracks and have two consultants on different topics working at the same time, as was the initial plan.

NARUC Chief of Party, Mr. Biddison indentified the following issues:

Overall energy issues

- Unscheduled & unauthorized load shedding (up to ten hours/day) where the grid is not supplying Dhaka with electric power. The energy sector is getting increasingly more negative media and public attention with the blame going primarily to the Government of Bangladesh (GOB) on corruption, poor management, bad decision-making, inadequate infrastructure, and inefficiencies in the sector.
- Customer services are low priority
- Generation, transmission, & distribution are not reliable
- Data & information are not audited or verified. The BERC/BPDB team is finding a number of discrepancies in data and information reports between what the BPDB Center officially reports and what Tongi power station sends to the BPDB Center. Tongi power station officials are reluctant to address questions from the BERC/BPDB team and/or they do not have answers, as the BPDB Center withholds data and information that may be relevant.

Recommendations

Future activities should be focused on implementation of regulatory functions that complement BERC member's and staff's ability to conduct work activities and responsibilities with better authority, more efficiency, and greater effectiveness. For example, activities could focus on helping BERC do the following:

- Demonstrate leadership in the energy sector
- Make independent decisions based on the case record
- Conduct public outreach with all affected parties (including maintaining a strong BERC website)
- Always demonstrate, by example, the role of regulators to all affected parties – objective, balanced, predictable, effective, efficient, reasonable, honest, trustworthy, fair, reliable, structured, stable, etc.

Annex 1

Information on In-House Trainings

	Date	Training Name	# and gender of pax		Duration (hrs.)	Total Hours	Org	Trainer
			M	W				
1	24 May	Energy Regulatory Audits – A General Overview	5	1	4	24	BERC, BPDB	Biddison
2	30 May	Energy Regulatory Audits – Further Technical Insight	5	1	4	24	BERC, BPDB	Biddison
3	31 May	Uniform System of Accounts – A General Overview	4	1	4	20	BERC, BPDB, DESCO	Biddison
4	6 June	The Effect of Regulatory Audits on Rate Cases	5	0	4	20	BERC, BPDB	Biddison
5	7 June	Uniform System of Accounts & Its Applications	4	1	4	20	BERC, BPDB	Biddison
6	29 Aug	Power Purchase Agreements	10	0	2	20	DPDC, REB, DESCO, BERC, WZPDCL, DPDB	Bhatia
7	3 Sep	Tariff Rate Design	12	0	2	24	DPDC, REB, DESCO, DPDB, BERC, WZPDCL	Bhatia
8	10 Sep	Consumer rights and Obligations	6	0	2	12	REB, WZPDCL, CAB, BERC	Bhatia
9	17 Sep	Quality of Service Regulation	8	0	2	16	DESCO, BERC, REB, DPDC, WZPDCL	Bhatia

Annex 2

**Report of the BERC Internship to the Philippine Energy
Regulatory Commission
October 15-26, 2012**

(Prepared by the Interns)

**Report of “Internship Program” at Energy Regulatory
Commission Philippines.**

Dated 15-26 October, 2012

Submitted by

Nishit Kumer, Assistant Director (Law),BERC
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Report of “Internship Program” at Energy Regulatory Commission Philippines.

Preface: By the order no BERC/Training/Admin: 292/2546 dated 04 October, 2012 a team composition of three BERC officials and one DESCO official were participated in “Internship Program” at Energy Regulatory Commission, Philippines that was held from 15 October, 2012 to 26 October, 2012 under “Bangladesh Energy Regulatory Assistance Program” organized and funded by National Association of Regulatory Utility Commissioners (NARUC), USA and USAID. The following explanatory material is related to “Internship Training Program” at Energy Regulatory Commission, Philippines.

DAY-1: (15 OCTOBER, 2012)

After arrival at Energy Regulatory Commission, Philippines, a Bangladesh Team is welcomed by Sharon o. Montaner, Chief, Planning Division from ERC, Philippines.

Outline :

Planning & Information:

- About ERC
- Organizational Structure/functions
- Related Laws (EPIRA/IRR)
- Other.

About ERC : To promote and protect long-term consumer interests in terms of quality, reliability and reasonable pricing of a sustainable supply of electricity, an independent, quasi-judicial regulatory body has been established named the Energy Regulatory Commission (ERC) under Section 38 of EPIR Act, 2001 and has been replaced Energy Regulatory Board (ERB) created under Executive Order No. 172. The ERC endeavors to create a regulatory environment that is democratic and transparent, and one that equitably balances the interests of both the consumers and the utility investors.

ERC’s vision is to become Asia's benchmark for excellence in power regulation and objectives are to promulgate/approve rules, regulations, guidelines and policies, enforce rules, regulations including issuances of permits and licenses, resolve cases (rates and other cases) and disputes, promote consumer interest and become a dynamic organization of professional people with the highest degree of technical competence and integrity

