

Department of Industrial and Management Engineering

Indian Institute of Technology Kanpur



**10th Capacity Building Programme
for
Officers of Electricity Regulatory Commissions**

**13-15 October, 2016 at IIT Kanpur Outreach Centre, Noida
17-19 October, 2016 at Hotel Peninsula Excelsior, Singapore**

To be organised by IIT Kanpur

Supported by



Forum of Regulators

Draft Agenda

10th Capacity Building Programme for Officers of Electricity Regulatory Commissions

13-15 October, 2016 at IIT Kanpur Outreach Centre, Noida
17-19 October, 2016 at Hotel Peninsula Excelsior, Singapore

Day 1 – Thursday, 13th October, 2016	
0830 Hrs. – 0900 Hrs.	Registration
0900 Hrs. – 0920 Hrs.	Inaugural Function: Chief Guest - Mr. A S Bakshi, Member
0920 Hrs. – 1030 Hrs.	National Tariff Policy 2016 and Electricity Act Amendments, Mr. V. J. Talwar, Former Member, Appellate Tribunal for Electricity
1030 Hrs. – 1100 Hrs.	Tea / Coffee Break
1100 Hrs. – 1200 Hrs.	National Tariff Policy 2016 and Electricity Act Amendments, Mr. V. J. Talwar, Former Member, Appellate Tribunal for Electricity (Contd.)
1200 Hrs. – 1300 Hrs.	Regional Power Market in South Asia: Way Ahead, Anoop Singh, IIT Kanpur
1300 Hrs. – 1400 Hrs.	Lunch Break
1400 Hrs. – 1530 Hrs.	Regulatory Performance and Changing Role of Regulators, Ms Shubha Sarma, Secretary, CERC
1530 Hrs. – 1600 Hrs.	Tea / Coffee Break
1600 Hrs. – 1730	Electricity Brainstorm Session – I, Anoop Singh, IIT Kanpur
2000 Hrs. – 2230 Hrs.	Welcome Reception
Day 2 – Friday, 14th October, 2016	
0900 Hrs. – 1030 Hrs.	Retail Competition in Electricity - Opportunity and Challenges, Mr. Kunal Singhal, Associate Director, PWC India
1030 Hrs. – 1100 Hrs.	Tea / Coffee Break
1100 Hrs. – 1230 Hrs.	Short-term Power Procurement and Open Access, Mr. Rajesh Mediratta, Director (Business Development), Indian Energy Exchange
1230 Hrs. – 1400 Hrs.	Lunch Break

1400 Hrs. – 1530 Hrs.	Developments in Renewable Energy Feed-in Tariff and REC Market, Mr. Ajit Pandit, Director, Idam Infrastructure Advisory Pvt Ltd
1530 Hrs. – 1600 Hrs.	Tea / Coffee Break
1600 Hrs. – 1730 Hrs.	RE Forecasting, Scheduling and Deviation settlement, Dr. S K Chatterjee, Joint Chief (Regulatory Affairs), CERC
Day 3 – Saturday, 15th October, 2016	
0900 Hrs. – 1000 Hrs.	Electricity Access and Minigrids: A Project Developer's Perspective, Mr. Rohit Chandra, Vice Chairman & Executive Director, OMC Power
1000 Hrs. – 1100 Hrs.	Development of REC Market, Anoop Singh, IIT Kanpur
1100 Hrs. – 1130 Hrs.	Tea / Coffee Break
1130 Hrs. – 1230 Hrs.	Minigrids: Experiences, Challenges and Regulatory Developments, Mr. Desh Deepak Verma, Chairman, UP Electricity Regulatory Commission
1230 Hrs. – 1400 Hrs.	Lunch Break
1400 Hrs. – 1530 Hrs.	Grid Operations and Open Access, Mr. S K Soonee, CEO, Power System Operation Corporation Limited (POSOCO)
1530 Hrs. – 1600 Hrs.	Tea / Coffee Break
1600 Hrs. – 1730 Hrs.	Field Visit (POSOCO Operations/monitoring room)
Day 4 – Sunday, 16th October, 2016	
0945 Hrs. – 1810 Hrs.	Travel to Singapore: Departure from Delhi on 16 Oct. 09:45
Day 5 – Monday, 17th October, 2016	
0900 Hrs. – 1030 Hrs.	Regulation of Power Sector in Singapore - Development and Current Practices, Ms Rachel Su Huifen, Deputy Director, Energy Market Authority, Singapore
1030 Hrs. – 1100 Hrs.	Tea / Coffee Break
1100 Hrs. – 1230 Hrs.	International RE Scenario - Challenges and Prospects, Mr. Ashish Sethia, Head of South & Southeast Asia, Bloomberg New Energy Finance, Singapore
1230 Hrs. – 1400 Hrs.	Lunch Break
1400 Hrs. – 1530 Hrs.	Group Presentations
1530 Hrs. – 1600 Hrs.	Tea / Coffee Break

