

MINUTES OF THE 7TH MEETING OF SAFIR JOINT WORKING GROUP (JWG) “TO STUDY, FORMULATE AND RECOMMEND FOR FACILITATING POWER TRADE DEVELOPMENT IN SOUTH ASIA”

DATE: 01ST JULY, 2022; 04:00 PM IST ON MS TEAMS

The meeting was chaired by Mr. Samdrup K. Thinley, Chairperson of Joint Working Group / Chairperson, SAFIR and CEO of Bhutan Electricity Authority. He welcomed all members to the seventh meeting (virtual) of SAFIR Joint Working Group (JWG). The list of participants is at **Appendix I**. Thereafter, Deputy Chief (RA), CERC provided a brief on the agenda of the meeting.

AGENDA 1: CONFIRMATION OF MINUTES OF THE 6TH MEETING OF THE JWG

Deputy Chief (RA), CERC apprised the members about the agenda items which were discussed and the action points identified in the 6th meeting of the JWG held on 06.12.2021. She also added that the SARI/EI program is ending on September 2022 and thereafter the assistance to the JWG will be supported through South Asia Regional Energy Partnership (SAREP) program from October 2022 onwards which is fully funded by USAID and hence the representatives of SAREP were also invited as a ‘Special Invitee’ to attend this meeting. After discussion, the minutes of the 6th meeting of JWG were confirmed.

AGENDA 2: HARMONIZATION OF RULES AND COMMON MINIMUM GRID CODE - PRESENTATION BY IRADE

Project Director and Technical Head of SARI/EI, IRADe made a presentation on Harmonization of Rules and the Common Minimum Grid Code (**Annexure – I**). The presentation highlighted the growth of Cross Border Electricity trade in the BBIN region in the last 7 years and based on the comments provided by POSOCO and recommendations/suggestions provided by the members of the Joint Working Group, various modifications were made on the Common Minimum Grid Code.

Shri I.S. Jha, Member, CERC emphasised that the study should include proper planning of the cross-border power transmission system and based on the quantum of power transacted through the system, capacity and voltage level can be decided before deciding the reactive power compensation requirement at the interconnection substation on both sides of the border.

The following were the decision points which emerged after the presentation as made:

- a) The study on the Common Minimum Grid Code should include proper design and planning of the cross-border power transmission system and based on the quantum of power transacted through the system, capacity and voltage level can be decided.
- b) The Common Minimum Grid Code should factor in the system design based on HVDC inter-connection, radial interconnection system, synchronous or hybrid system etc. and proper mechanism should be designed for implementing the Common Minimum Grid Code. To ensure that the Grid Code is maintained, institutionalisation of the system operator should be done so that it can be followed by the institutions from each member country.
- c) IRADe to have consultation/discussions with the remaining institutions in two member countries viz., Bangladesh and Nepal on the Common Grid Code regulatory framework and after incorporating the suggestions/recommendations received from these member countries, to finalise the study by the end of August 2022.

AGENDA 3: POWER MARKET DESIGN FOR FACILITATING ELECTRICITY TRADE AMONG SAFIR MEMBER COUNTRIES - STATUS UPDATE & PRESENTATION BY THE WORLD BANK

Deputy Chief (RA), CERC apprised the members that the officials from World Bank had informed that due to change of consultant and some other commitments, they were unable to complete the work decided in the previous meeting and present the status of the agenda decided in this meeting. The World Bank officials informed that following the Power Secretaries meeting, which will be held in Singapore in mid-July 2022, they will engage with member countries to take forward the JWG decisions on market design in South Asia region.

The meeting ended with a vote of thanks to the Chair.

List of participants of the 7th meeting (virtual) of SAFIR Joint Working Group (JWG)
“To study, formulate and recommend for facilitating Power trade development in South Asia” held on July 1st, 2022 at 04:00 PM IST

