South Asia Regional Initiative for Energy Integration

Presentation on

Updates on the Activities of the SAFIR Working group on
“Regulatory Cooperation to Facilitate Knowledge sharing, addressing Crosscutting Energy/ Electricity Regulatory Issues and Capacity Building in South Asia” and Plan for Implementation of Key Activities

Presented by
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19th South Asian Forum for Infrastructure Regulation (SAFIR) Executive Committee Meeting (ECM) (Virtual Meeting), 11.00 AM, Friday, 28th August 2020, New Delhi, India
Contents

01. Objective and TOR of the SAFIR Working Group

02. Key Activities of the SAFIR Working Group
   - Research & Technical Studies - (Three Studies)
   - South Asia Energy Sector Training & Capacity Building program (SAETC)
   - South Asia Electricity Regulatory Compendium (SAERC)
   - South Asia Energy/Electricity Knowledge Resource Database (SAKERD)
   - SAFIR-Regulatory Newsletter (SRNL)
   - SAFIR Working Group Meeting (SWGM)

03. Other Cooperation with SAFIR - Common Minimum Grid Code, SAFIR Conference
Objective and TOR of the SAFIR Working Group
Key Objective of the SAFIR Working Group

- Enhancing Regulatory Cooperation to Facilitate Knowledge sharing;
- Addressing Cross-cutting Energy/Electricity Regulatory Issues and Capacity Building in South Asia;
- Facilitate transparent regulatory framework, promoting investment in the South Asia Region.
To facilitate regulatory capacity building among member countries at both national and regional levels through information knowledge sharing and skills training.

To facilitate the development of electricity/energy regulations by identifying and addressing cross cutting energy/electricity regulatory issues for advancing Exchange of Electricity/Energy in South Asia region.

To provide inputs on policy & regulations/regulatory opinions/regulatory guidelines and to develop model regulations.

To undertake research work on issues relevant to electricity/energy sector regulation through in-house/ outsourcing.

Prepare a detailed road map along with various regulatory interventions needed in South Asian countries for effective energy cooperation in the region to prepare annual status report and updates on regulatory cooperation in the South Asia Region.

Create data bank/knowledge repository on energy/electricity related issues. Prepare South Asia Energy/Electricity Regulatory Compendium.

To develop web portal on “South Asia Energy/Electricity Knowledge Resource Database”. SAFIR–Regulatory Newsletter to enhance regulatory knowledge sharing.
Key Activities of the SAFIR Working Group
Key Activities of the SAFIR Working Group

A. Research & Technical Studies - (Three Studies)

B. South Asia Energy Sector Training & Capacity Building program on energy regulation for Energy Cooperation & exchange of electricity in South Asia

C. South Asia Energy/Electricity Regulatory Compendium (SAERC)

D. South Asia Energy/Electricity Knowledge Resource Database (SAKERD)

E. SAFIR-Regulatory Newsletter (SRNL)

F. SAFIR Working Group Meeting
A Study/Research & Technical Studies -(Three Studies)
A Study/Research under SAFIR Working Group

1. Study/Research on South Asia electricity/electricity regulations to develop regulatory pathway/Road Map for Electricity/Energy exchange and Energy Cooperation (EC) in SA

2. Regulatory interventions for Grid discipline and Grid reliability in the South Asian Region

3. Study on Cross Border Trade of Electricity- Potential Optimum Utilisation and Reduction in Cost of Supply
Objective of the Study:

To review, study and analyze the existing energy/electricity regulations of each South Asian countries to develop regulatory pathway/Road Map for Electricity/Energy exchange, cross border electricity/energy trade and Energy Cooperation (EC) in South Asia.

Identify and analyze the relevant provisions in all existing energy/electricity regulations that have an impact on optimal, reliable and economic Electricity/Energy exchange, cross border electricity/energy trade and carry out a detailed gap analysis for the same, from the perspective of enhanced cross border electricity/energy trade.

Suggest and recommend the necessary changes/additions or new regulations that is required in the respective countries’ for advancing Electricity/Energy exchange, cross border electricity/energy trade and Energy Cooperation (EC) in South Asia.
Objective of the Study:

To review and analyse all the existing relevant electricity regulations, mechanisms and technical frameworks with respects to Grid discipline and Grid reliability of each South Asian Countries both from the perspective of integration/unification of regional grids of domestic power system of a country as well as cross border power grid integration.