1600 Hrs. – 1730 Hrs.	Electricity Brainstorm Session – II, Anoop Singh, IIT Kanpur
Day 6 – Tuesday, 18th October, 2016	
0900 Hrs. – 1030 Hrs.	Managing Risk in Electricity Markets: Role of Commodity Exchanges and Derivatives, Mr. William Prajogo, Product Manager - Electricity, Singapore Exchange (SGX)
1030 Hrs. – 1100 Hrs.	Tea / Coffee Break
1100 Hrs. – 1230 Hrs.	Energy efficiency initiatives in Singapore: Role of Government and Utilities, Mr. Kok Kiat Ang, Director, National Environment Agency, Singapore
1230 Hrs. – 1400 Hrs.	Lunch Break
1400 Hrs. – 1530 Hrs.	Retail Competition for Electricity Supply in Singapore, Mr. Joshua Low, Senior Analyst (Regulatory Management & Strategic Investments), Singapore Power
1530 Hrs. – 1600 Hrs.	Tea / Coffee Break
1600 Hrs. – 1700 Hrs.	Regional Electricity Market Integration in ASEAN, Mr. Anton Finenko, National University of Singapore
1700 Hrs. – 1730 Hrs.	Valedictory Function:
Day 7 – Wednesday, 19th October, 2016	
0900 Hrs. – 1030 Hrs.	Site Visit - Waste to Energy Plant, Tuas, Singapore
1030 Hrs. – 1100 Hrs.	Tea / Coffee Break
1100 Hrs. – 1230 Hrs.	Site Visit - (Contd.)
1230 Hrs. – 1400 Hrs.	Lunch Break
1400 Hrs. – 1530 Hrs.	Site Visit
1530 Hrs. – 1600 Hrs.	Tea / Coffee Break
1600 Hrs. – 1730 Hrs.	Site Visit
Day 8 – Thursday, 20th October, 2016	
1940 Hrs. – 2255 Hrs.	Departure from Singapore to New Delhi Intl. Airport

**10th Capacity Building Programme for
Officers of Electricity Regulatory Commissions
13-15 Oct. 2016, at IIT Kanpur Outreach Centre, Noida
17-19 October, 2016 at Hotel Peninsula Excelsior, Singapore**

