



USAID
FROM THE AMERICAN PEOPLE

SARI/EI



South Asia Regional Initiative for Energy Integration (SARI/EI)

*Presentation
on*

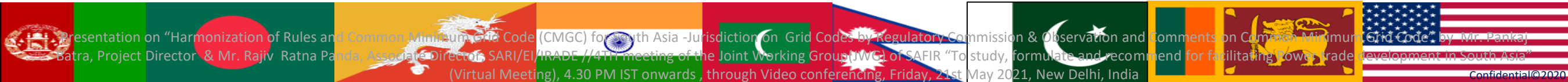
Harmonisation of Rules and Common Minimum Grid Code (CMGC) for South Asia

“Jurisdiction on Grid Codes by Regulatory Commission, Comments and Response on CMGC”

Presented by

*Mr. Pankaj Batra, Project Director & Mr. Rajiv Ratna Panda, Associate Director
SARI/EI/IRADe*







*4TH meeting of the Joint Working Group(JWG) of SAFIR “To study, formulate and recommend for facilitating Power trade development in South Asia”
(Virtual Meeting), 4.30 PM IST onwards , through Video conferencing, Friday, 21st May 2021, New Delhi, India*



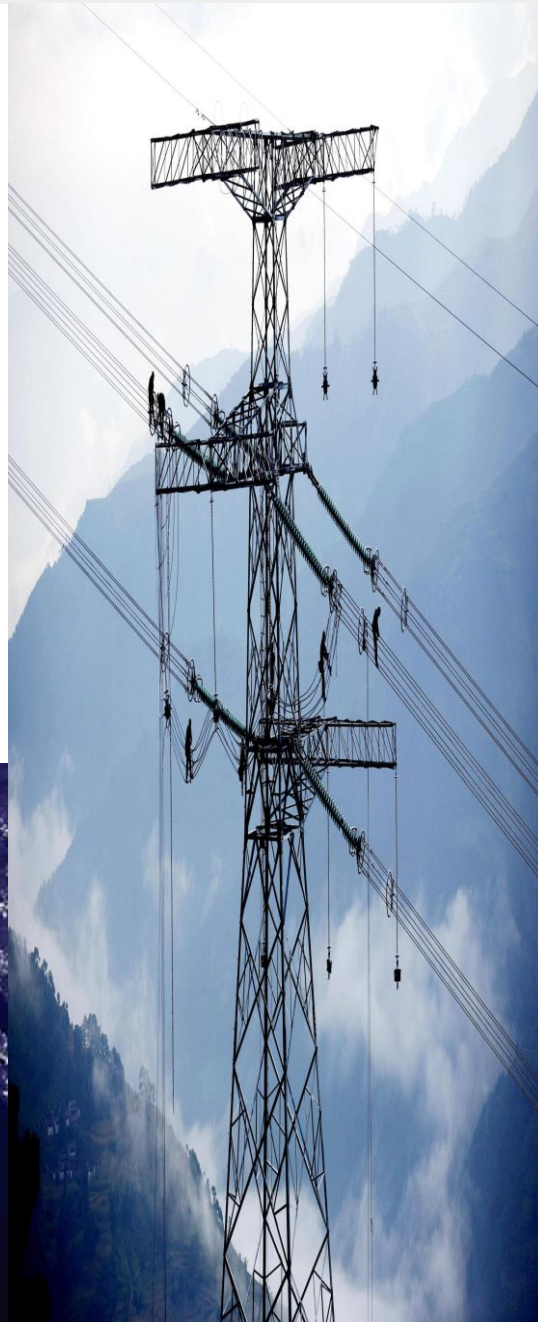
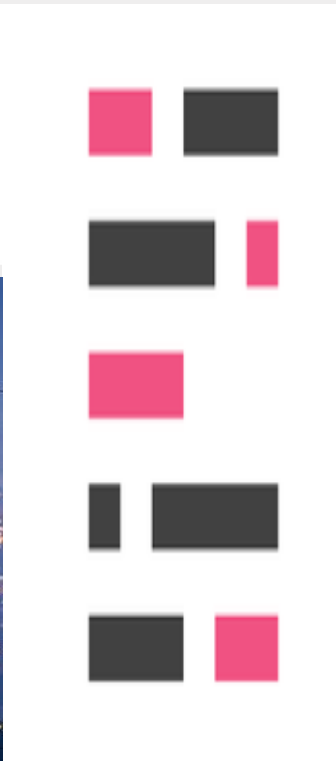
Contents