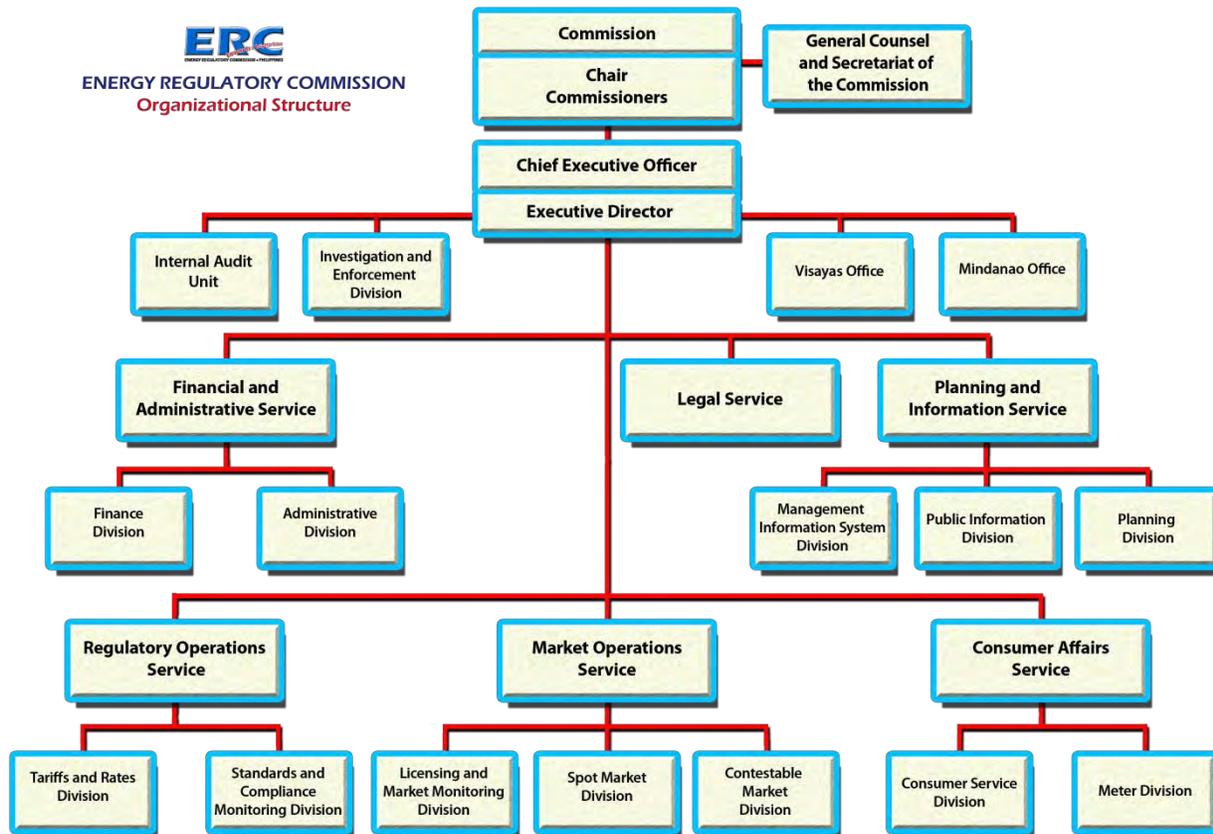
Powers and Functions

1. Promote competition, encourage market development, ensure customer choice and penalize abuse of market power in the electricity industry. To carry out this

undertaking, ERC shall, promulgate necessary rules and regulations, including Competition Rules, and impose fines or penalties for any non-compliance with or breach of the EPIRA, the Implementing Rules and Regulations of the EPIRA, and other rules and regulations which it promulgates or administers as well as other laws it is tasked to implement/enforce.

2. Determine, fix and approve, after due notice and hearing, Transmission and Distribution Wheeling Charges, and Retail Rates through an ERC established and enforced rate-setting methodology that will promote efficiency and non-discrimination. Approve applications for, issue, grant, revoke, review and modify Certificate of Public Convenience and Necessity (CPCN), Certificate of Compliance (COC), as well as licenses and/or permits of electric industry participants.
3. Approve applications for, issue, grant, revoke, review and modify Certificate of Public Convenience and Necessity (CPCN), Certificate of Compliance (COC), as well as licenses and/or permits of electric industry participants.
4. Promulgate and enforce a national Grid Code and a Distribution Code that shall include performance standards and the minimum financial capability standards and other terms and conditions for access to and use of the transmission and distribution facilities.
5. Enforce the rules and regulations governing the operations of the Wholesale Electricity Spot Market (WESM) and the activities of the WESM operator and other WESM participants, for the purpose of ensuring greater supply and rational pricing of electricity.
6. Ensure that NPC and distribution utilities functionally and structurally unbundle their respective business activities and rates; determine the level of cross subsidies in the existing retail rates until the same is removed and thereafter, ensure that the charges of Transco or any distribution utility bear no cross subsidies between grids, within grids, or between classes of customers, except as provided by law.
7. Set a Lifeline Rate for the Marginalized End-Users.
8. Promulgate rules and regulations prescribing the qualifications of Suppliers which shall include, among other things, their technical and financial capability and credit worthiness.
9. Determine the electricity End-users comprising the Contestable and Captive Markets.
10. Verify the reasonable amounts and determine the manner and duration for the full recovery of stranded debts and stranded contract costs of NPC and the distribution utilities.
11. Handle consumer complaints and ensure promotion of consumer interests.
12. Act on applications for cost recovery and return on Demand-Side Management (DSM) projects.
13. Fix user fees to be charged by Transco for ancillary services to all electric power industry participants or self-generating entities connected to the Grid.

14. Review power purchase contracts between IPPs and NPC, including the distribution utilities.
15. Monitor and take measures to discourage/penalize abuse of market power, cartelization and any anti-competitive or discriminatory behavior by any electric power industry participant.
16. Review and approve the terms and conditions of service of the Transco or any distribution utility and any changes therein.
17. Determine, fix and approve a universal charge to be imposed on all electricity end-users.
18. Test, calibrate and seal electric watt-hour meters.
19. Implement pertinent provisions of R.A. No. 7832 or the Anti-Pilferage of Electricity Law.
20. Fix and regulate the rate schedule or prices of piped gas to be charged by duly franchised gas companies which distribute gas by means of underground pipe system.