S.No.	Name	Designation	Organization
1	Mr. Anil Kumar Gupta	Secretary	Jammu and Kashmir State Electricity Regulatory Commission
2	Mr. P. N. Singh	Secretary	Chhattisgarh State Electricity Regulatory Commission
3	Mr. Shankar Deo Dhakal	Secretary	Sikkim State Electricity Regulatory Commission
4	Mr. P Murali Krishna	Joint Director (Tariff Engg)	Andhra Pradesh Electricity Regulatory Commission
5	Mr. Ajay Chadha	Joint Director	Himachal Pradesh Electricity Regulatory Commission
6	Mr. Anil Kumar Panda	Joint Director (Tariff/ Engg.)	Orissa Electricity Regulatory Commission
7	Mr. Gajendra Tiwari	Director (Tariff)	Madhya Pradesh Electricity Regulatory Commission
8	Mr. Gunajit Sarma	Deputy Director (Engineering)	Assam Electricity Regulatory Commission
9	Mr. Nadeem Ahmad	Deputy Director (Engg) (Distr - Tariff)	Bihar Electricity Regulatory Commission
10	Mr. Rakesh Guhagarkar	Deputy Director (Technical)	Maharastra Electricity Regulatory Commission
11	Mrs. Savitha K. S	Deputy Director (Technical)	Kerala State Electricity Regulatory Commission
12	Mr. N. Nagaraj	Deputy Director - Law	Telangana State Electricity Regulatory Commission
13	Mr. Vikas Banger	Deputy Director (Distribution)	Haryana Electricity Regulatory Commission
14	Mr. Apurva Umeshbhai Adhwaryu	Deputy Director (Tariff)	Gujarat Electricity Regulatory Commission
15	Mr. Yashwardhan Dimri	Assistant Director Technical	Uttarakhand Electricity Regulatory Commission
16	Mr. Hekavi N. Ayemi	Assistant Engineer	Nagaland Electricity Regulatory Commission
17	Mr. J. Ramesh Babu	Accounts Officer	Tamil Nadu Electricity Regulatory Commission

9th Nov., 2016

Mr. S K Chatterjee
Joint Chief (Regulatory Affairs)
FORUM OF REGULATORS (FOR)
Secretariat C/O Central Electricity Regulatory Commission (CERC)
4th Floor, Chanderlok Building, 36, Janpath, New Delhi- 110001

Sub: Report on Feedback for the 10th Capacity building/Training programme for officers of Electricity Regulatory Commissions 13 – 15 Oct., 2016, IIT Kanpur Outreach Centre, Noida & 17 – 19 Oct., 2016, Singapore.

Dear Mr. Chatterjee,

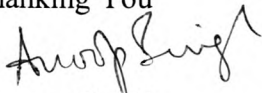
This is with reference to the "10th Capacity Building Programme for Officers of Electricity Regulatory Commissions", organized from 13 – 15 Oct., 2016, IIT Kanpur Outreach Centre, Noida & 17 – 19 Oct., 2016, Singapore. We would like to thank the Forum of Regulators for giving us responsibility to organize the above programme. The speakers for the Indian segment were experts in their respective areas. The speakers for the Singapore segment included experts on a variety of topics from Energy Market Authority, Bloomberg New Energy Finance, National Environment Agency, National University of Singapore/EPGC, Singapore Power, Singapore. Site visit to a Waste to Energy Plant, Tuas, Singapore and POSOCO, India were also organized.

We are pleased to inform you that the programme was conducted successfully as per the FOR's requirements. The programme agenda and speakers were finalized in consultation with the FOR. I am enclosing herein the programme schedule, a list of speakers, a list of participants, a group photograph and a kit of the program including the session handouts on a pen drive.

It is encouraging to mention that the programme was well appreciated by the participants. A detailed feedback was obtained from the participants. A summary of the feedback is enclosed for your reference. The participants have also given specific feedback/suggestions for design of similar activities in future. These are also provided for necessary action at your end. We would be pleased to provide any assistance, if required.

We thank you for keeping confidence in our abilities to organize this programme. We hope to undertake similar tasks in future as well. We would also like to request to release the final installment as well. An invoice towards the same is enclosed herein.

Thanking You



(Anoop Singh)
Programme Coordinator

- Encl: 1- Final Programme Schedule
2- Feedback Form
3- Feedback score tables
4- Detailed feedback
5- List of Participants

Table: Overall Feedback of the Programme

Question	Score			Better than expectation		
	Average	Min	Max	Yes	No	As Expected
1a	4.79	4.00	5.00			
1b				6	0	11
2a	4.56	3.00	5.00			
2b				6	3	8
3a	4.44	4.00	5.00			
3b				9	0	8
4a	4.56	4.00	5.00			
4b				6	0	11
5a	4.62	3.50	5.00			
5b				9	0	8