Sl. No.	Name & Designation	Organisation
MEMBERS		
01	Mr. Samdrup Thinley, Chairperson/CEO,	JWG/ BEA, Bhutan
02	Mr. Dilli Bahadur Singh, Chairman	NERC, Nepal
03	Mr. I. S. Jha, Member	CERC, India
04	Dr S.K.Chatterjee, Chief (RA)	CERC & Convenor
SPECIAL INVITEES		
05	Ms. Bhagirathi Bhattarai, Member	NERC, Nepal
06	Mr. Gamini Herath, Deputy DG	PUCSL, Sri Lanka
07	Mr. Harpreet Singh Pruthi, Secretary	CERC, India
08	Mr. RV Shahi, Sr. Energy Advisor	World Bank, Europe
09	Mr. Muhammad Ramzan	NEPRA, Pakistan
10	Mr. Shazad Anwar, Additional Director	NEPRA, Pakistan
11	Mr. Pankaj Batra, Project Director	SARI/EI, IRADe, India
12	Ms. Anuradha Das, Program Coordinator	SARI/EI, IRADe, India
13	Ms. Namrata Mukherjee	SAREP
14	Dr.Ajit Chhabra	SAREP
15	Mr. Rajiv Ratna Panda	SAREP
SAFIR SECRETARIAT		
16	Ms. Rashmi Nair, Deputy Chief (Regulatory Affairs)	CERC, India
17	Mr. Sanjeev Tinjan, Asstt. Chief (Regulatory Affairs)	CERC, India
18	Ms. Sukanya Mandal, Asstt. Chief (Regulatory Affairs)	CERC, India
19	Mr. P.M. Antony, Asstt. Secretary	CERC, India
20	Mr. Ravindra Kadam, Sr Advisor (RE)	CERC, India
21	Mr. Saurabh, Principal Research Officer	CERC, India
22	Mr. Manvendra Pratap, Research Officer	CERC, India
23	Mr. Kushal Pal, Research Associate	SAFIR Sectt.
24	Ms Nausheen, Research Associate	CERC, India



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South Asia Regional Initiative for Energy Integration

Annexure - I

*Presentation
on*

Harmonisation of Rules and Common Minimum Grid Code (CMGC) for South Asia

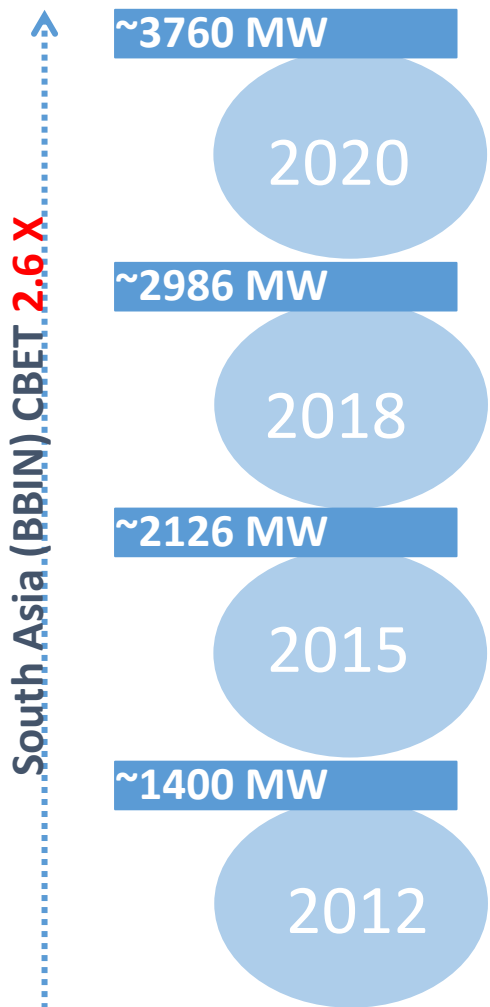
*Presented by
Mr. Pankaj Batra
Project Director, SARI/EI/IRADe*

*7th meeting of the Joint Working Group(JWG) of SAFIR “To study, formulate and recommend for facilitating Power trade development in South Asia”
(Virtual Meeting), 4 PM IST onwards , through Video conferencing, Friday , 1st July 2022.*