Related Laws:

To make effective the Electric Power Industry Reform Act, 2001, ERC has enacted rules, regulations and guidelines.

DAY-2: (16 OCTOBER, 2012)

After exchanging greetings with Bangladesh Team, Director, Regulatory Operation Services has been discussed regarding the following topics:

Outline:

Regulatory Operations:

- Power Supply Agreement (PSA)
- National Grid Corporations of the Philippines (NGCP) visit.

Under the section 45(b) of EPIRA, 2001 Power Generation Company and power Distribution Company can sign an agreement. The bilateral agreement must be produced before ERC to get approval and the rate of electricity which is included in the Power supply Agreement (PSA) must be approved through hearing by ERC.

After that Bangladesh Team visited **National Grid Corporations of the Philippines (NGCP)**

A fully private corporation, NGCP won the franchise to operate and maintain the country's transmission network in the biggest government auction conducted in efforts to reform the local power sector. It is responsible for putting online the right mix of power plants that generate the high-voltage electricity and transmitting this to the various distribution utilities which, in turn, deliver the electricity at a lower voltage rating to households and other end-users. Equipped with technical expertise, a sound financial portfolio and impressive track record, NGCP is poised to successfully deliver the electricity needed to fuel the growth of the economy and thereby empower the Filipino people and the country's business sector, strengthening the nation as a whole.

Vision To build the strongest power grid and maintain the best power utility practice in Southeast Asia, with the collective efforts of a world-class professional work force

Mission To contribute to the nation's social and economic development and satisfying our stakeholders' needs by efficiently developing and adequately operating the power grid to provide reliable electricity transmission service.

Objectives

To upgrade, expand and strengthen our transmission facilities with cutting-edge technology. We shall also keep improving our operations and maintenance practice with global knowledge sharing, thus guaranteeing the safety and security of our power system and employees. By building the strongest power grid, we will be rewarded with continuous improvement in the quality and reliability of power as well as in the efficiency of our operation. This in turn shall enhance the lives of all—our customers to be rewarded with energy cost savings, our investors to be provided with fair return, our employees to share in the benefits of exceptional financial performance, and society in general to enjoy a sustainable environment-friendly energy system. With enhanced sharing of knowledge from all over the world, we will develop our workforce into the most respected and competent professionals, helping them achieve their personal goals and realize self-fulfillment. This is important because for all our objectives to be completed, we will need our people's strong determination to the pursuit of excellence and perfection. Armed with strong hearts and strong minds, NGCP is capable of delivering on its promise to develop the stronger transmission system necessary to build a stronger future for our nation.

What they do:

NGCP's main responsibility involves the improvement, expansion, operation and maintenance of the nationwide transmission system as well as of the sub-transmission system which have not yet been disposed by TransCo.

Power Delivery - Linking power plants owned by NPC and independent power producers (IPPs) to the country's distribution utilities and electric cooperatives which in turn deliver electricity to end-users.

System Operations - Centralized operation and control of high-voltage transmission facilities, grid interconnections and ancillary services.

Metering Services - Operation and maintenance of metering facilities.

NGCP is also engaged in providing technical services, particularly system studies and operation and maintenance of customer facilities.

Luzon

The region is the largest grid in NGCP's network, composed of Metro Manila, Northern Luzon, and Southern Luzon. It is the country's main industrial and commercial region, hosting a population of 49.8 million*. The region accounts for 77% of the country's total power demand.

VISAYAS

The region is composed of separate but interconnected island grids of Cebu, Negros, Panay, Leyte, Samar, and Bohol. It is also home to the country's premier tourist destination, the island of Boracay. The region has a population of 17.2 million* and accounts for 12% of the country's power demand.

MINDANAO

Situated in the southernmost section of the Philippine archipelago, Mindanao is the second largest island group in the Philippines. It is strategically located within the East ASEAN region, almost equidistant to the eastern sections of Indonesia, Malaysia and Brunei Darussalam. This key geographic location underscores its potential to be a major transshipment point and center of trade. The region has a population of 21.6 million* and accounts for 11% of total power demand in the country.

Region wise Generation Mix

LUZON	
Generation Plant Types	Percentage
COAL	43.27

Diesel	1.25
CC/NGPP - Comb Cycle/NatGas	36.77
Geothermal	8.42
Hydro	8.13
Thermal	1.84
Renewable	0.32
VISAYAS	
Generation Plant Types	Percentage
Renewable Energy Biodiesel	0.15
Renewable Energy Biogas	0.22
COAL	38.6
Diesel	8.51
Gas Turbine	0
Geothermal	52.3
Hydro	0.23
MINDANAO	
Generation Plant Types	Percentage
COAL	18.3
Diesel	17.29
Geothermal	7.94
Hydro	56.47

DAY-3 : (17/10/2012)

The day-3 is started by the warm reception of Director of Legal Service after that she presented to Bangladeshi Team. The presentations were on the following issues:

The Legal Service sector responsible for:

(a) Adjudication of cases, (b) resolution and disposition of cases, (c) legal research and (d) policy formulation

What Legal Service do

- prepare draft Decisions, Orders, memoranda, Resolutions, Rules/Guidelines & letters
- prepare transcripts of stenographic notes of hearings & public consultations
- conduct hearings and public consultations
- conduct research and render legal opinion
- serve as Hearing Officers or Clerks of the Commission

To make effective the EPIRA, 2001, The ERC has made Rules of Practice and Procedure consists of 24 major provisions that adopted in June 2006.