01 Harmonisation of Rules & Common Minimum Grid Code-Background

02 Jurisdiction on Grid Codes by Regulatory Commission of South Asia

-  Bangladesh
-  Bhutan
-  India
-  Nepal
-  Pakistan
-  Sri Lanka

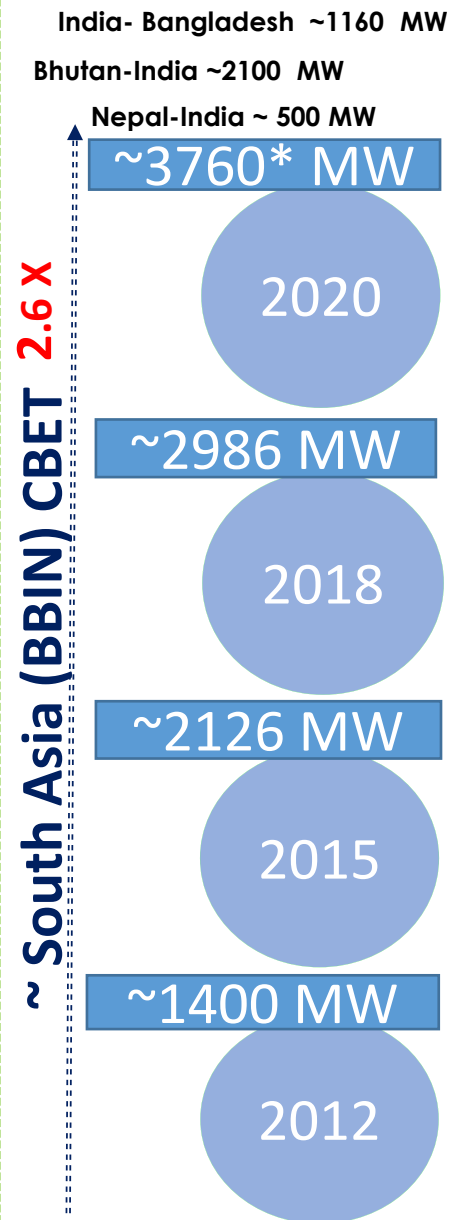
03 Comments & Response on Common Minimum Grid Code(CMGC)



Need for Harmonisation of Rules & Common Minimum Grid Code



Cross Border Electricity Trade in South Asia : Current Scenario



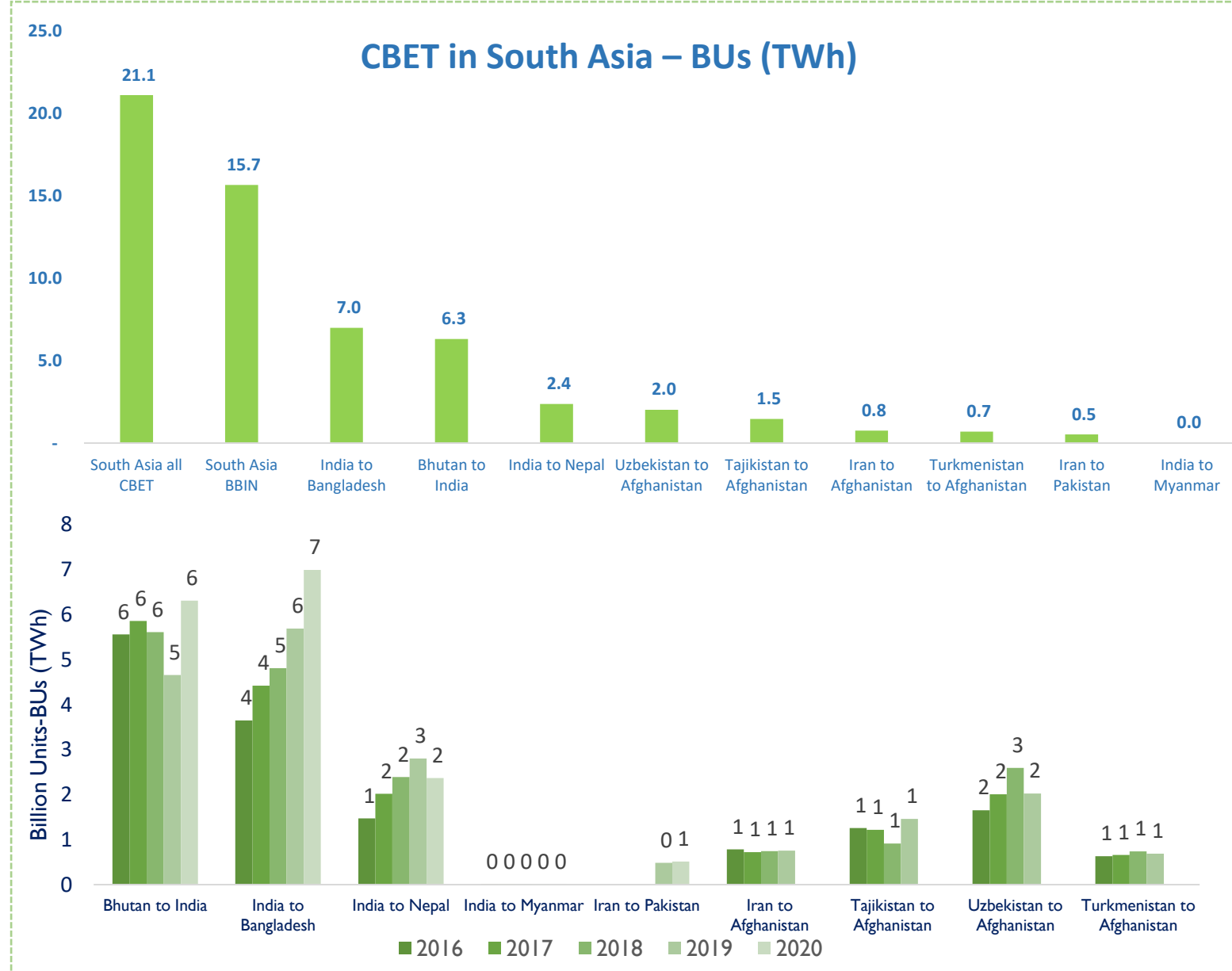
Annual CBET ~ 21 BUs. Dominant BBIN~16 BUs