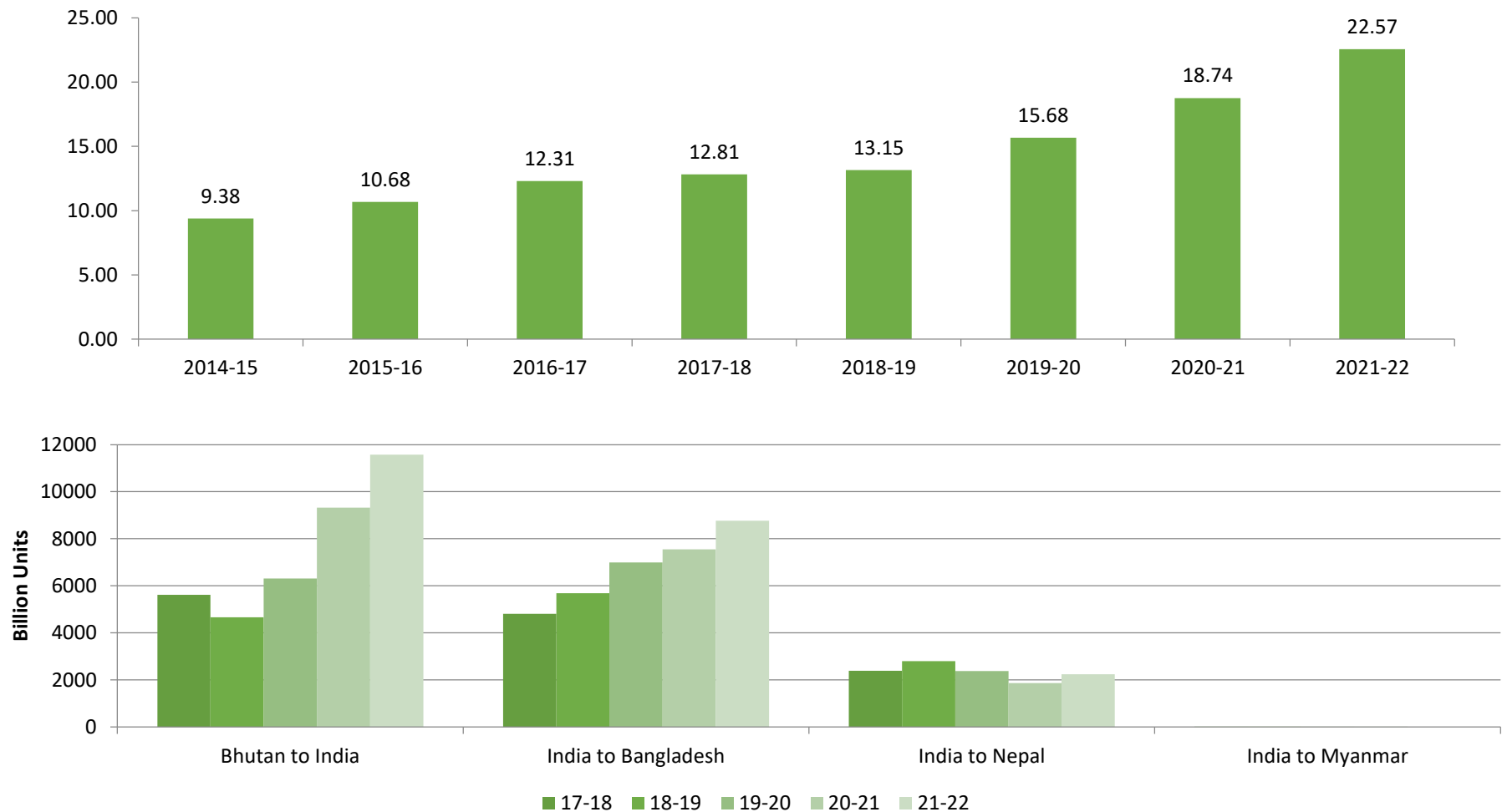


Growth of Cross Border Electricity Trade in BBIN Region during last 7 Years

India - Bangladesh -- 1160 MW
Bhutan - India -- 2100 MW
Nepal - India -- 500 MW



CBET in South Asia - BUs (TWh)