Classification of Cases Filed Before the ERC

1. Applications for a General Change in Rate Schedules of Revision of Rates
2. Applications for Approval of Power Supply Agreements
3. Applications for Approval of Electric Distribution of Capital Projects
4. Consumer Complaints

Observe of Hearing Session ERC Case no.2012-030 CF

The hearing session is started in exchanging greetings with Bangladeshi team by the session chair Director, Legal Service. It is mentioned that ERC delegated power to apart from Commissioners to run the hearing session as session chair. The process of hearing is as like as court that is usually held in any court. It is realistic that all process of legal system has been adopted by the ERC.

DAY-4: (18/10/2012)

The Market Operation Service develops recommendations with supporting studies and documentation in all pending matters before the Commission including issuances of certificates of compliance, licenses for suppliers of electricity, distribution utilities, contestable markets, wholesale spot market, anti-competitive behavior and other matters as directed by the CEO.

Spot Market Division

Responsible for formulating recommendations with respect to the following:

- Price Determination Methodology to be used in the operation of the Wholesale Electricity Spot Market (WESM);

- Market fees to be imposed to market members;
- The possible suspension of the wholesale electricity spot market or the declaration of a temporary wholesale electricity spot market failure (Section 30, Section 43 c)
- Abuse of market power, cartelization, and other anti-competitive or discriminatory behavior as defined by its rules and regulations;
- Investigates violations of the WESM Rules;
- Enforcement of the rules and regulations governing the operation of the WESM; and
- Monitors the activities of the Market Operator and other participants, for the purpose of ensuring a greater supply and rational pricing of electricity.

Licensing and Market Monitoring Division

Responsible for marketing recommendations for issuances of licenses to participants in the electricity industry, and for monitoring of their performance (Section 6, P2, 6; Section 29, P1, 5; Section 43, k, o, p, s).

- Reviews and supervises the issuance of licenses for generation and supply companies including: compliance, financial evaluation, technical evaluation, legal and corporate qualification, conflict of interest determination, compliance with the Grid/Distribution Code provisions and other laws and IRR;
- Conducts periodic reviews of the guideline/requirements for the issuance of licenses/franchises for possible improvement in the process/system;
- Monitors activities in the generation and supply of electric power to promote free market competition and secure transparency in the allocation or pass through bulk purchase cost of distribution;
- Recommends settlements of disagreements in valuation, procedures ownership participation and other issues between TRANSCO and distribution/utilities.
- Inspects premises, banks of account/records of any person/entity at any time to determine existence of any anti-competitive behavior and/or market power abuse;
- Recommends for approval, criteria/standards for determining for qualifications of applicants for licenses to operate.

Contestable Market Division

- Formulates recommendations regarding mechanics, guidelines and procedures on how qualified retailers and contestable customers may effectively participate in retail competition.
- Evaluates the performance of the contestable market and recommend the reduction of threshold level.
- Conducts market surveillance on the implementation of retail competition and open access.
- Enforces rules and guidelines promulgated in relation to the conduct of retail competition players.

- Formulates recommendations concerning measures to address problems/weaknesses observed.
- Promotes public awareness and appreciation on the significance of retail competition and open access among electricity consumers.
- Enhances understanding of the concept of retail competition to electricity consumers in such a way that they become empowered to exercise their freedom to choose.
- Establishes and maintains relevant information systems and database for use of the Division in its market surveillance function.

Visit to Wholesale Electricity Spot Market (WESM)

The Wholesale Electricity Spot Market (WESM) is part of the package of electric power industry reforms mandated in Republic Act No. 9136, or the Electric Power Industry Reform Act of 2001, signed into law on 08 June 2001. The Philippine Department of Energy (DOE) was mandated by law to establish the Wholesale Electricity Spot Market (WESM) and, jointly with the electric power industry participants, to formulate the detailed rules that will govern the conduct of the WESM. The WESM Rules were promulgated on June 2002, a year after the enactment of the EPIRA. In November 2003, the Philippine Electricity Market Corporation (PEMC) was incorporated as a non-stock, non-profit corporation, and was designated the following year, in August 2004, to serve as the autonomous group market operator (AGMO) that will undertake the preparations for and the initial operations of the WESM. After several months of trial operations, the WESM commenced commercial operations in the Luzon grid on 26 June 2006. Four years into the commercial operations in Luzon, the Visayas grid was integrated into the WESM and commenced commercial operations on 26 December 2010.

The Market Operator (MO) is responsible for the WESM operations by performing the following functions

- Management of the optimization engine
- Preparation of the dispatch schedule to be transmitted to the System Operator (SO), which encompasses the schedules resulting from the Week Ahead Projection (WAP), the Day Ahead Projection (DAP), the ex-ante (Real-Time Dispatch or RTD), and the real time ex-post (RTX).
- Management of the Market Management System (MMS), which is the infrastructure that supports the WESM and the ancillary IS/IT facilities of the Market Operator.
- Managing access to the WESM website and ensuring the operation of all interfaces across all subsystems.
- Preparation of daily market reports and management of the historical database as well as conduct of market evaluations and studies for use of market participants.
- Billing and settlements, including calculation of trading amounts, preparation of settlement statements

- Management of the WESM electronic fund transfer facility, monitoring of prudential requirements, account management, and handling of settlement disputes, and metering data processing, editing and validation for settlement purposes
- Registration of participants, including the maintenance and publication of the registry of WESM participants; and
- Participant services, including training and help desk services.

