





Visit Report

on

SARI/EI Delegation visit to Lahore, Pakistan for a) Participation as Resource Persons in the workshop organised by SAARC Energy Centre on "SAARC Perspective Workshop on the Past, Present and Future of High Voltage DC (HVDC) Power Transmission held on 30th September - 01st October, 2015.

&

b) Meeting with Senior Officials of National Transmission and Despatch Company (NTDC), Pakistan & Central Power Purchasing Agency (CPPA), Pakistan on 2nd October, 2015.

















SAARC Perspective Workshop

"The Past, Present and Future of High Voltage DC (HVDC) Power Transmission"

30 September – 01 October 2015 Lahore - Pakistan





Organized by

SAARC Energy Centre, Islamabad in collaboration with National Transmission and Dispatch Company Limited, Pakistan



SARI/EI/IRADe Delegation members

Mr. V.K.Kharbanda, Project Director, SARI/EI, IRADe

Mr. Rajiv Ratna Panda, Senior Project Manager, SARI/EI, IRADe







SARI/EI Delegation comprising Mr. V. K. Kharbanda, Project Director, SARI/EI, IRADe & Mr. Rajiv Ratna Panda, Senior Project Manager, SARI/EI, IRADe, participated as Resource Person in the SAARC Energy Centre's Workshop titled "SAARC Perspective Workshop on the Past, Present and Future of High Voltage DC (HVDC) Power Transmission" held on 30th September 01st October, 2015 at Lahore, Pakistan.

The workshop was inaugurated by **Ch. Abid Sher Ali, Hon'ble Minister of State for Water & Power, Pakistan**. The event was attended by around 70 participants from South Asian region. SARI/EI Delegation made three paper presentations on following three topics:

- 1) South Asian Power Sector: Investment Prospects, Challenges and Issues
- 2) Harmonization of Grid Codes, Standards and Operating Procedures for Transmission System Interconnections (both HVDC and HVAC) & for facilitating/promoting CBET in South Asia
- 3) SARI/EI: Key Activities undertaken and the Way Forward.

Mr. Kharbanda made a presentation on South Asian Power Sector: Investment Prospects, Challenges

and Issues. The presentation covered a) Overview of South Asian Power Sector b) Resource Potential Across South Asian Region c) Key Drivers for Investment in CBET and Regional exploitation of Resources d) Country Wise Capacity Addition Planned & Investment Required e) Key Cross Border Transmission lines planned and investment required f) Issues related to Investment and Financing of Power projects, CBET infrastructures g) Risk Profile, viability of the projects, lenders concerns and source of funding/financing options and financial sustainability of the South Asian Power Sector.



Image1: Mr. V.K.Kharbanda, Project Director, SARI/EI, IRADe delivering his presentation on "South Asian Power Sector: Investment Prospects, Challenges and Issues"

Mr. Panda made a presentation on the SARI/EI study on Harmonization of Grid Codes, Operating

Procedures and Standards to facilitate/promote Cross Border Electricity Trade in the South Asia region. The presentation covered a) CBET Vision for 2047 b) Need for Harmonization for safe, reliable and stable operation of the Inter-connected power systems c) scope of work, objective and status of the study d) draft findings of the review and rid odes e) gap analysis and key findings f) international experiences harmonization of codes for regional power system operations f) framework guidelines and way forward. He also presented the road map and the strategy for harmonization of grid codes, operating procedures and standards in the South Asia region.



Image 2: Mr. Rajiv Ratna Panda, Senior Project Manager, SARI/EI, IRADe delivering his presentation on the SARI/EI Study on Harmonization of Grid Codes, Operating Procedures and Standards to facilitate/promote Cross Border Electricity Trade in the South Asia region.







Mr.Kharbanda made a presentation on the SARI/EI key activities and way forward. The Presentation covered a) overview of SARI/EI program

b) Demand Driven Studies /Exercises to achieve the Deliverables of Task Forces as defined in the terms of reference of Task Force c) Key highlights of the Combined Meeting of SARI/EI Task Force d) Key findings of the draft final report of the TF-1 Study on review of the "Study on review of policies, regulations and laws, preparation of Regional Regulatory Guidelines" e) Need of Regional Regulatory Institutions such as South Asia. Forum of Electricity Regulators (SAFER) for promoting Cross Border Electricity Trade f) SARI/EI Outreach/Consensus Buildings Framework: Approach and Strategy g) Analytical Studies: Economic Benefits of India-Nepal CBET.



Image 3: Mr. V.K.Kharbanda, Project Director, SARI/EI, IRADe delivering his presentation on "SARI/EI, Key Activities and Way Forward"

The SARI/EI delegation also met Mr. Muhammad Arshad Chaudhry, Managing Director, National Transmission & Despatch Company (NTDC) Limited, Pakistan along with senior officials and briefed about the SARI/EI program and its activities and requested for nomination from NTDC to the SARI/EI Task Force 2 on "Advancement of Transmission Systems Interconnections".

The SARI/EI Delegation also met Mr. Rihan Akhtar, Chief Financial Officer, Central Power Purchasing Agency (CPPA), Pakistan and other senior officials and briefed them about the SARI/EI program; its activities and requested for nomination of Central Power Purchasing Agency to the SARI/EI Task Force-3 on "South Asia Regional Electricity Market". During the discussions, it was expressed that Pakistan is moving towards Power Trading and eventually creating a competitive Power Market in Pakistan and would like to develop professional capacity in Power Trading aspects so that they can actively participate in the South Asia Regional Power Market/Trade.







his participation as resource person in the Workshop.



Image 4 Mr. V.K.Kharbanda, Project Director, SARI/EI, IRADe receiving the Image 5 Mr. Rajiv Ratna Panda, Senior Project Manager, SARI/EI, IRADe receiving memento from Mr. Muhammad Naeem Malik, Director, SAARC Energy Centre for the memento from Mr. Muhammad Naeem Malik, Director, SAARC Energy Centre for his participation as resource person in the Workshop





Image 6 Mr. V.K.Kharbanda, Project Director, SARI/EI, IRADe receiving the Image 7 Mr. Rajiv Ratna Panda, Senior Project Manager, SARI/EI, IRADe certificate of participation from Mr. Muhammad Arshad Chaudhry, MD, National Transmission & Despatch Company (NTDC) Limited Pakistan for his participation as Chaudhry, MD, National Transmission & Despatch Company (NTDC) Limited resource person in the Workshop.

receiving the certificate of participation from Mr. Muhammad Arshad Pakistan for his participation as resource person in the Workshop.