Deliverables:

- Detailed set of Regulatory measures/Intervention and Mechanism needed for enhancing Grid discipline & Grid reliability in SA region along with detailed explanatory memorandum.
- Roadmap (regional and country wise) and action plan for implementation of above suggested Regulatory measures/Intervention.

Status:
- Study Awarded to PWC
- Draft Report is expected in September 2020
- Stakeholder Consultation in October, 2020
- Presentation to the SAFIR/SAFIR Working Group for comments Oct/Nov, 2020
Study on Cross Border Trade of Electricity - Potential Optimum Utilisation and Reduction in Cost of Supply

{Overall Renewable energy Growth Scenario and opportunity for Regional Grid Balancing was discussed}

{It was decided to take up another study on the requirement of balancing generation on a regional basis and develop a report for the same.}

{Chairman of SAFIR/BERC suggested that the Working Group should also consider working on methods to reduce the cost of supply. This could be added as an objective in the Study on Cross Border Trade in Electricity}

{It was also suggested that the Working Group could assess as to how balancing costs can be reduced due to the flexibilization of thermal power so that there is no economic loss}

In the above context, SARI/EI is revising/expanding scope of the TOR of “Study on Cross Border Trade of Electricity....” to make the study holistic, comprehensive, more analytical and taking in to account the renewable energy and grid balancing aspects, ancillary service etc. in a integrated manner

Status

Drafting the Revision of ToR by SARI/EI by August, 2020

Sharing the Revised TOR with SAFIR/SAFIR Working Group by September 2020

Finalization of the ToR by October, 2020

Start of the Study by December, 2020
South Asia Energy Sector Training & Capacity Building program on energy regulation for Energy Cooperation & exchange of electricity in South Asia
South Asia Energy Sector Training & Capacity Building program on energy regulation for Energy Cooperation & exchange of electricity in South Asia

Key Topics to be Covered (Regulatory Aspects of Energy Cooperation and exchange of electricity)

- Licensing Regimes, Tariff Frameworks
- Grid Codes, Open access
- Power Market Regulations, Power Trading & Power Exchange Mechanism, Market Design
- Transmission Planning, Coordinated System Operation
- Transmission Pricing, Imbalance Settlements, energy accounting,
- New Areas: Renewable Integration, Energy Storage, Ancillary Services, Electric vehicles, Smart Grid

B. Status
- Training Module design by October, 2020
- Drafting of the Agenda of the First Training Program, November, 2020
- Finalisation of the Training/knowledge partner, December, 2020
### South Asia Electricity Regulatory Compendium

<table>
<thead>
<tr>
<th>Section</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Released in the SAFIR Conference</td>
<td>19th February, 2020, New Delhi</td>
</tr>
<tr>
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<tr>
<td>Primary Legislation, Key Policies</td>
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</tr>
<tr>
<td>Regulations</td>
<td></td>
</tr>
<tr>
<td>Technical Standards</td>
<td></td>
</tr>
<tr>
<td>Grid Code, Transmission Pricing, Open Access</td>
<td></td>
</tr>
<tr>
<td>Power Trade &amp; Markets, Cross Border Electricity Trade</td>
<td></td>
</tr>
<tr>
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<td></td>
</tr>
<tr>
<td>Six Monthly Updating &amp; Yearly Edition</td>
<td></td>
</tr>
</tbody>
</table>

**Compendium of Electricity Regulations of South Asian Countries**
- Volume 2 (India & Maldives)
- Volume 1 (Afghanistan, Bangladesh & Bhutan)
- Volume 3 (Nepal, Pakistan & Sri Lanka)

**Compendium (A first of its kind in SA) has been prepared**

- Released in the SAFIR Conference 19th February, 2020, New Delhi
- Compendium—Comprehensively Captures all aspects (Three Volumes)
- Primary Legislation, Key Policies, Guidelines
- Regulations
- Technical Standards
- Grid Code, Transmission Pricing, Open Access
- Power Trade & Markets, Cross Border Electricity Trade
- Licensing, Generation and Transmission Tariffs
- Six Monthly Updating & Yearly Edition
South Asia Energy/Electricity Knowledge Resource Database (SAKERD)
Aims to Create a Comprehensive Energy/Electricity Sector Data Base

Online, user friendly, data Analytic, Indicative Graphs, pie charts and Figures, Info graphics, Annual Energy Data Book