Bilateral & G-G trade Dominates

Comml. CBET in BBIN on Rise 2010-0, 2020~1266 MW (~33%), Trade through Power Exchange- **Nepal Started trading on India's Power Exchange-IEX DAM, April,2021 **

CBET Potential Remains Large

EUROPE-Leading Regional Power System, CBET trade volume - 467 TWh



Source: Compiled from various Sources , Country Authority Websites across the Region - : India-Myanmar ~ 3-5 MW of CBET , Pakistan-Iran ~ 104 MW CBET , Afghanistan- imports around 1000 MW collectively from Uzbekistan (326 MW), Iran (164 MW) , Tajikistan (433 MW) , Turkmenistan (77 MW) 1** Maximum Peak Trade I PM Modi inaugurated Mangdechhu hydroelectric plant, Bhutan, Aug 17, 2019

Cross Border Electricity Trade South Asia (SA) : Future Scenario

SA CBET Outlook

~43.2 GW, Cross Border Interconnection Capacity by 2040

Transitioning from Bilateral to Trilateral CBET in SA

Renewable Energy based CBET (One Sun One World One Grid)

More Commercial form of CBET, Trade Through Power Exchange Platform

Regional Power Market Development & Market Integration

Enabling Policy & Regulatory Frameworks



Guidelines for the Import / Export (Cross Border)-2018 of Electricity

Section 3.1, 5.3, 8.6



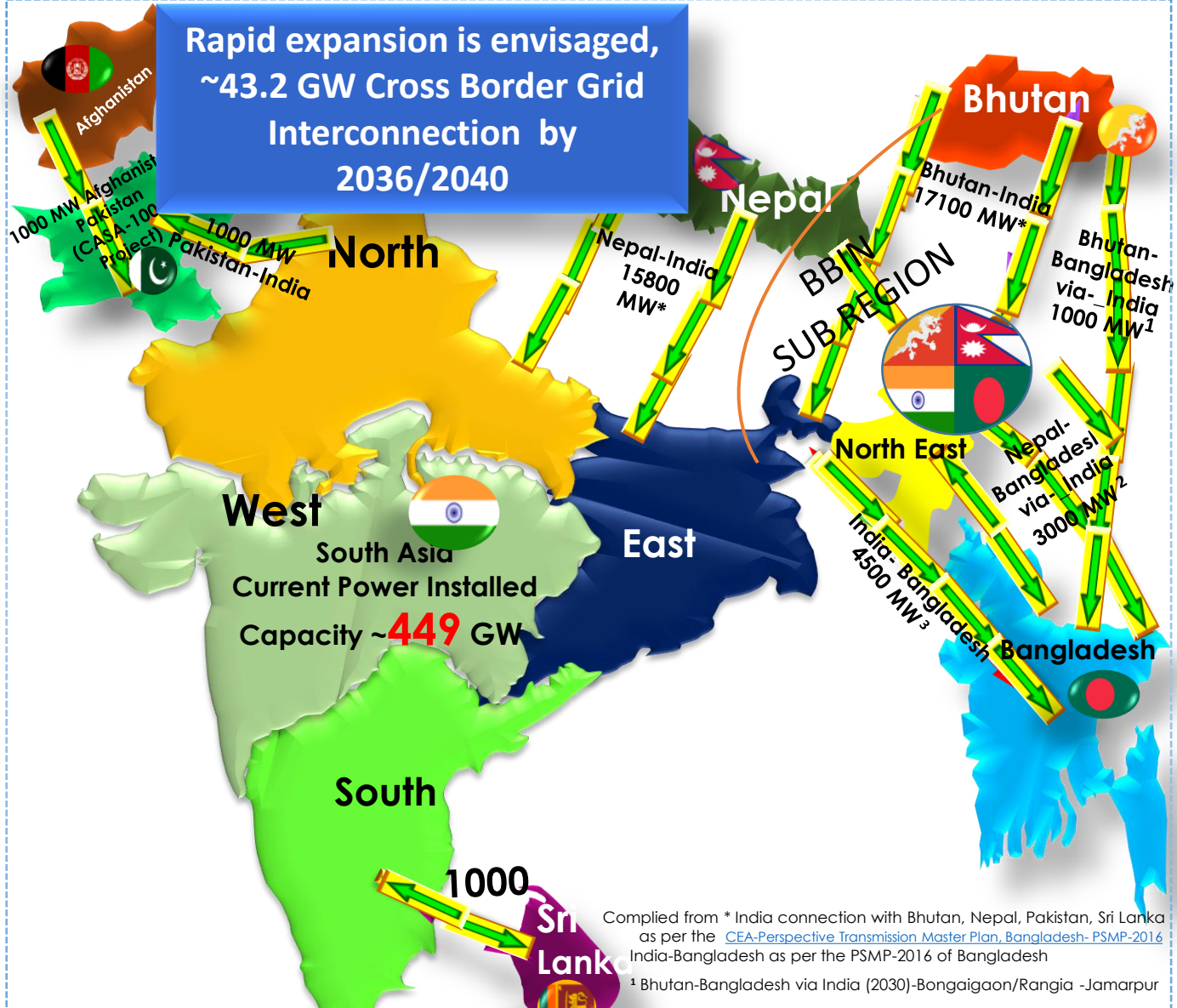
Central Electricity Regulatory Commission (Cross-Border Trade of Electricity) Regulations, 2019