Contents

01 Need for Harmonisation Rules and SARI/EI Past Work

02 Updated Common Minimum Grid Code (CMGC) for Discussion with Bangladesh and Nepali stakeholders



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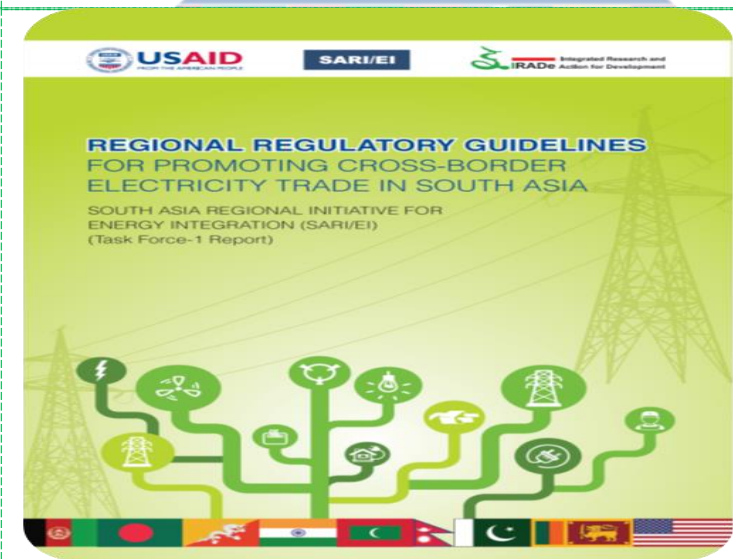


Need for Harmonisation Rules and SARI/EI Past Work

Need for Harmonization of Rules, Grid Codes and SARI/EI Past Work

- ❖ South Asia (SA) countries are at **different stage of power sector evolution** in terms **policy, regulatory and legal frameworks**.
- ❖ Any **regional market design** will need to have some **basic technical rules** to be commonly followed by the SA countries for market to function smoothly in a **transparent, fair and competitive manner**.
- ❖ **SARI/EI** has recognized this need a long time back, worked on many areas to related harmonization of policy, legal and regulatory framework among SA countries over last 8 years.
- ❖ Earlier published **regional regulatory guidelines** and as well as comprehensive report on **Harmonization of Grid codes, Operating Procedures and Standards to facilitate/promote Cross-Border Electricity Trade** in the South Asia Region- Framework Grid Code Guidelines.
- ❖ By **building upon the past work and taking forward various initiatives**, we have developed The **Common Minimum Grid Code for South Asia**.

Task Force-2 Report on Harmonisation of Grid codes, Operating Procedures & Standards to facilitate/promote CBET in South Asia Region



Updated Common Minimum Grid Code (CMGC) for South Asia

SL no	Modifications carried out	Some details of the modifications
1.	Definitions added	Definitions added : South Asia Forum of Electricity Regulators (SAFER) South Asia Forum of Operational Planners (SAFOP) South Asia Forum of Transmission Utilities (SAFTU) South Asia Forum of System Operators (SAFSO) South Asia Forum of Billing and Accounts Settlement Agency (SAFAS) National Load Despatch Centre (NLDC) Deviation Settlement mechanism (DSM)
2.	Inclusion of Planning Code	1. Objective a) To specify the principles, procedures and criteria which shall be used in the planning and development of the cross border transmission system. b) To promote co-ordination amongst the transmission utilities of the South Asian countries.



SL no	Modifications carried out	Some details of the modifications
2.	Inclusion of Planning Code	2. Planning Criterion General Philosophy • SAFOP shall carry out planning studies for Reactive Power compensation of ISTS including reactive power compensation requirement at the interconnection substations onboth sides of the border • Suitable System Protection Schemes may be planned by SAFOP, either for enhancing transfer capability or to take care of contingencies beyond that indicated in a)(i) above



SL no	POSOCO Comments	SARI/EI/IRADe Response
1.	Sample Role of South Asia Forum of Operational planners	A. For a synchronous connection, the following technical requirements hold : b) This may require the necessity of installing fault current limiters to limit the short circuit current flowing into the country due to connection with a large grid. It may also require reactive power controller in the form of Static Var Compensator/STATCOM, etc. to prevent burdening of the South Asia grid with reactive power drawl/injection beyond certain specified limits, as specified by the South Asia Forum of Operational planners.

Meetings with expert Committee fixed with Bangladesh and Nepal

01 Meeting with Committee of Experts of Bangladesh fixed
on 5.7.2022

02 Meeting with Committee of Experts of Nepal fixed on
7.7.2022

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 (utilities, system operators, planners, regulators and policy makers etc.) to **discuss** various **features** of the **draft CMGC**

Consultations carried out with Bhutan Grid Code Review Committee (Bhutan stakeholders) and their suggestions incorporated. Suggestions received from POSOCO (India) incorporated in the draft CMGC.

Next Step

Consultation with Bangladesh Grid Code Review Committee.
(5.7.2022)

Consultation with Nepal Grid Code Review Committee.
(7.7.2022)

More consultations if required.
(July-Aug 2022)

Submission of Revised CMGC to the JWG/SAFIR Secretariat



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Thank You