**Power Related Time Series Data**
- Energy Met, Actual Generation, Energy & peak deficits, Rate & volume transaction of PXs
- Cross Border (MU & MW), Frequency Profile, Diversity Factor, T & D losses

**Electricity Generation Capacity and Transmission Network**
- Installed capacity & Fuel Mix, Transmission sector
- Regional Power Transfer Capacity, Basic Power Plant details

**Key Energy Statistics (Both Year wise and Past Trends & Forecasts, Country Wise)**
- Per capita energy consumption, Energy resource potential & reserves, Primary Energy Supply & Demand
- Total energy consumption & sector wise consumption, Energy Balance, Energy access

**Key Policy and Regulations**
- Key Energy & Power Sector Related Laws, Policy & Regulations
- National Power & Energy Sector Master Plans/Projection etc.

**Status**
- Expected to be awarded by September 2020
- Submission of Report, approval of proposed design, November, 2020
- Development and parallel testing of Website & Software, February, 2021
- Go live, May, 2021
SAFIR Regulatory News Letter (SRNL)
SAFIR Regulatory News Letter (SRNL)

Regulatory updates & Policy Developments in the Region

Analysis on the Energy Regulatory and Policy Developments

Will capture Important development, can have Guest Columns outside of the Region

It includes power, oil and gas sector

To be circulated in SA Countries in electronic format. (Quarterly)

Status

Concept Note, Draft Template & Format by SARI/EI by September 2020

Sharing the Concept Note, Draft Template & Format with SAFIR, September 2020

Finalisation of Concept Note, Draft Template & Format, October, 2020

Issue of First Go live, November 2020
SAFIR Working Group Meeting
Organising two/three meetings of SAFIR Working Group in a year
Continuous Interaction: Regular meetings are essential for ensuing a Consultative & participatory process
Other Cooperation with SAFIR

Common Minimum Grid Code (CMGC), SAFIR Conference
Common Minimum Grid Code (CMGC): Objective

- The Common Minimum Grid Code for South Asia: lays down the rules, guidelines and standards to be followed by various South Asia country participants in the system for cross border trading in electricity, while operating the power system, in the most secure, reliable, economic and efficient manner.

Facilitation of cross border trading of power, while ensuring secure, reliable, economic and efficient operation of the grid.

Facilitation of the coordinated optimal operation of the South Asian Grid.

Facilitation of coordinated and optimal maintenance planning of generation and transmission facilities in the South Asian grid.
Common Minimum Grid Code (CMGC): Progress

SARI/EI Drafted CMGC and shared with all Regulators & stakeholders of SA countries

Conducted Stakeholder Consultation in Bangladesh, Bhutan, Nepal

Presented CMGC in the 2nd meeting of SAFIR Working Group (Dhaka, 4th Dec, 2020) & in the 18th ECM Meeting (5th December 2019)

18th ECM recommended that each member country may form a Grid Code Review Committee consisting of all the stakeholders to discuss various features of the draft CMGC

SARI/EI/IRADe were requested to do more detailed and comprehensive consultation with the grid code review committee of each country as well as with all stakeholders (utilities, system operators, planners, regulators and policy makers etc.)

Next Step

First Consultation with grid code review committees

More Detailed Consultation with utilities, system operators, planners, regulators and policy makers etc

Second Consultation with grid code review committees and Finalisation of Draft

Submission of Revised CMGC to the Chairperson of Regulatory Commissions of SA Countries
SARI/EI has successfully partnered with SAFIR for the Annual SAFIR Conference in the year 2016 & 2020.

CLDP, SAFIR and SARI/EI Workshop on “Power Pool Governance and Interconnection” - Le Meridien Hotel April 25-26 2019 New Delhi, India

SAFIR Conference on “Regional Energy Integration & Cross Border Energy Trade: A New Renaissance for Growth & Development of South Asia Region, 19th February 2020,

Key Topics Covered in the last Conference

- Regulatory and Policy Frameworks for Deeper Energy/Electricity Integration, Advancing Cross Border Energy Trade in South Asia.
- Strategy for Transitioning South Asia from Bilateral to Trilateral and Multilateral Power Trade and Development of Competitive Regional Power Market in the South Asia Region.
- Creating Conductive Environment for Investment framework in Regional Energy Infrastructures Projects in South Asia.
Thank You