Section 3 (2), 6, 12 (6)



Procedure for approval and facilitating Import/Export (Cross Border) of Electricity by the DA Authority-Feb, 2021

Section 8, Annex-V, 6.5, 6.6 (iii), Annex-III



Complied from * India connection with Bhutan, Nepal, Pakistan, Sri Lanka as per the [CEA-Perspective Transmission Master Plan, Bangladesh-PSMP-2016](#) India-Bangladesh as per the PSMP-2016 of Bangladesh
¹ Bhutan-Bangladesh via India (2030)-Bongaigaon/Rangia -Jamarpur
² Nepal-Bangladesh via India- From Nepal (Purnea -Barapukuria) by using Case 3 T/L (initially 400kV AC)-2025, using Case 3 T/L (upgrade to 765kV AC)-2030, Bheramara – Baharampur-Additional extension of Bheramara HVDC Power import from Nepal (including GMR)-2021
³ India-Bangladesh- Rangia/Rowta - Barapukuria 1,000 MW by 2023 & another 1000 MW by 2025 Power import by using Case 25/L (±800kV DC), Tripura – Comilla-400 MW by 2020, Bibiyana - Meghalaya (PSPP) 1,000 MW 2030 PSPP in Meghalaya State, Existing 1160 MW

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.*



USAID
FROM THE AMERICAN PEOPLE

SARI/EI

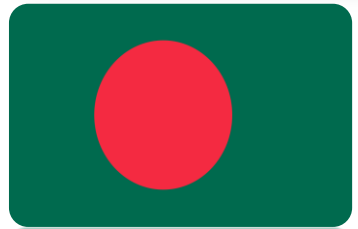
IRADe Integrated Research and
Action for Development



Jurisdiction over Grid Code by the Regulators of South Asian Countries



Jurisdiction on Grid Codes in Bangladesh- Bangladesh Energy Regulatory Commission



Main Act: -
Bangladesh
Energy
Regulatory
Commission
Act, 2003

(
<http://www.clcbd.org/document/download/277.html>)

Relevant Section/Clause:

(" CHAPTER – 4, Functions, Powers and Proceedings of the Commission

22. Functions of the Commission—

Subject to the provisions of this Act, functions of Commission shall be as follows:-

.....

(f) to frame **codes and standards** and make enforcement of those compulsory with a view to ensuring quality of service;

..... ")

("59. Power to make regulations—

(1) Commission may, for the fulfillment of the objectives of this Act, make regulation by publishing it in the official gazette.

(2) Without affecting the totality of the said power, regulations may be made, on any or all of the following heads:

.....

(e) making of **different codes and standards** ;

..... ")

In exercise of the powers conferred by section 59 of the Bangladesh Energy Regulatory Commission Act 2003 (Act 13 of 2003), read with sub-sections 2(e) and 2(f) thereof and for the fulfilment of the objectives of the Act, the Bangladesh Energy Regulatory Commission has made the grid code regulations:

Jurisdiction on Grid Codes in Bhutan- Bhutan Electricity Authority



Relevant Section/Clause:

Preamble

The Electricity Act enables the restructuring of the power supply industry and the possible participation of the private sector, by providing mechanisms for licensing and regulating the operations of power companies. The establishment of the Bhutan Electricity Authority as an autonomous body will ensure a transparent regulatory regime; the Authority also has the role of laying down the **standards, codes, and specifications of the Electricity Supply Industry**. By this means the Electricity Act will define the roles and responsibilities of suppliers and protect the interests of the general public.

(" 11 Functions of the Authority

11.1 Functions of the Authority are:

- i) to develop regulations, **standards, codes**, principles and procedures, which include, but are not limited to the following :
 - a. performance standards, including minimum technical and safety requirements for construction, operation and maintenance of generation, transmission and distribution facilities;

.....")

(" 89 The Authority shall, by statutory instrument, make regulations to **establish a Grid Code.**")

Main Act-
ELECTRICITY
ACT OF
BHUTAN YEAR
2001

(<http://www.bea.gov.bt/wp-content/uploads/2021/03/ElectricityActBhutan2001.pdf>)

Jurisdiction on Grid Codes in India-Central/State Electricity Regulatory Commission

Relevant Section/Clause:

(" Section 79. (Functions of Central Commission): --- (1) The Central Commission shall discharge the following functions, namely:-

.....
(h) to specify Grid Code having regard to Grid Standards; ")

(" Section 86. (Functions of State Commission): --- (1) The State Commission shall discharge the following functions, namely: -

.....
(h) specify State Grid Code consistent with the Grid Code specified under clause (h) of sub-section (1) of section 79; ")

(" Section 178. (Powers of Central Commission to make regulations): --- (1) The Central Commission may, by notification make regulations consistent with this Act and the rules generally to carry out the provisions of this Act.