DAY-5 (19 OCTOBER 2012):

Visit to Manila Electric Company (MERALCO)

MERALCO is an investor-owned electric utility serving roughly a quarter of the estimated 94 million population of the Republic of the Philippines. It was organized as the Manila Electric Railroad and Light Company 107 years ago in 1903 to provide electric light and power and an electric street railway system to Manila and its suburbs. The facilities that Meralco built to provide these two services represented for many years the largest single investment of American private capital and know-how in the whole of East Asia. The synergistic partnerships can lead not only to increased business opportunities and cost reductions, but also to new, expanded and more affordable service to the public.

Company Structure

It is the largest distribution utility in the Philippines serves 25% of the Philippine population about 9,337 km² footprint, accounts for 50% of Philippine Gross Domestic Product (GDP) , 60% of Philippine manufacturing output generated within in the franchise area and generates 75% of Luzon's and 55% of Philippine electricity sales for Strong organic growth. It sales revenues of Php256.8 billion, equivalent to US\$5.9 billion and market capitalization of Php278.6 billion, equivalent to US\$6.4 billion at the end of 2011.

Driven to Efficiency

- All-time low system loss level
- Record levels of system availability, reliability and power quality
- Outperformed regulatory service standards
- Highly motivated and energized employees

Multi-faceted Business Opportunities and Strategies

- Core Electricity Distribution Service
- Power Generation

- Retail Electricity Supplier
- Franchise Expansion
- Subsidiaries' Growth

Mission

Customers the best value in energy, products and services.

Vision

A world-class company and the service provider of choice.

Objective

To protect and enhance the interests of its stakeholders by committing itself to the following principles:

1. The Customers are its reason for being, and therefore, they should always be treated with dignity. The Company must be fully responsive to their needs. The Company has the responsibility to:
 - Provide the customers with the highest quality products and services, consistent with their requirements and with international standards;
 - Treat the customers fairly, courteously and with integrity in all of its business transactions;
 - Act promptly on their immediate concerns and be receptive to their long-term needs and interests; and
 - Make every effort to ensure that the health, safety and general well-being of its customers are enhanced by its products and services.
2. The Employees are its most valued asset, and therefore, they should always be treated with dignity and with full consideration of their interest. The Company has the responsibility to:
 - Provide its employees with incentives and opportunities for professional growth and advancement;
 - Provide its employees with just and competitive compensation, and benefits that improve their living conditions and incentives
 - Guarantee fairness, equal treatment and opportunity, and avoid discriminatory practices; and
 - Provide suitable and safe working conditions to protect employees from avoidable injury and illness in the workplace.
3. Its Investors are its principals, and therefore, the trust they have placed in the company must be honored. The Company has the responsibility to:
 - Apply professional and diligent management to ensure the financial viability of the company and maintain a fair and competitive return for its investors; and
 - Conserve and enhance its investors' assets, and fulfill and safeguard their interest.

4. The Suppliers and Creditors are its business partners and, therefore, the relationship with them must be based on mutual respect and benefit. The Company has the responsibility to:
 - Foster long-term stability, direct relation and continuous development with suppliers to attain quality, competitiveness, process efficiency and performance reliability;
 - Seek fairness, truthfulness, integrity and transparency in all of its business dealings with them; and
 - Seek, encourage and prefer suppliers whose business practices respect human dignity and the environment.
5. The Competitors are its catalyst toward continuing service excellence and, therefore, the competition with them should be fair and honest, a basic requirement for national development in the distribution of products and services to the community. The Company has the responsibility to:
 - Promote behavior that demonstrates mutual respect among competitors; and
 - Maintain the highest level of business ethics and integrity.
6. The Community is its business environment and the society it serves. The Company has the responsibility to:
 - Uphold and maintain at all times the highest standards of business ethics;
 - Fulfill with dedication and commitment its social responsibilities;
 - Undertake activities that support and contribute to the economic and social development of the country;
 - Undertake activities that support and contribute to the economic and social development of the country;
 - Employ proactive measures and cooperate with the government and non-government institutions in activities to serve society towards a collective benefit.
7. Employ proactive measures and cooperate with the government and non-government institutions in activities to serve society towards a collective benefit.
 - Help the government in its efforts and programs towards raising investor confidence, developing the capital market, and ensuring high sustained economic growth through good corporate governance.
 - Observe and comply at all times with the orders, rules and regulations of the government, its agencies and instrumentalities, in the pursuit of its utility objectives and other corporate endeavors;
 - Institutionalize sound environmental practices in collaboration with the concerned government agencies and encourage other corporations/organizations to support all programs for an effective environmental management system.

Visit to Batangas Electric Cooperative (BATELEC I)

A non-stock, non-profit utility, BATELEC I serves the mission of providing efficient, reliable, affordable, and adequate supply of electricity to its member-consumers on an area coverage basis for which lies the predominant task of harnessing the economic potential of the countryside as a nucleus of growth and development.

BATELEC I's main office is located at the municipality of Calaca, province of Batangas, along the national highway with its buildings and facilities situated in a 4.1235-hectare land. It has three sub-offices located in Lemery, Balayan, Nasugbu and a Collection Center in Calatagan.

As a service institution, the cooperative embodies the will to serve in the delivery of reliable power supply under a people and service oriented performance. In doing so, it utilizes a well-defined, organized and humble network of individuals armed with the expertise of providing dependable and excellent services.

The cooperative serves the twelve (12) municipalities of Western Batangas namely: Agoncillo, Balayan, Calaca, Calatagan, Lemery, Lian, Nasugbu, San Luis, San Nicolas, Sta. Teresita, Taal and Tuy. Member-consumers' representation in the cooperative is through the Board of Directors, whose members are being elected in each municipality and plays the role of the policy-making body. It has no 114000 consumers, System loss: 13.50%, Substation: 6 and Maximum Demand: 45 MW.

