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# USAID ENERGY POLICY PROGRAM

## POST-TRAINING EVALUATION BEST PRACTICES IN MARKET OPERATIONS FOR NTDC PARTICIPANT TRAINING PROGRAM

JANUARY 11 – 23, 2015

February 2015

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### BEST PRACTICES IN MARKET OPERATIONS FOR NTDC PARTICIPANT TRAINING PROGRAM

JANUARY 11 – 23, 2015

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**Best Practices in Market Operations for National Transmission and Despatch Company (NTDC)**

**Participant Training Program**

Training dates: January 11<sup>th</sup> –23<sup>rd</sup>, 2015

**Post-Training Evaluation Report**

In this activity, Energy Policy Program (EPP) successfully delivered second of the three executive exchange training courses in Best Practices in Market Operations for National Transmission and Despatch Company (NTDC) from January 11<sup>th</sup> – 23<sup>rd</sup>, 2015 in Washington, DC and Albany, New York. A total of 8 participants (one female and five males) from the key departments of National Power Control Center (NPCC), WAPDA (Water and Power Development Authority) Power Privatization Organization (Pakistan) (WPPO) and Central Power Purchase Authority (CPPA) including Technical, Finance and Regional Control Center.

Best practices in Market Operations for NTDC course was designed to Improve capacity in the Pakistan power sector’s electricity grid through exposure to best practices in transmission operations, maintenance, and planning, including the integration and dispatch of renewable energy into the grid, while establishing professional relationships for NTDC to draw upon after the conclusion of the program.

**Number of Participants trained:** 08 participants (One female and seven males)

At the end of the training course, post-training evaluation was conducted from 6 out of 8 participants, as two of the participants were absent due to their departmental exams during the evaluations. They were given a seven questions post-training evaluation form to explain their valuable experience. Following are the statistics and quotes of the participants’ responses.

**Please tick in appropriate box: 5 outstanding, 4 very good, 3 satisfactory, 2 needs improvement, 1 did not meet expectations**

<b>I. Program Rating</b>	<b><i>Did not meet expectations</i></b>	<b><i>Needs improvement</i></b>	<b><i>satisfactory</i></b>	<b><i>Very good</i></b>	<b><i>outstanding</i></b>
Relevance to your organization’s work area	0	0	5	1	0
Structure of the program	0	2	0	3	1
Topics covered in the program	0	0	2	3	1
Quality of class room interactions	0	0	0	4	2
Quality of training and reading materials	0	0	1	3	2
Appropriateness of reading materials	0	0	0	6	0
Quality of Speakers/Trainers	0	0	2	2	2
<b>II. Program Content and</b>	<b><i>Did not</i></b>	<b><i>Needs</i></b>	<b><i>satisfactory</i></b>	<b><i>Very</i></b>	<b><i>outstanding</i></b>

Trainers	meet expectation	improvement		good	
Training Content & Relevance	0	1	3	1	1
Trainer/Speaker Effectiveness	0	0	1	5	0

According to the rounded responses of all participants from the above stated table:

1. 83% of the participants rated it outstanding whereas, 17% of the participants rated "Relevance to your organization's work area" as very good.
2. 50% of the participants found "Structure of the program" very good, while 17% participant rated it as outstanding and 33% of the participants felt need of improvement.
3. 33% participants found the category "Topics covered in the program" satisfactory, 50% of them found it very good and 17% felt the need of improvement
4. 33% found "Quality of class room interactions" very outstanding, 67% found it to be satisfactory.
5. 50% of the participants felt "Quality of training and reading materials" was very good, 33% rated it as outstanding, whereas 17% found it satisfactory
6. 100% participants rated "Appropriateness of reading materials" as satisfactory
7. 33% participants rated "Quality of Speakers/Trainers" as very good, 33% rated it to be outstanding, while 33% found it satisfactory
8. 50% participants rated the "Training Content & Relevance" as satisfactory, 17% rated it as very good, 17% rated it outstanding and 16% felt the need of improvement
9. 83% of the participants found "Trainer/Speaker Effectiveness" very good, and 17% participants found it satisfactory.