(2) In particular and without prejudice to the generality of the power contained in sub-section (1), such regulations may provide for all or any of following matters, namely:-.....

(g) Grid Code under sub-section (2) of section 28; ")

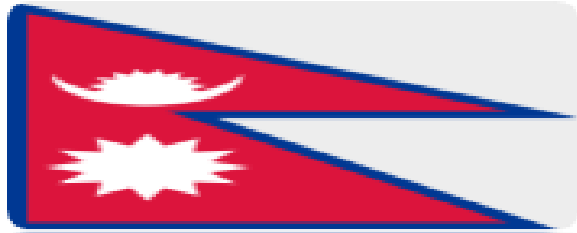
The Indian Electricity Grid Code (IEGC) is a regulation made by the Central Commission in exercise of powers under clause (h) of subsection (1) of Section 79 read with clause (g) of sub-section (2) of Section 178 of the Act.



Main Act: -
THE
ELECTRICITY
ACT, 2003

(<http://www.cercind.gov.in/Act-with-amendment.pdf>)

Jurisdiction on Grid Codes in Nepal-Electricity Regulatory Commission



Main Act: - Electricity
Regulation Commission Act,
2017
(<https://erc.gov.np/storage/listies/April2020/erc-act-2017-english.pdf>)

Relevant Section/Clause:

(" Chapter 6, Function, duties and authority of the commission

12 To manage the technician : For the regulation with regard to generation, transmission, distribution and business of electricity the commission shall carry up the following works :

A. To form, execute and monitor the grid code and distribution code for electricity service.

.....

..... ")

Jurisdiction on Grid Codes in Pakistan-National Electric Power Regulatory Authority



Main Act: -
Regulation of
Generation,
Transmission
and
Distribution of
Electric Power
Act, 1997
(<https://nepra.org.pk/Legislation/1-Act/NEPRA%20Act%201997%20as%20amended%20vide%202018%20Act.pdf>)

Relevant Section/Clause:

(" 23G. **System Operator licence.**—(1) No person shall, unless licensed by the Authority under this Act, undertake functions as a system operator as may be specified by the Authority, including but not limited to.-

.....

(4) An application for licence under sub-section (3) shall be accompanied by a draft grid code governing the form and manner in which the system operator shall undertake its licensed activities. ")

(" 23H. Duties and responsibilities of a system operator.—

(1) A system operator shall, from time to time and subject to approval by the Authority, make such grid management code as may be required to enable it to carry out its functions as a system operator.

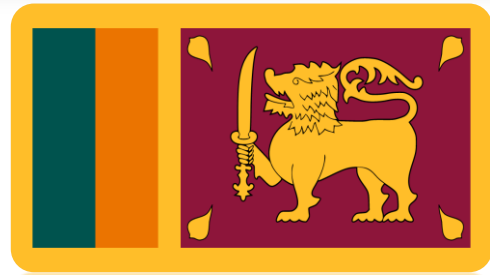
(2) A system operator shall regulate its operations, standards of practice and business conduct in accordance policies and procedures as approved by the Authority.

(3) The Authority may, if required in the public interest, direct the system operator to make such grid code or amend its existing grid code as it may specify in writing: Provided that if the system operator does not comply with the direction of the Authority within a period of thirty days without providing just cause for such non-compliance to the Authority, the grid code of the system operator shall be deemed to have been made or amended, as the case may be, and shall take effect accordingly.

.....")

Grid code is prepared in "Pursuant to Section 35 of NEPRA Act and Article 16 of the NTDC licence, the National Transmission and Dispatch Company is required to ensure that there is in force at all times a Grid Code. Consequently, NTDC is required to submit a comprehensive Grid Code for approval of the Authority in accordance with the requirement of Article 16 of its licence. The Grid Code provides for the smooth and effective functioning of NTDC and other NEPRA licensees that are or will be connected to the NTDC's Bulk Transmission System ".

Jurisdiction on Grid Codes in Sri Lanka- PUBLIC UTILITIES COMMISSION (PUCSL)



Main Act: - Sri Lanka
Electricity Act, No 20 of
2009 (SLEA 2009)

(https://www.pucsl.gov.lk/wp-content/uploads/2017/12/electricity_act_2009.pdf)

Relevant Section/Clause:

(" CHAPTER II FUNCTIONS OF THE COMMISSION

3. (1) The functions of the Commission shall be to act as the economic, technical and safety regulator for the electricity industry in Sri Lanka, and—

”

(c) to approve such technical and operational codes and standards as are required from time to time to be developed by licensees; ”)

.....

(" 17. Without prejudice to the generality of section 15, a transmission licence issued to a licensee shall include conditions—

.....