Observe Commission Meeting:

The Commission meeting is usually held every Monday. After fulfillment of quorum, the commission meeting was started presided by the Chairman of ERC. The Bangladesh Team was welcomed by the Chairman from ERC. After that the Chair is given permission to Secretary to start the commission meeting. Subsequently the agenda is raised by the Secretary to the commission meeting and the respective Officer of the agenda elaborates the matter on power point presentation. The Commission asks different question to the respective Officer to clarify the whole matter. If the Commission says "no objection" to the specified agenda, the agenda is passed.

Meeting with Philippine Grid Code Committee

The Grid Management Committee (GMC) was created by the Energy Regulatory Commission (ERC) as mandated in Section 1.3 of the Grid Code under Republic Act No. 9136, otherwise known as the Electric Power Industry Reform Act (EPIRA), for the following purpose: to facilitate the monitoring of compliance with the Grid Code at the operations level, ensure that all Users of the Grid are represented in reviewing and making recommendations pertaining to connection, operation, maintenance and development of the Grid and specify the processes for the settlement of disputes, enforcement and revision of the Grid Code.

ERC is the authority to promulgate the PGC. Grid Code applies to the three National Grids (i.e., Luzon, Visayas and Mindanao Grids)

ERC to promulgate the rules and regulations that will apply to small Grids which are not connected to the national Grids .ERC is responsible to enforce the PGC. GMC to monitor

compliance and initiate enforcement process for any perceived violations as directed by the ERC or appropriate government agency

GMC has fifteen *regular members*

- a) One Member nominated by **Grid owner**;
- b) One Member nominated by **System Operator**;
- c) One Member nominated by **Market Operator**;
- d) Three Members nominated by **Large Generators**;
- e) One Member nominated by **Small Generators**
- f) Three Members nominated by **Private and Local Government Distributors**;
- g) Three Members nominated by **Electric Cooperatives**, one each from Luzon, Visayas and Mindanao
- h) One Member nominated by **Suppliers**; and
- i) One One Member nominated by **Large Customers**.

GMC has three government representatives from following organizations

- 1. Energy Regulatory Commission (ERC)
- 2. Department of Energy (DOE)
- 3. National Electrification Administration (NEA)

Functions of the Grid Management Committee GMC carry out the functions to monitor the implementation of the Grid Code, monitor, evaluate, and make recommendations on Grid Operations, review and recommend standards, procedures, and requirements for Grid connection, operation, maintenance and development , coordinate Grid Code dispute resolution and make appropriate recommendations to the ERC, initiate the Grid Code enforcement process and make recommendations to the ERC, initiate and coordinate revisions of the Grid Code and make recommendations to the ERC and Prepare regular and special reports for submission to the ERC; or as required by the appropriate government agency, or when requested by a Grid User.

GMC has Six (6) subcommittees

1. Grid Planning Subcommittee

- Review and revision of Grid planning procedures and standards
- Evaluation and making recommendations on the Transmission development Plan; and
- Evaluation and making recommendations on proposed major Grid reinforcement and expansion projects

2. Grid Operations Subcommittee

- Review and revision of Grid operations and standards
- Evaluation and making recommendations on Grid operations reports
- Evaluation and making recommendations on Significant Incidents

3. Grid Compliance Subcommittee

- Monitoring and enforcement of PGC Compliance among users of the Grid
- Evaluation and making recommendations on Grid Code Compliance reports

4. Grid Reliability Subcommittee

- Review and revision of Grid reliability and protection procedures and standards
- Evaluation and making recommendations on Grid reliability reports
- Evaluation and making recommendations on significant Grid events or incidents caused by the failure of protection

5. Grid Protection Subcommittee

- Review and revision of Grid protection procedures and standards
- Evaluation and making recommendations on significant Grid events or incidents caused by the failure of protection

6. Grid Rules Revision Subcommittee

- Evaluation and making recommendations on the proposed PGC revision

According to the EPIRA, 2001, ERC has formed the Distribution Management Committee (DMC) for enforcement of Philippine Distribution Code.

Roles of DMC

- Provides Sector Leadership
- Manages PDC Implementation
- Monitors and Reports on Distribution Operation
- Coordinates Distribution Planning
- Resolves Disputes
- Develops Technical Standards, Rules and Procedures

Subcommittees

- Distribution Technical Standards Subcommittee (DTSSC)
- Distribution Reliability and Protection Subcommittee (DRPSC)
- Distribution Tariff Framework Subcommittee (DTFSC)
- Distribution Metering and Settlements Subcommittee (DMSSC)
- Rules Revision Subcommittee (RRSC)
- Ad Hoc Subcommittee on Small Grid

Membership of the DMC

- Regular Members
 1. Private and local government distributors – Luzon
 2. Private and local government distributors – Visayas
 3. Private and local government distributors – Mindanao
 4. Electric Cooperatives – Luzon
 5. Electric Cooperatives – Visayas
 6. Electric Cooperatives – Mindanao
 7. Embedded Generators
- Regular Members**
 8. Industrial Customers
 9. Commercial Customers
 10. Residential Consumer Groups
 11. Grid Owner
 12. System Operator
 13. Government-accredited Professional Organization of Electrical Engineers
- Government Representatives**
 1. Energy Regulatory Commission (ERC)
 2. Department of Energy (DOE)
 3. National Electrification Administration (NEA)

Major Activities for 2012

- ❑ Revision of the Philippine Distribution Code (PDC)
- ❑ Reliability Indices for On-grid Electric Cooperatives
- ❑ Small Grid Guidelines
- ❑ Evaluation of Distributor's Compliance Report to the PDC
- ❑ Monitoring of the Monthly Operations Reports of Distribution Utilities

Visit to National Electrification Administration (NEA)

The National Electrification Administration (NEA) was created on August 4, 1969 by virtue of Republic Act 6038 that boldly declared as a national policy objective the total electrification of the Philippines on an area coverage basis. In 1969, the era of rural electrification began with RA 6038 on August 4, 1969 creating the National Electrification Administration (NEA) and declaring as a national policy the total electrification of the Philippines using the area concept through the organization and development of tasked with cooperatives (ECs) tasked with providing adequate, reliable and low-cost electricity.