Note: Please refer to the attached feedback form for Question Key

Table: Session-wise Feedback of the Programme

	SUMMARY				
	Day 1 - Average Score				
Question	Session I (Mr. V. J. Talwar)	Session II (Dr. Anoop Singh)	Session III (Ms Shubha Sarma)	Brainstorm Session - I (Dr. Anoop Singh)	
1	4.25	4.73	4.28	4.81	
2	4.06	4.73	3.97	4.69	
3	4.50	4.73	3.97	4.69	
4	4.34	4.77	4.00	4.81	
	Day 2 - Average Score				
Question	Session I (Mr. Kunal Singhal)	Session II (Mr. Rajesh Mediratta)	Session III (Mr. Ajit Pandit)	Session IV (Dr. S K Chatterjee)	
1	3.97	4.26	4.24	4.44	
2	3.88	4.26	4.06	4.32	
3	3.74	4.18	3.91	4.47	
4	3.76	4.22	3.91	4.35	
	Day 3 - Average Score				
Question	Session I (Mr. Rohit Chandra)	Session II (Dr. Anoop Singh)	Session III (Mr. Desh Deepak Verma)	Session IV (Mr. S K Soonee)	Field Visit (POSOCO)
1	4.41	4.71	4.16	4.53	4.32
2	4.18	4.68	4.03	4.53	4.24
3	4.18	4.71	4.19	4.56	4.59
4	4.29	4.68	4.03	4.65	4.53
	Day 5 - Average Score				
Question	Session I (Ms Rachel Su Huifen)	Session II (Mr. Ashish Sethia)	Group Presentations	Brainstorm Session - II (Dr. Anoop Singh)	
1	4.41	4.50	4.76	4.94	
2	4.29	4.35	4.35	4.82	
3	4.24	4.32	4.29	4.82	
4	4.32	4.47	4.53	5.00	
	Day 6 - Average Score				
	Session I (Mr. William Prajogo)	Session II (Mr. Kok Kiat Ang)	Session III (Mr. Joshua Low)	Session IV (Mr. Anton Finenko)	
1	4.53	4.65	4.76	4.56	
2	4.18	4.15	4.44	4.15	
3	4.29	4.24	4.53	4.18	
4	4.47	4.32	4.71	4.35	
	Day 7 - Average Score				
	Site Visit - Waste to Energy Plant, Tuas, Singapore				
1	4.88				
2	4.71				
3	4.65				
4	4.88				

Summary of Specific Feedback by Participants

Program Content (Additional issues identified):

- 1- A session on legal aspects, important ATE, also governments latest initiatives in sector may be covered, if possible.
- 2- Should not have sessions on "Minigrid". Should have sessions on "Sampling Techniques for survey undertaken for various studies"
- 3- RE integration with grid. Smart grid, Institutional memory in the ERCs. Staff structuring at SERCs level for in house competency vis-a-vis certificate course in regulatory regime.
- 4- If issues regarding legal framework for ERCs and a brief on salient order.
- 5- Packed with lectures only/ no movements/sitting 8-9 hours in one place is not suggested. It should have been 4-5 days programme, should be more interactive than one sided talk.
- 6- Some more persons from state such as Member/Chairman should be asked to speak to participants.
- 7- More classes on deviation settlement mechanism in perspective of Discom, multiple licensees.
- 8- Speakers are chosen from wide spectrum - need for sequencing is important. Resource person should of knowledge to handle the divergent view.
- 9- The programme was designed such that on average 8 hrs per day was supposed to be spent in class room. This time allotted to classroom may be reduced to 3-4 hrs a day. Second half may allotted/could have been allotted to Discoms issues among officers of ERCs.
- 10- More sessions of group discussion may be incorporated. Field visit to Singapore utilities establishments may be incorporated.
- 11- Significance of tariff structure & regulations may be discussed elaborately. Scientific study of AT & C losses.
- 12- Time management may be improve.
- 13- Impact of RPO compliance by the licensees in their ARR.
- 14- Electricity Act after 13 years in operation. Regulation and their compliance.