(f) requiring the licensee to implement and maintain such technical or operational codes in relation to the transmission system (including a grid code) as the Commission considers necessary or expedient; ”)

.....

The Grid Code of Sri Lanka has been formulated in terms of the provisions of Clause 17(f) and 3.1 (c) of the Sri Lanka Electricity Act, No 20 of 2009 (SLEA 2009), which require the licensees to implement and maintain technical or operational codes; the Public Utilities Commission of Sri Lanka (PUCSL) to approve and regulate the implementation of such codes



USAID
FROM THE AMERICAN PEOPLE



Comments & Response on the Common Minimum Grid Code (CMGC)





SL no	BEA Comments	SARI/EI/IRADe Response
1.	<p>Clause 2</p> <p>Comments</p> <p>i). Definitions are missing ii). Definition should also including the roles of all South Asian Forums and other Bodies for role clarity.</p>	<p>Clause 2 –</p> <p>Yes, the Definitions and Role of various concerned bodies in South Asia are missing. These would be put once the Common Minimum Grid Code (CMGC) for South Asia is finalized.</p>
2.	<p>Clause 3 (e)</p> <p><i>Till these are formed, the concerned Indian entity can do the coordination in lieu of the respective forums.</i></p> <p>Comments</p> <p>This clause could be reframed as it doesn't provide equal opportunity to all the member countries in support of their duties for effective and optimal cross-border trade of electricity. We are of the view that this common minimum grid code should only come into force after all the relevant guidelines/procedures are put in place and the roles of respective forums are clearly spelled out.</p>	<p>Clause 3(e) –</p> <p>The CMGC for South Asia must give equal opportunities for all South Asian nations. The purpose of putting this was that Cross Border Electricity trade (CBET) should not wait till the various South Asian Forums, i.e. the Forum of Regulators, the Forum of Planning Agencies, the Forum of System Operators, the Forum of Transmission Utilities are formalized. The CMGC is a technical document and grid security is uppermost during CBET. Therefore, this is an interim arrangement only. In India too, it has diverse stakeholders, with their own interests, i.e. the Central Government, the State Government and privately owned generators and transmission licensees. Therefore, this document is made to have a level playing field for all these players. Since these systems are already in place, it was thought that this could start with the existing arrangement. The roles of respective forums will be clearly spelled out.</p>



SL no	BEA Comments	SARI/EI/IRADe Response
3.	<p>Clause 4 Comments The overall objective of the minimum grid code doesn't highlight fairness and non-discrimination to have the secure, and reliable operation of South Asian grid and for efficient energy exchange within the member countries.</p>	<p>Clause 4 – We will add the fairness and non-discrimination in the objective (a) of the CMGC, worded as given below: “(a) Facilitation of cross border trading of power in a fair and non-discriminatory manner for all South Asian nations, while ensuring secure, reliable, economic and efficient operation of the grid.</p>
4.	<p>Clause 5.1 (c) <i>Any new country getting connected to the South Asia grid shall neither suffer unacceptable effects due to its connectivity nor impose unacceptable effects on the South Asia grid.</i> Comments The unacceptable effects other than voltage and frequency which is mentioned in the subsequent clauses if any, should be clearly qualified in this clause.</p>	<p>Clause 5.1(c) – The unacceptable effects may be many, other than control of frequency and/or voltage. This could be due to non-reliable protection, improper protection coordination, improper insulation coordination, non-use of standard equipment, leading to equipment failure and thereby causing disruption to the grid, non-abiding by system protection schemes, etc. That is why a general term has been used.</p>
5.	<p>Clause 5.2 Comments i). The term “new country” used throughout the code may be replaced with suitable word such as “country” or “Applicant”. ii). The final approval for connection to the South Asia grid should be provided by the System Operator of individual member countries in consultation with the SAFTU. Or the clause may be further refined by including the role of System Operator in the process of granting connection to the South Asian electricity grid.</p>	<p>Clause 5.2 – “New country” has been used and not “applicant”, because there should be only one entity, representing a new country getting connected to the South Asian grid on behalf of the country. We will replace this with “applicant”, and define the term “applicant” as the transmission utility of the new country getting connected to the South Asian grid, as only they will ensure the physical connectivity, taking into account the requirements of insulation coordination, generic protection schemes, protection coordination, communication requirements, etc. The approval will be given by SAFTU, in accordance with a predefined Procedure for Connectivity to the Grid.</p>