With this condition, the government realized that the rural areas were deprived from being program beneficiaries. Thus, agricultural and industrial development in the countryside was snail-paced. The government realized further that the promotion and acceleration of such development could be attained through the provision of cheap and dependable supply of power.

During the period 1985-1989, NEA was able to organize 117 ECs servicing 2.8 million households. By 1988, NEA embarked on a new corporate thrust from the broad "total electrification on an area coverage basis" to "to function as an interested lender in order to promote total electrification through viable ECs that provide reliable service towards countryside development".

In the same year, NEA focused on the following programs:

- rehabilitation of lines
- line expansion
- energization of isolated islands
- improvement of collection efficiency
- decreasing the ECs system loss
- upgrading the ECs to higher categories

- increasing loan releases to ECs
- improving the ECs viability

New Role of NEA Under the EPIRA

It also authorized the transfer of the franchising functions of NEA to Congress, after five years from the date of the effectivity of the law and the transfer of rate functions to the Energy Regulatory Commission. However, it provided additional mandate to NEA to act as guarantor for purchases of electricity in the Wholesale Electricity Spot Market (WESM) by an electric cooperative or small distribution utility to support its credit standing. It increased the capitalization of NEA from P5 billion to P25 billion. Under the said Act, NEA maintains to provide financial, institutional and technical assistance to the ECs.

For ECs whose financial deficiencies have been well pronounced, NEA was forced to take over to sustain the delivery of reliable service to the member-consumers.

Presently, NEA as an organization is undergoing a facelift to enhance its corporate image and to improve the delivery of quality services to the ECs, notwithstanding the presence of a lean workforce

Under NEA There are 119 cooperatives in Philippines. Island wise main feature are as follows:

Island	No of Cooperatives	% of House Hold Energized
Luzon	55	86
Visayas	31	78
Mindanao	33	60
Total	119	

Under all cooperatives 99% Barangayas (small villages) are energized (June, 2012). According to overall performance NEA classified all cooperatives in three categories- Green, Yellow and Red. Green means the cooperatives are good performing, need less NEA intervention & have flexibility in operations, Yellow means border-liners and need case to case supervision and red means poor performing and need definite NEA intervention.

DAY -7, DATE: 23 OCTOBER 2012

Malaya Thermal Power Plant, SPC Malaya Power Corporation, 70 kms South-East of Manila, Brgy. Malaya, Pililia, Rizal

Plant Area: 26.3 Hectares, Power House and Stacks for Unit 1 &2, Waste Water Treatment Plant, oil Tank, Intake & Discharge Channel.

Operation & Maintenance Service: Owner: Power Sector Assets & Liabilities Management Corporation,

O&M Service Contractor: SPC Malaya Corporation.

Infrastructure & Capacity:

Capacity:

	Unit I	Unit II	Total
Before Rehab	180 MW	250 MW	430 MW
After Rehab	300 MW	350 MW	650 MW

- Capacity was restored to its original rated capacity

Plant's Major Equipment:

Item		Unit I	Unit II
Rated Capacity		300 Mw	350 MW
Major Equipment Maker	Boiler	Hitachi	Hitachi
	Turbine	Siemens	Hitachi
	Generator	Siemens	Hitachi
Main Steam Temperature		540 ⁰ C	540 ⁰ C
Main Steam Pressure		190 kg/cm ²	169 kg/cm ²
Boiler Type		Once Through	Drum

Current Operation:

Present Status

Unit I on Economic Shutdown since 9/28/12

Unit II on Economic Shutdown since 10/19/12

Declared Capability of Unit I = 300 MW & Unit II = 200 MW

This is a standby plat. It runs on demand basis.

Day-8, Date: 24/10/12 Observe public Consultation on Transition Rules:

Public consultation on final draft transitory rules for the initial implementation of open access & retail competition is held in 24 October, 2012. The Bangladesh team observes the public consultation. People from different sector deliver their opinion and also ask the related matter before the Commission. The Commission clarifies the different types of question from public.

Visit Consumer Affairs Service

Under the EPIRA, 2001 to provide service to the consumers, ERC has two divisions namely Consumer Service Division and Meter Division.

Consumer Service Division

Consumer service division deals with consumers complaints. Consumer can submit complain to ERC through prescribed form or email or mobile phone message. If consumer is not satisfied upon the solution given by concerned utility, then they can come to ERC to get solution under the provision EPIRA. When any complain come to ERC, they, Commission, try to solve the complaints trough consultation with respective parties. If solution does not come from this process then ERC takes the complaints as formal complaints for further process that is described in the rules of procedures of ERC.