**Please share any other observations or comments regarding the trainer/training program/logistics:**

Participants were asked to share their observations and comments regarding the trainer, training and logistics. When asked; almost all the participants found the training very beneficial for them while mentioning:

*"The trainers were excellent and the program structure must have included 3-4 days of pre-training classes in Pakistan so that we could have asked effective questions before going on the training. Procedural details of activities like wheeling, congestion management, forecasting should have been included with proper time allocation"*

*"Training program was well managed. Scheduling during the tour was tough than it was supposed to be, keeping in view the quantum of learning opportunities"*

*"NTDC have a similar market and ways of working as of the US but needs to further make new policies/principles to exercise the markets procedures. Most importantly is the effectiveness of EMS/SCADA system"*

**Before you received this training, how would you describe your knowledge of Market operations and maintenance system procedures?**

Keeping in view all the responses it showed that before this training most of the participants had very limited knowledge and all of them have significantly developed knowledge after the training, as the quoted:

*"Before the training I had no idea of market operations, I had only read in newspapers/journals. Here market operation includes open market access because in our system we have been following the conventional market techniques"*

*"I had very basic knowledge about the markets and its operations"*

*"I knew nothing about the modern short time market operations"*

*"Before receiving the training, I was at the beginning stage. I mean, I almost had no concepts about the market operation and procedures"*

**What specific skills did you gain as a result of your exposure to the best practices in the power market design, organization and operation during your training?**

Participants were asked to address the specific skills that they have gained during this training; and they wrote:

*"It was not a skill learning workshop but structured according to the program objectives; training was fine enough to deliver us insight to modern markets and there needs beforehand"*

*"The exchange program gives us with the in-depth knowledge of the market in US and we meet the official of different organization"*

*"We learn the real time market, day a head market and clearing price system in US market"*

*"Market bids, system operation and demand response/utility matters"*

*"The trade between different utilities/generators' and the role of ISO, RTO, and FERC/NERC as Load forecasting, demand response program, and pricing for these and the reliability of system"*

**How will your organization benefit from this training in both the short term and long term?**

The training strategy was based on organizational improvements so that the staff and the organization can achieve their set targets, objectives and both personal and corporate goals. Participants were asked to express how their organization will be benefited from Market Operations training in both short and long term, they shared:

*"Pricing and quality of electricity will be the best for the consumers. The responsibility of all stakeholders regarding tariff, open access to all consumers and stakeholders"*

*"In short term, we can share knowledge materials with other organizational departments and employees. We will implement the best practices which we observed there into our system as well. For future betterment new restrictions and deregulation policies can be made"*

*"By implementing the net metering, waste to energy and solar power for residential customer and our organization can get benefit"*

*"In short term, I may assist effectively in present challenges of wheeling, small Hydel power framework etc. In long term, I my assist in possible reconstructing efforts in Pakistan"*

**What was missing from the Training?**

Participants shared their respective views and stated:

*"Training program was very good but the time was very short"*

*"The visit to NERC and various trips to power exchanges"*

**Do you have any suggestions for how we could improve future best practice exchange visit training programs?**

All the participants have different views about how to improve future Market Operations trainings, most of the participants have complained about the short time duration they suggested that the time period for such technical training should be increased, as they mentioned:

*“EPP can arrange webinars where we can participate. The routine was hectic so the duration of the program should be increased”*

*“Giving the facility of video conferencing after the training would help participants in discussing the issues in detail instead of email or telephonic conversations. This facility would help the trainer and the trainee solve the issues in timely manner. Training was exceptional but the duration should be increased to 3-4 weeks for such types of the training for better outcomes”*

*“Training was excellent but the stay was very quick for some of the training activities. NPCC personnel need to be trained separately than to be mixed in group”*

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