SL no	BEA Comments	SARI/EI/IRADe Response
6.	<p>Clause 5.2 (A) <i>c) The new country would have to implement generation and/or load control mechanisms to be able to control cross border power flows, in case of contingencies.</i> <i>d) The new country would also have to abide by the Regional under frequency load shedding schemes to ensure commensurate load shedding in case of grid disturbances to prevent falling frequency, and also abide by the Regional islanding schemes and system protection schemes, which would be decided by the South Asian Forum of Planning bodies, which are involved in operation planning..</i></p> <p>Comments The impositions highlighted in clause 5.2 (c) & (d) may not be necessary in the grid code. However, in this place, a clause may be added in the Common Minimum Grid Code stating that the existing PPAs (long-term power purchase agreement signed between two countries) are exempted from meeting the requirement of the common minimum grid code such as the requirement of generation and/or load control mechanism, load shedding requirements, etc. Therefore, a similar clause as follows may be introduced in the common minimum grid code:</p> <p><i>“Prior to the implementation of this Common Minimum Grid Code, the member countries may have concluded Power Purchase Agreements which may be at variance to the provisions of this Code. Nothing contained in this Common Minimum Grid Code is intended to modify the parties’ rights and obligations under the Power Purchase Agreements. In the event of any conflict, the Power Purchase Agreements takes precedence only to the extent that it does not affect the safety and security of the South Asian Grid”.</i></p>	<p>Clause 5.2 (A), (c) and (d) –</p> <p>These do not refer to individual generators but to the country as a whole. For example, in Bhutan, most of the generators have a PPA, stating that the power generated, after taking care of the power consumption of Bhutan, will be sold to India. However, there may be some generator which is transacting only through the market in India, and does not have such a PPA clause with India. Therefore, there would have to be a mechanism to control power flow as per schedule, across the boundary.</p> <p>Also, in case all the generators trip in Bhutan on account of a grid disturbance, along with large scale tripping of generators in the South Asian grid, commensurate load shedding would have to be done in each country, to restore the grid to normal. This clause is specifically for grid disturbances.</p>



SL no	BEA Comments	SARI/EI/IRADe Response
7.	<p>Clause 5.2 &5.3 Comments The clause 5.2 & 5.3 seems to provide same information. Therefore, it is proposed that these two clauses be merged together for clarity.</p>	<p>Clause 5.2 and 5.3 – This has been correctly pointed out. Para 5.3(a) would be modified as “The minimum technical requirements for connectivity to the South Asian grid are as given below”.</p>
8.	<p>Clause 5.3 (A) (e). <i>It would also have to ensure installation of Data Acquisition System, disturbance recorders and sequence-of-events recorder at the interconnection points and other significant points, as specified by SAFTU, to analyze faults through post mortem, so that such instances do not recur.</i> Comments The cybersecurity clause may need to be incorporated in this clause.</p>	<p>Clause 5.3 (A), (e) – We agree that since data acquisition system is being used for transfer of information, standards on cyber security must be followed. Since the Clause 5.3 (A), (f) also deals with voice and data communication systems, cyber security would also be a concern here. Therefore, we propose a separate cyber security clause at 5.3(A), (g), as given below: “The relevant international standards on cyber security of power systems may be followed.”</p>
9.	<p>Clause 5.3(A) (f). <i>The new country would have to ensure robust, redundant and reliable communication between countries, so that voice and data communication takes place instantly and seamlessly across countries. This would be mutually decided</i> Comments Word “redundant” may be omitted or replaced by some other suitable word.</p>	<p>Clause 5.3 (A), (f) – We will replace the word “redundant” with the re-formulated sentence, as given below: “The new country would have to ensure robust, and reliable communication between countries, through two different modes of communication, so that voice and data communication takes place instantly and seamlessly across countries”</p>



SL no	BEA Comments	SARI/EI/IRADe Response
10.	<p>Clauses 6.1, 6.2 & 6.3</p> <p>Comments</p> <p>i). The clauses 6.1. & 6.2 indeed is not applicable as they relate to the Frequency and the AC voltage aspects which are exclusively associated to the synchronously connected (AC) systems</p> <p>ii). Clause 6.3 however should be as well applicable to the asynchronously connected (HVDC) system too as it relates to the aspects of Periodic Protection Coordination requirement and the need for periodic testing of the protection devices. It is understood in general that the HVDC system too will have various protection schemes applied on them, which will in turn also consist of associated protection devices. Their periodic coordination and testing of the associated protection devices, therefore, is inevitable as it exists for any AC system.</p>	<p>Clause 6.3 –</p> <p>It is mentioned in the comments, that Clause 6.3 should be applicable for HVDC connections also. It may be mentioned that HVDC connection does not result in carry over of the fault across the HVDC system. Therefore, if any grid fault happens in the country, which is through the HVDC system to the South Asian grid, it will not affect the South Asian grid at large and the quantum of power, as was existing before the grid fault would keep flowing across the HVDC link, unless there is insufficient power in that system. Since the CMGC specifies the minimum requirements, the additional requirement of protection coordination within that country is not necessary for the country connected through an HVDC link. Protection coordination on a South Asia Regional basis is not required. What however, has to work properly is the control and protection system of the HVDC link. The same is being added in Clause 6.0 (B), as given below:</p> <p>“For HVDC connection, the provisions 6.1, 6.2, 6.3 will not apply. However, the reliability of the control and protection of the HVDC link has to be ensured, and testing would have to be done periodically”</p>