Meter Division

Pursuant to section16(d),(e),(f) and (g) and section 17(d) of commonwealth Act No. 146 as amended , and commonwealth Act No. 349, the Energy Regulatory Commission adopts and promulgates the Rules and Procedures for the test and Maintenance of Electric Meters of Distribution Utilities. Meter division tests meters to ensure the highest level of confidence of the consumers on the accuracy of their billing meters. All meters that belong to an ERC approved type of meter product shall be provided with a marker or sticker if the ERC logo on its nameplate by the manufacturer or its authorized dealer for identification.

Renewable Energy

The objective of the Renewable Energy Act of 2008 is to establish the framework for the accelerated development and advancement of renewable energy resources, and the development of a strategic program to increase its utilization. R.A. No. 9513, aside from the fiscal incentives, set the mechanisms for the development of both on-grid and off grid renewable energy in the Philippines. The RE Act mandated ALL stakeholders in the electric power industry to contribute to the growth of the renewable energy industry of the country. In line with this, it mandated the implementation of a market-based policy that requires electricity suppliers to source an agreed portion of their energy supply from eligible RE resources. This policy is called the Renewable Portfolio Standards or RPS, Rules of which to be set by the DOE while the minimum percentage

of generation from eligible RE to be set by the National Renewable Energy Board (NREB) and imposed on the electric power industry participants serving on-grid areas, on a per grid basis.

Meanwhile, the Green Energy Option is a mechanism to be used to empower end-users to choose renewable energy in meeting their energy requirements. This program is to be established by the DOE, in consultation with the NREB, while the ERC is mandated to develop the regulatory framework. Under this mechanism, end-users may directly contract electricity from RE facilities. On the other hand, Transco, DUs, PEMC and all relevant parties should provide the mechanisms for the physical connection and commercial arrangements necessary to ensure the success of the program.

Fixed tariff to be paid to electricity produced from these renewable energy resources. Mandated number of years, not less than twelve (12). ERC, in consultation with the NREB. Priority connection to the grid. Priority purchase and transmission of, and payment for, such electricity by the grid system operators.

In line with this mandate, on July 12, 2010, after several public consultations, the ERC promulgated the Feed-In Tariff Rules. The Rules were published in a newspaper of general circulation on July 28, 2010 and effective on August 12, 2010.

The FIT Rules set the regulatory framework for the establishment of the FITs, its applicability and duration, and the determination and administration of the FITs. The Rules also provided for the procedure for filing and approval of the FITs, which shall commence with the NREB's submission to the ERC of its proposed FITs as calculated in accordance with the methodology described in the FIT Rules.

The FITs to be approved by the ERC shall be technology-specific, and may further be differentiated by the size of the plant and whether or not they are for peak or off-peak, in the case of certain technologies such as biomass. The Feed-in Tariffs shall have duration of 20 years, meaning that the Renewable Energy Developers shall enjoy the prevailing Feed-in Tariff applicable to them from the time they start commercially operating and for 20 years thereafter. The Feed-in Tariffs are subject to annual adjustment to account for local inflation and foreign currency exchange fluctuations. A simple benchmarking indexation formula is provided in the Rules to apply to all technologies. In addition to that, the FITs to be set are to be subjected also to a degression rate to be determined by the ERC to encourage the developers to invest at the initial stage and hasten deployment of renewable energy. Subjecting the FITs to degression also avoids substantial windfall from being enjoyed by developers especially in the technologies where significant cost reductions are expected in the future as these technologies mature.

The Feed-in Tariffs are subject to review and readjustment by the ERC in the following cases:

When the installation targets are already achieved within the targeted period;

When the installation targets are not achieved within the targeted period;

When there are significant changes to the costs or when more accurate cost data become available and other analogous circumstances that justify the review and re-adjustment.

However, the readjusted tariffs that may be set by the ERC following this review shall apply only to new Renewable Energy Developers.

	NREB (in PhP/kWh)	ERC-Approved (in PhP/kWh)
ROR Hydro	6.15	5.90
Solar	17.95	9.68
Wind	10.37	8.53
Biomass	7.00	6.63

All end-consumers will share in the cost of RE through a separate uniform charge (in PhP/kWh) to be called Feed-in Tariff Allowance or FIT-All to be established and set by the ERC on an annual basis upon petition by NGCP. This is very much like the Universal Charge being collected at present from all end-users. The NGCP was tasked with the settlement and administration of the FIT-All Fund.

The following are the components of the FIT-All:

Forecasted annual required revenues for the projected deliveries of the Eligible RE Plants;

Applicable FIT for the year;

Previous years' over or under recoveries;

Administration costs; and

Other relevant factors to ensure that no stakeholder is allocated with additional risks in its implementation

The FIT-All shall be collected by the DUs for consumers connected to them, by the NGCP for directly connected consumers, and, once open access and retail competition set in, by Retail Electricity Suppliers (RES) for contestable consumers. All proceeds shall be remitted to NGCP who will be responsible for the settlement and payment of the FITs for the Eligible RE Plants.

The NGCP shall ensure that the FIT-All fund is sufficient to pay all RE producers regularly. In this regard, aside from ensuring sufficient working capital requirements in the calculation of FIT-All, the Rules provide for penalties for delay or default in the payment of FIT-All proceeds

which include the imposition of 20% penalty surcharge, plus monthly interest on unpaid amounts based on 91-day T-bill plus 300 basis points.

Day9, Date: 25/10/12 Met with the delegation of Japan Electric Power Information Centre :

A discussion between ERC and Japan Electric Power Information Centre is held at ERC on Overview of Philippine Power Sector that is observed by Bangladesh Team.

Conclusion: The “Internship Training Program” at Energy Regulatory Commission at Manila, Philippines is ended to provide a Certificate every Intern from Bangladesh Team.