SL no	BEA Comments	SARI/EI/IRADe Response
11.	<p>Clause 6.5</p> <p><i>All connected countries would have to furnish the required data to the concerned country System Operators whose grid is likely to be affected, and South Asia Forum of planning bodies from disturbance recorders and sequence-of-events recorder within 48 hours of the tripping. Restoration procedures, including black start would have to be laid out by the South Asia Forum of planning bodies for the South Asian Grid as a whole, to facilitate quick restoration of the system after tripping.</i></p> <p>Comments</p> <p>i). It is proposed that the sentences “...48 hours of tripping...” may be rephrased as “...48 hours after power restoration...”</p> <p>ii). It is proposed that the role of South Asian Forum for Planning Bodies may be clearly defined as the activities such as restoration procedures including black star, islanding etc., are usually to be laid by the System Operator.</p>	<p>Clause 6.5 –</p> <p>It is suggested that the system operator of the country where a tripping has taken place should furnish the reports of the disturbance recorder and sequence-of-events recorder to the system operators of the country/countries affected and the South Asia forum of planning bodies, within 48 hours of the restoration and not 48 hours of tripping. We can take this as a starting point for the CMGC of the South Asian countries. However, this should graduate to 48 hours after tripping in the future.</p> <p>Also, it has been suggested that the role of the Forum of planning agencies should be defined. The role of all the agencies would be defined and added in the CMGC, after discussion with all countries. The forum of planning agencies would deal with operational planning.</p>



SL no	BEA Comments	SARI/EI/IRADe Response
12	<p>Clause 6.6 (a)</p> <p><i>A daily report covering the performance of the regional grid shall be prepared by each country’s system operator, based on the format decided by the South Asia Forum of planning bodies, and shall be put on its website. This report shall also cover generation by renewable energy sources, including the quantum of energy injected into grid.</i></p> <p>Comments</p> <p>It is proposed that the last sentence of this clause may be deleted, as the generation from RE resources is within the purview of individual member countries.</p>	<p>Clause 6.6 (a) –</p> <p>Even though renewable energy generation and injection is the individual responsibility of the concerned country, managing the intermittency of such renewable energy sources, on a South Asia basis would lead to optimization. As each South Asian country have set their targets for renewable energy, this would be easier to be managed through expansion of geographical areas. Also, some of the South Asian countries are looking at sourcing of renewable energy from other South Asian nations. Therefore, this is being retained.</p>
13.	<p>Clause 6.6 (b) (b).</p> <p><i>Voltage profile of important substations and sub-stations normally having low /high voltages.</i></p> <p>Comments</p> <p>The clause may be replaced by the “Voltage profile of the interconnecting substations”</p>	<p>Clause 6.6 (b) (b). –</p> <p>This suggestion is accepted. We will replace the parameter of voltage profile of important substations and sub-stations normally having low /high voltages, with voltage profile of the interconnecting sub-stations.</p>

SL no	BEA Comments	SARI/EI/IRADe Response
14.	<p>Clause 7 Comments</p> <p>i). The clause 7.1 through 7.3 needs to be relooked at, as all the member countries in South Asia participating in the cross border trade of electricity cannot be guided by one single country's rule.</p> <p>ii). Clause 7.1 & 7.2 – These clauses may require more deliberation among the South Asian member countries. It is proposed that the DSM mechanism based on the variation of frequency for South Asia Grid may not be directly applicable. A special kind of deviation settlement methods which monitors the total quantum of energy injected in the south Asian grid may be devised for the South Asian grid.</p> <p>iii). Clause 7.4 (b) - for scheduling collective transaction, it is proposed that the respective South Asian country's system operators inform the South Asia Power System Operators on any kind of scheduling, dispatch and congestion of transmission lines. South Asian power exchange shall intimate the collective transaction to South Asia System Operators for final checking and incorporation of schedules after considering the power system constraints. The limit for scheduling the collective transaction may be determined as per the South Asia power system grid guidelines.</p>	<p>Clause 7.1 to 7.3 –</p> <p>The main objection appears to be the Deviation Settlement Mechanism (DSM) prevailing in India. DSM is to ensure grid discipline through a financial incentive/disincentive mechanism. This has been proposed, since this is already prevailing in India. However, a different mechanism with or without financial incentive/disincentive mechanism or some other form of incentive/disincentive mechanism for international exchanges can be looked at, and a decision taken after mutual discussion. The remaining part is only the procedure.</p> <p>Clause 7.4 (b) –</p> <p>This is agreed, since the internal congestion within each country can only be determined by the respective country system operator. Therefore, the second line of the second para would be modified as given below :</p> <p>“.....Based on the information furnished by the Power Exchanges, NLDC (National Load Despatch Centre), the National System Operator of India, dealing with the subject, shall check for congestion. In case of international transactions, the NLDC shall ask the system operator of the respective country for internal congestion within the grid of that country relating to the transmission corridor on which power would flow across the border, and along with congestion on the Indian side of the transmission corridor, shall assess the congestion on the complete transmission corridor to the respective country”.</p> <p>Also, the function of coordination for checking for congestion and conveying of the same to the Power Exchange(s), and other coordination work would be done by NLDC only till the time the South Asian Forum of System Operators (SAFSO) is not formed. Once that is formed, all coordination with the national system operators of all the countries, including with NLDC, would be done by SAFSO, instead of by NLDC.</p>
<p>*****End*****</p>		



USAID
FROM THE AMERICAN PEOPLE



**It always seems
impossible until it's done.**

Nelson Mandela

Thank You